

AGENDA
FOR THE REGULAR MEETING OF THE
CARPINTERIA SANITARY DISTRICT GOVERNING BOARD
TO BE HELD November 18, 2025

The regular meeting of the Governing Board will be held commencing at 5:30 p.m. The location of the meeting is at 5300 Sixth Street, Carpinteria, CA.

The public is encouraged to participate in one of the following ways:

1. Submitting a Written Comment. If you wish to submit a written comment, please email your comment to the Board Clerk at kimg@carpsan.com by **3:00 P.M. on the day of the meeting**. Every effort will be made to read your comment into the record, but some comments may not be read due to time limitations.
2. Attend the in-person meeting at the Carpinteria Sanitary District Board room.

I. CALL TO ORDER

II. PLEDGE OF ALLEGIANCE

III. BOARD APPROVAL OF AGENDA AS [SUBMITTED] [MODIFIED]
Board President asks the Board, public, staff, and legal counsel if there are any additions and/or modifications to the Agenda.

IV. APPROVAL OF MINUTES AS [SUBMITTED] [MODIFIED]
October 7, 2025

V. PUBLIC FORUM
The public may address the Governing Board on items of interest to the public which are not already on this evening's agenda and are within the subject matter jurisdiction of the Board. The time allotted for this discussion shall be pursuant to Board Bylaws.

VI. MATTERS BEFORE THE BOARD

A. GENERAL REPORTS:

1. Annual Comprehensive Financial Report and Audited Financial Statements Fiscal Year 2024/2025 (Pages 1-2)

Description: The Board to receive a report from its independent financial auditor and the District Administrator and consider approval of the Annual Comprehensive Financial Report (ACFR) and audited financial statements for FY 2024/2025.

Staff Recommendation: Staff recommends that the Board approve the Annual Comprehensive Financial Report (ACFR) for FY 2024/2025, authorize the District Administrator to distribute copies to interested parties and file the State Controller's Report with the State of California

2. Resolution No-384: Making Findings on Energy Savings And Determining Other Matters in Connection with an Energy Services Agreement (Page 3-220)

Description: The Board will hold a public hearing and consider adopting Resolution No. R-384 authorizing an energy services agreement and approval of the design and plans for construction of a battery energy storage facility.

Staff Recommendation: Staff recommends that the Board adopt Resolution No. R-384.

3. Amendment No. 2 to Cash Contract No. 524 TerraVerde Energy Consulting Services (Pages 221- 231)

Description: The Board will review an amendment to Cash Contract No. 524 between the District and TerraVerde Energy for energy consulting services increasing the authorized fee from \$40,900 to \$105,900.

Staff Recommendation: Staff recommends the Board approve the amendment to Cash Contract No. 524.

4. Cash Contract No. 531 – Sancon Technologies Lift Station Wetwell Rehabilitation (Pages 232- 244)

Description: The Board will consider approval of Cash Contract No. 531 between the District and Sancon Technologies for the rehabilitation of the wetwell at Lift Station 3.

Staff Recommendation: Staff recommends the Board approve Cash Contract No. 531.

5. General Manager's Status Report (Pages 245-247)

Description: General Manager to review his written report regarding the following issues:

- Employee Recognition
- Hydropneumatic Tank Replacement Project Update
- SSC Program Redevelopment
- Operations Update

6. Financial Status and Transaction Report (Pages 248-266)

Description: District Administrator to review the monthly financial status and transaction reports.

Staff Recommendation: None. Information Only.

7. Board Workshop Planning

(Pages 267)

Description: The Board to discuss and provide direction to staff regarding a strategic planning workshop with the purpose of strategic and long range planning.

Staff Recommendation: None. Board discussion and staff direction.

8. 2026 CASA Winter Conference

(Pages 268–270)

Description: The 2026 Winter Conference for the California Association of Sanitation Agencies (CASA) will be held January 13-16, 2026 in Palm Springs. Board members interested in participating in the conference are encouraged to contact the Board Clerk as soon as possible regarding registration.

Staff Recommendation: None. Board Decision.

9. Carpinteria Advanced Purification Project (CAPP) Update

(Page 271)

Description: The Board will receive an update status report on the Carpinteria Advanced Purification Project being pursued in conjunction with the Carpinteria Valley Water District. Information on current activities and future tasks or milestones will be presented.

Staff Recommendation: None. Information only.

VII. BOARD ITEMS

A. COMMITTEE REPORTS

Description: Verbal reports by the committee chairperson(s) of the following committees:

- Standing Finance Committee
- Standing Personnel Committee
- Standing Public Relations Committee
- Standing Utilities Committee
- Standing Recycled Water Committee

B. GENERAL ITEMS

1. SBCSDA (Santa Barbara – California Special Districts Association) Report
2. Board Member Vacation Dates
3. Future Agenda Items

VIII. ADJOURNMENT

FURTHER INFORMATION AVAILABLE

A staff report providing more detailed information is available for most agenda items and may be reviewed in the District office during regular hours (Monday - Friday from 8:00 a.m. to 12:00 p.m. and/or 1:00 p.m. to 5:00 p.m.). Copies of individual reports may be requested at this office. Call (805) 684-7214 extension 110 for more information.

In compliance with the Ralph M. Brown Act and the Americans with Disabilities Act, if you need a disability-related modification, accommodation, or other special assistance to participate in this meeting, please contact the District's Board Secretary at (805) 684-7214, extension 111, at least 48 hours prior to the start of the meeting.

**MINUTES OF THE REGULAR MEETING OF THE
CARPINTERIA SANITARY DISTRICT GOVERNING BOARD
October 7, 2025**

These are the **minutes** of the **regular** meeting of the Governing Board of the Carpinteria Sanitary District in the City of Carpinteria, County of Santa Barbara, and State of California.

The Governing Board of the Carpinteria Sanitary District held a regular meeting on **October 7, 2025**, at 5:30 p.m. at its District administrative office located at 5300 Sixth Street, Carpinteria, California.

The agenda notice for this meeting, including instructions for the public to provide comments, was posted in the front window of the administrative office of the Carpinteria Sanitary District and on the District's website at least 72 hours in advance of the meeting.

I. CALL TO ORDER

President Velasco called the meeting to order at 5:30 p.m. and noted that all Directors were present at tonight's meeting.

Directors Present: Gerald Velasco – President
 Debbie Murphy – President Pro-Tem
 Lin Graf – Secretary
 Mike Modugno – Secretary Pro-Tem
 Mike Damron - Treasurer

Staff Present: Craig Murray – General Manager
 Kim Garcia – District Administrator/Board Clerk

Legal Counsel
Present: Karl Berger – Burke, Williams & Sorenson (by Zoom video-conference)

Public Present: None

PLEDGE OF ALLEGIANCE

President Velasco led the Pledge of Allegiance.

II. BOARD APPROVAL OF AGENDA

President Velasco asked if there were any modifications and/or changes to the agenda. Hearing none, the agenda was approved as submitted.

III. BOARD APPROVAL OF MINUTES OF THE MEETING OF September 16, 2025

Director Murphy made a motion, seconded by Director Graf that the Board approve the minutes of the September 16, 2025 Regular Board meetings as presented. The motion carried by the following vote:

AYES:	5	Murphy, Damron, Velasco, Graf, Modugno
NOES:	0	None
ABSENT:	0	None
ABSTAIN:	0	None

IV. PUBLIC FORUM

None

V. MATTERS BEFORE THE BOARD

A. GENERAL REPORTS:

1. General Manager's Status Report

General Manager reviewed his written report regarding the following items:

- Quarterly Incident Report
- Employee Recognition
- Fiscal Year 204/25 Financial Audit
- WateReuse California Annual Conference
- CASA Strategic Planning Meeting
- Operations Update

2. Energy Management Project Update

General Manager reviewed his staff report which provided a comprehensive status update on the District's Energy Management Project.

No Board action was taken on this item.

Legal Counsel excused himself from the meeting.

3. Low Pressure Sewer Force Main Dedication Options – Beach Club Road

General Manager reviewed his staff report related to low pressure sewer force main dedication options within the Beach Club Road neighborhood.

No Board action was taken on this item.

4. Santa Barbara LAFCO – Special District Representative Election

General Manager reviewed his staff report related to SBLAFCO Special District Representative Election.

No Board action was taken on this item.

5. Carpinteria Advanced Purification Project

General Manager provided an update related to the Carpinteria Advanced Purification Project.

No Board action was taken on this item.

VI. BOARD ITEMS

A. COMMITTEE REPORTS

Standing Finance Committee

None.

Standing Personnel Committee

None.

Standing Public Relations Committee

None.

Standing Utilities Committee

None.

Standing Recycled Water Committee

None.

B. GENERAL ITEMS

SBCSDA (Santa Barbara California Special Districts Association) Report

None

CSRMA Report

None.

Board Member Vacation Dates

None.

Future Agenda Items

None.

VII. ADJOURNMENT

There being no further items to discuss, the meeting adjourned at 6:29 p.m.

Gerald Velasco
President

Debbie Murphy
President Pro-Tem

Lin Graf
Secretary

Mike Modugno
Secretary Pro-Tem

Mike Damron
Treasurer



Carpinteria Sanitary District

Board of Directors Meeting

STAFF REPORT

TO: Board of Directors

FROM: Kim Garcia, District Administrator

SUBJECT: **Annual Comprehensive Financial Report and Audited Financial Statements
Fiscal Year 2024/2025**

DATE: November 18, 2025

REQUESTED ACTION: Board adoption of the Carpinteria Sanitary District's Annual Comprehensive Financial Report for the 2024/2025 Fiscal Year.

BACKGROUND: An independent audit of the Carpinteria Sanitary District for Fiscal Year 2024/2025 was performed by Fechter & Company, Certified Public Accountants (Fechter). This is the fourth year that Fechter has performed the independent audit.

The District and Fechter combined efforts to produce an audit report referred to as an Annual Comprehensive Financial Report, according to the Government Finance Officers' Association (GFOA) guidelines. The District has prepared its Audited Financial Statements in this format since 2010.

The Annual Comprehensive Financial Report (ACFR) contains all of the elements of Annual Audit Reports, and is augmented with additional information on the District's financial health, historical data and other regional information that support the independent audit. An electronic copy of the ACFR for FY 2024/2025 has been provided to each Board member and a hard copy is available at the District office for the public to review. The ACFR follows a defined format, the basis for which is outlined below.

The Management Discussion and Analysis (MD&A) remains a fundamental component of the ACFR and it presents expanded information on District operations and performance during the year. The Statistical Section of the ACFR contains a series of tables and charts prepared by District staff which provide supplemental information and historical data that together give the public a clearer picture of our financial standing.

Also included with the ACFR are the auditor's letter to the Board of Directors, a Report on Internal Control Over Financial Reporting and Compliance, and supplemental reports prepared by the District Administrator which include:

- Tabular summary of the financial statements
- Capital Improvement Program status report
- Detail of monthly revenue and expenses
- Summary of property tax revenue
- Investment report per Government Code 53600

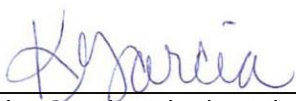
Our auditor, Scott German, from Fechter and the District Administrator will be available at the Board meeting to answer any questions that Board members or the public may have regarding the ACFR.

RECOMMENDATION: Staff recommends that the Board adopt the Annual Comprehensive Financial Report for FY 2024/2025, authorize the District Administrator to distribute copies to interested parties and file the State Controller's Report with the State of California.

SUGGESTED MOTION: I move that the Board adopt the Annual Comprehensive Financial Report for the years ended June 30, 2025 and June 30, 2024, and that the District Administrator be authorized to distribute the necessary reports and file the State Controller's Report with the State of California.

M_____ S_____

Ayes:_____ Nays:_____ Abstentions:_____

Prepared By: _____
Kim Garcia, District Administrator

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Carpinteria Sanitary District
Board of Directors Meeting

STAFF REPORT

TO: Board of Directors

FROM: Craig Murray, P.E. - General Manager

SUBJECT: Resolution No. R-384: Making Findings on Energy Savings and Determining Other Matters in Connection with an Energy Services Agreement

DATE: November 18, 2025

REQUESTED ACTION: That the Board: (1) hold a public hearing; and (2) adopt and approve Resolution No. 384 making the required findings and authorizing and approving the Energy Services Agreement with HOLT Renewables, LLC, and authorizing the execution and delivery of other documents and other actions required in connection therewith.

FUNDING SOURCE: CIP Project / SGIP Grant / Federal Tax Credit (see discussion below)

BACKGROUND: California Government Code sections 4217.10 to 4217.18 allow public agencies to enter into energy services contracts without using a formal competitive bid process. In August of 2025, Carpinteria Sanitary District issued a request for proposals (RFP) and conducted a selection process with the help of TerraVerde Energy, LLC (TerraVerde) to obtain proposals for a design/build contractor to design and construct a discrete energy savings project, all to be installed on the District's property ("Project"). California Government Code section 4217.12 allows Carpinteria Sanitary District to select the proposal that is in the District's best interests. Following the RFP process and additional due diligence and reference checks, HOLT Renewables, LLC is being recommended as the selected provider to install the energy conservation measures.

Prior to approving the Agreement, the Carpinteria Sanitary District Board must fulfill two requirements under Government Code section 4217.12:

- 1) Find that the anticipated cost to Carpinteria Sanitary District for thermal or electrical energy or conservation services provided by the Project under Agreement will be less than the anticipated marginal cost to Carpinteria Sanitary District of thermal, electrical, or other energy that would have been consumed by Carpinteria Sanitary District in the absence of those purchases. Based on the Cash Savings Pro Forma that TerraVerde has provided Carpinteria Sanitary District (included in Board Resolution No. 384 as Exhibit A), there is support for this finding.
- 2) Hold a regularly scheduled public hearing on the Construction Agreement, public notice of which must be given at least two weeks prior to the public hearing. The notice of the public hearing was posted on November 4, 2025.

FISCAL IMPACT/FUNDING SOURCE: The Board anticipates that the cost of the energy conservation measures will be less than the anticipated marginal cost to Carpinteria Sanitary District of thermal, electrical or other energy that would have been consumed by Carpinteria Sanitary District. As a result, the Project will result in a net savings to the District. The cost of the Project will be funded by general funds and reimbursed via incentives secured through the Self-Generation Incentive Program (SGIP) in the amount of \$835,394.45 and an Inflation Reduction Act Elective Pay refund estimated at 30-40% of the total project cost.

RECOMMENDATION: Staff recommends that the Board adopt Resolution No. R-384 making required findings and approving the Energy Services Agreement with HOLT Renewables, LLC, and authorizing the execution and delivery of other documents and other actions required in connection therewith.

SUGGESTED MOTION: I move that the Board of Directors adopt Resolution No. R-384 as presented (modified).

M_____ S_____

Ayes_____ Nays_____ Abstentions_____

Prepared By: 
Craig Murray, P.E. - General Manager

Attachments: Resolution R-384
Draft Energy Services Agreement

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RESOLUTION NO. R-384

A RESOLUTION OF THE BOARD OF DIRECTORS OF CARPINTERIA SANITARY DISTRICT AUTHORIZING THE GENERAL MANAGER TO EXECUTE AN ENERGY SERVICES AGREEMENT AND APPROVING THE DESIGN AND PLANS FOR CONSTRUCTION OF A BATTERY ENERGY STORAGE FACILITY PURSUANT TO GOVERNMENT CODE § 4217.12.

The Board of Directors of the Carpinteria Sanitary District (“District”) does resolve as follows:

SECTION 1: FINDINGS. The Board of Directors finds and declares as follows:

- A. The District is committed to helping implement energy conservation measures when practicable.
- B. Government Code § 830.6 specifically authorizes the District to execute energy service contracts with entities that will implement energy conservation measures.
- C. TerraVerde Energy, LLC (“TerraVerde”), provided the District with analysis showing the benefits of implementing certain energy conservation measures through the installation of certain battery energy storage facilities. A copy of the Analysis is attached as Exhibit “A,” and incorporated by reference.
- D. The District proposes to enter into an Energy Services Agreement and related contract documents with HOLT Renewables, LLC pursuant to which HOLT Renewables, LLC will design, construct, and install at District’s Wastewater Treatment Plant certain energy saving improvements consisting of battery energy storage facilities and arrange with the local utility for interconnection of the facilities, which will generate energy savings for the sites on which such facilities are located (“Project”).
- E. In addition, the District reviewed the project’s environmental impacts under the California Environmental Quality Act (Public Resources Code §§ 21000, *et seq.*, “CEQA”) and the regulations promulgated thereunder (14 Cal. Code of Regulations §§15000, *et seq.*, the “CEQA Guidelines”).
- F. The Analysis includes data showing that the anticipated cost to the District for the electrical energy provided by the Project will be less than the anticipated cost to the District of electrical energy that would have been consumed by the District in the absence of such measures.
- G. The Board proposes to enter into the Energy Services Agreement substantially in the form presented at this meeting, subject to such changes, insertions or omissions

as the General Manager or designee reasonably deems necessary following the Board's adoption of this Resolution.

- H. Pursuant to Government Code § 4217.12, this Board has held a public hearing, public notice of which was given at least two weeks in advance, to receive public comment.
- I. The General Manager reviewed the design and plans proposed for the Project and finds that the plans may be utilized for the Project.
- J. The Board of Directors wishes to obtain the immunities set forth in Government Code § 830.6 with regard to the plans and construction of the Project.
- K. This Resolution is based upon the testimony and documentary evidence gathered during the District's public hearing held on November 18, 2025 including, without limitation, the staff report submitted by the General Manager.

SECTION 2: ENVIRONMENTAL REVIEW. Based upon the findings in Section 1, the Project is exempt from additional environmental review pursuant to CEQA Guidelines § 15303 (Class 3 Exemption) and § 15311 (Class 11 Exemption). None of the elements listed in CEQA Guidelines § 15300.2 are present.

- A. The documents and other materials that constitute the record of proceedings upon which the decision of the Board of Directors is based is within the custody of the District's General Manager and may be publicly accessed at the District's Administrative Office.
- B. Based upon the findings set forth above, the Board of Directors finds that the Notice of Exemption for this project was prepared in compliance with CEQA.

SECTION 3: USE OF ENERGY FINDINGS. Pursuant to Government Code § 4217.12(a), and based upon the information in Section 1, the Board of Directors finds that it is anticipated that the cost of energy, and the use of energy, will be less if the District contracts with HOLT Renewables, LLC than if District did not enter into such a contract.

SECTION 4: DESIGN IMMUNITY; AUTHORIZATION.

- A. The design and plans for the Project are determined to be consistent with the District's standards and are approved.
- B. The design approval set forth in this Resolution occurred before actual work on the Project construction commenced.
- C. The General Manager, or designee, is authorized to act on the District's behalf in approving any alterations or modifications of the design and plans approved by this Resolution.
- D. The approval and authorization granted by this Resolution is intended to avail the

District of the immunities set forth in Government Code § 830.6.

SECTION 5: EXECUTION. The General Manager is authorized to execute contracts, in a form approved by the General Counsel, with HOLT Renewables, LLC for energy conservation and cost savings.

SECTION 6: ADOPTION. The Secretary is directed to certify the adoption of this Resolution.

SECTION 7: This Resolution will become effective immediately upon adoption and will remain effective unless repealed or superseded.

PASSED, APPROVED, AND ADOPTED by the Governing Board of the Carpinteria Sanitary District on November 18, 2025, and carried by the following roll call vote:

AYES:

NAYS:

ABSENT:

ABSTENTIONS: None

Resolution No. R-384 was thereupon declared, carried, and adopted.

Dated this 18th day of November 2025.

We certify that the above is a true and correct copy of Resolution No. R-384, adopted by the Board of Directors of the Carpinteria Sanitary District on November 18, 2025.

APPROVED:

Gerald Velasco
President, Board of Directors

ATTEST:

Lin Graf
Secretary, Board of Directors



Battery Project Exhibit A Analysis

Prepared By:

TerraVerde
ENERGY

For the Carpinteria Sanitary District Board of Directors

November 18, 2025

YEAR 1 SAVINGS SUMMARY

Site	Proposed Battery Size	Pre-Project SCE Rate	Post-Project SCE Rate	Pre-Project Total Electric Bill (Year 1)	Post-Project Total Electric Bill (Year 1)	Total Projected Savings (Year 1)
Wastewater Treatment Plant	250 kW / 1044 kWh	TOU-PA-3 D	TOU-PA-3 D-CPP	\$245,602	\$214,660	\$30,942

15-YEAR PROJECT SAVINGS SUMMARY

Site	Proposed Battery Size	Total Project Cost	Total Electric Bill Savings	Total Incentives	Net Project Cost	Net Project Benefit
Wastewater Treatment Plant	250 kW / 1044 kWh	\$1,332,113	\$562,146	<u>\$1,331,839</u>	\$273	\$561,872

EXHIBIT A CASH FLOW PRO FORMA

Years	Project Costs	Electric Bill Savings	Elective Pay IRA	SGIP Grant	Annual Cash Flow	Cumulative Cash Flow
Upfront	-\$1,332,113	-	-	\$417,697	-\$914,416	-\$914,416
1	-	\$30,942	\$496,445	\$208,848	\$736,235	-\$178,180
2	-	\$31,839	-	\$208,848	\$240,687	\$62,507
3	-	\$32,749	-	-	\$32,749	\$95,256
4	-	\$33,670	-	-	\$33,670	\$128,925
5	-	\$34,601	-	-	\$34,601	\$163,526
6	-	\$35,541	-	-	\$35,541	\$199,067
7	-	\$36,489	-	-	\$36,489	\$235,556
8	-	\$37,443	-	-	\$37,443	\$272,999
9	-	\$38,400	-	-	\$38,400	\$311,399
10	-	\$39,360	-	-	\$39,360	\$350,759
11	-	\$40,320	-	-	\$40,320	\$391,080
12	-	\$41,278	-	-	\$41,278	\$432,358
13	-	\$42,231	-	-	\$42,231	\$474,588
14	-	\$43,175	-	-	\$43,175	\$517,764
15	-	\$44,109	-	-	\$44,109	\$561,872
Totals:	-\$1,332,113	\$562,146	\$496,445	\$835,394	\$561,872	-

Financials			
NPV (5% Discount Rate)	\$311,298	IRR	19%
ROI	42%	Simple Payback, Years	2

INPUTS AND CONSIDERATIONS

Savings and System Performance Projections

- Projections of future savings are calculated based on patterns of previous electricity usage and assume that historical usage patterns continue at the same level over the life of the project.
- Projections of future savings are based on stated assumptions and are subject to rate eligibility over the life of the installation. This analysis uses SCE rates published in October 2025.
- Project Costs include the Energy Services Agreement contract price of \$1,039,140 and estimated costs for O&M, asset management, construction management, legal document review, third-party inspectors, and contingency.
- Applicable Net Billing Tariff eligibility is assumed to be available for 20 years from Permission to Operate.
- The battery project will provide resilience by powering facility operations during grid outages.
- A conservative 5% annual utility escalator is assumed for this analysis. The average utility rate escalation over the last 30 years has been 6%.

Incentives

- Inflation Reduction Act eligibility under the Elective Pay option should be validated by a Certified Public Accountant to verify eligibility and value.
- The analysis assumes that the IRA incentive amount under the Elective Pay option is paid in Year 1 of the project for the cash purchase scenario. The actual timing of payment may take up to three (3) years from the installation of the project. This timing depends upon many factors, such as tax year, time of filing, etc.
- The analysis assumes that the IRA Elective Pay amount is 40% of the total engineering, procurement, and construction costs, and includes the base IRA amount of 30% plus the 10% Domestic Content adder. The sites may also be eligible for an additional 10% Energy Community adder. Availability of the IRA Elective Pay option is subject to the policies of the current administration.
- The analysis includes \$835,394 of Self-Generation Incentive Program ("SGIP") incentive that TerraVerde successfully reserved on behalf of the District in June 2025.

Operations & Maintenance

- Costs estimated for O&M include preventive maintenance and corrective maintenance.
- Costs estimated for Asset Management include daily monitoring, quarterly system performance reporting, annual system and financial performance reporting, and maintenance case management.
- The assumed rate of O&M cost escalation is 3%.
- The assumed rate of Asset Management cost escalation is 3.5%.

Other Assumptions and Disclaimers

- No part of TerraVerde Energy's deliverables, messaging, presentation, or anything else shared with its clients should be construed by the client or any other entity as advice on scope for future contracts, work orders, or other engagements.

ENERGY SERVICES AGREEMENT

COVER PAGE

This Energy Services Agreement (“**Agreement**”) is entered into by and between the following parties:

HOLT Renewables, LLC (“**Contractor**”)

Attn: Casey Lilley

1301 S. Capital of Texas Hwy., Ste B315

Austin, TX 78746

Phone No.: 512-382-2999

FAX No.: N/A

Email Address: Casey.Lilley@holtrenewables.com

Carpinteria Sanitary District (“**Owner**”)

Attn: Craig Murray

5300 Sixth Street

Carpinteria, CA 93013

Phone No.: 805.684.7214 x112

FAX No.: 805.684.7213

Email Address: craigm@carpsan.com

A. The “Contract Effective Date” shall be (state date on which the Agreement shall become effective): MONTH DAY YEAR	B. The “Final Project Completion Date” or “Completion Date” shall be (state date on which the Project must be 100% completed): September 11, 2026
C. “Required License” (see Energy Services Agreement, § 1): In accordance with Public Contract Code section 3300, Contractor shall have, beginning on the RFP Response Deadline and throughout the Contract Term, the following license classification issued by the California Contractors State License Board (<i>state license classification(s)</i>): B and/or C-10	
D. “Contract Sum” to be paid to Contractor (see Energy Services Agreement, § 6): \$1,039,140 Contract Sum is based on the delivery of Battery Energy Storage (“ BESS ”) of 250 kW / 1,044 kWh size.	E. “Inspection Distance Limitation” (see General Conditions, § 4.3): Fifty (50) mile radius of the Project Site on which testing or inspection is required F. Liquidated Damages (see Energy Services Agreement, § 5): Delay Liquidated Damages Rate: \$500 per day per Site Administrative Delay Liquidated Damages Rate: \$300 per day per site
G. Contractor Required Insurance (see Energy Services Agreement, § 11) (<i>mark each required from Contractor</i>): ☒ 1. Commercial general liability, with additional insured endorsement and minimum limits of \$2,000,000 per occurrence/\$4,000,000 aggregate ☒ 2. Commercial automobile liability, with minimum limits of \$1,000,000 combined single limit ☒ 3. Statutory workers’ compensation as required by State law and employers’ liability of at least \$1,000,000 ☒ 4. Professional liability, with minimum limits of \$1,000,000 per occurrence ☒ 5. Builder’s risk/course-of-construction: Contractor to provide	

H. “Project Sites” or “Sites”:

As shown on Exhibit B Attachment A Preliminary Engineering Design and Exhibit B Attachment B System Site Assessment Table

COVER PAGE
continued

This Agreement incorporates all recitals, cover pages, Exhibits and Attachments, including but not limited to:

Cover Page
Agreement
Exhibit A – General Terms and Conditions
Exhibit B – General Conditions and Technical Specifications
 Attachment A – Preliminary Engineering Design
 Attachment B – System Site Assessment Table
 Attachment C – Project Schedule
 Attachment D – Commissioning Schedule(s)
 Attachment E – Notice to Proceed to Design Template
 Attachment F – Notice to Proceed to Procurement & Construction Template
Exhibit C – Progress Payment Schedule
Exhibit D – Manufacturers’ Warranties
Exhibit E – Payment Bond
Exhibit F – Performance Bond
Exhibit G – Unused
Exhibit H – Escrow Agreement for Security Deposit In Lieu of Retention
Exhibit I – Waiver and Release Forms
Exhibit J – Certification Regarding Claim
Exhibit K – Unused

In consideration of the covenants, conditions, and stipulations set forth in this Agreement and for good and valuable consideration, the Parties, intending to be legally bound, agree as set forth in, and execute, this Agreement. Each person executing this Agreement on behalf of a Party represents that he or she is authorized to execute on behalf of, and to commit and bind, the Party to this Agreement.

CONTRACTOR

OWNER

By:

By:

Print Name: Kevin Chavez
Title: General Manager

Print Name: Craig Murray
Title: General Manager

AGREEMENT

This Energy Services Agreement for the engineering, system design, fabrication and installation of battery energy storage system (“**Agreement**”) is by and between CARPINTERIA SANITARY DISTRICT, a SANITARY DISTRICT organized and existing under the laws of the State of California (“**Owner**” or “**District**”), and HOLT Renewables, LLC a contractor licensed by the State of California (“**Contractor**”). The Parties agree as follows:

1. RECITALS. This Agreement is executed with reference to the following:

Government Code sections 4217.10, *et seq.*, authorize Owner, as a public agency, to enter into an energy services agreement wherein Contractor provides conservation services to Owner from an energy conservation facility on terms that its governing body determines are in the best interest of Owner;

Government Code section 4217.11(d) provides that “conservation services” include electrical, thermal, or other energy savings resulting from conservation measures, which is treated as a supply of such energy;

Through this Agreement, Owner intends to contract for the engineering, system design, fabrication and installation of battery energy storage systems including the battery energy storage system and all equipment components (the “**BESS**”) (collectively the “**System**”) that will result in energy savings to Owner and which is a supply of energy to Owner (the “**Project**”) at the sites as set forth in Section H of the Cover Page of this Agreement (the “**Project Sites**” or “**Sites,**” and each individually a “**Site**”), consistent with the terms of Government Code section 4217.10, *et seq.*;

Owner’s Governing Board, after holding a hearing at a regularly scheduled public meeting and after having provided two weeks advanced notice of such hearing, made all findings required by Government Code section 4217.12 for Owner to enter into this Agreement; and

Contractor will engineer, design, and construct the Project pursuant to this Agreement including, without limitation, the General Terms and Conditions (“**General Conditions**”) attached as Exhibit A and other Contract Documents (as that term is defined in the General Conditions), all of which are incorporated into the Agreement by reference.

2. Scope of Work; Subcontractors.

Contractor agrees to furnish all engineering, system designs, labor, equipment and materials, including tools, implements, and appliances required, and to perform all the work in a good and workmanlike manner consistent with the level of care and skill ordinarily exercised by contractors in the same discipline, on similar projects in California with similar complexity and with similar agreements, free from any and all liens and claims from mechanics, material suppliers, subcontractors, artisans, machinists, teamsters, freight carriers, and laborers required for the Project as defined by the Contract Documents, all in strict compliance with the objectives, descriptions and specifications of Owner, and the Contract Documents relating thereto. The scope of Contractor’s Work and the Project is more fully and specifically defined in attached Exhibit B, which is incorporated by reference.

In addition to Contractor assuring that all engineering work is done by properly licensed individuals, in accordance with Section 3300 of the Public Contract Code, Contractor must hold and maintain Class B and/or C-10 licenses in good standing for the duration of Contractor’s work on the Project (the “**Required License**”).

3. Annual Production Estimate.

The term “Annual Production Estimate” means Contractor’s estimated number of kWh that the Solar Facility must produce in the first year following the Final Completion Date based on performance modeling using industry standard tools and assumptions (see Section D on the Cover Page).

4. Distribution Utility Upgrades.

The Parties acknowledge that the Contract Sum excludes any costs associated with Distribution Utility Upgrades. “Distribution Utility Upgrades” means that scope of work and associated costs that the Distribution Utility requires on the Distribution Utility side of the Distribution Utility meter in order for the System to interconnect to the Distribution Utility system. “Distribution Utility” means Southern California Edison or its successor in interest.

5. Time to Complete and Liquidated Damages.

Time is of the essence in this Agreement, and, subject to the terms of the Contract Documents, the date for completion of the Project is listed in Section B on the Cover Page. The date for completing each site is as set forth in the mutually agreeable Project Schedule (Attachment C of Exhibit B). Failure to complete the Work by such dates and in the manner provided for by the Contract Documents, except due to fault of Owner or others under its control consistent with Article 7 of the General Terms and conditions, shall subject Contractor to paying Owner liquidated damages. The actual occurrence of damages and the actual amount of the damages which Owner would suffer if the Work were not completed within the specified times set forth are dependent upon many circumstances and conditions which could prevail in various combinations, and it is impracticable and extremely difficult to fix the actual damages. Damages that Owner would suffer in the event of delay include, without limitation, loss of the use of the Project and each individual Site, the energy savings afforded by the Project at each individual Site, disruption of activities, costs of administration, supervision and the loss suffered by the public. Accordingly, the Parties agree that the following dollar figures is the amount of damages which Owner will directly incur upon failure of Contractor to complete the Work within the time specified: \$500 for each calendar day by which the Work, or portion thereof, is delayed beyond the applicable Final Site Completion Date or Completion Date specified (the “**Delay Liquidated Damages Rate**”). Provided that Contractor’s total liability for liquidated damages as described in this paragraph with respect to any Project Site under the Agreement shall be limited to ten percent (10%) of the portion of the Contract Sum applicable to that Project Site. If Contractor fails to complete the Work at more than one Site within the time set forth above, Owner may assess liquidated damages cumulatively, taking into account all Sites at which Work has not been timely completed.

Liquidated damages may also be applied to compensate Owner for undue delays in completion of punch list items, Final Binder, site clean-up, demobilization, and miscellaneous contractual obligations after Project Completion is achieved. The cost to Owner for administration, inspection, mileage, and other similar items would be extremely difficult to determine. For that reason, additional liquidated damages, known as “**Administrative Delay Liquidated Damages**” may be imposed in the amount of \$300 per day (the “**Administrative Delay Liquidated Damages Rate**”), effective 30 days after Project Completion was achieved. Administrative Delay Liquidated Damages will be assessed until Owner agrees that all outstanding work has been completed. Any assessment of Administrative Delay Liquidated Damages shall be subject to and included in the overall cap for Delay Liquidated Damages in this Section 7.

Further, Contractor is committed to helping Owner secure all of the benefits associated with the construction of the Project, including the California Self Generation Incentive Program (“**SGIP**”) and the federal Inflation Reduction Act (“**IRA**”). Contractor recognizes that delays in the timing of construction and completion of the Project may impair Owner’s receipt of SGIP and IRA benefits. Therefore, the parties agree that if Contractor fails to properly or timely complete the Work of the Project within 60 days before the SGIP Reservation Expiration date, as may be extended by SGIP, including submission of any

application or other materials required for Project to qualify for or participate in the SGIP, then Contractor must pay as additional liquidated damages to Owner an amount equal to 50% of the total Reserved Incentive Amount as shown on the Conditional Reservation Letters from the SGIP administrator; provided, however, that if the Project fails to qualify for the SGIP solely as a result of the acts or omissions of Owner, or for other causes beyond the control and contractual obligations of Contractor, then Contractor is not obligated to pay the liquidated damages pursuant to this paragraph. Contractor shall be entitled to an increase in its contract price with regards any subsequent requirements under the IRA including but not limited to any retro-active requirements to cover any costs associated with complying with any mandated flow-down requirements for both Contractor and any of its subcontractors or vendors.

Contractor is liable for damages in the amount of \$5,000 per occurrence for outages and/or shutdowns of any kind exceeding two instances per site over the duration of the Project.

If Contractor becomes liable under this Section, Owner, in addition to all other remedies provided by law, shall have the right upon prior written notice to withhold any retained percentages of payments, and to collect the interest thereon at the statutory rate, which would otherwise be or become due to Contractor until the liability of Contractor under this Section is finally determined. If the retained percentage is not sufficient to discharge all liabilities of Contractor incurred under this Section, Contractor and its sureties will remain liable to Owner for such liabilities until all such liabilities are satisfied in full.

If Owner accepts any work or makes any payment under this Agreement after a default by reason of delays, the payment or payments does not constitute a waiver or modification of any Agreement provisions regarding time of completion and liquidated damages.

6. Contract Sum.

As full and complete payment for the Project and Contractor's other obligations under the Contract Documents, Owner will pay to Contractor in the manner specified in this Section, and Contractor will accept as payment in full by Owner for the delivery of the Project and its other obligations under the Contract Documents, the contract sum stated in Section D on the Cover Page and as may be adjusted in accordance with the provisions of this Agreement (the "**Contract Sum**"). Any change in the Contract Sum will be subject to the change order request process as set forth in Exhibit A, Article 6 of this Agreement.

7. Other Payment Terms.

Except as otherwise provided in the General Conditions and this Agreement, Contractor assumes the risk of all costs in excess of the Contract Sum in the performance of such work and is not entitled to additional payments because of such excess costs. Should Contractor believe that it is entitled to additional compensation, whether money or time, it must request such compensation pursuant to the procedures in the General Conditions for change orders and claims. Contractor's proposal Contract Price is based on current import tariffs. Should any applicable tariffs on materials used in the project increase that cannot otherwise be avoided, the contract price will be adjusted consistent with Article 6 of the General Terms and Conditions.

Owner will pay Contractor progress payments pursuant to the following terms and conditions.

a. For services satisfactorily performed and after receiving properly documented and submitted applications for payment, Owner will pay Contractor progress payments ("**Progress Payments**" and each individually a "**Progress Payment**") in accordance with the terms of the Contract Documents at the office of Contractor or to such other person or at such other place as Contractor may designate in writing. The total Progress Payments made will not exceed the amount of the Contract Sum. The Progress Payments must be commensurate with the milestone achieved, invoiced, and signed off by Owner's Inspector or other

designated employee to date, all in accordance with the procedures set forth in the General Conditions. Additional terms regarding Progress Payments are set forth in the General Conditions.

b. In accordance with the General Conditions, Owner will, at Contractor's discretion, either retain an amount equal to 5% of each Progress Payment, or, in lieu of said retention, offer to enter into an Escrow Agreement for Security Deposits in Lieu of Retention ("**Escrow Agreement**") with Contractor, in the form attached as Exhibit H, as set forth in Public Contract Code section 22300. Release of the retention or funds deposited with Escrow Agent ("**Escrow Funds**") pursuant to an Escrow Agreement between the parties, and the final Progress Payment must be made in the manner described in the General Conditions.

c. The obligation of Owner to pay Progress Payments constitutes a current expense of Owner and may not be construed to be a debt of Owner in contravention of any applicable constitutional or statutory limitations or requirements concerning the creation of indebtedness by Owner, nor does anything contained herein constitute a pledge of the general tax revenues, funds, or moneys of Owner.

Release of retention or release of the Progress Payments will be in accordance with the General Conditions.

8. Changes.

Changes in this Agreement or in the Scope of Work to be done under this Agreement may be made only as provided in the General Conditions.

9. Term and Termination.

The term of this Agreement begins on the date that is stated on the cover of this Agreement and, unless otherwise terminated in accordance with this Agreement, terminate upon the satisfaction of the conditions set forth in Article 13 of Exhibit A. All of the covenants, representations and warranties set forth in the Contract Documents, including indemnification obligations, that are intended to bind the parties after the completion of the Project or termination of the Contract Documents will survive such completion or termination for the periods provided for in the Contract Documents or otherwise allowed by law. Owner or Contractor may terminate the Contract Documents only as provided in the Agreement.

10. Prevailing Wages.

Pursuant to Labor Code § 1720, and as specified in 8 California Code of Regulations § 16000, Contractor must pay its workers prevailing wages. It is Contractor's responsibility to interpret and implement any prevailing wage requirements and Contractor agrees to pay any penalty or civil damages resulting from a violation of the prevailing wage laws. In accordance with Labor Code § 1773.2, copies of the prevailing rate of per diem wages are available upon request from Owner or the website for State of California Prevailing wage determination at <http://www.dir.ca.gov/DLSR/PWD>. CONTRACTOR must post a copy of the prevailing rate of per diem wages at the job site. Owner directs Contractor's attention to Labor Code §§ 1777.5, 1777.6 and 3098 concerning the employment of apprentices by Contractor or any subcontractor. Labor Code § 1777.5 requires Contractor or subcontractor employing tradesmen in any apprenticeship occupation to apply to the joint apprenticeship committee nearest the site of the public works project and which administers the apprenticeship program in that trade for a certificate of approval. The certificate must also fix the ratio of apprentices to journeymen that will be used in the performance of the contract. The ratio of apprentices to journeymen in such cases will not be less than one to five except:

- A. When employment in the area of coverage by the joint apprenticeship committee has exceeded an average of 15 percent in the 90 days before the request for certificate, or
- B. When the number of apprentices in training in the area exceeds a ratio of one to five, or
- C. When the trade can show that it is replacing at least 1/30 of its membership through apprenticeship training on an annual basis state wide or locally, or

- D. When Contractor provides evidence that Contractor employs registered apprentices on all of its contracts on an annual average of not less than one apprentice to eight journeymen.
- E. Contractor is required to make contributions to funds established for the administration of apprenticeship programs if Contractor employs registered apprentices or journeymen in any apprenticeable trade on such contracts and if other contractors on the public works site are making such contributions.
- F. Contractor and any subcontractor must comply with Labor Code §§ 1777.5 and 1777.6 in the employment of apprentices.
- G. Information relative to apprenticeship standards, wage schedules and other requirements may be obtained from the Director of Industrial Relations, ex officio the Administrator of Apprenticeship, San Francisco, California, or from the Division of Apprenticeship Standards and its branch offices.

Contractor and its subcontractors must keep an accurate certified payroll records showing the name, occupation, and the actual per diem wages paid to each worker employed in connection with this Agreement. The record will be kept open at all reasonable hours to the inspection of the body awarding the contract and to the Division of Labor Law Enforcement. If requested by Owner, Contractor must provide copies of the records at its cost..

This Project is also subject to applicable provisions of The Inflation Reduction Act (“IRA”) (H.R. 5376). Contractor and its subcontractors shall comply with all applicable provisions of the IRA with respect to the payment of prevailing wages. Contractor and its subcontractors shall be liable for payment of all wages, penalties and interests imposed under the IRA as a result of Contractor’s or its subcontractor’s failure to comply. Contractor shall be entitled to an increase in its contract price consistent with Article 6 of the General Terms and Conditions with regards any subsequent requirements under the SGIP or IRA including but not limited to any retro-active requirements to cover any costs associated with complying with any mandated flow-down requirements for both Contractor and any of its subcontractors or vendors.

11. Indemnification, Insurance and Bonds.

Contractor indemnifies and holds Owner harmless from and against any claim, action, damages, costs (including, without limitation, attorney’s fees), injuries, or liability, arising out of this Agreement, or its performance. Should Owner be named in any suit, or should any claim be brought against it by suit or otherwise, whether the same be groundless or not, arising out of this Agreement, or its performance, Contractor will defend Owner (at Owner’s request and with counsel satisfactory to Owner) and will indemnify Owner for any judgment rendered against it or any sums paid out in settlement or otherwise. For purposes of this section “Owner” includes Owner officers, officials, employees, agents, and representatives. Contractor expressly agrees that this release, waiver, and indemnity provision is intended to be as broad and inclusive as is permitted by the law of the State of California and that if any portion is held invalid, it is agreed that the balance will, notwithstanding, continue in full legal force and effect. It is expressly understood and agreed that the foregoing provisions will survive termination of this Agreement.

12. Public Liability and Property Damage Insurance.

Before commencing performance under this Agreement, and at all other times this Agreement is effective, Contractor will procure and maintain the following types of insurance with coverage limits complying, at a minimum, with the limits set forth below: \$4,000,000 commercial general liability; \$1,000,000 automobile liability; and the statutory requirement for workers' compensation. Commercial general liability insurance will meet or exceed the requirements of ISO-CGL Form No. CG 00 01 11 85 or 88. The amount of insurance set forth above will be a combined single limit per occurrence for bodily injury, personal injury, and property damage for the policy coverage. Liability policies will be endorsed to name Owner, its officials, and employees as "additional insureds" under said insurance coverage and to state that such insurance will be deemed "primary" such that any other insurance that may be carried by Owner will be excess thereto. Such insurance will be on an "occurrence," not a "claims made," basis and will not be cancelable or subject to reduction except upon 30 days prior written notice to Owner.

Automobile coverage will be written on ISO Business Auto Coverage Form CA 00 01 06 92, including symbol 1 (Any Auto).

Contractor will furnish to Owner duly authenticated Certificates of Insurance evidencing maintenance of the insurance required under this Agreement, endorsements as required herein, and such other evidence of insurance or copies of policies as may be reasonably required by Owner from time to time. Insurance must be placed with insurers with a current A.M. Best Company Rating equivalent to at least a Rating of "A:VII." Certificate(s) must reflect that the insurer will provide 30 day notice of any cancellation of coverage. Contractor will require its insurer to modify such certificates to delete any exculpatory wording stating that failure of the insurer to mail written notice of cancellation imposes no obligation, and to delete the word "endeavor" with regard to any notice provisions.

At the time of making application for any extension of time pursuant to the Contract Documents, Contractor must submit evidence that insurance policies will be in effect during the requested additional period of time.

If Contractor fails to maintain such insurance, Owner may, but is not required to, take out such insurance to cover any damages of the above-mentioned classes for which Owner might be held liable on account of Contractor's failure to pay such damages, and deduct and retain the amount of the premiums from any sums due Contractor under this Agreement.

Nothing contained in this Agreement may be construed as limiting, in any way, the extent to which Contractor may be held responsible for the payment of damages resulting from Contractor's operations. Each of Contractor's consultants must comply with this Section, and Contractor shall include such provisions in its contracts with them.

a. **Errors and Omissions Insurance.** Before the commencement of services under this Agreement, Contractor must furnish to Owner satisfactory proof that Contractor has errors and omissions insurance on a claims made basis with limits of at least \$2,000,000. Contractor will maintain such coverage for a period of five years following completion of the Project.

If not covered by Contractor's coverage, each of Contractor's professional sub-consultants (including consultants of Contractor's) must carry coverage and limits proportionate to each such sub-consultant's scope of work, and Contractor must include such provisions in its contracts with them. If any policy carried by any of the sub-consultants offers 50% or less of the limits required of the Contractor hereunder for an analogous policy, Contractor must notify Owner of the proposed coverage to be carried by such sub-contractor, and Owner may in its reasonable discretion to approve or reject the proposed coverage in each such case.

b. Bonds. Contractor must provide performance and payment bonds as required by the General Conditions. Notwithstanding anything to the contrary in the Contract Documents, the liability of the surety on the performance bond will cease two years after completion of construction on the Project. Any warranty or guarantee required of Contractor by the Contract Documents is the sole obligation of Contractor after termination of the surety's performance bond liability. The liability of the surety on the payment bond continues only so long as required by law. Any guarantee of performance hereunder may not be deemed to be covered by the terms of the payment bond or the performance bond.

13. Representations and Warranties of Contractor.

Contractor represents and warrants to Owner that:

a. Contractor is duly organized, validly existing and in good standing as a contractor and licensed contractor under the laws of the State of California;

b. Contractor has full power, authority and legal right to enter into and perform its obligations under this Agreement, and the execution, delivery and performance of this Agreement have been duly authorized by all necessary corporate actions on the part of Contractor and do not require any further approvals or consents;

c. The execution, delivery, and performance of this Agreement does not and will not result in any breach of or constitute a default under any indenture, mortgage, contract, agreement, or instrument to which Contractor is a party by which it or its property is bound;

d. There is no pending or, to the knowledge of Contractor, threatened action, or proceeding before any court or administrative agency that will materially adversely affect the ability of Contractor to perform its obligations under this Agreement.

14. Project Acceptance.

Owner must acknowledge final inspection and completion of the Project by executing a Certificate of Acceptance and recording a Notice of Completion in accordance with the General Conditions.

a. Owner will accept completion of the Agreement and have the Notice of Completion recorded when the entire Project including Contractor's punch list(s) and Owner's final review comments are completed to the satisfaction of Owner. The Project may only be accepted as complete by action of Owner's Governing Board.

b. A final walk through to determine completion of the Agreement and to record the Notice of Completion may occur only upon a valid assertion by Contractor that the Project is complete except for minor corrective and/or incomplete items. Any erroneous claims of completion by Contractor resulting in a premature walk through is at Contractor's sole cost and expense and Owner may make adjustments to the contract price by reducing the amount thereof to pay for any costs incurred by Owner due to the erroneous claims by the Contractor that the Project is complete. Minor corrective and/or incomplete items must be identified in the final walk through of the Project.

15. Entire Agreement.

This Agreement constitutes the entire agreement between the parties, and supersedes any prior or contemporaneous agreement between the Parties, oral or written, including Owner's award of the Project to Contractor, unless such agreement is expressly incorporated herein. Owner makes no representations or warranties, express or implied, not specified in the Contract Documents. The Contract Documents are

intended as the complete and exclusive statement of the parties' agreement pursuant to Code of Civil Procedure section 1856. Notwithstanding any provision to the contrary in the General Conditions or other Contract Documents, it is understood and agreed that in the event of a conflict between term or provision of this Agreement and any other Contract Document, the terms of this Agreement govern.

16. Execution of Other Documents.

The parties to this Agreement shall cooperate fully in the execution of any and all other documents and in the completion of any additional actions that may be necessary or appropriate to give full force and effect to the terms and intent of the Contract Documents.

17. Execution in Counterparts.

This Agreement may be executed in counterparts such that the signatures may appear on separate signature pages. A copy, or an original, with all signatures appended together, constitutes a fully executed Agreement.

18. Binding Effect.

Contractor, by execution of this Agreement, acknowledges that Contractor has read this Agreement and the other Contract Documents, understands them, and agrees to be bound by their terms and conditions. The Contract Documents inures to the benefit of and is binding upon Contractor and Owner and their respective successors and assigns.

19. Taxpayer Identification Number.

Contractor will provide Owner with a Taxpayer Identification Number.

20. Waiver.

A waiver by Owner of any breach of any term, covenant, or condition contained in this Agreement will not be deemed to be a waiver of any subsequent breach of the same or any other term, covenant, or condition contained in this Agreement, whether of the same or different character.

21. Construction.

The language of each part of this Agreement will be construed simply and according to its fair meaning, and this Agreement will never be construed either for or against either party.

22. Severable.

If any portion of this Agreement is declared by a court of competent jurisdiction to be invalid or unenforceable, then such portion will be deemed modified to the extent necessary in the opinion of the court to render such portion enforceable and, as so modified, such portion and the balance of this Agreement will continue in full force and effect.

23. Captions.

The captions of the paragraphs of this Agreement are for convenience of reference only and will not affect the interpretation of this Agreement.

24. Waiver.

Waiver of any provision of this Agreement will not be deemed to constitute a waiver of any other provision, nor will such waiver constitute a continuing waiver.

25. Interpretation.

This Agreement was drafted in, and will be construed in accordance with the laws of the State of California, and exclusive venue for any action involving this agreement will be in Santa Barbara County.

26. Authority/Modification.

This Agreement may be subject to and conditioned upon approval and ratification by Owner's Board of Directors. This Agreement is not binding upon Owner until executed by the General Manager. The Parties represent and warrant that all necessary action has been taken by the Parties to authorize the undersigned to execute this Agreement and to engage in the actions described herein. This Agreement may be modified by written agreement. Owner's General manager may execute any such amendment on behalf of Owner.

27. Electronic Signatures.

This Agreement may be executed by the Parties on any number of separate counterparts, and all such counterparts so executed constitute one agreement binding on all the Parties notwithstanding that all the Parties are not signatories to the same counterpart. In accordance with Government Code §16.5, the Parties agree that this Agreement, agreements ancillary to this Agreement, and related documents to be entered into in connection with this Agreement will be considered signed when the signature of a party is delivered by electronic transmission. Such electronic signature will be treated in all respects as having the same effect as an original signature.

28. Force Majeure.

Should performance of this Agreement be prevented due to fire, flood, explosion, war, terrorist act, embargo, government action, civil or military authority, the natural elements, or other similar causes beyond the Parties' control, then the Agreement will immediately terminate without obligation of either party to the

other. All evidenced costs incurred at the time of a Force Majure event will be reimbursed to the Contractor should it result in termination of the Agreement.

29. Assignment of Contract.

Contractor may not assign or transfer by operation of law or otherwise any or all of its rights, burdens, duties or obligations hereunder without Owner's prior written. Contractor's assignment or transfer of rights, burdens, duties or obligations without the above required approval is void.

30. Notices.

Any notices or filings required to be given or made under this Agreement must be served, given, or made in writing upon Owner or Contractor, as the case may be, by personal delivery or registered mail (with a copy sent via electronic or regular mail) to the respective addresses given below, or at such address as such party may provide in writing from time to time.

If to Contractor:

HOLT Renewables, LLC

Attn: Operations

Phone No.: 512-382-2999

FAX No.: N/A

Email Address: Casey.Lilley@holtrenewables.con

If to Owner:

Carpinteria Sanitary District

Attn: Craig Murray

Phone No.: 805.684.7214 x112

FAX No.: 805.684.7213

Email Address: craigm@carpsan.com

31. Exhibits Incorporated.

All Recitals, Exhibits and Attachments attached to this Agreement are hereby incorporated into the Agreement by this reference as if set forth in full.

32. Terms Not Defined.

Capitalized terms used in this Agreement that are not defined have the same meaning as in the General Conditions.

**EXHIBIT A
TO ENERGY SERVICES AGREEMENT**

EXHIBIT A - GENERAL TERMS AND CONDITIONS

33. ARTICLE 1 - GENERAL CONDITIONS

1.1. BASIC DEFINITIONS

1.1.1. **The Contract Documents.** The Contract Documents consist of the Energy Services Agreement between Owner and Contractor (the “**Agreement**”), Conditions of the Agreement (General, Supplementary and other Conditions), Drawings, Specifications, addenda thereto (whether or not attached due to their size), Payment Bond, Performance Bond, required insurance certificates, additional insured endorsement and declarations page, list of accepted subcontractors, Non-Collusion Declaration, Sanctioned Country Contracting Act Certification, Certificate Regarding Worker’s Compensation Form, Certificate Regarding Alcoholic Beverage and Tobacco-Free Site Policy, Certificate Regarding Drug-Free Workplace, other documents referred to or incorporated in the Agreement, and written modifications issued after execution of the Agreement.

1.1.2. **The Contract.** The Contract Documents form the Agreement. The Agreement represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. The Contract Documents may not be construed to create any kind of contractual relationship other than between Owner and Contractor.

1.1.3. **The Work.** The Work includes all engineering, design, labor, materials, services, manuals, training, as-builts, and equipment necessary for Contractor to fulfill all of its obligations pursuant to the Contract Documents.

1.1.4. **The Project.** The Project is the total construction of the Work performed in accordance with the Contract Documents in whole or in part and which may include construction by Owner or by separate contractors.

1.1.5. **The Drawings.** The Drawings are graphic and pictorial portions of the Contract Documents prepared for the Project and approved changes thereto, wherever located and whenever issued, showing the design, location, and scope of the Work, generally including plans, elevations, sections, details, schedules, and diagrams as drawn by Contractor.

1.1.6. **The Specifications.** The Specifications are that portion of the Contract Documents consisting of the written requirements for material, equipment, construction systems, instructions, quality assurance standards, workmanship, and performance of related services. “Specifications” refer to Exhibit B – General Conditions and Technical Specifications.

1.1.7. **Punch Lists.** Punch List means a list of minor items on the Project that remains for Contractor to complete or correct.

1.2. EXECUTION, CORRELATION, AND INTENT.

The Contract Documents are complementary and are intended to include all items required for the proper execution and completion of the Work. Any item of work mentioned in the Specifications and not shown on the Drawings, or shown on the Drawings and not mentioned in the Specifications, must be provided by Contractor as if shown or mentioned in both. In the event there is a discrepancy between the various Contract Documents, the Agreement controls unless there is not an applicable provision in the Agreement, in which case the Conditions (General, Supplementary, or other Conditions) controls.

1.3. OWNERSHIP AND USE OF DRAWINGS, SPECIFICATIONS, AND OTHER DOCUMENTS.

Except as otherwise provided below, all documents, data, studies, drawings, maps, models, photographs and reports prepared by Contractor (collectively, “Documents”) under this Agreement are Owner’s property. Contractor may retain copies of such Documents as desired but will deliver all original materials to Owner upon Owner’s written notice. Owner agrees that use of Contractor completed work product, for purposes other than identified in this Agreement, or use of incomplete work product, is at Owner’s own risk. Contractor warrants that all Documents it drafts and completes pursuant to this Agreement constitutes original work. Specifically, Contractor understands and agrees that use of artificial intelligence (AI) tools including, without limitation, ChatGPT, Microsoft’s Bing Chat, Google’s Bard, and Meta’s LLaMA (Large Language Model Meta AI), in the performance of this Agreement does not constitute an original work, i.e., submitting Documents generated by such AI tools to Owner and representing it as Contractor’s original work constitutes a material breach of this Agreement, constitutes a false claim, and may also violate applicable intellectual property right laws including, without limitation, United States Copyright Law. Accordingly, and notwithstanding any other provision of this Agreement as to ownership, Owner specifically rejects ownership of such Documents. Contractor is required to indemnify and defend Owner to the fullest extent allowed by applicable law should it violate this Section.

2. ARTICLE 2 – OWNER

2.1. DEFINITION.

The term “Owner” means the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The term “Owner” means Owner or Owner’s authorized representative.

2.2. EXISTING UTILITY LINES; SITE SURVEY; CONTRACTOR RELIANCE.

Notwithstanding Government Code section 4215, and to the fullest extent allowed by law, Contractor is responsible for removing, relocating, and protecting utilities located on each Project Site at the time of commencement of construction under the Agreement with respect to any such utility facilities that Owner has identified. Contractor may be assessed liquidated damages in accordance the Contract Documents for delay in completion of the Project caused by Contractor’s failure to timely remove or relocate such utility facilities in accordance with Article 7 of the Energy Services Agreement. Contractor is solely responsible to timely notify all public and private utilities serving the affected Project Site before commencing work on the Project Site. Contractor must notify and receive clearance from any cooperative agency, such as Underground Service Alert, in accordance with Government Code section 4216, et seq. Contractor must promptly provide a copy of all such notifications to Owner or its designated representative.

When required by the scope of the Project, Contractor must furnish, at its expense, a legal description or a land survey of any or all Project Sites, giving, as applicable, grades and lines of streets, alleys, pavements, adjoining property, rights-of-way, restrictions, easements, encroachments, zoning, deed restrictions, boundaries, and contours of the site. Additionally, all surveys to determine locations of construction, grading, and site work must be provided by Contractor. Contractor must provide copies of any legal descriptions and surveys conducted on the Project Sites to Owner.

When required by the scope of the Project, Contractor will furnish, at its expense, the services of geotechnical engineers or consultants when reasonably required or as required by applicable law. Such services with reports and appropriate professional recommendations include test boring, test pits, soil bearing values, percolation tests, air and water pollution tests, and ground corrosion and resistivity tests, including necessary operations for determining subsoil, air, and water conditions.

Any test borings and soils reports for the Project that were previously made for Owner to identify the subsurface materials that might be encountered at particular locations on the Project were made available to Contractor and Contractor studied the results of such test borings and information. Owner does not assume any responsibility whatsoever with respect to the sufficiency or accuracy of the borings made, or of the logs of the test borings, or of other investigations, or of the soils reports furnished pursuant hereto, or of the interpretations to be made beyond the location or depth of the borings. There is no warranty or guarantee, either express or implied that the conditions indicated by such investigations, borings, logs, soil reports or other information are representative of those existing throughout the site of the Project, or any part thereof, or that unforeseen developments may not occur. At Owner's request, Contractor must make available to Owner the results of any Site investigation, test borings, analyses, studies or other tests conducted by or in the possession of Contractor of any of its agents.

Unless specifically stated in writing by Owner, Contractor may not rely upon the accuracy of any utility services or site survey information that Owner may provide.

2.3. OWNER'S RIGHT TO STOP THE WORK.

If Contractor fails to correct Work, which is not in accordance with the requirements of the Contract Documents as required by Section 11.2 of this Exhibit A, or persistently fails to carry out Work in accordance with the Contract Documents, Owner, by written order signed personally or by an agent specifically so empowered by Owner in writing, may order Contractor to stop the Work or any portion thereof, until the cause for such order has been resolved.

2.4. OWNER'S RIGHT TO CARRY OUT THE WORK.

If Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails (within a seven-day period after receipt of written notice or the time period expressly stated in the written notice from Owner) to commence and continue correction of such default or neglect with diligence and promptness, Owner may correct such deficiencies by whatever reasonable method Owner may deem expedient without prejudice to other remedies Owner may have, and may withhold for the cost of such correction.

3. ARTICLE 3 - CONTRACTOR

3.1. DEFINITION.

“Contractor” is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The term “Contractor” means Contractor or Contractor’s authorized representatives. To the extent that any portion of the Work is provided with Contractor’s own forces, any reference to subcontractors is equally applicable to Contractor. If any of the Work is performed by contractors retained directly by Owner, Contractor is responsible for the coordination and sequencing of the Work of those other contractors so as to avoid any impact on the Project Schedule (Attachment C of Exhibit B).

3.2. SUPERVISION AND CONSTRUCTION PROCEDURES.

3.2.1. **Contractor.** Contractor must supervise and direct the Work using Contractor’s best skill and attention. Contractor is solely responsible for and must control construction means, methods, techniques, sequences, procedures, and coordinating all portions of the Work under the Agreement, unless Contract Documents give other specific instructions concerning these matters.

3.2.2. **Contractor Responsibility.** Contractor is responsible to Owner for acts and omissions of the Contractor’s employees, subcontractors, material and equipment suppliers, and their agents, employees, invitees, and other persons performing portions of the Work under direct or indirect contract with Contractor or any of its subcontractors.

3.2.3. **Contractor Responsibility for Readiness for Work.** Contractor is responsible for inspection of Work already performed under the Contract Documents to determine that such portions are in proper condition to receive subsequent work. However, Contractor shall not be responsible to detect hidden or latent defects in Work performed by others not under Contractor’s control.

3.3. SUPERINTENDENT.

Contractor must provide a competent superintendent and assistants as necessary, all of whom shall be reasonably proficient in speaking, reading and writing English and is present at the Project site during performance of the Work. The superintendent will represent Contractor. Contractor and each subcontractor must: furnish a competent and adequate staff as necessary for the proper administration, coordination, supervision, and superintendence of its portion of the Work; organize the procurement of all materials and equipment so that the materials and equipment will be available at the time they are needed for the Work; and keep an adequate force of skilled workers on the job to complete the Work in accordance with all requirements of the Contract Documents. Owner may, but is not obligated to, require the removal from the Project of any superintendent, staff member, agent, or employee of any Contractor, subcontractor, material or equipment supplier, etc..

3.4. LABOR AND MATERIALS.

Unless otherwise provided in the Contract Documents, Contractor must provide and pay for labor, material, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work whether temporary or permanent and whether or not incorporated or to be incorporated in the Work. Contractor is responsible for cutting, fitting, or patching required to complete the Work or to make its parts fit together properly.

3.5. WARRANTY.

Contractor warrants to Owner that material and equipment furnished under the Contract will be of good quality and new unless otherwise required or permitted by the Contract Documents, that the Work will be free from defects not inherent in the quality required or permitted, and that the Work will conform with the requirements of the Contract Documents, per Section 11.2 of this Exhibit A.

3.6. TAXES.

Contractor will pay all applicable Federal, State, and local taxes on all materials, labor, or services furnished by it, and all taxes arising out of its operations under the Contract Documents. Owner is exempt from Federal Excise Tax, and a Certificate of Exemption must be provided upon request.

3.7. PERMITS, FEES AND NOTICES.

Contractor must secure and pay for all permits and governmental fees, licenses, and inspections necessary for proper execution and completion of the Work which are customarily secured after execution of the Contract and are legally required by any authority having jurisdiction over the Project.

3.8. ALLOWANCES.

Contractor must include in the Contract Sum all allowances stated in the Contract Documents. Items covered by allowances must be supplied for such amounts and by such persons or entities as Owner may direct, but Contractor is not required to employ persons or entities against whom the Contractor makes reasonable and timely objection.

3.9. CONTRACTOR'S PROJECT SCHEDULES.

Contractor must provide the Project Schedule, and updates and revisions thereto in electronic format as well as hard copy. The schedules provided by Contractor may not exceed time limits current under the Contract Documents and must comply with all of the scheduling as required in the Specifications. Failure of Contractor to provide proper schedules in a reasonable time may, at the sole discretion of Owner, constitute either grounds to withhold, in whole or in part, progress payments to Contractor, or a breach of contract allowing Owner to terminate the Agreement between Owner and Contractor upon five (5) days prior written notice and opportunity for Contractor to comply.

3.9.1. Project Schedule. Contractor prepared and submitted a Project schedule, in accordance with and attached hereto as additional pages to Attachment C of Exhibit B ("**Project Schedule**"). The term Project Schedule, as used in this Agreement and other Contract Documents, include any revisions thereto that the Parties agree upon in writing, which agreed-upon revisions must be set forth in a revised Project Schedule. Any revised Project Schedule replaces all prior Project Schedules once agreed to in writing by Owner.

3.9.2. Compliance with Project Timeline. No schedule may exceed time limits current under the Contract Documents and must comply with all of the scheduling as required by the Contract Documents and any scheduling requirements provided by Owner to Contractor at the beginning of the Project as mutually agreed. The schedule must be in the form of a tabulation, chart, or graph and be in sufficient detail to show the chronological relationship of all activities of the Project including, without limitation, estimated starting and completion dates of various activities, (including early and late dates and reasonable float for each activity), procurement of materials, the critical path, and scheduling of equipment. Float suppression techniques such as preferential sequencing, special lead/lag logic restraints, extended activity durations, or imposed dates must be apportioned according to the benefit of the Project.

3.9.3. Updated Project Schedules. Contractor must submit an updated schedule on a monthly basis that includes an accurate as-built schedule and the current as-planned schedule in conformance with the above standards. Contractor shall submit its daily logs for the month with the updated schedule. Float is not for the exclusive use or benefit of either Party but it is a jointly owned expiring Project resource available to both Parties as needed to meet schedule milestones. If any change in Contractor's method of operations will change the Project Schedule, Contractor must submit to Owner a revised Project Schedule within seven days of the change.

3.9.4. Recovery Plan. If Contractor's actual progress falls behind the scheduled progress, within seven days of a request by Owner, Contractor must prepare and submit a recovery plan. The recovery plan must include a revised schedule that would recover the lost time and still complete the work on the Project by the Final Project Completion Date. The recovery plan must also list any additional compensation that Contractor believes it should receive if Owner chooses to order Contractor to implement the recovery plan. If Owner directs Contractor to implement the recovery plan, then Contractor must do so.

3.9.5. Failure to Meet Project Schedule. In addition to any remedies that Owner may have, Contractor's failure to provide proper project schedules as required by this Section may, at Owner's sole discretion: (a) constitute grounds to withhold, in whole or in part, progress payments to Contractor, or (b) constitute a breach of the Agreement entitling Owner any other remedies provided under the Agreement, including, in Owner's discretion, termination of the Agreement pursuant to the terms hereof in accordance with Section 13.1 of the General Conditions. Notwithstanding the foregoing, if Contractor's fails to properly or timely complete the Work of the Project within 60 days before the SGIP Reservation Expiration date, as may be extended by SGIP, including submission of any application or other materials required for Project to qualify for or participate in the SGIP, then Owner is additionally entitled to liquidated damages in accordance with Section 3 of the Agreement.

3.10. DOCUMENTS AND SAMPLES AT THE SITE.

The Contractor must maintain at the Site for Owner one applicable copy of Titles 19 and 24 and record copy of the Drawings, Specifications, Addenda, Change Orders, and other Modifications, in good order and marked currently to record changes and selections made during construction. In addition, Contractor must maintain at the Site approved Shop Drawings, Product Data, Samples, and similar required submittals.

3.11. SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.

3.11.1. Shop Drawings. The term "shop drawings" as used herein means drawings, diagrams, schedules, and other data, which are prepared by Contractor, subcontractors, manufacturers, suppliers, or distributors illustrating some portion of the Work. Contractor shall obtain and submit with the shop drawings all seismic and other calculations and all product data from equipment manufacturers. Shop drawings must: establish the actual detail of all manufactured or fabricated items, indicate proper relation to adjoining work, amplify design details of mechanical and electrical systems and equipment in proper relation to physical spaces in the structure, and incorporate minor changes of design or construction to suit actual conditions.

3.11.2. Samples. The term "samples" as used herein are physical examples furnished by Contractor to illustrate materials, equipment, or quality. All Work must be in accordance with the approved samples.

3.11.3. Contractor's Responsibility. Contractor must obtain and submit to Owner all required shop drawings and samples in accordance with the Project Schedule as required in the Specifications with such promptness as to cause no delay in its own Work or in that of any other contractor. Review by Owner does not relieve Contractor or any subcontractor from its responsibility in preparing and submitting proper shop

drawings, product data, and samples in accordance with the Contract Documents. Any submission, which in Owner's opinion is incomplete, contains numerous errors, or has been checked only superficially by Contractor, will be returned unreviewed by Owner for resubmission by Contractor. Contractor may not commence any portion of the Work requiring a shop drawing or sample submission until Owner has approved the submission.

3.11.4. Extent of Review. In reviewing shop drawings, Owner will not verify dimensions and field conditions. Owner will review and approve shop drawings, product data, and samples for aesthetics and for conformance with the design concept of the Work and the information given in the Contract Documents. Owner's review does not relieve Contractor from responsibility for any deviations from the requirements of the Contract Documents unless Owner has given specific written approval. Contractor and subcontractors are solely responsible for determining any quantities, shown on the shop drawings.

3.11.5. Substitution. Unless the Specifications state that no substitution is permitted, whenever in the Contract Documents any specific brand or trade name is specified such specification shall be deemed to be followed by the words "or equal." Owner may consider an untimely substitution request if the product specified is no longer commercially available.

3.12. CLEANING UP.

Contractor must keep the Site and surrounding area free from accumulation of waste material or rubbish caused by operations under the Agreement. The Site must be maintained in a safe, neat, and orderly condition. If Contractor fails to clean up as provided in the Contract Documents, Owner may do so, without prior notice to Contractor and the cost thereof will be invoiced to Contractor and withheld from progress payments and/or retention. Upon completion of the Project, Contractor and subcontractor must dismantle temporary structures, if any, and remove from the Site all construction and installation equipment, fences, scaffolding, surplus materials, rubbish, and supplies belonging to Contractor or subcontractor.

3.13. ACCESS TO WORK.

The Contractor must provide Owner, Owner's designees, and Inspector, access to the Work in preparation and progress wherever located.

3.14. ROYALTIES AND PATENTS.

Contractor must pay all royalties and license fees incurred by Contractor in performing the Work of this Agreement. Contractor must defend suits or claims of infringement of patent rights and hold Owner harmless and indemnify them from loss on account thereof.

3.15. INDEMNIFICATION.

Contractor's obligations to indemnify Owner are set forth in Section 12 of the Agreement.

4. ARTICLE 4 – ADMINISTRATION OF THE AGREEMENT

4.1. Reserved.

4.2. ADMINISTRATION OF THE AGREEMENT.

4.2.1. Owner and Representatives. Owner may provide administration of the Agreement as described in the Contract Documents and may designate one or several agents, representatives, or consultants to provide administration.

4.2.2. Communications Facilitating Agreement Administration. Except as otherwise provided in the Contract Documents or when direct communications are warranted by special circumstances, Owner and Contractor must communicate through Owner's selected representative.

4.2.3. Rejection of Work. In addition to the rights, duties, and obligations of Inspector under this Article, Owner's selected representative may recommend to Owner that Owner reject Work which does not conform to the Contract Documents.

4.3. INSPECTOR.

One or more project inspectors employed by Owner (the **"Inspector"**) will be assigned to the Work in accordance with the requirements of Title 24 of the California Code of Regulations. The Inspector(s) duties will be as specifically defined in Title 24. All Work must be under the observation of or with the knowledge of Inspector. The Inspector must have free access to any or all parts of the Work at any time. Contractor must furnish Inspector such information as may be necessary to keep Inspector fully informed regarding progress and manner of work and character of materials. Such observations do not relieve Contractor from responsibility for full compliance with all terms and conditions of the Agreement, or be construed to lessen to any degree the Contractor's responsibility for providing efficient and capable superintendence. The Inspector is not authorized to make changes in the drawings or specifications. The Inspector may reject work that does not comply with the provisions of the Contract Documents. In addition, Inspector may stop any Work which poses a probable risk of harm to persons or property. Any costs or expenses of inspection or testing incurred outside of the Inspection Distance Limitation stated in Section E on the Cover Page or not located in a contiguous county to the Project Site on which the inspection or testing is required, whichever distance is greater, will be paid for by Owner, and Owner will then invoice to Contractor and Contractor must make payment thereof within 30 days after Contractor receives the invoice; if Contractor fails to do so, Owner may upon written notice withhold the amount from any payment due or to be due to Contractor under the Agreement. No work may be performed by the Contractor solely upon the instructions or comments by Inspector. The Inspector has no authority to interpret the Contract Documents or order extra work and any extra work performed without the written instruction of Owner is at Contractor's sole cost and expense and there will be no delay damages incurred by Owner for such work.

4.4. RESPONSIBILITY FOR ADDITIONAL CHARGES INCURRED BY OWNER FOR PROFESSIONAL SERVICES.

If at any time before the completion of the requirements under the Contract Documents, through no fault of its own, Owner is required to provide or secure additional professional services to the extent caused by any act or omission of Contractor, Contractor may be invoiced by Owner for any actual costs incurred for any such additional services, which costs may, among other remedies, be withheld from the progress payments and/or retention.

4.5. CLAIMS.

4.5.1. General.

Consistent with Public Contract Code (PCC) §§ 9204 and 10240.6, “Claim” means a written demand or assertion by the Contractor that seeks an adjustment or interpretation of the terms of the Contract Documents, payment of money, extension of time, or other relief with respect to the Contract Documents, including a determination of disputes or matters in question between Owner and the Contractor arising out of or related to the Contract Documents or the performance of the Work, and claims alleging an unforeseen condition or an act, error, or omission by Owner. “Claim” does not mean, and these Claims procedures do not apply, to the following:

- Claims respecting penalties for forfeitures prescribed by statute or regulations, which a government agency is specifically authorized to administer, settle, or determine.
- Claims respecting personal injury, death, reimbursement, or other compensation arising out of or resulting from liability for personal injury or death.
- Claims respecting a latent defect, breach of warranty, or guarantee to repair.
- Claims respecting stop notices.

If a Claim is subject to the Change Order procedures, the Claim arises upon the issuance of a written final decision denying in whole or in part the Contractor’s Change Order Request. If a Claim is not subject to the Change Order Procedures, the Claim arises when the Contractor discovers, or reasonably should discover, the condition or event giving rise to the Claim. The requirements of this Section are intended to supplement and implement PCC § 9204, a copy of which is attached for reference. Accordingly, pursuant to PCC § 9204(f), the parties agree to utilize these sections.

4.5.2. **Form**

A Claim must include the following:

- A statement that it is a Claim and a request for a decision.
- A detailed description of the act, error, omission, unforeseen condition, event or other condition giving rise to the Claim.
- If the Claim is subject to the Change Order procedures, a statement demonstrating that a Change Order Request was timely submitted and denied.
- A detailed justification for any remedy or relief sought by the Claim, including to the extent applicable, the following:
 - If the Claim involves extra work, a detailed cost breakdown claimed. The breakdown must be provided even if the costs claimed have not been incurred when the Claim is submitted.
 - To the extent costs have been incurred when the Claim is submitted, the Claim must include actual cost records (including, without limitation, payroll records, material and rental invoices) demonstrating that costs claimed have actually been incurred.
 - To the extent costs have not yet been incurred at the time the Claim is submitted, actual cost records must be submitted on a current basis not less than once a week during any time period costs are incurred. A cost record will be considered current if submitted within seven calendar days of the date the cost reflected in the record is incurred. At the General

Manager's request, claimed extra costs may be subject to further verification procedures (such as having an inspector verify the performance of alleged extra work on a daily basis).

- If the Claim involves an error or omission in the Contract Documents:
 - An affirmative representation that the error or omission was not discovered before submitting a bid for the Contract; and
 - A detailed statement demonstrating that the error or omission reasonably should not have been discovered by the Contractor, its Subcontractors and suppliers, before submitting a bid for the Contract.
- If the Claim involves an extension of the Contract Time, written documentation demonstrating the Contractor's entitlement to a time extension.
- If the Claim involves an adjustment of the Contract Sum for delay, written documentation demonstrating the Contractor's entitlement to such an adjustment.
- A personal certification from the Contractor that reads as follows:

"I, _____, BEING THE _____ (MUST BE AN OFFICER) OF _____ (CONTRACTOR NAME), DECLARE UNDER PENALTY OF PERJURY UNDER CALIFORNIA LAW, AND DO PERSONALLY CERTIFY AND ATTEST THAT I HAVE THOROUGHLY REVIEWED THE ATTACHED CLAIM FOR ADDITIONAL COMPENSATION OR EXTENSION OF TIME, AND KNOW ITS CONTENTS, AND SAID CLAIM IS MADE IN GOOD FAITH; THE SUPPORTING DATA IS TRUTHFUL AND ACCURATE; THAT THE AMOUNT REQUESTED ACCURATELY REFLECTS THE CONTRACT ADJUSTMENT FOR WHICH THE CONTRACTOR BELIEVES OWNER IS LIABLE; AND, FURTHER, THAT I AM FAMILIAR WITH CALIFORNIA PENAL CODE § 72 AND CALIFORNIA GOVERNMENT CODE § 12650, ET SEQ., PERTAINING TO FALSE CLAIMS, AND FURTHER KNOW AND UNDERSTAND THAT SUBMITTING OR CERTIFYING A FALSE CLAIM MAY LEAD TO FINES, IMPRISONMENT, AND OTHER SEVERE LEGAL CONSEQUENCES."

4.5.3. Claims Submitted to General Manager

Within 30 calendar days after the circumstances giving rise to a Claim occur, Contractor will submit its Claim to the General Manager for a decision. Regardless of any Claim submittal, or any dispute regarding a Claim, unless otherwise directed by the General Manager, Contractor will not cause any delay, cessation, or termination of the Work, but will diligently proceed with the performing the Work in accordance with the Contract Documents. Except as otherwise provided, Owner will continue to make payments in accordance with the Contract Documents.

4.5.4. Claim Is Prerequisite to Other Remedy

Contractor certifies that it is familiar with PCC § 10240.2 and understands and agrees that submitting a Claim in accordance with these Specifications is an express condition precedent to Contractor's right to otherwise pursue a claim whether through alternative dispute resolution or by litigation. Should Contractor fail to submit a claim in accordance with these Specifications, including the time limits set forth herein, it

waives any right to a remedy, whether in law or equity, it might otherwise have pursuant to the Contract Documents or applicable law.

4.5.5. Decision on Claims

The General Manager will promptly review Claims submitted by Contractor in accordance with these Specifications. Should the General Manager require additional supporting evidence to evaluate the claim, the General Manager will request such additional information in writing. Any such requested data will be furnished not later than 10 calendar days after Contractor receives the General Manager's request.

The General Manager will render a decision not later than 30 calendar days after either receiving the Claim or the deadline for furnishing additional supporting data, whichever is later. If the Claim amount is more than \$50,000, the time period will be extended to 60 days. If the General Manager fails to render a decision within the time period established herein, then the Claim is denied. The General Manager's decision is final and binding unless appealed in accordance with these Specifications.

The General Manager's decision on a Claim will include a statement substantially as follows:

"This is a decision pursuant to the Standard Specifications of your contract. If you are dissatisfied with the decision and have complied with the procedural requirements for asserting claims, you may have the right to alternative dispute resolution or litigation. Should you fail to take appropriate action within 30 calendar days of the date of this decision, the decision will become final and binding and not subject to further appeal."

4.5.6. Appeal of General Manager's Decision

Should the Contractor dispute the General Manager's decision, then the Contractor must appeal that decision to Owner's Board of Directors within 30 calendar days of receiving the General Manager's decision.

The Board of Directors will address disputes or claims within 30 calendar days after receiving such request and all necessary supporting data. The Board of Directors's decision on the dispute or claim will be Owner's final decision.

If Contractor disputes the Board of Directors's decision, then Contractor must demand alternative dispute resolution in accordance with this Section and the PCC within 30 calendar days of Owner's final decision.

4.5.7. Mediation

If Owner and Contractor agree, disputes between the parties may be submitted to non-binding mediation. If the parties cannot agree to an alternative form of mediation, then mediation will be administered by the American Arbitration Association ("AAA") under its Construction Industry Mediation Rules, unless the use of such rules are waived by mutual stipulation of both parties.

The parties may, but are not required to be, represented by counsel in mediation.

The requirement for mediation will not alter or modify the time limitations otherwise provided for claims and no conduct or settlement negotiation during mediation will be considered a waiver of Owner's right to assert that claim procedures were not followed.

4.5.8. Arbitration

If Owner and Contractor do not agree to mediation, then disputes will be submitted to neutral non-binding (except as provided herein) arbitration. Arbitration will be conducted in accordance with PCC § 10240.3. Any decision rendered by an arbitrator will be consistent with PCC § 10240.8.

The exclusive venue for any arbitration will be in Santa Barbara County.

The expenses and fees of the arbitrators and the administrative fees, if any, will be divided among the parties equally. Each party will pay its own counsel fees, witness fees, and other expenses incurred for its own benefit.

4.5.9. When Arbitration Decision Becomes Binding

The decision rendered by the arbitrator will become binding upon the parties unless appealed to the Santa Barbara County Superior Court pursuant to PCC § 10240.12 within 30 calendar days of the decision. If subsequent litigation results in an award to the party appealing the arbitration that is less than or equal to that of the arbitration decision, or if the litigation results in a decision in favor of the nonappealing party, then the party appealing the arbitration will pay the nonappealing party's attorney's fees and court costs.

4.5.10. Appeal to Superior Court; Waiver of Jury Trial

Should a party timely object to the arbitration decision, it may file a petition with the Santa Barbara County Superior Court in accordance with California Code of Civil Procedure ("CCP") §§ 1285, *et seq.* Notwithstanding the limitations set forth in CCP § 1286.2, the court may vacate, correct, or adjust an arbitration award, and enter judgment in accordance with CCP § 1287.4, for any legal or equitable basis including, without limitation, error of law. The court will apply the substantial evidence standard of review when considering the appeal of an objecting party.

BY EXECUTING THESE CONTRACT DOCUMENTS, CONTRACTOR AGREES TO HAVE DISPUTES OR CONTROVERSY CONCERNING THE CONSTRUCTION, INTERPRETATION, PERFORMANCE, OR BREACH OF THESE CONTRACT DOCUMENTS, INCLUDING CLAIMS FOR BREACH OF CONTRACT OR ISSUES OF BAD FAITH DECIDED IN ACCORDANCE WITH THIS SECTION. BOTH OWNER AND CONTRACTOR WAIVE THEIR RIGHT TO A JURY TRIAL FOR THESE DISPUTES OR ISSUES.

5. ARTICLE 5 – UNUSED

6. ARTICLE 6 – CHANGES IN THE WORK

6.1. CHANGES.

6.1.1. **No Changes Without Authorization.** Owner may make such alterations, deviations, additions to, or deletions from the plans and specifications, as may be deemed by Owner to be necessary or advisable

for the proper completion or construction of the Work contemplated, and the right to require Contractor to perform such work. There may be no change whatsoever in the drawings, specifications, or in the Work without an executed Change Order, Construction Change Directive, or order by Owner for a minor change in the Work as herein provided. Owner is not liable for the cost of any extra work or any substitutions, changes, additions, omissions, or deviations from the Drawings and Specifications unless the same is authorized by and the cost thereof approved in writing by Change Order or executed Construction Change Directive. No extension of time for performance of the Work is allowed hereunder unless claim for such extension is made at the time changes in the Work are ordered, and such time duly adjusted in writing in the Change Order.

6.1.2. Owner's Authority. Owner has authority to order minor changes in the Work not involving any adjustment in the Contract Sum, an extension of the Contract Time, or a change which is inconsistent with the intent of the Contract Documents as mutually agreed between the parties. Such changes may be affected by written Change Order and are binding on Owner and Contractor. Contractor must carry out such written orders promptly.

6.2. CHANGE ORDERS ("CO").

A CO is a written instrument prepared by Owner and Contractor stating their agreement upon all of the following: (A) A change in the Work; (B) the amount of the adjustment in the Contract Sum, if any; and (C) the extent of the adjustment in the Contract Time, if any.

6.3. CONSTRUCTION CHANGE DIRECTIVES ("CCD").

A CCD is a written order prepared by Owner, directing a change in the Work and stating a proposed basis for adjustment, if any, in the Contract Sum or Contract Time, or both. Owner may by CCD, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions, or other revisions, with the Contract Sum and Contract Time being adjusted accordingly. A CCD shall be used in the absence of agreement on the terms of a CO.

6.4. CHANGE ORDERS DUE TO CONTRACTOR ERROR OR OMISSION.

Based upon the services Contractor will have provided in preparing its response to Owner's request for proposals for the Work, and Contractor's duties and responsibilities regarding the engineering and design of the Project, Contractor and Owner intend and expect that Contractor will not submit any change order requests during the construction of the Project based upon alleged errors or omissions in the plans, specifications, drawings, or designs for the Project – excluding those prepared and provided by Owner and/or Owner's consultants.

6.5. SUPPLEMENTAL INSTRUCTION ("SI").

A SI is a written instrument prepared by Owner and submitted to Contractor. The SI can order changes in the work that does not affect the Contract Sum and/or Time. A SI can be made in an RFI response by issuing a formal SI document or by written letter from Owner.

6.6. REQUEST FOR INFORMATION ("RFI").

An RFI is a written request prepared by Contractor asking Owner to provide additional information above and beyond that which is available in the Contract Documents and all reference standards, regarding Contractor and fulfilling the Contract coordination requirements for which Contractor is obligated to perform. The RFI must reference all the applicable Contract Documents including specification section, detail, page numbers, drawing numbers, and sheet numbers, etc. Contractor may make suggestions and/or

interpretations of the issue raised by the RFI. An RFI cannot modify the Contract Cost, Contract Time, or the Contract Documents. Before issuing an RFI, Contractor, Subcontractor, material suppliers and the like must thoroughly review the Contract Documents and refer to all reference standards for the information sought. Owner and Contractor agree that an adequate time period for Owner to respond to an RFI is generally 10 business days after Owner's receipt of an RFI, unless Owner and Contractor agree otherwise in writing. However, in all cases, Owner may take such time, whether more or less than 10 business days, as is necessary in Owner and Owner's representatives professional judgment to permit adequate review and evaluation of the RFI. Contractor will be invoiced by Owner for any costs incurred for professional services, which cost may be withheld from progress payments and/or retention, if an RFI requests an interpretation or decision of a matter where the information sought is equally available to the party making such request. Contractor must make efforts to coordinate the work in a timely fashion, to alleviate priority RFIs. If the RFI is considered a priority, Contractor must state the word "Priority" on the document, and Contractor must provide weekly RFI Priority Schedules. Contractor must issue and maintain weekly RFI Priority Schedules.

The RFI Priority Schedule must include a listing of pending requests, including the most current request, and rank the RFIs in order of priority. Owner will endeavor to respect Contractor's requested order of priorities and requested response dates. Owner's response to the RFI will be considered a Supplemental Instruction (SI) in which the Contract Sum and/or Time is not altered. If the RFI response alters the Contract Sum and/or Time, a Construction Change Directive (CCD) may be issued for the changed condition(s). Should Contractor determine the response to the RFI creates changes in the Contract Sum and/or Time, Contractor must submit a change order request (COR) to Owner for review, along with a Time Extension Request (if required).

6.7. REQUEST FOR PROPOSAL REGARDING CHANGE ("RFP - Change").

A RFP - Change is a written request prepared by Owner asking Contractor to submit to Owner an estimate of the effect of a proposed change on the Contract Sum and the Contract Time. A RFP - Change must contain adequate information, including any necessary drawings and specifications, to enable Contractor to provide the cost breakdowns required by Section 6.9 below. Contractor is not entitled to any Additional Compensation for preparing a response to a RFP - Change, whether ultimately accepted or not.

6.8. CHANGE ORDER REQUEST ("COR").

A COR is a written request prepared by Contractor asking Owner to incorporate a proposed change called for in a RFP - Change or a notice of claim into a CO. A COR must include breakdowns to validate any change in Contract Sum due to proposed change or claim. A COR must also include any additional time required to complete the Project. Any additional time requested cannot be the number of days to make the proposed change, but must be based upon the impact to the Project Schedule as defined in Section 3.9 and the Specifications.

6.9. COST OF CHANGE ORDERS.

6.9.1. **Scope.** Within 10 days or such lesser period of time as may be required by Owner after a request is made for a change that impacts the Contract Sum or the Contract Time, Contractor must provide to Owner in writing an estimate of the effect of the proposed CO upon the Contract Sum and the actual cost of construction, which must include a complete itemized cost breakdown of all labor and material showing actual quantities, hours, unit prices, wage rates, required for the change, and the effect upon the Contract Time of such CO. Changes may be made by Owner by an appropriate written CO, or, at Owner's option, such changes must be implemented immediately upon Contractor's receipt of an appropriate written CCD.

6.9.2. Determination of Cost. The amount of the increase or decrease in the Contract Sum resulting from a CO, if any, is determined in one or more of the following ways as applicable to a specific situation: (A) Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation; (B) unit prices stated in Contractor's original proposal, the Contract Documents, or subsequently agreed upon between Owner and Contractor; (C) cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or (D) by cost of material and labor and percentage of overhead and profit. Contractor and Subcontractors may mark up their own work by 10% for overhead, bond and insurance premiums, and profit. Contractor may mark up a Subcontractor's total costs by 10%. It is expressly understood that the value of such extra work or changes, as determined by any of the aforementioned methods, expressly includes any and all of Contractor's costs and expenses, both direct and indirect, resulting from additional time required on the Project or resulting from delay to the Project. Any costs or expenses not included are deemed waived. No other formula, e.g., the Eichleay or other method, may be used to calculate daily costs for office overhead, profit, or other purported cost. For purposes of determining the cost, if any, of any change, addition, or omission to the Project, all trade discounts, rebates, refunds, and all returns from the sale of surplus materials and equipment shall accrue and be credited to Contractor, and Contractor must make provisions so that such discounts, rebates, refunds, and returns may be secured, and the amount thereof are allowed as a reduction of Contractor's cost in determining the actual cost of construction for purposes of any change, addition, or omissions in the Project as provided herein.

6.9.3. Accounting Records. With respect to portions of the Work performed by COs and CCDs on a time-and-materials, unit-cost, or similar basis, Contractor must keep and maintain cost-accounting records satisfactory to Owner, which are available to Owner on the same terms as any other books and records Contractor is required to maintain under the Contract Documents.

6.9.4. Notice Required. If Contractor desires an increase in the Contract Sum, or any extension in the Contract Time for completion, it must give Owner written notice thereof within 10 days after the occurrence of the event giving rise to the claim, together with detailed estimates of the impact on the Contract Sum and/or the Contract Time. This notice must be given by Contractor before proceeding to execute the Work, except in an emergency endangering life or property, in which case Contractor shall proceed in accordance with Section 9.4 of this Exhibit A. No notice may be considered unless made in accordance with this Subsection; however, the mere presentation of such claim does not establish the validity of the cause giving rise to such claim, or of the extension of the Contract Time, and/or the increase in the Contract Sum. Contractor must proceed to execute the Work even though the adjustment has not been agreed upon. Any change in the Contract Sum or extension of the Contract Time resulting from such claim must be authorized by a CO.

6.9.5. Format for Proposed Change Order. The Parties will use the following format, as applicable, to communicate proposed additions and deductions to the Contract.

SUBCONTRACTOR WORK (list each if more than one)		ADDITIVE	DEDUCTIVE
1	SUBCONTRACTOR LABOR TOTAL ¹	\$ _____	\$ _____
		—	—
2			

	SUBCONTRACTOR MATERIAL	\$ _____	\$ _____
	TOTAL ¹ ,	—	—
3	SUBCONTRACTOR EQUIPMENT	\$ _____	\$ _____
	TOTAL ¹ ,	—	—
4	SUBTOTAL #1 (LINES 1, 2 & 3)	\$ _____	\$ _____
5	SUBCONTRACTOR'S OVERHEAD	—	—
	AND PROFIT FOR SUBTOTAL #1	\$ _____	\$ _____
	(LINE 4) ²	—	—
6	SUBTOTAL #2 (LINES 4 & 5) ²	\$ _____	\$ _____
		—	—

CONTRACTOR'S WORK		ADDITIVE	DEDUCTIVE
7	CONTRACTOR LABOR TOTAL ¹ ,	\$ _____	\$ _____
		—	—
8	CONTRACTOR MATERIAL TOTAL ¹ ,	\$ _____	\$ _____
		—	—
9	CONTRACTOR EQUIPMENT TOTAL	\$ _____	\$ _____
	¹ ,	—	—
10	SUBTOTAL #3 (LINES 7, 8 & 9)	\$ _____	\$ _____
11	CONTRACTOR'S OVERHEAD AND	—	—
	PROFIT FOR SUBTOTAL #3 (LINE 10)	\$ _____	\$ _____
	²	—	—
12	CONTRACTOR'S OVERHEAD AND	—	—
	PROFIT FOR SUBTOTAL #2 (LINE 6)	\$ _____	\$ _____
	²	—	—
13	SUBTOTAL #4 (LINES 10, 11& 12)	\$ _____	\$ _____
		—	—

14	SUM OF SUBTOTALS #2 & #4	\$ _____	\$ _____
		—	—
15	CONTRACTOR'S BOND ³	\$ _____	\$ _____
		—	—

16 NET TOTAL FOR C.O.R. ⁴ \$ _____

- 1: Attach itemized list(s) indicating hours, rates, material quantity, material costs, unit costs, and taxes
- 2: Refer to the Overhead and Profit Schedule
- 3: Contractor's bond and liability insurance premium, if in fact actual bonds and insurance are to be purchased. Total costs shall not exceed 2% of the Net Total (line 16). Refer to the O&P Schedule.
- 4: Includes all direct and indirect costs, including but not limited to, acceleration, cumulative effect of the change(s), expediting the work, etc.

NOTE: OVERHEAD AND PROFIT ARE CALCULATED ON THE NET AMOUNT OF THE CHANGE ORDER

OVERHEAD & PROFIT (O&P) PERCENTAGE SCHEDULE

- (i) Refer to the O&P Schedule below. The cost of the work does not include the overhead and profit mark-up.
- (ii) For all work, Contractor's Bond and Liability Insurance Premium may be added in onto the "Form for EXTRA WORK and/or DEDUCTIVE WORK."
- (iii) The O&P Schedule MUST be used for "Negotiated Sum" and/or "Time and Materials" work. Unit Price work DOES not have the overhead and profit mark-up applied to the work, on the basis that the Unit Price includes overhead and profit margins.

	Work by Subcontractor less than or equal to \$2,500	Work by Subcontract or more than \$2,500	Work by Contractor less than or equal to \$2,500	Work by Contractor more than \$2,500
Subcontractor Overhead & Profit	20%	15%	N/A	N/A
Contractor Overhead & Profit	10% Excluding Bond Premium	10% Excluding Bond Premium	15% Excluding Bond Premium	10% Excluding Bond Premium
Total Overhead and Profit, not to exceed:	30%	25%	15%	10%

7. ARTICLE 7 – TIME

7.1. DEFINITIONS.

7.1.1. **Contract Time.** Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for Completion of the Work.

7.1.2. **Days.** The term “day” as used in the Contract Documents means calendar day unless otherwise specifically defined.

7.2. PROJECT PHASES AND NOTICES TO PROCEED.

The date of commencement of the Work is the date established in the Notice to Proceed to Design. The date may not be postponed by the failure to act of Contractor or of persons or entities for which Contractor is responsible. The Work on the Project must be performed in accordance with the following phases:

7.2.1. **Design Phase.** Upon Owner issuing a written Notice to Proceed to Design, Contractor must prepare any necessary designs, Drawings, and specifications, as well as feasibility and configuration assessments, environmental assessments (collectively “**Design Documents**”), and other inspections of each Project Site by the date stated in the Project Schedule for the First Draft of Drawings. Contractor must deliver draft design Drawings in accordance with the Specifications to Owner for review and approval, which approval may not be unreasonably withheld. Owner will diligently review and respond to each submission by Contractor by the date stated in the Project Schedule for Owner response. Contractor must finalize the Design Documents by the date stated on the Project Schedule for the Final Draft of Drawings. No work may be performed until Owner’s issuance of the Notice to Proceed to Design.

7.2.2. **Governmental Approval Phase.** Upon Owner’s written approval of the final Design Documents, Contractor must seek all such approvals of the Design Documents and the Project as may be required by any governmental entity having jurisdiction over the Project. Contractor must exercise all reasonable diligence to ensure that all necessary permits and approvals are received by the date stated in the Project Schedule for Permit Approval. Owner will not unreasonably withhold its consent to any modifications to the Design Documents that may be requested by any governmental or quasi-governmental agency with jurisdiction over the Project or the work on the Project, excepting any changes that materially affect the tilt, azimuth or number of photovoltaic modules, or other aspects of the original design that may affect the Contract Sum or the Annual Production Estimate, or that materially affect the siting of the Project and its impact on Owner’s operations. The Governmental Phase requires, in part, that all approvals necessary for the Project to be constructed have been received and provided to Owner in writing.

7.2.3. **Construction Phase.** Within 15 days after receiving Contractor’s written notice that all permits and approvals necessary to begin construction of the Project are secured including, without limitation, approval of District, Owner will issue a Notice to Proceed to Procurement and Construction. After receiving the Notice to Proceed to Procurement and Construction, Contractor will facilitate, or cooperate with Owner in its efforts to facilitate, a kick-off meeting with Owner and any of its representatives and Contractor, and any other relevant parties. After receiving the Notice to Proceed to Procurement and Construction and after securing all necessary permits, Contractor must commence the construction of the Project in accordance with the final Design Documents and all other Contract Documents. The Construction Phase requires, in part, Inspector’s written notice of substantial completion and submission of a written request to schedule the Utility Permission to Operate inspection.

7.2.4. **Commissioning Phase.** During the construction phase of the work on the Project and before the Final Project Completion Date, Contractor must conduct all commissioning tests in accordance with the Commissioning Schedules in Exhibit B. Contractor must provide notice to Owner of any scheduled test(s) of installed equipment, and Owner or its designees maybe present at any or all such tests conducted by Contractor, any Subcontractor, or manufacturers of the equipment. Contractor is responsible for correcting or adjusting all deficiencies in the System and equipment operations that Contractor provided and installed that may be observed during equipment commissioning procedures. The Commissioning Phase requires,

in part, the System being fully interconnected and operating normally to store and deliver electricity, the Utility's signed Permission to Operate, and the completion, submission and Owner approval of the Commissioning Schedules in Exhibit B.

7.2.5. Project Completion and Closeout. Owner must acknowledge final inspection and completion of the Project by executing a Certificate of Acceptance and recording a Notice of Completion in accordance with the Contract Documents and applicable laws.

7.3. HOURS OF WORK.

7.3.1. Sufficient Forces. Contractors and Subcontractors provide sufficient forces to ensure the prosecution of the Work in accordance with the Project Schedule.

7.3.2. Performance During Working Hours. Work will be performed during regular District working hours except that in the event of an emergency or when required to complete the Work in accordance with job progress, work may be performed outside of regular District working hours with the advance written consent of Owner.

7.4. PROGRESS AND COMPLETION.

Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Agreement, Contractor confirms that the Contract Time is a reasonable period for performing the Work. Contractor cannot knowingly, except by agreement or instruction of Owner, in writing, commence operations on the Site or elsewhere before the effective date of insurance required by Article 10 to be furnished by Contractor. The date of commencement of the Work cannot be changed by the effective date of such insurance. Contractor must proceed expeditiously with adequate forces and achieve Completion within the Contract Time.

7.5. EXTENSIONS OF TIME - LIQUIDATED DAMAGES.

7.5.1. Excusable Delay.

If delays are caused by unforeseen events beyond Contractor's reasonable control, such delays will entitle Contractor to an extension of time as provided herein, but Contractor will not be entitled to damages or additional payment due to such delays except as otherwise provided. Excusable delay may include: war, earthquakes exceeding 3.5 on the Richter Scale, government regulation, labor disputes outside the contemplation of the parties, strikes outside the contemplation of the parties, fires, floods, changes to the Work as identified herein, or other specific events that may be further described in the Specifications.

Delays to the project caused by labor disputes or strikes involving trades not directly related to the project, or involving trades not affecting the project as a whole will not warrant an extension of time.

Owner will not grant an extension of time for a delay by the Contractor's inability to obtain materials unless Contractor furnishes to the General Manager documentary proof. The proof must be provided in a timely manner in accordance with the sequence of Contractor's operations and accepted construction schedule.

Should delays be caused by events other than those included herein, the General Manager may, but is not required to, deem an extension of time to be in Owner's best interests.

7.5.2. Adjustment For New Tariffs Or Tariff Increases

If, after the date of Contractor's proposal submission, the United States government imposes or increases tariffs that directly and demonstrably affect the unit pricing or availability of materials or equipment required for the Work, and such increases were unavoidable, and not reasonably foreseeable at the time of bid submission, Contractor may be entitled to an adjustment to the Contract Sum subject to the conditions and limitations set forth in this provision.

7.5.3. Reasonably Foreseeable Increases. Contractor will not be entitled to any adjustment to the Contract Sum for new tariffs or tariff increases that were reasonably foreseeable at the time of bid submission. For purposes of this provision, "new tariffs or tariff increases that were reasonably foreseeable" include, without limitation:

- a. Any increase in the applicable tariffs to a level which was already in effect, plus ten percent (10%), at any point during the past ten years;
- b. Any new tariff or increase in tariff level that was already announced before bid submission, regardless of whether it had taken effect.

7.5.4. Tariff Avoidance; Duty to Mitigate. Upon learning of a new tariff, or tariff increase, Contractor will make commercially reasonable efforts to avoid the new costs and mitigate any increased costs. Contractor will, without limitation, determine if there are alternate suppliers that can furnish necessary materials or equipment at a lower cost to Contractor. If Contractor is able to identify a lower cost supplier through such efforts, Contractor will procure supplies from that source before seeking an adjustment in the Contract Sum. Any adjustment to the Contract Sum will be based on actual increased costs incurred by Contractor despite such efforts.

7.5.5. Procedure For Seeking Adjustment. Contractor will notify Owner in writing within 14 calendar days after Contractor becomes aware or should reasonably have become aware of a new tariff or tariff increase that may entitle Contractor to an adjustment to the Contract Sum. Contractor's request for adjustment will include:

- a. Identification of the specific materials or equipment affected;
- b. Documentation of the original cost of the affected materials or equipment as included in Contractor's bid;
- c. Documentation of the increased cost directly attributable to the tariff increase;
- d. Documentation demonstrating that the tariff increase was not reasonably foreseeable;
- e. Documentation demonstrating that the increased costs are not attributable to non-tariff market conditions; and
- f. Proposed adjustment to the Contract Sum.

7.5.6. Audit Rights. Before agreeing to any adjustment to the Contract Sum, Owner will have the right to audit Contractor's books and records to verify that all conditions precedent to a price adjustment have been met. Contractor will maintain all such records for a period of not less than three years after final payment.

7.5.7. Determination Of Adjustment Amount. Any adjustment to the Contract Sum is limited to the actual increased cost directly attributable to the unforeseeable new tariff or tariff increase, without any additional markup for overhead and profit. Owner may reject any request for adjustment that does not meet the requirements of this provision or is not substantiated by sufficient documentation. Nothing in this provision will be construed to relieve Contractor of its obligation to complete the Work within the Contract Time or to entitle Contractor to any time extension due to new tariffs or tariff increases.

7.5.8. Notice by Contractor Required. Contractor must within 10 calendar days of beginning of any delay (unless Owner grants in writing a further period of time to file such notice before the date of final payment under the Contract) notify Owner in writing of causes of delay. Owner will then ascertain the facts and extent of the delay and grant an extension of time for completing the Work when, in its judgment, the findings of fact justify such an extension. Owner's findings of fact thereon shall be final and conclusive on the parties. Extensions of time shall apply only to that portion of the Work affected by the delay and shall not apply to other portions of the Work not so affected.

7.5.9. Conditions for Extension of Time. If Contractor is delayed at any time in progress of the Work by an by labor disputes, fire, unusual delay in deliveries, or unavoidable casualties, by delay authorized by Owner pending arbitration, or by other causes which Owner determines may justify delay, then the Contract Time must be extended by Change Order for such reasonable time as Owner may determine. If Contractor is delayed in its Work or is otherwise required to accelerate or resequence its Work due to the fault of Owner or separate contractor employed by Owner then Contractor shall be entitled to an extension of time, additional payment or both.

7.5.10. Early Completion. Regardless of the cause therefore, Contractor may not maintain any Claim or cause of action against Owner for damages incurred as a result of its failure or inability to complete its work on the Project in a shorter period than established in the Contract Documents.

7.6. GOVERNMENT APPROVALS.

Owner is be liable for any delays or damages related to the time required to obtain government approvals unless such delay is caused by the Owner.

7.7. DELAYS DUE TO PROJECT SITE ACTIVITIES.

Owner must provide a 3-week advance notice for all scheduled activities.

If any part of Contractor's work depends for proper execution or results upon work of any other contractor, Contractor must inspect and promptly report to Owner in writing any visually apparent defects in such work that render it unsuitable for such proper execution and results. Contractor is liable for damages to Owner for that work which it failed to inspect. Contractor's failure to inspect and report shall constitute its acceptance of other Contractor's work as fit and proper for reception of its work, except as to defects which may develop in other Contractors' work after execution of Contractor's work or for hidden or latent defects in such Work.

To ensure proper execution of its subsequent work, Contractor must measure and inspect work already in place and at once report to Owner in writing any visually apparent discrepancy between executed work and Contract Documents.

It is the obligation of Contractor to ascertain to its own satisfaction the scope of the Project and nature of any other contracts that have been or may be awarded by Owner in prosecution of the Project to the end that Contractor may perform its Contract in the light of such other contracts, if any.

Nothing herein contained may be interpreted as granting to Contractor exclusive occupancy of the Project. Contractor may not cause any unnecessary hindrance or delay to any other contractor working on the Project. If simultaneous execution of any contract for the Project is likely to cause interference with performance of some other contract or contracts, Owner must decide which contractor ceases work

temporarily and which contractor continues or whether work can be coordinated so that contractors may proceed simultaneously. If Owner directs Contractor to cease Work temporarily due to the work of another contractor, Contractor is entitled to a change order upon documentation of actual, reasonable costs, including overhead, profit or general conditions for the period of time during which Work has ceased.

If the Project is split into phases and/or separate contracts, then Contractor must make reasonable allowances for any delays or damages which may arise from coordination with contractors for other phases or contracts. As mutually agreed between the parties.

8. ARTICLE 8 - PAYMENTS AND COMPLETION

8.1. CONTRACT SUM.

The Contract Sum is stated in the Agreement and, including authorized adjustments, is the total amount payable by Owner to Contractor for performance of the Work under the Contract Documents.

8.2. COST BREAKDOWN.

On forms approved by Owner within 10 days of the mailing, faxing or delivery of the Notice of Award of the Contract, Contractor must furnish a cost breakdown, itemizing all cost categories in excess of \$50,000 and a list of all subcontractors and suppliers. Owner must review all submissions received in a timely manner. All submissions must be approved by Owner before becoming the basis of any payment.

8.3. APPLICATIONS FOR PAYMENT.

When the Progress Payment Milestones are met, Contractor must submit to Owner an itemized Application for Payment for Work using Document G702 and G703 by The American Institute of Architects or similar document, completed in accordance with the Payment Schedule. As Contractor is required to order, obtain, and store materials and equipment sufficiently in advance of its Work at no additional cost or advance payment from Owner, to ensure that there will be no delays, payment by Owner for stored material may be made only in unusual circumstances where Owner specifically approves the payment in writing. Contractor warrants that title to all Work covered by an Application for Payment will pass to Owner no later than the time of payment. If payments are to be made for materials and equipment that are not incorporated in the Work on the Project but delivered and suitably stored at a Project Site or at some other location agreed upon in writing by Owner, the payments must be conditioned upon submission by Contractor, Subcontractor, or vendor of bills of sale and such other documents satisfactory to Owner to establish Owner's title to such materials or equipment free of all liens and encumbrances, and otherwise protect Owner's interest including, without limitation, providing appropriate insurance and transportation to the Project Site. All stored items must be inventoried, specified by identification numbers (if applicable), released to Owner by the sureties and Subcontractors, and, if stored off the Project Site, stored only in a bonded warehouse.

8.4. REVIEW OF PROGRESS PAYMENT.

Owner will, within seven business days after receiving Contractor's Application for Payment, either approve such payment or notify Contractor in writing of Owner's reasons for withholding approval in whole or in part. Review of the Contractor's Application for Payment by Owner is based on Owner's observations at the Site and the data comprising the Application for Payment whether the Work has progressed to the point indicated and whether, to the best of Owner's knowledge, information, and belief, the quality of the Work is in accordance with the Contract Documents.

8.5. DECISIONS TO WITHHOLD PAYMENT.

Owner may decide to withhold payment in whole, or in part, to the extent reasonably necessary to protect Owner. In addition, Owner may withhold payment, in whole, or in part, to such extent as may be necessary to protect Owner from loss because of any acts or omissions by Contractor, including any rights to withhold mentioned in the Contract Documents.

8.6. PROGRESS PAYMENTS.

8.6.1. Payment Schedule. Progress payments must be made in accordance with Public Contract Code section 20104.50. Owner will pay the Contract Sum to Contractor on a per Project Site basis in accordance with the following schedule and after Contractor has complied with the requirements of Section 8.3 and the Contract Documents:

Payment 1 (“**Design Payment**”): 15% of the Contract Sum upon Contractor’s completion of all work required in the Governmental Approval Phase (see Subsection 7.2.2 of this Exhibit A and all provisions related thereto).

Payment 2 (“**Procurement Payment**”): 40% of the Contract Sum during the Construction Phase (see Subsection 7.2.3 of this Exhibit A and all provisions related thereto) upon delivery on the Project Sites of all major equipment, which shall include support structures, switchgear, panelboards, disconnect switches, inverters, batteries, and SCADA systems, and upon Contractor providing Owner with all documents required of Contractor pursuant to Section 8.3.

Payment 3 (“**Construction Payment**”): 20% of the Contract Sum upon Contractor’s completion of all work required in the Construction Phase (see Subsection 7.2.3 of this Exhibit A and all provisions related thereto).

Payment 4 (“**Commissioning Payment**”): 15% of the Contract Sum upon Contractor’s completion of all work in the Commissioning Phase (see Section 7.2.4 of this Exhibit A and all provisions related thereto).

Payment 5 (“**Inspection Payment**”): 5% of the Contract Sum upon submission to Inspector by Contractor of all forms necessary for Inspector’s approval / certification of the Project. Notwithstanding the release of such funds upon Contractor’s submission of documentation to Inspector, Contractor shall continue to be obligated to respond to all inquiries and requests of Owner, Owner’s agents or Inspector made in connection with Inspector’s approval / certification of the Project.

Payment 6 (“**Final Payment**”): 5% of the Contract Sum upon Owner’s filing of the Notice of Completion on the Project, less any amount or amounts properly withheld by Owner in accordance with the Contract Documents, until such time, if any, that such amount or amounts may be or are required to be released in accordance with the Contract Documents.

8.6.2. Waivers and Releases. Within 15 days after receiving each progress payment and the Final Payment, Contractor must provide (and cause its suppliers and Subcontractors, and their subcontractors to provide) to Owner an unconditional lien waiver and release upon receipt of payment (related to progress payment or Final Payment as applicable) in a form substantially similar to the forms attached hereto as Exhibit I.

8.7. COMPLETION OF THE WORK.

After receiving Contractor's request for final inspection, Owner will make an inspection to determine whether the Work, or designated portion thereof, is complete. If Owner's inspection discloses any item which is not completed in accordance with the requirements of the Contract Documents, Contractor shall, before Owner's issuance of the Notice of Completion, diligently complete or correct such item.

8.8. PARTIAL OCCUPANCY OR USE.

Owner may occupy or use any completed or partially completed portion of the Work at any stage without accepting that work and without waiving rights to claim damages as to that work. Owner and Contractor must agree in writing to the responsibilities assigned to each of them for payments, security, maintenance, heat, utilities, damage to the Work, insurance, the period for correction of the Work, and the commencement of warranties required by the Contract Documents.

8.9. ACCEPTANCE, NOTICE OF COMPLETION, AND FINAL PAYMENT.

If Owner's representatives find the Work fully performed under the Contract Documents, they will so notify Contractor, who will then submit to Owner its final application for progress payment. After Owner's representatives find the Work fully performed, Owner's governing body should accept the Work as fully complete. After completion, Owner may record a Notice of Completion with the County Recorder in accordance with Civil Code section 3093. Owner must pay the retainage pursuant to Public Contract Code section 7107. Any application for final progress payment must be accompanied by the same details required for regular progress payments. Acceptance of final progress payment constitutes a waiver of Claims except for those previously identified in writing and identified by that payee as unsettled at the time of final payment.

8.10. SUBSTITUTION OF SECURITIES.

In accordance with Public Contract Code section 22300, Owner will permit the substitution of securities for any monies withheld by Owner to ensure performance under the Contract. At the request and expense of Contractor, securities equivalent to the amount withheld may be deposited with Owner, or with a state or federally chartered bank as the escrow agent, who will then pay such monies to Contractor. Upon completion of the Contract, the securities must be returned to Contractor. Securities eligible for investment under this section include those listed in Government Code section 16430, bank or savings and loan certificates of deposit, interest-bearing, demand-deposit accounts, standby letters of credit, or any other security mutually agreed to by Contractor and Owner. Contractor is the beneficial owner of any securities substituted for monies withheld and shall receive any interest thereon. Any escrow agreement used shall be substantially similar to the form set forth in Public Contract Code section 22300.

9. ARTICLE 9 - PROTECTION OF PERSONS AND PROPERTY

9.1. EMERGENCIES.

In an emergency affecting the safety of persons or property, Contractor must take any action necessary, at Contractor's discretion, to prevent threatened damage, injury, or loss. Contractor must promptly report in writing to Owner all accidents arising out of or in connection with the Work, which caused death, personal injury, or property damage, giving full details, and statements of any witnesses. In addition, if death, serious personal injuries, or serious property damages are caused, the accident shall be reported immediately by telephone or messenger to Owner.

9.2. HAZARDOUS MATERIALS.

In the event Contractor encounters or suspects the presence on the Site material reasonably believed to be asbestos, polychlorinated biphenyl (PCB), or any other material defined as being hazardous by Health and Safety Code section 25249.5, which has not been rendered harmless, Contractor must immediately stop Work in the area affected and report the condition to Owner in writing, whether or not such material was generated by Contractor or Owner.

9.3. PERFORMANCE AND PAYMENT BONDS.

Unless otherwise specified in the Contract Documents, before commencing any portion of the Work, Contractor must apply for and furnish Owner separate payment (Exhibit E) and performance (Exhibit F) bonds for its portion of the Work which cover 100% faithful performance of and payment of all obligations arising under the Contract Documents and/or guaranteeing the payment in full of all claims for labor performed and materials supplied for the Work. Only bonds executed by admitted Surety insurers as defined in Code of Civil Procedure section 995.120 are acceptable. The surety insurers must, unless otherwise agreed to by Owner in writing, at the time of issuance of the bonds, have a rating not lower than "A" as rated by A.M. Best Company, Inc. or other independent rating companies. Owner may approve or reject the surety insurers selected by Contractor and require Contractor to obtain bonds from surety insurers satisfactory to Owner.

10. ARTICLE 10 - UNCOVERING AND CORRECTION OF WORK

10.1. UNCOVERING OF WORK.

If a portion of the Work is covered contrary to Inspector's request, Owner's request, or to requirements specifically expressed in the Contract Documents, it must, if required in writing by Inspector or Owner, be uncovered for Inspector's or Owner's observation and be replaced at Contractor's expense without change in the Contract Sum or Time.

10.2. CORRECTION OF WORK; WARRANTY.

10.2.1. Warranty and System Warranty Period. Contractor warrants and guarantees to Owner that, for the duration of the period commencing on the acceptance by Owner's governing body of the Work (see Section 8.9 of this Exhibit A) or a designated portion thereof, or by terms of an applicable special warranty required by the Contract Documents, and continuing thereafter for 2 years ("**System Warranty Period**"), all work on the Project will be substantially free from defects in design, workmanship, materials and equipment, and shall be in accordance with the requirements of the Contract Documents. Work on the Project not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective by Owner. Owner must provide written notice of any warranty item to Contractor before expiration of the System Warranty Period, and if written notice is provided within the System Warranty Period, Contractor's obligation to correct the warranty item to conform to the requirements of the Contract Documents will continue until the correction is made and completed. Contractor must ensure that no act or omission of Contractor limits or voids any existing warranty on existing Owner equipment or system, and take reasonable steps to ensure any such existing warranties are preserved in full.

10.2.2. Notice and Corrective Work.

10.2.2.1. During the System Warranty Period, if any of the work on the Project is found to be not in accordance with the Contract Documents or otherwise defective, Owner must provide Contractor with written notice thereof.

10.2.2.2. Within two business days of Contractor's receipt of Owner's notice, Contractor must provide Owner with a written response, acknowledging receipt of the notice and providing Owner with an action plan to remedy the defect or stating the grounds for denial of the warranty work request. Within two business days of Owner's receipt of Contractor's written response, Owner must provide Contractor with any objections or responses thereto. If the Parties are unable to agree regarding Owner's warranty work request or a plan of action for the corrective work, the Parties will proceed in accordance with their dispute resolution options under the Contract Documents and at law. The System Warranty Period will be extended with respect to Contractor's corrective work performed pursuant to this provision by one year, starting on the date that the corrective work is completed in accordance with the plan of action and approved by Owner.

10.2.2.3. Unless the Parties agree in writing otherwise, Contractor must perform and commence all corrective work stated in the plan of action no later than 10 days following the date of the plan of action. An expiration of the System Warranty Period during the performance of the correct work does not release Contractor from its obligation to correct the work so long as Owner provided written notice of the warranty work within the System Warranty Period.

10.2.2.4. These corrective requirements on Contractor apply regardless of whether the nonconforming work was observed before or after Completion and whether or not fabricated, installed, or completed. Contractor bears costs of correcting the rejected Work, including additional testing, inspections, and compensation for Inspector or the costs and expenses for professional services borne by Owner made necessary thereby.

10.2.2.5. Contractor must remove from the Project Sites portions of the Work which are not in accordance with the requirements of the Contract Documents and are not corrected by Contractor or accepted by Owner. If Contractor fails to correct nonconforming Work within a reasonable time, Owner may correct it in accordance with Section 2.4 of this Exhibit A. Contractor bears the cost of correcting destroyed or damaged construction of Owner or separate contractors, whether completed or partially completed, caused by Contractor's correction or removal of the nonconforming Work. Nothing in this Section may be construed to establish a period of limitation with respect to other obligations which Contractor might have under the Contract Documents.

10.3. MANUFACTURER WARRANTIES.

Contractor must, for the protection of Owner, use commercially reasonable efforts to obtain from all vendors and Subcontractors from which Contractor procures machinery, equipment or materials or services, warranties and guarantees with respect to such machinery, equipment, materials or services, which must be made available to Owner to the full extent of the terms thereof. At all times during performance of work under the Contract Documents, Contractor must perform the work in a manner consistent with all such warranties and may not perform any actions that may violate or void such warranties. All applicable manufacturers' warranties that can be extended should be extended to a minimum of 15 years if the standard warranty is not 15 years in length. A list of all applicable manufacturers' warranties is attached to this Agreement as Exhibit D.

11. ARTICLE 11 - MISCELLANEOUS PROVISIONS

11.1. TESTS AND INSPECTIONS.

Tests, inspections, and approvals of portions of the Work required by the Contract Documents will comply with California Code of Regulations Title 24, and with all other laws, ordinances, rules, regulations, or orders of public authorities having jurisdiction.

11.1.1. Independent Testing Laboratory. When required by the scope of the Project, Owner will select an independent testing laboratory to conduct all required tests and inspections, and, except as specifically provided otherwise in the Contract Documents, pay for all associated costs. Selection of the materials required to be tested shall be made by the laboratory or Owner and not by Contractor. Any costs or expenses of inspection or testing incurred outside of the Inspection Distance Limitation stated in E on the Cover Page or not located in a contiguous county to the Project Site on which the inspection or testing is required, whichever distance is greater, shall be paid for by Owner, and Owner shall then invoice to Contractor and Contractor shall make payment thereof within 30 days after Contractor receives the invoice; if Contractor fails to do so, Owner may withhold the amount from any payment due or to be due to Contractor under the Contract.

11.1.2. Advance Notice to Inspector. Contractor must notify Inspector, Owner and Owner's representative a sufficient time but not shorter than two working days in advance of its readiness for required observation or inspection so that Inspector may arrange for same. Contractor must notify Inspector a sufficient time in advance of the manufacture of material to be supplied under the Contract Documents that must, by terms of the Contract Documents, be tested in order that Inspector may arrange for the testing of the material at the source of supply.

11.1.3. Testing Off-Site. Any material shipped by Contractor from the source of supply, before having satisfactorily passed such testing and inspection or before the receipt of notice from Inspector that such testing and inspection will not be required, shall not be incorporated in the Project.

11.1.4. Additional Testing or Inspection, and Costs Related Thereto.

11.1.4.1. If Inspector, Owner, or public authority having jurisdiction over the Project determines that any portion of the work on the Project require additional testing, inspection, or approval, Inspector will, upon Owner's written authorization, arrange for such additional testing, inspection, or approval. Owner will bear such costs except in paragraph 12.4.4.2, below.

11.1.4.2. If the testing or inspection of work on the Project reveal that the work does not comply with the Contract Documents, Contractor bears all costs arising from such failure, including those of re-testing, re-inspection, approval, or re-approval, including, but not limited to, compensation for services and expenses of Inspector, testing laboratory, and any other professionals or entities retained by Owner. Any such costs must be paid for by Owner, and Owner will then invoice to Contractor and Contractor must make payment thereof within 30 days after Contractor receives the invoice; if Contractor fails to do so, Owner may withhold the amount from any payment due or to be due to Contractor under the Agreement.

11.1.5. Costs for Premature Test. If Contractor requests any test or inspection for any portion of the Project and that portion is not ready for the inspection, Owner may invoice Contractor for all costs and expenses relating to the testing or inspection including, without limitation, compensation for services and expenses of Inspector, testing laboratory, and any other professionals or entities retained by Owner. Any such costs must be paid for by Owner, and Owner must then invoice to Contractor and Contractor must make payment thereof within 30 days after Contractor receives the invoice; if Contractor fails to do so, Owner may withhold the amount from any payment due or to be due to Contractor under the Contract.

11.1.6. Tests and Inspections Not to Delay Work. Tests and inspections conducted pursuant to the Contract Documents must be made promptly to avoid unreasonable delay in the work on the Project.

12. ARTICLE 12 - TERMINATION OR SUSPENSION OF THE AGREEMENT

12.1. TERMINATION BY OWNER FOR CAUSE.

Owner may terminate the Agreement if Contractor: (A) refuses or fails to supply enough properly skilled workers or proper materials; (B) fails to make payment to Subcontractors for materials or labor in accordance with Public Contract Code section 10262 or Business and Professions Code section 7108.5, as applicable; (C) disregards laws, ordinances, rules, regulations, or orders of a public authority having jurisdiction; or (D) otherwise is in substantial breach of a provision of the Contract Documents.

When any of the above reasons exist, Owner may, without prejudice to any other rights or remedies of Owner and after giving Contractor and Contractor's surety, if any, written notice of seven days, terminate Contractor's control over the Contract and may, subject to any prior rights of the surety, (A) take possession of the site and of all material, equipment, tools, and construction equipment and machinery thereon owned by Contractor, (B) accept assignment of subcontracts, and (C) complete the Work by whatever reasonable method Owner may deem expedient.

If the unpaid balance of the Contract Sum exceeds costs of completing the Work, including compensation for professional services and expenses made necessary thereby, such excess will be paid to Contractor. If such costs exceed the unpaid balance, Contractor must pay the difference to Owner. This payment obligation survives completion of the Agreement.

12.2. SUSPENSION OR TERMINATION BY OWNER FOR CONVENIENCE.

Owner may, without cause, order Contractor in writing to suspend, delay, or interrupt the Work in whole or in part for such period of time as Owner may determine. An adjustment must be made for increases in the cost of performance of the Contract, including profit on the increased cost of performance caused by suspension, delay, or interruption. No adjustment will be made to the extent (A) that performance is, was, or would have been so suspended, delayed, or interrupted by another cause for which Contractor is responsible; or (B) that an equitable adjustment is made or denied under another provision of this Agreement. Adjustments made in the cost of performance may have a mutually agreed fixed or percentage fee.

Owner may, at any time, terminate the Agreement for Owner's convenience and without cause. Upon receipt of written notice from Owner of such termination for Owner's convenience, Contractor must (1) cease operations as directed by Owner in the notice; (2) take actions necessary, or that Owner may direct, for the protection and preservation of the Work; and (3) except for Work directed to be performed before the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders. In case of such termination for Owner's convenience, Contractor may receive payment for Work executed, and costs incurred by reason of such termination, along with reasonable overhead and profit on the Work not executed.

12.3. TERMINATION BY CONTRACTOR.

Contractor may not terminate for convenience. Contractor may only terminate for cause if the Work is stopped by others for a period of 90 consecutive days through no act or fault of Contractor, a Subcontractor of any tier, their agents or employees, or any other persons performing portions of the Work for whom Contractor is contractually responsible, **and** the Work was stopped by others for one of the following reasons: (A) Issuance of an order of a court or other public authority having jurisdiction which requires Owner to stop all Work; or (B) an act of government, such as a declaration of national emergency, making material unavailable which requires Owner to stop all Work. If such grounds exist, Contractor may serve written notice of such belief on Owner and demand a meet-and-confer conference to negotiate a resolution in good faith within 20 days of receipt of such notice. If such conference does not lead to resolution and Contractor believes the grounds for termination still exist, Contractor may terminate the contract and recover from Owner payment for Work executed and for reasonable verified costs with respect to materials, equipment, tools, construction equipment, and machinery, including reasonable overhead, profit, and damages for the Work executed, but excluding overhead (field and home office) and profit for (i) Work not performed and (ii) the period of time that the Work was stopped.

12.4. NOT A WAIVER

Any suspension or termination by Owner for convenience or cause does not act as a waiver of any claims by Owner against Contractor or others for damages based on breach of contract, negligence or other grounds.

12.5. EARLY TERMINATION

Notwithstanding any provision herein to the contrary, if for any fiscal year of this Contract the governing body of Owner fails to appropriate or allocate funds for future periodic payments under the Contract after exercising reasonable efforts to do so, Owner may upon 30 days' notice, order work on the Project to cease. Owner will remain obligated to pay for the work already performed but is not obligated to pay the balance remaining unpaid beyond the fiscal period for which funds have been appropriated or allocated and for which the work has not been done.

**EXHIBIT B
TO ENERGY SERVICES AGREEMENT**

EXHIBIT B TO ADD - GENERAL CONDITIONS AND TECHNICAL SPECIFICATIONS

EXHIBIT B GENERAL CONDITIONS AND TECHNICAL SPECIFICATIONS

This EXHIBIT B is a summary of the scope of work and is not all inclusive of terms and conditions of the Agreement.

Table of Contents

EXHIBIT B GENERAL CONDITIONS AND TECHNICAL SPECIFICATIONS	1
1. PROJECT OVERVIEW.....	3
2. GENERAL REQUIREMENTS	3
2.1 Project Management	3
2.2 District Project Objectives.....	3
2.3 Communication Protocol	4
2.4 Unused.....	5
2.5 BESS Sizing	5
2.6 Microgrid Configuration.....	5
2.7 Incentives.....	5
2.8 Physical Site Investigation & Project Feasibility Assessment.....	5
2.9 Permitting, Codes, Regulatory Compliance.....	6
2.10 Compliance with The California Environmental Quality Act (“CEQA”)	7
2.11 Procurement.....	7
2.12 Construction.....	7
2.13 Commissioning.....	7
2.14 Distribution Utility Interconnection.....	7
2.15 Unused.....	8
2.16 Unused.....	8
2.17 Unused.....	8
2.18 Unused.....	8
3. ENGINEERING AND DESIGN REQUIREMENTS	8
3.1 Design Codes	9
3.2 General Requirements.....	9
3.3 Engineering Design Packages and Project Execution Plan	12
3.4 Design Drawings.....	13
4. EQUIPMENT	16
4.1 Standards.....	16
4.2 Factory Testing	16
4.3 Acceptance and Care	16
4.4 NEMA Rating	16
4.5 Nameplates and Labeling.....	16
4.6 Products – Approved Manufacturers and General Product Requirements	17
5. COMMUNICATIONS AND MONITORING SYSTEMS.....	19
5.1 Performance Monitoring & Reporting Service.....	19
5.2 Equipment and Components	19
5.3 Remote Access Monitoring Portal	20
6. CONSTRUCTION.....	21
6.1 Site Safety and Security.....	22
6.2 Access to and Use of Project Sites	22
6.3 Drawings.....	23
6.4 Work-Time Constraints.....	23
6.5 General Requirements.....	24
7. FINAL PROJECT CLOSEOUT	27
7.1 Closeout Activities.....	27
7.2 Final Binder	27
8. OPERATIONS AND MAINTENANCE	29

ATTACHMENT A - PRELIMINARY ENGINEERING DESIGN PACKAGE 30

ATTACHMENT B - SYSTEM SITE ASSESSMENT TABLE 31

ATTACHMENT C - PROJECT SCHEDULE..... 32

ATTACHMENT D - COMMISSIONING REPORT(S) 34

ATTACHMENT E - NOTICE TO PROCEED TEMPLATE 52

1. PROJECT OVERVIEW

As set forth in detail below, Contractor shall be responsible for supplying, at Contractor's sole cost, all expertise, labor and materials necessary to construct, install, commission and operate the System, including but not limited to: planning, permitting, designing, engineering, procuring, delivering, installing, constructing, interconnecting, commissioning, and operating as well as providing warranties and maintenance. Access to the Project Sites of the System shall be subject to approval of District.

Contractor shall be solely responsible for all work required to complete the Project including but not limited to: (a) project management including design, engineering, submittals, construction, interconnection, commissioning and Distribution Utility sign off; (b) procurement of all materials and equipment; (c) design and engineering including civil, structural, electrical, seismic and wind loading requirements and fire protection requirements; (d) permitting and environmental compliance with the current version of all applicable codes and standards; (e) Distribution Utility interconnection requirements compliance; (f) site preparations including but not limited to grubbing, clearing, grading, roads, dust control, drainage requirements, construction wastewater and storm water disposal, removing excess debris, all final site preparation, and all other requirements set forth in the Agreement; (g) meters, monitoring, and Data Acquisition System ("**DAS**"); (h) performance analysis and performance guarantee for the BESS; (i) conformance to manufacturers' installation requirements and warranty terms; (j) acceptance testing, commissioning, interconnection signoff and Permission to Operate ("**PTO**") by the Distribution Utility; (k) construction closeout including punch list, as-built drawings and documents package, and site cleanup; (l) operation and maintenance under the terms of the O&M Agreement; (m) site security requirements; (n) safety plans and measures per District approval. In addition to these general responsibilities, Contractor shall be responsible for all additional requirements as set forth in this Agreement and all Exhibits and Attachments, including but not limited to this Exhibit B – General Conditions and Technical Specifications.

Contractor shall also be responsible for providing District with copies of Contractor's Operations and Maintenance ("**O&M**") manuals, testing reports, start-up procedures, warranties, guarantees, and commissioning reports corresponding to the Work. Contractor shall execute all of its obligations in a manner which reasonably minimizes interference and inconvenience to District. Contractor shall regularly report status of Contractor's execution of its obligations under this Agreement to District.

2. GENERAL REQUIREMENTS

2.1 Project Management

Contractor shall act as the general contractor and is responsible for overall safety on each Project Site. Contractor shall conduct all project management activities required to complete the Project, including coordination efforts with District's representative, the Distribution Utility, inspectors, permitting agencies, suppliers, subcontractors, Contractor's office, field Project staff and any other third parties that are involved in or impacted by the Project. The installation must be "turn-key," requiring a minimum level of supervision and project management by District, including all materials, equipment and labor, completed and commissioned per the specifications and general conditions contained herein. All Distribution Utility related interconnection work, fees, and installations necessary to make the System operational will be the sole responsibility of the Contractor in accordance with any requirements of the Distribution Utility.

2.2 District Project Objectives

District requires that Contractor perform each of the following in accordance with the Agreement:

- A. Ensure that construction activities and Project installation and operation are performed safely, comply with all applicable laws, and do not result in any adverse effect on District staff, surrounding persons and property, existing facilities, local power quality, local data systems or daily operations at any Project Site throughout the life cycle of the installation. Manage construction and operation activities so that they minimally disrupt the calendar of operations at each Project Site.
- B. Create a definitive scope of work and project schedule for the Project and manage the entire Project, including but not limited to contracts, design, engineering, permitting, approvals, procurement, pre-construction, distribution utility interconnection, installation, testing, commissioning, performance validation, and on-going maintenance and operation in accordance with the scope of work and Project schedule. Ensure work is completed when needed to meet Project deadlines.
- C. Design and implement battery which optimizes District bill savings, while also providing backup power to the Site using proven technology that complies with all relevant codes and regulations.
- D. Design and implement the Systems sized in compliance with the distribution utility's applicable rate structure, energy consumption, and load profiles for each Project Site, and in compliance with all applicable distribution utility requirements. Ensure that all the Systems are designed and installed to avoid distribution utility upgrades and facilitate ensuring that such costs are avoided throughout the entire Project.
- E. Ensure that the Project meets all financial and environmental incentive requirements and deadlines (such as SGIP).
- F. Ensure that all Project design and construction activities are coordinated with facility operations and/or construction activities at Project Site and are in compliance with Project Site provided written work rules, safety requirements, and specifications at all times.

2.3 Communication Protocol

Throughout the entire Project timeline, the representative selected by District will be Contractor's main source of contact regarding any and all Project related issues. At all times between the release date of the Request for Proposals and Project Final Completion date, Contractor shall include District's representative in all communications with District. District's representative will act as a liaison, facilitator and intermediary between Contractor and District.

Unless otherwise stated in the Agreement Documents and subject to change by District, the Parties shall meet bi-weekly during the design phase of the Project and weekly during the construction phase of the Project to, among other things, review work performed to date and to be performed. Contractor shall organize the meeting, prepare, and distribute meeting notes. Meeting minutes shall be based on a mutually agreed to meeting minutes template, and shall include a three-week look-ahead schedule, RFI log, Change Order log and Submittal Log with two week look-ahead priority list(s). Meeting minutes shall be updated during the meeting and distributed at the end of the meeting. District shall have five business days after District's receipt of such minutes to object to them in writing and provide corrections in writing. A quorum of meeting attendees will be named at the first meeting but may be modified as necessary by District. The named quorum shall be in attendance in all Project meetings. A

pre-construction meeting shall be held prior to any work being performed on the site with all required parties.

2.4 Unused

2.5 BESS Sizing

It is the sole responsibility of the Contractor to ensure that the sizing of the total installed system capacity (kW and kWh) per Project Site maximizes electricity bill savings for the District and provides the Estimated Critical Load Support and Duration.

“Estimated Critical Load Support and Duration” shall mean Contractor’s estimated number of kW that the BESS shall provide continuously for a minimum duration to be coordinated with the District, based on the Contractor’s modeling of system performance.

2.6 Microgrid Configuration

All BESS equipment installed as part of this Project shall provide backup power, shall be fully compatible with a Microgrid, and easily integrated into a Microgrid following Commercial Operation

2.7 Incentives

Unless specifically stated otherwise in other Agreement Documents, Contractor shall prepare and submit to all applicable agencies, on behalf of District, or assist District in doing so directly, all applications, proof of progress submittals, and claim forms and documentation necessary for any environmental or financial incentives and rebates, including but not limited to, the Self Generation Incentive Program (“*SGIP*”); provided that District shall have the opportunity to review, comment on, and approve all such applications and documentation prior to submission by Contractor. If District shall decide to prepare and submit such documents, Contractor will coordinate and provide District promptly upon District’s written request all documents reasonably necessary for District to do so. Contractor shall not charge any additional fee for its services. Unless stated otherwise in other Agreement Documents, District shall pay for all fees required to file the applications. All rebates or incentives available in connection with the BESS(s) are owned by District.

2.8 Physical Site Investigation & Project Feasibility Assessment

Contractor shall read and become knowledgeable with all documentation available concerning the Project Sites and visit the Project Sites to assess its conditions and logistics, including but not limited to all Distribution Utility interconnection related requirements. Contractor shall conduct feasibility and configuration assessments, environmental assessments, and all other inspections of the Project Sites to determine that the Project Sites can support the installation and interconnection of the Systems. Contractor must visit the Project Sites to ascertain site conditions, accuracy of provided drawings and feasibility of design. Contractor shall be solely responsible to ensure that each Project Site’s soil conditions and terrains are favorable for Project construction.

Although District may provide historical information regarding the Project Sites, District makes no representation as to the accuracy of the information about the Project Sites provided in the RFP package or otherwise, including data, drawings and reports developed by third parties. Except as otherwise provided in the Agreement with respect to information provided by District, Contractor shall rely solely on its own due diligence to discover and confirm existing conditions at the Project Sites. Contractor

shall report any discovered and previously unknown site conditions of a substantial nature to District within five (5) Days of discovery.

Contractor shall be solely responsible for ensuring the existing Project Sites' electrical distribution equipment, including but not limited to the main service switchgear and Distribution Utility transformer, will support the interconnection of the Systems. Contractor is responsible for all scope, costs and designs relating to upgrades to the existing electrical system required to accommodate the Systems installation and interconnection, and has included these upgrades in its scope, costs and design drawings.

Contractor shall confirm that each System will be interconnected to the correct meter at each Project Site by validating the meter and service account identification numbers (SAID) with the Distribution Utility.

District operates under several environmental permits issued by various agencies. To the extent that District has provided such a permit to Contractor in advance of the Effective Date, and due to an action, inaction, or negligence by Contractor, District becomes subject to non-compliance penalties, the cost of such penalties shall be borne by Contractor.

Contractor shall identify if any third-party site assessments are required and be responsible for obtaining all required studies at their sole cost and expense. Contractor shall assume any and all costs and risks associated with physical Project Site conditions, real estate constraints and environmental site assessment. Reports which may be required to be obtained by Contractor at Contractor's judgment (unless otherwise noted below) and at the Contractor's sole cost include, but are not limited to:

- Structural Report
- Geotechnical Report
- Title Reports / ALTA Surveys
- Boundary Surveys
- Topographic Surveys
- Underground Utility Survey
- Arc Flash Study / Coordination Study
- Site Electrical Service Assessments
- Environmental Studies

These reports must be obtained when requested by District or any other Governmental Authority having jurisdiction, if required by original scope of project otherwise should result in a change order.

2.9 Permitting, Codes, Regulatory Compliance

Contractor shall obtain, oversee and adhere to all required permissions for Project construction and operation by obtaining approvals from all Governmental Authorities having jurisdiction over the Project, including, but not limited to: District, the Distribution Utility, incentive authorities, the California Energy Commission ("**CEC**"), **Carpinteria-Summerland Fire Protection District**, California Occupational Safety and Health Administration ("**Cal OSHA**"), right-of-way permits, easement agreements and other codes and best practices. Specifically, Contractor shall obtain and submit all documents to achieve and maintain permission to operate with all required Governmental Authorities. In addition to stamped and approved plans, Contractor shall provide District with installation compliance confirmation letters from all authorities having jurisdiction within five (5) Days of receipt.

2.10 Compliance with The California Environmental Quality Act (“CEQA”)

Contractor agrees to coordinate its Work with that of any CEQA consultant(s) retained by District, to provide any reasonably available information such as current elevations and schematic drawings for use in CEQA compliance documents, and to incorporate any mitigation measures adopted by District into the Project design at no additional cost to District.

2.11 Procurement

Contractor shall procure all equipment and services required for Project design, construction, commissioning, system monitoring, warranties, operation and maintenance, as described in this Agreement and as shown in District-approved final design engineering drawings, specifications and data sheets. Any proposed changes or substitutions must be presented to District in standard submittal format with detailed explanations and instructions for review, comment and approval. District approval of any of the submittals provided by Contractor, including drawings, does not excuse Contractor from their responsibility to meet all safety requirements, applicable codes and standards requirements, requirements of all Governmental Authorities and the requirements of the Agreement including this Exhibit B.

2.12 Construction

Contractor shall conduct all construction and construction management work per the Project scope, schedule and per the requirements of this Agreement. Any proposed changes that represent a deviation from scope or schedule must immediately be brought to District’s attention for review. All work must be performed and supervised by skilled workers trained and experienced in the installation of a battery energy storage system in accordance with equipment manufacturers’ installation requirements. Contractor shall effectively manage the schedule and coordinate construction activities around District’s maintenance activities and other construction projects where applicable.

2.13 Commissioning

Contractor shall conduct all activities required for proper testing and commissioning of the Systems and any related installations/systems. Commissioning will include testing of all systems to ensure proper operations per the design standards and testing parameters. Contractor is required to verify that: (i) each System is functioning as expected within acceptable parameters and as designed at a nameplate capacity; and (ii) meets expected performance requirements described within the Agreement. Contractor shall manage all necessary final inspections with all Governmental Authorities having jurisdiction over the Project, the Distribution Utility, District representatives, and any other required inspectors. Contractor shall also be responsible for completing the Commissioning Report included as Attachment D and submitting it to District for review and approval. Contractor will notify District no less than five (5) Days prior to the commencement of any testing and/or inspections and District and/or its representative will have the right to observe all such tests and/or inspections. As part of the commissioning activities, Contractor must confirm that no negative impacts are experienced by existing facilities that connect or interface with the new installations and systems. Contractor shall be solely responsible for resolving all issues that arise.

2.14 Distribution Utility Interconnection

Contractor is responsible for coordinating and implementing all requirements related to the interconnection of the Systems with the Distribution Utility, which shall include Distribution Utility

provided and installed facilities and Site facilities, at Contractor's sole cost and expense. Contractor will coordinate with the Distribution Utility and District to meet all milestones for the Project required by any Interconnection Agreement. Contractor is responsible for compliance with all milestones, including payment milestones to the Distribution Utility for design and installation services provided by the Distribution Utility. Contractor shall be responsible for obtaining written Permission to Operate for the Systems from the Distribution Utility and activate the system to begin operating in compliance with this Agreement. In addition, Contractor shall be responsible for all on-going terms, obligations and costs described in the Interconnection Agreement, and any other necessary permit signoffs from any Governmental Authorities having jurisdiction over the Project, to operate the Systems in parallel with the Distribution Utility grid.

For the purposes hereof, ***"Interconnection Agreement"*** shall mean an agreement entered into, by and between District and the Distribution Utility which agreement shall provide for (i) each System to be interconnected with the Distribution Utility's electricity distribution system, (ii) for energy to flow from each System to such system and (iii) for energy to flow from such system to the Delivery Point, as applicable, under the provisions of the Distribution Utility's tariff. ***"Delivery Point"*** shall mean the Energy delivery point within Site's electrical system on District's side of the Site's Distribution Utility meter, as designated by the physical interface of the System with the Site's electrical system.

Contractor shall also be responsible for coordinating the desired rate tariff changes with the Distribution Utility for each System. Desired rate tariffs for each Distribution Utility meter are defined in the Site Assessment Tables. Contractor will be responsible for ensuring that each System meets the requirements for inclusion in the desired rate tariffs and will promptly inform District if there is any discrepancy between such requirements and the specifications for each System set forth in this Agreement. Rate changes shall occur as soon as possible following Permission to Operate. Contractor shall be responsible for ensuring that the rate tariff change has taken place for each Distribution Utility meter and providing confirmation of the rate tariff change to District.

2.15 **Unused**

2.16 **Unused**

2.17 **Unused**

2.18 **Unused**

3. ENGINEERING AND DESIGN REQUIREMENTS

Contractor shall, at its own cost and expense, (i) design, prepare and cause to be sealed all drawings and Engineering Design Packages, perform engineering studies and estimates and attend meetings as may be required (or arrange for design and engineering pursuant to a subcontract executed in accordance with this Agreement), for the construction of the Project and interfaces required by the Distribution Utility including, without limitation, sizing of equipment, communication systems and components, preparing specifications and calculations for equipment and material to be included in the Project, completing the work in accordance with this Agreement, providing administration and other services and items required to complete and deliver to District and Distribution Utility the design and Engineering Design Packages, calculations, studies, and drawings necessary to construct a fully integrated and operational Project, and (ii) provide services, attend meetings and prepare all necessary documents and permit applications required to obtain all Governmental Approvals, including, without limitation, coordinating with the Governmental Authorities, the Distribution Utility and other agencies regarding Governmental Approvals necessary for the completion of the Project, completing the permitting process beginning from the permit application

through to final approval and receipt of all Applicable Permits, all in accordance with this Agreement and its Exhibits, Applicable Law, Governmental Approvals, District requirements, Distribution Utility requirements, Engineering Design Packages, industry standards, the actual condition of the Sites and all requirements to be sufficient, complete and adequate in all aspects to enable the System to meet all operational requirements and obligations as outlined in this Agreement for a minimum fifteen (15) year design life.

3.1 Design Codes

The Project shall be designed and installed in accordance with the latest edition of all applicable codes, standards, and recommendations of the following agencies:

- ACI – American Concrete Institute
- AISC – American Institute of Steel Construction
- ANSI – American National Standards Institute.
- ASCE – American Society of Civil Engineers
- ASME – American Society of Mechanical Engineers
- ASTM – American Society for Testing and Materials
- CAL OSHA – California Occupational Safety and Health Administration
- CBC – California Building Code
- CEC – California Electrical Code
- CFC – California Fire Code
- Distribution Utility Manuals and Standards
- ETL – Electrical Testing Laboratories
- IAEI – International Association of Electrical Inspectors
- ICEA – Insulated Cable Engineer’s Association
- IEEE – Institute of Electrical and Electronic Engineers
- IPMVP – International Performance Measurements and Verification Protocol
- NEC – National Electrical Code
- NEMA – National Electrical Manufacturers Association
- NESC – National Electrical Safety Code
- NETA – National Electrical Testing Association
- NFPA – National Fire Protection Association codes, including but not limited to
 - o NFPA 101 – Life Safety Code
 - o NFPA 855 – Standard for the Installation of Stationary Energy Storage Systems
- UL – Underwriters Laboratories

3.2 General Requirements

3.2.1 Licensing

- (a) In all cases, engineers are to be properly licensed by the State of California.
- (b) District requires a minimum of a Class C-10 license be held by Contractor and/or their subcontractors.
- (c) Electrical, geotechnical, civil, structural and other engineering designs and reports are to be stamped and signed by a licensed engineer.

3.2.2 Unused

3.2.3 Site and General System Requirements

- (a) Inverters and batteries shall not be placed in locations subject to exposure to direct sunlight between the hours of 10:00AM and 4:00PM. Where inverters must be placed in locations that would be subject to direct exposure to sunlight during this window of time, they shall be provided with shade coverings or otherwise protected from continuous exposure to the sun.
- (b) Where applicable, the Project shall require a study, recommendations and stamp and sign off from a licensed structural engineer and a licensed geotechnical engineer.
- (c) Contractor shall address all Americans with Disabilities Act (“**ADA**”) requirements. Contractor shall be responsible for all costs associated with any ADA upgrades required.
- (d) Equipment pads shall be protected by bollards. Bollards shall be permanent unless removable bollards are required to facilitate access to equipment.
- (e) Contractor shall provide erosion control, weed abatement, and security for the Site throughout construction. Contractor shall remove any weeds via mechanical removal methods only.
- (f) Contractor shall be responsible for creating and performing all requirements of a Storm Water Pollution Prevention Plan (“**SWPPP**”), dust control plan, pollution mitigation plan, and all other plans required by all Governmental Authorities. At a minimum, any earthwork-related or fine grading activities are to be conducted at such times that minimize construction-related fugitive dust.
- (g) If adequate site fencing or equivalent is not in place, equipment pads, disconnect switches and all other equipment which is at risk for tampering shall be fenced. Fencing shall be eight feet (8’) high with two inch (2”) galvanized steel chain link fabric where in accordance with all local requirements.
- (h) Locks for all gates and electrical enclosures to be provided by Contractor but must be approved by District prior to procurement. All gates shall include provision for District and Contractor locks to allow for access by each entity.
- (i) Equipment pads shall be provided with two (2) 120VAC, 20A GFCI receptacles where alternative outlets are not readily available.
- (j) The Site is in a 100-year floodplain. Contractor will take appropriate precautions to prevent water damage to the Project, including determining and installing the batteries, inverters, electrical enclosures, and all other materials to be used in the Project at the appropriate height above grade to be above the 1-percent-annual-chance flood elevation.
- (k) An arc flash study shall be performed by Contractor. All required equipment labeling, fault current and coordination analysis, and recommendations for proper personal protective equipment (PPE) shall be followed in accordance with the results of the arc flash study.
- (l) Geotechnical studies, where required, must include soil corrosivity and thermal resistivity testing and evaluation. All work must include consideration for the results of the testing and evaluation.

3.2.4 Conduit and Wiring

- (a) All conductors shall be in conduit. Contractor shall not direct bury conductors unless explicitly approved by District in writing. All conduits shall be installed according to the requirement of the NEC and all Governmental Authorities.
- (b) Buried conduit shall be PVC and shall be covered and encased per NEC requirements.
- (c) All below grade horizontal and vertical bends of PVC conduit shall use long radius elbows. Bending of straight PVC conduit to avoid installation of long radius elbows will not be allowed.

- (d) Vertical risers of buried or encased PVC conduit shall transition to the metallic conduit type specified below no higher than twelve inches (12") above grade or top of concrete. Any exposed PVC shall be Schedule 80. If transition to metallic conduit is installed as soon as or just before the conduit is no longer buried or encased, use the appropriate conduit adapter and wrap metallic conduit in 10mil corrosion protection tape where exposed to soil or concrete.
- (e) Where exiting from the ground, all conduits shall enter enclosures from below and be made watertight. Finish with a silicone sealing compound.
- (f) All outdoor and above ground conduit shall be PVC coated.
- (g) All conduits located on rooftops will be supported using UV resistant polyethylene foam or synthetic rubber unless explicitly approved by District in writing. Wood supports are not permitted.
- (h) All conductors 8 AWG or smaller shall be copper. Code compliant aluminum conductors may be used for conductors larger than 8 AWG. All wiring that interfaces with any of District's equipment must be copper.
- (i) All wiring used for grounding shall be copper.
- (j) Ground lugs shall be mechanical or irreversible crimp, rated for direct burial, listed to UL 467 and/or UL 2703 and suitable for use with copper conductors.
- (k) All wiring shall be minimally rated to handle the voltage and current of the designed system.
- (l) All wiring shall be listed and labeled by a Nationally Recognized Testing Laboratory ("**NRTL**") in accordance with Underwriters Laboratories standards for its purpose and location.
- (m) All DC wire, other than module-to-module wire in a string that is spanning a gap less than three inches (3") wide shall be located in conduit.
- (n) Fuses shall be listed and labeled by an NRTL in accordance with UL 2579.
- (o) All termination equipment shall be rated for the conductor type, temperature, current and voltage of the conductor being terminated.
- (p) All conductors used for communication will be shielded cable with a drain.
- (q) Communications wiring shall be in separate conduits from the high voltage DC and AC wiring with sufficient separation to prevent interference.
- (r) Worst-case DC voltage drop shall be limited to 2.0% unless otherwise explicitly approved by District in writing. Contractor shall account for all horizontal and vertical distances and all wire gauge transitions.
- (s) Worst-case AC voltage drop for an individual inverter shall be limited to 2.0% for the BESS at maximum power, and weighted average AC voltage drop shall be limited to 2.0% at maximum power, unless otherwise explicitly approved by District in writing. The circuit shall be defined as all wiring from the inverter output to the Delivery Point. Contractor shall account for all horizontal and vertical distances and all wire gauge transitions.

3.2.5 Electrical Tie-In

- (a) The BESS Meter shall be identified on the preliminary and final drawings and shall be located within ten (10') feet of the Delivery Point unless an alternative location is approved in writing by District.
- (b) Should relocation of any circuit breakers be required to meet requirements of this Agreement, all scope, costs and designs are the responsibility of Contractor.
- (c) If motorized circuit breakers or similar equipment is required to isolate the electrical loads from the Distribution Utility for islanded Microgrid operation, all scope, costs and designs are the responsibility of Contractor.

- (d) If motorized circuit breakers or similar equipment is required to isolate non-Critical Loads from the islanded Microgrid, all scope, costs and designs are the responsibility of Contractor.

3.2.6 Structural

- (a) Structural engineers shall determine all code requirements and the Project shall be designed and installed in accordance with the latest edition of all applicable codes and standards.
- (b) Structural engineers shall perform a structural review of the existing structures and mechanical attachment details for all equipment to be located on the roof.
- (c) Equipment pads shall be a minimum of six inches (6") of concrete reinforced at twelve-inch (12") intervals with #5 rebar **unless otherwise directed by the structural engineer**. Equipment pad layouts shall include adequate spacing to accommodate maintenance activities for all equipment. A housekeeping pad elevated three inches (3") above the remaining pad surface will also be required.
- (d) Structural engineers are to specify the grade of steel used in all support structures. Mill certifications showing the identification of the steel to be used on the Project and the quality thereof shall be provided to District. Mill certifications shall be checked by Contractor prior to accepting delivery of any steel.

3.3 Engineering Design Packages and Project Execution Plan

Contractor and its subcontractors (as applicable) shall prepare and submit to District for their review and approval all drawings, assessments, reports, specifications, and all other necessary documents setting forth in detail all requirements for the construction of the Project. Contractor shall prepare Preliminary, 50%, 90% and 100% Engineering Design Packages as described herein. All engineering and installation drawings shall comply with current construction standards, codes and regulations, and adhere to all requirements of this Agreement. The system design will comply with all applicable laws and regulations. District approval of any of the submittals provided by Contractor, including drawings, does not excuse Contractor from their responsibility to meet all safety requirements, applicable codes and standards requirements, requirements of all Governmental Authorities and the requirements of the Agreement including this Exhibit B.

Engineering Design Packages shall at a minimum contain the information as outlined below for each milestone.

3.3.1 Preliminary and 50% Engineering Design Packages

- (a) Design Drawings depicting and identifying at a minimum:
 - (i) The proposed locations of all major BESS equipment including but not limited to electrical point of connection, disconnects, transformers, panelboards, inverters, batteries, meters, controllers and dataloggers.
 - (ii) The locations of all major existing equipment, including but not limited to Distribution Utility transformer and meter, main electrical service switchgear, System electrical point of connection(s), disconnects, panelboards, inverters, meters and dataloggers.
- (b) Product data sheets and copies of manufacturers' warranties for all major pieces of equipment.
- (c) Completed System Site Assessment Table in native and PDF formats.
- (d) BESS system performance modeling report in 4x8760 output file in MS Excel format.
- (e) System performance report detailing the Critical Loads and Estimated Microgrid Operation Duration.

3.3.2 90% and 100% Engineering Design Packages

- (a) All information required above for the Preliminary and 50% Engineering Design Packages, updated at each milestone.
- (b) A full set of Design Drawings as described in a subsequent section.
- (c) All required drawings, assessments and reports stamped and signed by an engineer licensed in the appropriate discipline – structural details shall not be stamped by an electrical engineer.
- (d) Full structural details of the BESS pad and anchorage, equipment support racks and anchorage, fencing design and associated calculations.
- (e) Microsoft Project or equivalent construction schedule (providing Gantt chart output) showing milestones, equipment order and delivery dates, and staffing requirements. Specific milestones such as conduit installation completion, material arrival dates, interconnection date, and commissioning timeline, shall be highlighted.
- (f) A list of those changes made from the original proposal with the reasons therefor.

The Engineering Design Packages will be reviewed by District. Comments shall be delivered to Contractor within ten (10) business days of submission for review. Ensuring that the Project complies with all requirements and will be installed to meet all requirements of this Agreement remains the sole responsibility of Contractor.

3.3.3 Project Execution Plan

A complete Project Execution Plan for each Site shall be provided for review, which shall at a minimum address the following:

- (a) Material storage location
- (b) Lay-down and layout yard location
- (c) Site office location
- (d) Access and mobilization
- (e) Crane locations and traffic control
- (f) Method of installation
- (g) Human resources and staffing
- (h) Communications
- (i) Anticipated Project risks

The Project Execution Plan shall be reviewed and approved prior to any work being performed on the Sites. The Project Execution Plan shall be submitted as soon as reasonably possible, and no later than two (2) days after the 90% Engineering Design Package due date.

3.4 Design Drawings

A drawing summary list shall be maintained by the Engineer of Record for tracking drawings and revisions thereof over the design and construction period, and the list shall be provided to District on a bi-weekly basis or as requested. All Design Drawing submittals shall be according to the following:

3.4.1 Format

- (a) All drawings shall include a title block which at a minimum contains the Project name, Site address, District logo, Contractor's name, engineer's stamp, engineer's name and drawing revision table.
- (b) Any changes in the Engineering Design Packages from one District submittal to the next shall be clouded.

- (c) Redlines shall be maintained on a not more-than-weekly basis. As-built drawings shall be completed in a reasonable amount of time following the Governmental Authority final inspection and sign off.

3.4.2 Content

The descriptions of the sheets and sheet contents below shall be considered the minimum requirement. Additional sheets and details shall be included as needed to describe the project in adequate detail for construction and permitting needs.

(a) Title Page

Information on the title page shall include, but not be limited to the following:

- (i) Location of the Site
- (ii) Amount of land area to be occupied by the Project, expressed in square feet or acres as appropriate
- (iii) Project directory including contact information for all engineers, designers and consultants
- (iv) Index of drawings
- (v) Applicable codes and standards list including most recent CEC/NEC
- (vi) A scope of work narrative description
- (vii) System size, which shall include kWAC and kWh for any BESS
- (viii) Interconnection type (NEM-PS, NEM-A, Rule 21)
- (ix) Battery manufacturer, part numbers and quantities
- (x) BESS inverter manufacturer, part numbers and quantities
- (xi) All other information required by all Governmental Authorities and not explicitly listed here
- (xii) Benchmarking / survey control data as applicable

(b) Architectural Site Plan

Information on the site plan shall include, but not be limited to the following:

- (i) Property lines
- (ii) Required setbacks and/or yards
- (iii) Easements
- (iv) Existing buildings and structures
- (v) Proposed locations of major equipment
- (vi) Building code analysis justifying proposed equipment placement
- (vii) Separation distances
- (viii) Fire access requirements
- (ix) Modifications for ADA compliance, where applicable

(c) Single Line Diagrams

The single line diagrams shall accurately depict the physical electrical connections (i.e. quantity, type, and size of conductors, quantity, size, and type of conduit) between all electrical equipment used in the system. Information on the single line diagrams shall include, but not be limited to the following items:

- (i) System size, which shall include kWAC and kWh for any BESS
- (ii) Interconnection type (NEM-PS, NEM-A, Rule 21)
- (iii) Battery manufacturer, part numbers and quantities
- (iv) BESS inverter manufacturer, part numbers and quantities
- (v) Distribution utility transformer, including size
- (vi) Distribution utility meter, including meter number and SAID

- (vii) Main electrical service switchgear, including bus amperage, main service disconnect amperage, voltage rating and interrupt rating
- (viii) System interconnection tie-in scheme
- (ix) All AC and DC disconnects including wiring and fusing within disconnects
- (x) All overcurrent protection device sizing
- (xi) Switchgear, including bus amperage, main over current protection device (“OCPD”) amperage, voltage rating and interrupt rating
- (xii) Transformers, including kVA, primary and secondary voltages
- (xiii) BESS meter and any other meters
- (xiv) Wire type, conductor material, size, and quantity used for each run
- (xv) Conduit type, size, and quantity of wires in each conduit for each run
- (xvi) Total wire length for each run
- (xvii) Complete electrical calculations, including voltage drop, and OCPD and wiring ampacity
- (xviii) Monitoring data communications and power wiring
- (xix) Controls diagram including low voltage, low current and power wiring
- (xx) Make and model of all major equipment

(d) Electrical Site Plan and Electrical Details

Information on the electrical layouts and details shall include, but not be limited to the following:

- (i) Plan view of locations of all electrical equipment shown on the Single Line Diagrams described above
- (ii) Location of the point of interconnection
- (iii) Enlarged views of the BESS area, any other electrical equipment pads, and main electrical service area
- (iv) Elevation views of all electrical equipment
- (v) Locations of conduit runs
- (vi) Locations and sizing of spare conduits
- (vii) Safety label details (including, but not limited to, arc flash)

(e) Unused

(f) Grounding Diagram

All electrical equipment shall be depicted, including their capacity/rating, manufacturer, part number, quantity, and reference designator where applicable. Diagram shall indicate equipment grounding connection points and grounding conductor size. Equipment shall include but not be limited to the following:

- (i) Batteries
- (ii) BESS Inverters
- (iii) Transformers
- (iv) Switchgear
- (v) AC and DC disconnects
- (vi) Main electrical service switchgear
- (vii) Meters
- (viii) Control and Monitoring equipment
- (ix) Distribution panelboards

(g) Structural and Civil Sheets

Information on structural and civil sheets shall include, but not be limited to the following:

- (i) Equipment pad(s) structural details
- (ii) Equipment mounting rack structural details
- (iii) Equipment anchorage design
- (iv) Fence design and structural details
- (v) All civil work details

4. EQUIPMENT

The System is intended to be in operation for a minimum of fifteen (15) years, therefore, the life cycle costs (capital expenditures and operating and maintenance expenses) for all installations and systems must be considered in selection criteria for all materials and equipment. Contractor shall purchase and cause to be delivered to each Project Site all equipment and materials required for the Project and as described in District-approved final Engineering Design Package, specifications and data sheets and as required to construct a fully functioning Project. Any proposed changes or substitutions must be presented to District in standard submittal format with detailed explanations and instructions for review, comment and approval. Minimum requirements for equipment are described below. District approval of any of the submittals provided by Contractor, including drawings, does not excuse Contractor from their responsibility to meet all safety requirements, applicable codes and standards requirements, requirements of all Governmental Authorities and the requirements of the Agreement including this Exhibit B.

4.1 Standards

All components shall be designed, manufactured, tested and listed in accordance with the latest applicable standards of NEMA, ANSI, NEC, IEC and UL. Contractor shall verify listing and labeling of equipment by a NRTL prior to installation. In all cases NEC and Governmental Authority rules shall apply.

4.2 Factory Testing

Any equipment that is required to be factory tested to an applicable standard shall be accompanied by the results of those factory tests, and further those results will be submitted to District as part of the Final Binder.

4.3 Acceptance and Care

Equipment shall be stored, handled and installed in accordance with manufacturer's requirements. Material received shall be identified by serial number. A report recording make, model and serial numbers of the material and equipment received shall be prepared and shall be forwarded to District within ten (10) days of the material and equipment being received.

4.4 NEMA Rating

Due to the Site's proximity to salt water and resulting risk of corrosion, any enclosures exposed to the elements such as inverters shall be NEMA 4X in stainless steel, unless otherwise approved by the District in writing. Enclosures in the MCC room shall be standard steel.

4.5 Nameplates and Labeling

All major equipment, panels, boxes, and associated equipment shall be clearly labeled. Reference ANSI Z535.4-2011 for guidelines describing suitable font sizes, words, colors and symbols for labels.

Nameplates and map placards shall be engraved phenolic placards made of red stock with white lettering sized appropriately for the size and purpose of the label. Contractor shall submit the proposed labels for approval prior to installation. The following minimum labeling shall be installed:

- A. Install engraved signs for instruction and warning identifying that a System is operational on the premises at appropriate locations and that there are potentially multiple power sources on the premises – submit wording and location to District for approval. In all cases NEC and Distribution Utility requirements shall dictate.
- B. Install all required signage per NEC (including arc flash requirements per NEC Article 110).
- C. Install engraved phenolic placards identifying emergency disconnecting means.

4.6 Products – Approved Manufacturers and General Product Requirements

Only products that meet the requirements below shall be used in the construction of the Project, unless otherwise explicitly approved in writing by District.

4.6.1 Unused

4.6.2 Unused

4.6.3 Unused

4.6.4 Unused

4.6.5 Unused

4.6.6 Unused

4.6.7 Unused

4.6.8 Approved BESS Inverter Manufacturer

[TO BE ADDED by Contractor prior to executing Agreement]

District's General Guidelines for BESS Inverters

All BESS inverters must be included on any required incentive-related approved inverter list. Inverters must meet all Distribution Utility requirements. All inverters must have a minimum ten (10) year warranty.

Inverter Manufacturer Preventative Maintenance and Support Services

District requires preventative maintenance support services which may be provided by Contractor or the inverter manufacturer, as well as comprehensive and highly responsive repair service offerings. In addition, District will be monitoring the inverters' performance remotely, and require that the inverters utilize an open interface and documented protocols for third party monitoring software.

4.6.9 Approved Battery Manufacturer

[TO BE ADDED by Contractor prior to executing Agreement]

District's General Guidelines for Batteries

Lithium-ion battery chemistry is preferred. Lead acid battery chemistries are not acceptable. All batteries must have a minimum fifteen (15) year warranty.

Battery Manufacturer Preventative Maintenance and Support Services

District requires preventative maintenance support services which may be provided by Contractor or the battery manufacturer, as well as comprehensive and highly responsive repair service offerings.

4.6.10 Approved Data Acquisition System ("DAS")

[TO BE ADDED by Contractor prior to executing Agreement]

4.6.11 Performance Monitoring and Reporting Service Contractor

[TO BE ADDED by Contractor prior to executing Agreement]

4.6.12 Inverter Monitoring Contractor

[TO BE ADDED by Contractor prior to executing Agreement]

4.6.13 Unused

4.6.14 Unused

4.6.15 Unused

4.6.16 Unused

4.6.17 Unused

4.6.18 Unused

4.6.19 Approved BESS Meter

[TO BE ADDED by Contractor prior to executing Agreement]

4.6.20 Unused

4.6.21 Approved Safety Switches

[TO BE ADDED by Contractor prior to executing Agreement]

4.6.22 Approved Transformers

[TO BE ADDED by Contractor prior to executing Agreement]

District's General Guidelines for Transformers

Any dry-type transformers shall meet DOE 2016 efficiency requirements, shall have copper windings, 220°C insulation rating and 115°C maximum temperature rise rating.

Any oil-filled transformers shall be filled with a non-toxic, non-bioaccumulating, biodegradable fluid.

4.6.23 Approved Grounding Devices

[TO BE ADDED by Contractor prior to executing Agreement]

5. COMMUNICATIONS AND MONITORING SYSTEMS

Contractor is responsible for the complete and fully functional installation and operation of the Supervisory Control and Data Acquisition (“**SCADA**”) system. Any labor, communications devices, wiring and or other materials shall be included in Contractor’s cost and scope. The SCADA system shall meet all the requirements outlined in this Agreement.

5.1 Performance Monitoring & Reporting Service

Contractor shall provide a Performance Monitoring and Reporting Service (“**PMRS**”) as part of the SCADA system to monitor and collect data from the Critical Load Meter, BESS Meter, inverters, batteries, and all other data points applicable to the System operation. Contractor shall be responsible for procuring, installing, and commissioning all SCADA equipment, and for entering into a contract with a third-party Performance Data Contractor (“**PDP**”). The monitoring service requirements are as follows:

- A. Contractor shall provide operator and administrator level training to District for using the PMRS software interface as part of commissioning activities.
- B. The PMRS software interface must allow for access via a link from District’s website and must allow the users to view and download real-time and historical electricity usage, and BESS power flow data at each Project Site over a variety of timescales including but not limited to a minimum of a year of fifteen (15) minute interval data. Contractor shall coordinate and obtain approval of all data points to be displayed on the public webpage with District prior to implementation.
- C. The PMRS software interface must allow District to programmatically download via an Application Program Interface (“**API**”) the real-time and historical electricity usage, and BESS power flow data at each Project Site over a variety of timescales including a minimum of one (1) year of fifteen (15) minute interval data. The API must include the ability to reference most recent inverter, meter and alarm status readings.

5.2 Equipment and Components

Below is a list of the minimum equipment and components that must be included as part of the PMRS. All equipment shall be installed to equipment manufacturer’s recommendations and best practices for Systems.

- A. Critical Load Meter(s)
Revenue grade energy meters shall be installed to measure the energy usage, instantaneous demand, power factor, etc. at each Critical Load distribution panel. The load side revenue

grade energy meters shall be included as part of the PMRS system, send data through the PDP and be displayed on the PMRS software interface.

B. BESS Meter

Revenue grade energy meters shall be installed to monitor power and energy flows of the BESS at each Site. The BESS Meter shall be located within ten feet (10') of the Delivery Point unless an alternative location is agreed to in writing by District. The BESS Meter shall be included as part of the PMRS system, send data through the PDP and be displayed on the PMRS software interface.

C. Unused

D. Datalogger/Internet Gateway

E. Inverter Monitoring

If inverters are not provided with communications as part of the standard package, then the communications option shall be ordered. Where various communication package options exist, those options shall be discussed with District prior to ordering.

F. Unused

G. Unused

H. Protective Relays, Medium Voltage Circuit Breakers and Transformers

All available data points shall be provided through the PMRS system.

I. External Device Communication

Contractor must arrange for and provide District a secure and reliable internet connection adequate to allow for uploads of all data points from the PMRS system every fifteen (15) minutes at their sole cost. Contractor shall provide this internet connection via a cellular modem with data service. Contractor shall make this information available to District through the PMRS system.

5.3 **Remote Access Monitoring Portal**

5.3.1 Power and Energy Data

Each Project Site's PMRS web portal should display the following minimum information over a variety of timescales:

- (a) BESS inverter instantaneous power (kW)
- (b) BESS battery state of charge (%)
- (c) BESS battery instantaneous energy remaining (kWh) (desirable not required)
- (d) Facility entire instantaneous load without BESS (kW)
- (e) Facility instantaneous load net BESS (kW)
- (f) Facility entire energy consumption (kWh)
- (g) Critical loads instantaneous load (kW)
- (h) Critical loads energy consumption (kWh)
- (i) Billing cycle peak demand without BESS (kW)
- (j) Billing cycle peak demand reduction due to BESS (kW)
- (k) Billing cycle peak demand reduction due to BESS (kW)
- (l) Billing cycle peak demand savings (\$) (desirable not required)

5.3.2 BESS Alarms

Each site should have at least the following custom alarms:

- (a) Whenever the billing cycle peak demand exceeds the programmed demand threshold set at the beginning of the billing cycle.
- (b) The battery state of charge remains below a programmed value for five (5) consecutive days. An example is to set the value to 66% of the battery system kWh rating in an attempt to identify if/when the battery system is malfunctioning.
- (c) Any meter reports a magnitude of less than 0.1 kW for one day.

5.3.3 Facility Alarms

Each site should have at least the following custom alarms:

- (a) Inverter produces less than ten percent (10%) of the inverter capacity over the course of an hour between 10:00AM and 3:00PM. The upper limit of the alarm should be set to twice the inverter capacity.
- (b) Any meter reports a magnitude of less than 0.1 kW for one hour between 10:00AM and 3:00PM. The upper limit of the alarm should be set to twice the site capacity.

5.3.4 Facility Analytics Pages

Each Facility PMRS should have the following tabs configured in the monitoring analytics page. They should be labeled uniformly at each site. The tabs should be labeled as follows:

- (a) Load Profile
 - (i) BESS Meter Power (kW)
 - (ii) Facility Demand (kW)
 - (iii) Net Consumption (kW)
- (b) Inverter Output
Energy generation (kWh) per inverter. Each inverter shall have a unique identifier matching the naming convention in the As-Built drawings.
- (c) Predicted Power
 - (i) Predicted Power (kW)
- (d) Inverter vs. BESS Meter Power
Power output per inverter displayed with the BESS Meter Power

5.3.5 Settings

All System information should be filled out completely and correctly on the monitoring platform to match the As-Built drawings and allow for easy identification of equipment and other System information.

6. CONSTRUCTION

Contractor is required to conduct all construction and construction management work for completion of the Project. Contractor shall perform all work in accordance with generally accepted industry practices, all applicable laws, regulations, codes, rules, ordinances, Government Approvals and permitting requirements, equipment manufacturer's requirements, and quality control inspection protocols so that the System meets or exceeds (i) all requirements of applicable laws, Government Approvals and licenses; (ii) equipment manufacturer's installation specifications, and compliance with the terms and conditions of all applicable warranties and guarantees; (iii) complies with all requirements of the Interconnection Agreement; (iv) all established safety protocols for operation and maintenance, and labeling / marking requirements; (v) all requirements of the commissioning procedures and performance validation herein; (vii) all requirements

for any applicable federal, state or other environmental or financial rebates and incentives. All Work must be performed and supervised by skilled workers trained and experienced in the installation of a battery energy storage system in accordance with equipment manufacturers' installation requirements. Contractor is encouraged to utilize local subcontractors and source materials and resources locally should they provide requisite qualifications and competitive advantages.

6.1 Site Safety and Security

Contractor shall be solely responsible for compliance with all applicable occupational safety and health standards, rules, regulations and orders established by local agencies, the State of California, and California Division of Occupational Safety and Health Construction Safety Regulations (Cal OSHA), including obtaining permits required by California Code of Regulations, Title 8, Section 341 and 341(a). In addition, Contractor and all subcontractors shall comply with applicable provisions of Federal, State, and municipal safety, health, and sanitation statutes and codes. In the event there is a conflict between the provisions of the Safety and Health Regulations for Construction promulgated by the U.S. Department of Labor in Title 29 CFR Part 1926, OSHA, or Cal OSHA, the more stringent provision shall prevail.

Contractor will develop a site-specific OSHA approved Site Safety and Security Plan for each Project Site and submit it for review and approval prior to the start of construction. The Site Safety and Security Plan shall include an evaluation and appropriate documentation of the safety record for all subcontractors that will be performing work on the Project, a traffic control plan, and an Injury and Illness Prevention Program plan. The Site Safety and Security Plan shall also include the location of emergency utility shutoffs and an evacuation plan. No work shall be performed on the Project prior to written confirmation that the Site Safety and Security Plan has been accepted.

A safety conference shall be scheduled prior to the start of construction to review the experience modification rating, the respective safety requirements, and to discuss implementation of all health and safety provisions related to this project. Representatives from Contractor and every subcontractor shall be present at the safety conference. Contractor shall ensure District is informed of the safety conference at least five days in advance and provided the option to attend.

Following the commencement of work on the Project, safety meetings will be held once a week with all Contractor and subcontractors' employees attending. Printed names will be taken of those attending the meeting. No individual will start work at any Project Site without having attended a safety briefing on the dangers and protocols of the Project Site. Records of this training will be kept and provided for review. No individual will operate a piece of equipment on which they have not had certification training. Certification shall be carried on the operator at all times.

Security of the Project Site(s) is the sole responsibility of Contractor, including any security monitoring equipment, fencing or other precautions that Contractor may deem reasonably necessary. District will not be liable for theft or damage of equipment or materials stored at the Project Site(s).

6.2 Access to and Use of Project Sites

District shall provide access and area at each Project Site for the performance of the work on the Project, including lay-down area and storage area. District will grant Contractor access to each Project Site to perform all work associated with the Project and on-going Operation & Maintenance during regular business hours, or such other reasonable hours requested by Contractor and approved by District in accordance with this Agreement. Access points to the Sites must be closely coordinated with District and approved in advance before construction begins. The entrance for delivery must not be impeded at

any time due to the frequent deliveries the District received. District will issue necessary keys to Contractor to access Project Sites once all related requirements have been met. Contractor shall return keys to District at any time upon request by District. Contractor shall reimburse District for the cost of re-keying all of District's locks if keys are not returned to District.

A minimum of half of the parking lot spots at each Project Site shall remain open for non-construction activities use at all times. District may allow Contractor to close an entire parking lot with support from Contractor to direct traffic to temporary parking lots. Contractor shall provide three weeks' notice in advance of each parking lot closure. Contractor shall prepare a communication memo with a site logistics plan for distribution to Project Site stakeholders (staff, teachers, students, parents, etc.).

Contractor agrees not to bring, keep, or permit to be brought to, or kept at or near any Project Site, any hazardous materials, or materials which are prohibited by District or prohibited by the standard form of District's insurance policy. Contractor agrees not to commit or suffer to be committed any waste upon the Project Sites.

Contractor shall install signage at each front gate / Site entrance to identify the Project and Contractor's name and contact information upon District approval of all proposed signage. Contractor shall submit a prototype of the construction signs to District for review and approval before posting the signs at the construction sites. After approval, actual sign placement and location shall be coordinated with District.

6.3 Drawings

Contractor shall maintain one complete Engineering Design Package at each Site including one full set of full-size plans marked to show any deviations that have been made from the approved plans, including but not limited to buried or concealed construction features or utilities which are revealed during the course of construction. Current as-built record drawings shall be accessible to District at all times during the construction period. They shall be reviewed with District at regular intervals. Upon completion and prior to final inspection of the Project, Contractor shall submit the complete As-Built Engineering Design Package for review and shall make such revisions or corrections as may be necessary for them to be a true, complete, and accurate record of the Project in the opinion of District.

6.4 Work-Time Constraints

Great care shall be taken to avoid interruptions to Site activities and neighboring properties. Construction activities shall take place between typical working hours of 7:00AM to 3:30PM, Monday through Friday, excluding recognized holidays. Reasonable efforts must be taken to minimize disturbance to persons living or working nearby, and to the general public. All local ordinances shall be adhered to regarding noise limits, otherwise a maximum of 65dB shall not be exceeded when measured at the property line. Deliveries shall take place outside high traffic times and must be coordinated with District's personnel. Preferred hours for deliveries are 7:00AM to 3:00PM, Monday through Friday, no weekends. Contractor shall manage construction activities around and with consideration to the other projects occurring at the same time where applicable. Contractor will be required to provide necessary weekly updates of scheduled activities at each Site to District.

A shutdown plan must be provided to District at least two months in advance to allow for electrical shutdowns to be carefully coordinated with District's personnel. All interruptions in power shall be subject to District approval and must be coordinated to take place during a time period that will minimize disruptions to Site activities. This requirement will typically mean, and District reserves the right to request, that shutdowns shall occur on weekends or after working hours. All efforts must be taken to minimize the amount of time required to complete interconnections. Backup power will be

provided by Contractor's generators during shutdowns, at Contractor's expense. Notice of all pending shutdowns shall be provided thirty (30) days in advance, followed by two (2) weeks in advance, followed by forty-eight (48) hours in advance.

6.5 General Requirements

6.5.1 Conduit and Wiring

- (a) Locations of all junction boxes shall be reviewed with District prior to start of construction.
- (b) No wire splicing shall be allowed.
- (c) All exposed wire shall be secured every three and a half feet (3.5') minimum.
- (d) When terminating aluminum conductors, all terminations shall be brushed and coated with an oxide inhibitor.
- (e) Underground cabling shall have electrical warning tape installed approximately twelve (12") inches below finished grade in the backfill.
- (f) Contractor shall use GPRS and potholing to survey for underground utilities and use best practices when boring or trenching, including hand digging near buried lines. Trenching or boring in potentially high-risk areas (gas lines) shall be coordinated with District.
- (g) Contractor shall carefully preserve all benchmarks, monuments, survey markers, and stakes and shall be solely responsible for resetting if required.
- (h) Contractor shall ensure parasitic loads (lights, security cameras, etc.) are not installed on the same circuit as the BESS Meter.
- (i) Contractor shall confirm that each System is interconnected to the correct Distribution Utility meter at each Project Site by validating the meter and service account identification numbers (SAID) with the Distribution Utility.
- (j) All exposed wiring shall be properly rated for direct sun exposure.
- (k) Exposed wiring shall be restrained utilizing wire clips per NEC requirements and best practices to eliminate strain on wire pinch points and wire kinks. Strain-relief devices shall be rated and labeled for exposure to UV (direct sunlight).
- (l) Conduit entry locations shall be made in manufacturer provided/specified locations only.
- (m) All ground conductors shall be protected from physical damage as specified in the NEC.
- (n) Grounding wire connections must be made at closest point possible between concrete and steel, sharp edges removed, and painted to match.
- (o) Power and data lines shall be located in separate conduits with appropriate separation to avoid interference.
- (p) All junction boxes, condolets, etc., are to be sealed with a silicone sealing compound and made watertight.
- (q) H-20 rated concrete handholes with cast iron or galvanized steel lids shall be used for all underground junction box locations unless District approves an alternative approach. Lids shall be bolted or welded in place with an appropriate permanent marking such as "ELEC" or "COMM" on the lid depending on the contents of the junction box.
- (r) Aboveground junction boxes must have tamperproof screws and shall not be placed in areas where water ponding is anticipated.

6.5.2 Equipment

- (a) Equipment shall be stored and handled in accordance with manufacturer's requirements.

- (b) Inverters and battery enclosures shall be placed away from all buildings where the operational noise would disturb the occupants.
- (c) Inverters and battery enclosures shall not be placed in locations where fences or other barriers would obstruct replaceable air filters or prevent access for regular service and cleaning.
- (d) All high voltage and high amperage equipment must be installed in secure, tamper-proof, and locked enclosures to prevent unauthorized tampering for safety and theft prevention.
- (e) Locks for all gates and enclosures to be provided by Contractor but must be approved by District prior to procurement.
- (f) Where necessitated by birds nesting underneath, Contractor shall be responsible for providing a means of deterring birds from nesting that is acceptable to District.
- (g) Safety labels are required for high voltage and high amperage equipment.
- (h) All enclosures shall be detailed as part of the punch list work to ensure that any scratches, etc. are properly covered with paint as appropriate.
- (i) The Project will include installation of conduits at each Site sufficient to allow for future installation of security cameras at locations agreed upon with District during Project design. Should Contractor choose to install cameras as part of the overall security plan for any Site, camera selection and location shall be coordinated with District. Integration of any installed safety and security systems with the SCADA system shall be reviewed with District and options provided.

6.5.3 Site Work

- (a) It is Contractor's sole responsibility to ensure that all work on the Project complies with all federal, state, and local code requirements, all applicable industry codes and standards, and all other requirements in the Agreement including the requirements in this Exhibit B.
- (b) Temporary security fencing around construction areas shall be provided throughout construction, to be removed at end of construction, and permanent fencing and bollards added as required.
- (c) Prior to the start of any work on Site, Contractor shall take pre-construction videos and photographs of any and all areas that may be impacted as part of the Project construction and shall provide the pre-construction videos and photographs to District for review and reference.
- (d) Following the finish of construction, Contractor shall take post-construction videos and photographs of all areas that were impacted as part of the Project construction and shall provide the post-construction videos and photographs to District for review and reference.
- (e) Contractor is solely responsible for locating and avoiding all existing underground utilities, including irrigation lines, and shall ensure the existing underground utilities and installations are not impacted by Project construction. In the event Contractor damages or makes inoperable any underground or above ground utilities, it will be Contractor's full responsibility to notify District immediately and make damaged/inoperable utilities whole and fully operational to District's standards and to District's satisfaction, at Contractor's sole cost and expense.
- (f) Contractor is responsible for the repair of any damage to any Project Site that is caused by Contractor at their sole cost and expense. Contractor shall assess the condition of all areas to be used in the construction of the System prior to construction and shall alert District if any such area cannot accommodate wear and tear caused by ordinary construction activities. In such event, Contractor shall propose a reasonable remedy or remedies to such conditions for District's consideration.

- (g) Damage to District's facilities and/or the System shall be reported to District within twenty-four (24) hours with photographs.
- (h) All parking lot wheel stops that are damaged during construction shall be replaced at Contractor's sole expense.
- (i) All areas within the limits of construction or otherwise impacted by construction of the Project shall be restored to pre-Project conditions at Contractor's sole cost and expense including but not limited to: fine grading, rock and concrete spoils removal and vegetation remediation.
- (j) Contractor will coordinate with District when boring or trenching is performed, when laydown areas are determined, when major shipments are planned, or any other activities that might impact District's operations.
- (k) Contractor shall correctly torque all such equipment or assemblies requiring torque and mark torqued bolts to designate status of having been torqued. District or District's representative may at any time request a test of marked bolts. Failure of a bolt designated as torqued to show that torque may require all assemblies to be re-torqued in the presence of a third-party inspector – such inspector to be paid for by Contractor.
- (l) Contractor shall maintain a clean and workmanlike construction site. Loose debris and unsafe conditions shall not be tolerated at any time.
- (m) Contractor is responsible to obtain all necessary Site data, perform all required investigations and determine all Site data required for the design and construction of the Systems at their sole cost.
- (n) Contractor shall be responsible for the removal and disposal of all excess soil and construction related debris generated by Contractor or subcontractors in accordance with Applicable Law.
- (o) Appropriate safety signs are required to caution drivers for speed or path restrictions near equipment pads.
- (p) Safety bollards or traffic pylons with reflective strips shall be installed where any part of the Project is adjacent to a road.
- (q) Signs and barricades shall be provided and maintained by Contractor and shall be in accordance with jurisdictional regulations for accident prevention and in accordance with the Site Safety and Security Plan.
- (r) Contractor shall verify all required clearances in the field prior to construction and is solely responsible therefor.
- (s) Driveways in parking lots must stay open during construction. Any parking lot driveway closure must be temporary (i.e. a few hours for heavy material delivery) and shall be coordinated with District.
- (t) Contractor is responsible for providing drinking water and sanitation facilities for all workers.
- (u) Temporary power for construction shall be arranged and paid for by Contractor.
- (v) All cut edges of galvanized strut or other support structure materials shall be cold galvanized.
- (w) Saw cut concrete shall be replaced joint to joint and match nearby area.
- (x) Contractor shall backfill all trenches with engineered fill and compact to 95 percent minimum.
- (y) All asphalt cuts shall be made in square or rectangular cuts to avoid inconsistent repair work. Contractor shall cover asphalt trenches with hot mix asphalt, roll for compaction, and pave to the full width of the trench. All repairs shall be made to match existing. Any repainting of striping required to return the site to original or better conditions shall be the sole responsibility of Contractor.
- (z) Contractor shall reseed or provide sod for all areas where existing grass was damaged.

- (aa) Contractor shall conduct harmonic testing and install necessary line filters if District or the Distribution Utility detects electromagnetic interference (EMI) following the installation of the System. Detection of EMI includes noticeable power interruptions in previously functional electrical equipment.

7. FINAL PROJECT CLOSEOUT

7.1 Closeout Activities

Prior to Final Completion for any Project Site, Contractor will perform the following tasks:

- Complete all unfinished work described on a punch list approved by District in a timely manner.
- Complete final clean-up of each Project Site
- Confirm minimum 30-day continuous operation for the entire system, all sub-systems, and ancillary equipment without downtime following the final commissioning to verify daily operation, load shifting, and islanding capabilities
- Assemble and provide District with the Final Binder containing all documents outlined below and all other required submittals.
- Provide trainings for District personnel on emergency shut-down procedures as well as standard inverter restart procedures.
- Demonstrate the successful operation of the Microgrid while disconnected from the Distribution Utility grid as verified through testing as defined in Attachment .

7.2 Final Binder

A complete set of Project documentation in digital format, unless otherwise noted below, shall be provided to District at the finish of construction for record keeping purposes (the “*Final Binder*”). The Project documentation shall include, at a minimum, the following documents:

- Copy of Executed Agreement(s) and all amendments
- Copy of the Notice to Proceed to Design
- Copy of the Notice to Proceed to Procurement and Construction
- Copies of all reports and studies completed, including but not limited to:
 - o Underground Utility Surveys
 - o Title Reports / ALTA Surveys
 - o Geotechnical Studies
 - o Environmental Studies
 - o Bore Logs including GPS location coordinates and depth dimensions for all Project underground utilities
 - o Arc Flash / Coordination Study
- Final design drawings as approved by any Governmental Authorities having jurisdiction over the Project in PDF and AutoCAD
- Copy of all Governmental Approvals required for the Project to be constructed
- Copy of all Governmental Approvals required for the Project to be operational
- Letter to the Distribution Utility requesting final inspection in advance of Permission to Operate
- Completed Commissioning Report - Attachment D
- Permission to Operate Notice from the Distribution Utility

- All incentive related documents
- All final executed Distribution Utility Agreement(s) – Interconnection, special facilities, etc.
- As-built drawings in PDF and AutoCAD
- Equipment data sheets, installation & user manuals, and warranties for all major equipment including but not limited to, inverters, batteries, transformers, controllers and monitoring systems
- Final System Site Assessment Table in PDF and MS Excel formats
- Final BESS system performance modeling report in 4x8760 output file in MS Excel format
- Final system performance report detailing the Critical Loads and Estimated Microgrid Operation Duration
- Final punch list showing proof of completion of all items
- Letter stating Commercial Operation Date achievement and date
- Contact Information for all key Contractor personnel including:
 - Contractor's name
 - Contractor's main office mailing address, phone, fax, and email
 - Employer Identification Number ("*EIN*")
 - Contractor's main contact person's name, job title, mailing address, phone number, fax number, and email
 - Operations and Maintenance contact person's name, job title, mailing address, phone number, fax number, and email
- Two (2) sets of keys to all locks, equipment, enclosures, fence gates and boxes
- Operations and Maintenance Manual
- District training completion date, including list of personnel trained in inverter shutdown and restart procedure
- Monitoring System Information including:
 - Monitoring System hardware and internet portal specification sheets
 - Meter calibration records with serial numbers for all meters
 - Website access and operation instructions
 - List of public monitoring websites
 - IP addresses and login information of Acquisuite or equivalent
 - Network configuration documentation
 - Performance Data Contractor contracts
- Site photographs of all items listed below (electronic version only):
 - Batteries
 - Inverters
 - Combiner boxes
 - Transformers
 - Disconnects
 - Panelboards/Switchgear
 - Motorized circuit breakers
 - Electrical point of connection to existing distribution equipment
 - Distribution Utility Meter
 - BESS Meter, Critical Load Meter, and any other meters
 - BESS controller
 - Microgrid controller
 - Monitoring equipment, including weather sensors if applicable

8. OPERATIONS AND MAINTENANCE

Contractor shall be responsible for all operations and maintenance of the System in accordance with the Operations and Maintenance Agreement. The operations and maintenance shall include at a minimum:

- A. All preventative maintenance required to maintain all equipment warranties.
- B. Contractor shall provide erosion control, weed abatement, and security for the Site throughout the Term at their sole expense.
- C. Contractor shall maintain one complete Engineering Design Package throughout the Term of this agreement and update with any changes made from the as-built drawings provided at the completion of construction.

ATTACHMENT A - PRELIMINARY ENGINEERING DESIGN PACKAGE

TO GENERAL CONDITIONS AND TECHNICAL SPECIFICATIONS

CONFIDENTIAL INFORMATION

E

D

C

B

A

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1

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3

4

5

6



D1 SITE PLAN - OVERALL
SCALE: 1" = 100'-0"



BATTERY ENERGY STORAGE SYSTEM SUMMARY

BESS UNIT	(2) ELM MICROGRID CMG2.1-AC-125-522, 250kW/1044kWh
(TOTAL INVERTER COUNT) INVERTER MANF. AND MODEL	(2) DYNAPOWER MPS 125 (INTEGRATED)
INVERTER CEC EFFICIENCY	97%
SITE LATITUDE	34° 23' 32" N
INTERCONNECTION VOLTAGE	480 VAC 3φ
INTERCONNECTION OCPD RATING	400A
INTERCONNECTION TYPE	BACK-FED BREAKER

D3 SITE PLAN - SUMMARY
SCALE: NTS

GENERAL SHEET NOTES

- ALL DIMENSIONS ARE APPROXIMATE AND MUST BE FIELD VERIFIED.
- CONDUIT AND PULL BOXES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING CEC ARTICLES: 342.26 FOR IMC, 344.26 FOR RMC, 352.26 FOR PVC, 353.26 FOR HDPE, 358.26 FOR EMT CONDUIT, AND 314.28-314.30 FOR PULLBOXES.



1301 Cap. O TX Hwy S #B315
Austin, TX 78746
www.holtrenewables.com

STAMP:

FOR REVIEW ONLY
NOT FOR
CONSTRUCTION

CLIENT: **CARPINTERIA SANITARY DISTRICT**

PROJECT: CARPINTERIA SANITARY DISTRICT BESS PROJECT
250 kW / 1044 kWh RATING
5300 6TH ST
CARPINTERIA, CA 93013

SHEET KEYNOTES

- BESS UNITS AND ISOLATION TRANSFORMER SHALL BE PAD MOUNTED.
- BESS AC PANELBOARD SHALL BE RACK MOUNTED.
- EQUIPMENT SUBJECT TO VEHICLE TRAFFIC SHALL BE PROTECTED BY BOLLARDS SPACED NO MORE THAN 48" O.C. (APPROX. 8). BOLLARDS TO BE REMOVABLE TO ALLOW FORKLIFT ACCESS.

BESS INTERCONNECTION AT
(E) SWITCHBOARD "B"
(IN ELEC. ROOM)

BESS ISOLATION TRANSFORMER (XFMR.01)
(PAD MOUNTED IN ELEC. ROOM)

BESS AC PANELBOARD (ACP.02)
(RACK MOUNTED)

BATTERY ENERGY STORAGE SYSTEM
(2) ELM BESS UNITS
(PAD MOUNTED)

REMOVABLE BOLLARDS
(APPROX. 8)

UG AC CONDUIT;
UG CONDUIT TO UTILIZE
UNDERGROUND GALLERIES FOR
ROUTING WHERE POSSIBLE,
VERIFY CONDITIONS IN FIELD
(TYP.)

A1 SITE PLAN
SCALE: 1/8" = 1'-0"



1

2

3

4

5

6

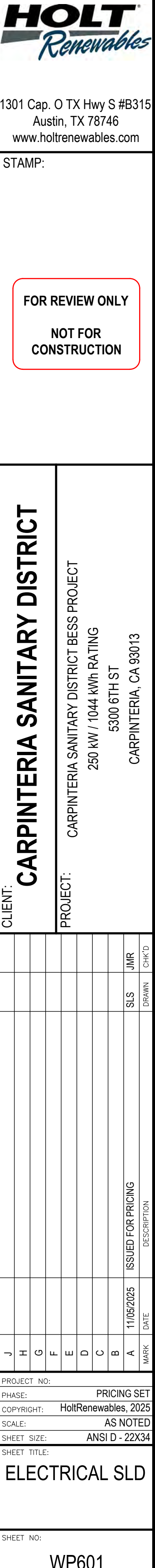
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A

SHEET NO:

WI101

PROJECT NO:
PHASE: PRICING SET
COPYRIGHT: HoltRenewables, 2025
SCALE: AS NOTED
SHEET SIZE: ANSI D - 22X34
SHEET TITLE: SITE PLAN



ELM MICROGRID GEN2 CMG

Introducing the next evolution in distributed energy resilience: the 2nd Generation ELM MicroGrid CMG 125. Engineered for reliability and scalability, this compact modular ESS solution delivers a seamless blend of power, efficiency, and control to meet the ever-growing demands of commercial and industrial applications.



SMARTER, MORE POWERFUL, AND BUILT FOR THE FUTURE

The CMG 125 redefines what's possible with on-site energy storage and distribution. With power output options starting at 125kW and a modular design that scales effortlessly through expansion and paralleling capabilities, the CMG 125 ensures maximum flexibility for diverse energy needs. The Industry Leading ELM Microgrid FieldSight Controller is built right in, providing Microgrid capabilities for on-grid and off-grid energy applications.

NEXT GEN CMG 125 ENHANCEMENTS

- **Increased Capacity** – 313kWh battery with 100% depth of discharge and 20-year battery life.
- **Liquid Cooled – Lithium Iron Phosphate Batteries** – Reduced auxiliary power requirements and quieter operation.
- **Reduced On-Site Construction Efforts** – Systems ship from the ELM Factory in Dallas, TX with batteries fully loaded and complete system factory testing complete. Connections for Expansion Units are all above ground and provided by ELM.
- **Enhanced Commissioning and O&M Support** – ELM FieldTech commissioning and maintenance mobile app.

THE ELM ADVANTAGE

POWER MANAGEMENT

Solar and Generator Input
Solar Automated Control
Generator Automated Control
Grid Power
TOU Shifting
Peak Shaving
Off Grid Compatibility

TURNKEY SOLUTION

UL 9540 Factory Certification
NFPA 855 Compliant
Full Factory Testing
Rapid Onsite Deployment
UL3141 Compliant (Optional)

INCLUDES

ELM FieldSight Controller
ELM FieldSight Cloud 2.0
Built In Fire Suppression
NEMA 3R Enclosures
Expandable at Any Time
Liquid-Cooled Batteries



125,000 SQ FT. FACILITY
The Colony, TX



4300 Live Oak
The Colony, TX 75056



ELMmicrogrid.com



6 BATTERY MODULES IN SERIES RACK

Preliminary Technical Specifications	CMG 125 - 313kWh	CMG 125 - 626kWh	CMG 125 - 939kWh
System Sizing			
System Sizing	1 CMG 125 Main Enclosure	1 CMG 125 Main Enclosure + 1 Expansion Enclosure	1 CMG 125 Main Enclosure + 2 Expansion Enclosure
AC Output Power (Discharge)	125kW	125kW	125kW
AC Input Power (Charge)	125kW	125kW	125kW
Battery Capacity	313kWh	626kWh	939kWh
Three Phase Operation			
AC Voltage	480 VAC	480 VAC	480 VAC
AC Input/Output Current	150A	150A	150A
AC Frequency (Field Settable)	60Hz/50Hz	60Hz/50Hz	60Hz/50Hz
MAX AC Overcurrent Protection	200A	200A	200A
Peak Efficiency	97%	97%	97%
AC Connection	3 Phase, 3 Wire	3 Phase, 3 Wire	3 Phase, 3 Wire
Main Enclosure Specifications			
kWh Per Enclosure	313kWh	313kWh	313kWh
Battery Chemistry	LiFePO4	LiFePO4	LiFePO4
System External Dimensions	60.5" x 60.2" x 102" (L x D x H)	109" x 60.2" x 102" (L x D x H)	157.5" x 60.2" x 102" (L x D x H)
System Weight	8,250 lbs	15,650 lbs	23,050 lbs
Lifting Provisions	Fork Lift Slots and Hoist Lifting Rings	Fork Lift Slots and Hoist Lifting Rings	Fork Lift Slots and Hoist Lifting Rings
Paint Tested	1000 Hour Salt Spray	1000 Hour Salt Spray	1000 Hour Salt Spray
Operating Temperature Range	-20°C to 50°C	-20°C to 50°C	-20°C to 50°C

Expansion Enclosure Specifications			
kWh Per Enclosure	Enclosure External Dimensions	Enclosure Weight	Above Ground Cable Tray
313kWh	42" x 60.2" x 102" (L x D x H)	7,400 lbs	6.5 in.

ALL ELM MICROGRID SYSTEM FEATURES

Key System Components		Operation Parameters		Certifications	
NEMA 3R Enclosure	⚡	Islanded Mode	Off Grid Applications	Batteries	UL 1973, UL 9540A
Climate Controls	⚡	Grid Tied Mode	Peak Shaving Backup Power Demand Response	Inverter	UL 1741 SB
Bi Directional Storage Inverter	⚡	Distributed Generation	Time of Use Operation	System	UL 9540, UL 3141
DC Disconnect (Battery)	⚡				
AC Disconnect (Inverter)	⚡				

5 BATTERY MODULES IN SERIES RACK

Preliminary Technical Specifications	CMG 125 - 261kWh	CMG 125 - 522kWh	CMG 125 - 783kWh
System Sizing			
System Sizing	1 CMG 125 Main Enclosure	1 CMG 125 Main Enclosure + 1 Expansion Enclosure	1 CMG 125 Main Enclosure + 2 Expansion Enclosure
AC Output Power (Discharge)	125kW	125kW	125kW
AC Input Power (Charge)	125kW	125kW	125kW
Battery Capacity	261kWh	522kWh	783kWh
Three Phase Operation			
AC Voltage	480 VAC	480 VAC	480 VAC
AC Input/Output Current	150A	150A	150A
AC Frequency (Field Settable)	60Hz/50Hz	60Hz/50Hz	60Hz/50Hz
MAX AC Overcurrent Protection	200A	200A	200A
Peak Efficiency	97%	97%	97%
AC Connection	3 Phase, 3 Wire	3 Phase, 3 Wire	3 Phase, 3 Wire
Main Enclosure Specifications			
kWh Per Enclosure	261kWh	261kWh	261kWh
Battery Chemistry	LiFePO ₄	LiFePO ₄	LiFePO ₄
System External Dimensions	60.5" x 60.2" x 102" (L x D x H)	109" x 60.2" x 102" (L x D x H)	157.5" x 60.2" x 102" (L x D x H)
System Weight	7,500 lbs.	13,750 lbs.	20,000 lbs.
Lifting Provisions	Fork Lift Slots and Hoist Lifting Rings	Fork Lift Slots and Hoist Lifting Rings	Fork Lift Slots and Hoist Lifting Rings
Paint Tested	1000 Hour Salt Spray	1000 Hour Salt Spray	1000 Hour Salt Spray
Operating Temperature Range	-20°C to 50°C	-20°C to 50°C	-20°C to 50°C
Expansion Enclosure Specifications			
kWh Per Enclosure	Enclosure External Dimensions	Enclosure Weight	Above Ground Cable Tray
261kWh	42" x 60.2" x 102" (L x D x H)	6,250 lbs	6.5 in.

Control Software

ELM Autonomous MicroGrid Site Control System	⚡	Individual MicroGrid Component Pages	⚡
Access & Alerts on Desktop & Mobile 24/7	⚡	Local HMI IP 65 Touchscreen	⚡
Asset Monitoring System Level & Individual	⚡	Communications: Wifi, Ethernet, Cellular	⚡



All ELM CMG and MG BESS Systems include full On Grid and Off Grid Capabilities utilizing our proprietary **ELM FieldSight MicroGrid Controller and FieldSight Cloud Interface**. FieldSight features advanced microgrid and battery storage technology that optimizes energy usage, provides emergency resiliency, increases power reliability, reduces power grid instability, offers on site generation asset control, and provides monitoring, alerting, alarming and system analysis capabilities.



READY TO REDEFINE YOUR ENERGY FUTURE?

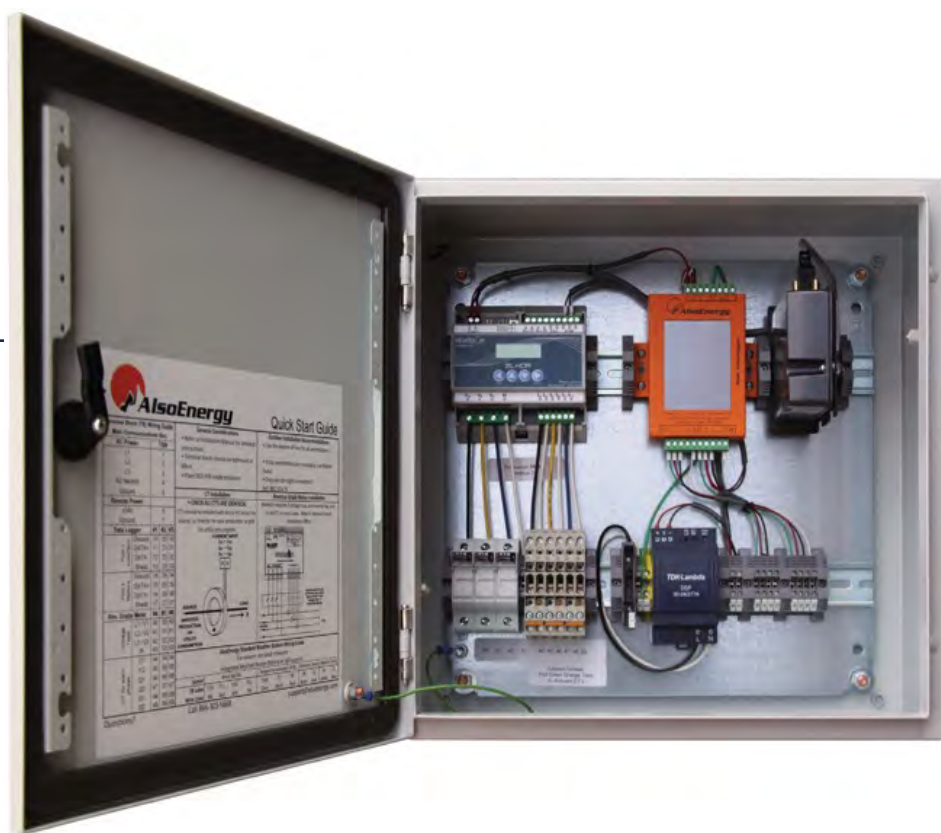
**Contact ELM
MicroGrid today
to learn how
CMG 125 or MG
Series products
can power your
next project.**

The CMG 125 empowers businesses and communities to take control of their energy strategy, reduce dependence on traditional grid systems, and unlock new opportunities in cost savings and sustainability. Whether ensuring resiliency during outages or optimizing energy consumption, the CMG 125 sets a new standard in microgrid innovation.



Data Aggregation System hardware

AlsoEnergy's vertically-integrated, edge-to-cloud platform includes a Data Aggregation System (DAS). Enabling remote monitoring for O&M optimization, our DAS solution is preconfigured to your specifications for fast, plug-and-play installation. The hardware enclosure is rated for both indoor and outdoor installation. While our edge solutions and PowerTrack, our SaaS application for portfolio optimization, can be delivered independently, asset managers, and EPCs appreciate the reduced risk of using a single point of accountability from edge to cloud and from bid throughout the asset's lifetime.



DAS Assembly

- Complete with all necessary DAS system hardware
- Preconfigured for plug-and-play capability with the PowerTrack
- Hardware mounted and pre-wired
- NEMA 4 rated enclosures for exterior mounting
- Indoor mounting hardware included
- Built to your specifications
- ETL listed

End-to-end DAS from AlsoEnergy are tested, configured, assembled, and wired in our ETL listed facility in Boulder, CO.

Hardware components

AlsoEnergy DataLogger



- 1 pre-configured for use with PowerTrack, accepts data from RS-485, RS-232, or Ethernet connected devices
- Includes internal storage capacity and a touch screen LCD display
- 20% continuous (voltage & current) maintaining full accuracy 100% momentary current overload

Energy meter



- Revenue grade accuracy
- Accepts single-phase, split-phase, and three-phase loads
- Includes LCD display

Weather stations and environmental sensors



- 1 High-quality weather stations accommodate any solar or wind metric requirements
- Fit into the main monitoring communications enclosure or dedicated enclosure
- Anemometers
- Pyranometers (Hukseflux, Apogee, Kipp and Zonen)
- Ambient temperature sensors
- Module temperatures sensors
- High-temperature weather stations
- Basic and full weather station packages
- Remote and portable stations

Cellular modem



- 4G network
- Low power consumption
- Remote management and configuration
- Works with most major North American cellular providers

Wireless communications



- Ethernet radio
- Suitable for outdoor mounting
- Intra site communication
- Integrated antenna
- Remote oversight



MicroGrid Energy Storage System

CMG2 Series

Operation and Maintenance Manual

CMG2-SERIES-OM-0001

4300 Live Oak Dr
The Colony, TX 75056

support@elm-ess.com
www.elmmicrogrid.com

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The ELM Companies 25+ Years of providing service and support for critical infrastructure to the Utility Industry across the United States, positions the ELM Microgrid MG Series of ESS systems as one of the leading solutions in the industry when it comes to distributed grid support applications.

Contact ELM Microgrid

Our customer service team is available to help you with your ELM MicroGrid equipment and FieldSight software.

Website:

[MicroGrid Home Page - ELM MicroGrid](#)

Address:

ELM Microgrid

4300 Live Oak Drive
The Colony, TX 75056

Email:

support@elm-ess.com

Phone:

(469) 676-1648

Table of Contents

I.	Revision Table	6
II.	General Information	7
	Limited Warranty Information.....	7
	Disclaimer	7
III.	Safety	7
	Safety Information.....	7
	Battery Disposal.....	8
	Before Any Maintenance Actions!.....	8
	Battery Module Precautions.....	9
	Fire Safety Considerations	9
IV.	CMG2 System Overview	11
	CMG2 System Model Identification.....	11
	CMG2 System Overview	11
	Storage Inverter Specifications.....	14
V.	CMG2 Main ESS Overview	15
	CMG2-125 Main ESS Specifications	15
	CMG2-125 Main ESS External Layout	16
	CMG2-125 Main ESS Storage Inverter Cabinet Layout.....	17
	CMG2-125 Main ESS Internal Layout.....	17
VI.	CMG2-EXP ESS Overview	18
	CMG2 Exp ESS Specifications	18
	CMG2-Exp ESS External Layout.....	19
	CMG2-Exp ESS Internal Layout	20
VII.	Site Installation Overview	21
	Site – Conductor Current Carrying Capacity Control.....	21
	External Communication Wiring.....	21
	UL 1741 PCS CRD and UL 3141 Requirements.....	22
	Power Meter and Current Transformer (CT) Installation	24
VIII.	First Time System Start Up	26
	Pre-Start Up	26
	Site Installation Testing.....	27

	CMG2 Main ESS Energization	27
	Fire Panel Activation	29
	Commissioning.....	29
	Configuration	29
	Completion	30
IX.	System Start Up and Shut Down.....	31
	System Start Up	31
	System Disable.....	31
	System Re-Enable	32
	System Shut Down.....	32
	System Emergency Stop	32
	Re-Enable after Emergency Stop	33
	Emergency Event Shut Down.....	33
X.	User Interface	34
	Main	34
	Maintenance Mode Button	35
	Emergency Stop	36
	Graphs.....	37
	About Screen	38
	Settings	39
	Engineering	40
	Error	41
	Node View.....	42
	Diagnostic	43
XI.	System Operations.....	44
	Sequence of Operations – Local Control	45
	Sequence of Operations – Remote Control.....	47
	Load Control Features	48
	Grid Import and Export Control.....	50
	Alerts and Faults	50
	Data Log Recovery	51
	Off-Site Remote Control Operations	52
	Battery Discharging.....	53
XII.	Sub-Assembly Operations.....	53

Liquid Cooling System	53
Fire Safety System.....	53
Active Venting System	54
Battery Backup System (BBS) System	54
Surge Suppression	54
Ground Fault Detection	55
Fuse Replacement.....	55
XIII. Maintenance	57
Preventative Maintenance (PM) Procedures	57
Cooling System Draining and Filling.....	61
Scheduling.....	64
Responsibilities	64
System Shut Down.....	64
System Disconnect.....	64
System Disassemble.....	65
System Return.....	66
XIV. CMG2 Series Labeling	67
UL 1741 CRD and UL 3141 PCS Specific Labeling.....	71
XV. Troubleshooting.....	72
XVI. Technical Specifications	73

Revision Table

[illegible]

General Information

Limited Warranty Information

Please refer to the Limited Warranty Information by ELM Fieldsight, LLC dba ELM Microgrid.

Disclaimer

The content of this document can be periodically reviewed and updated where necessary. Please consult with ELM for the latest revision as applicable for the product intended.

The project design, installation and/or commissioning work shall be based on the documents and drawings provided by ELM specifically for the project.

ELM will not be liable for any personal injury, property loss, product damage and subsequent damage caused by Non-compliance with this Manual.

Safety

Safety Information

- This manual contains important instructions that must be followed during installation and maintenance. The product is designed and tested in accordance with international safety requirements, however as with all electrical and electronic equipment, certain precautions must be observed when installing and/or operating this product.
- To reduce the risk of personal injury and to ensure the safe installation and operation of this product, carefully read and follow all instructions, caution statements, and warnings in this manual.
- The equipment described in this manual presents significant arc-flash and shock hazards. Refer to product labeling for specific hazard levels and required PPE. It is vitally important to follow all safety precautions described in this manual. Follow NFPA 70E and all safe electrical work practices. Local Code, NFPA 70E and all safe electrical work practices supersede any and all instructions herein. ELM is not responsible for the safe application of these instructions, even if these instructions are incorrect. Qualified personnel are required, as per NFPA 70E. Failure to follow these precautions can result in injury or possibly death. The following paragraphs describe the safety information contained in the manual.
- THESE SERVICING INSTRUCTIONS ARE FOR USE BY QUALIFIED PERSONNEL ONLY. TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT PERFORM ANY SERVICING OTHER THAN THAT SPECIFIED IN THE INSTALLATION AND OPERATING INSTRUCTIONS UNLESS QUALIFIED TO DO SO.
- Personal Protective Equipment (PPE) is required when working on the ESS. Service personnel must wear safety glasses and gloves with a minimum voltage rating of 1500 VDC, Class 0 per ASTM D120 and IEC

EN60903 standards.

- Shutting off power to the ESS does not de-energize the battery modules. Therefore, an arc flash and shock hazard will still be present even with external power disconnected. Batteries are not serviceable. Only ELM approved personnel can remove, replace, or dispose of batteries.

Symbols Used in This Manual

	WARNING The WARNING icon indicates a potentially hazardous situation which, if not avoided, can result in death or serious injury, and/or substantial property damage.
	CAUTION The CAUTION icon indicates a potentially hazardous situation which, if not avoided, can result in minor or moderate injury and/or property damage.

Battery Disposal

Lithium-Ion batteries are not to be discarded or disposed in common landfills or trash disposal facilities. Federal law states that certain batteries must be recycled, and lithium-ion batteries fits these criteria. The “Battery Act” (The Mercury-Containing and Rechargeable Battery Management Act of 1996) was set out to ensure that batteries such as Li-ion batteries in equipment can be recycled for reuse, instead of being released into the environment. For more information on local battery recycling centers see www.batterycouncil.org for information on state and local laws for recycling Lithium-Ion batteries.

Before Any Maintenance Actions!



WARNING

The equipment described in this manual is powered by potentially lethal electrical voltages and presents significant arc-flash and shock hazards. It is vitally important to follow all safety precautions described in this manual. Failure to follow these precautions can result in injury or possibly death.

- Disconnect all power before working inside the enclosure.
- Follow all lockout/tag out procedures before any maintenance is performed on the system.
- Use appropriate PPE in accordance with the requirements of NFPA 70.
- For equipment that must be grounded, install the ground cable first when installing the equipment and remove the ground cable last when removing the equipment.
- Do not damage the ground conductor.

- Do not operate the equipment before the grounding conductor is installed.
- The equipment should be connected permanently to the protective ground. Before operating the equipment, check its electrical connection to ensure that it is securely grounded.
- Connections should only be made in accordance with the approved connection drawings and must comply with all applicable local codes and standards.
- Make certain all connections are completed and tightened before energizing the unit.
- Before operating the MicroGrid system, refer to CMG2 Series Operation and Maintenance Manual for their safety instructions.

Battery Module Precautions



WARNING

Before installing or maintaining battery modules, review and comply with the following requirements. Failure to comply can result in equipment damage, serious injury, or exposure to potentially lethal voltages.

- When working on and installing battery modules the installer must follow standard safety precautions associated with battery installation and operation.
- Follow NFPA 70E Table 130.7 for Personal Protective Equipment requirements when working on batteries. Use appropriate PPE and only use insulated tools when working with battery modules.
- Based on NFPA 70E Table 130.7 (C) (15)(b) Arc-Flash PPE Categories for Direct Current (DC) Systems; It is recommended that the authorized personnel installing and interconnecting the battery modules should wear Category 2 Arc-Flash PPE while installing battery modules. See table 130.7 (C)(15)(c) Personal Protective Equipment (PPE)
- Remove all jewelry and any clothing item which could provide a short circuit source while installing and wiring battery modules.
- Follow proper installation protocols as listed in the manual for connecting and disconnecting battery modules.
- Installation and maintenance of the battery system must be performed by authorized personnel.
- Do not install, remove, or work on any battery modules unless all module safety disconnects are removed.

Fire Safety Considerations

Fire safety systems for energy storage systems are based upon UL9540A test results, NFPA 855 specifications, as well as a fire risk assessment as provided by the authority having jurisdiction (AHJ) where the energy storage system will be installed. Different regions may have different requirements than those specified in NFPA 855.

ELM's standard fire safety features include 8 layers of protection that are outlined in the CMG2 Series ESS Fire Safety Design Analysis document and they meet or exceed the requirements as outlined in UL 9540 and NFPA 855. These layers of safety include:

1. Level 1 – Site Controller monitoring
2. Level 2 – Battery Manage System (BMS)
3. Level 3 – E-Stop Buttons
4. Level 4 – Off gas detection system
5. Level 5 – Active Venting System
6. Level 6 – Smoke Sensors
7. Level 7 – Heat Detection
8. Level 8 – Battery Chemistry and Construction (UL9540A Certification)

CMG2 System Overview

CMG2 System Model Identification

The following CMG2 Series models are covered by this manual:

System Model Number

CMG2-XX-YYY-ZZZ

Where:

- XX is AC or DC
- YYY is the PCS Maximum Power rating (50-125kW)
- ZZZ is the total energy in kWh (see system configurations on table below)

PCS Max Power (kW)	Quantity of CMG2-EXP	Total Energy (kWh)	Main AC Circuit Breaker Size (A)	AC ESS System Model Number	DC ESS System Model Number
50-125	0	215 ¹	200	CMG2-AC-YYY-215	CMG2-DC-YYY-215
	0	258		CMG2-AC-YYY-258	CMG2-DC-YYY-258
	1	430 ¹		CMG2-AC-YYY-430	CMG2-DC-YYY-430
	1	516		CMG2-AC-YYY-516	CMG2-DC-YYY-516
	2	645 ¹		CMG2-AC-YYY-645	CMG2-DC-YYY-645
	2	774		CMG2-AC-YYY-774	CMG2-DC-YYY-774

* These are not all the configurations available. Please contact ELM sales team for further site configurations.

1. System is limited to a 95% DOD.

CMG2 System Overview

ELM's CMG2 Series Microgrid System utilizes a combination of a Main Energy Storage System (ESS) and optional Expansion ESS to provide their customers the most configurable and complete system. Each system can handle 1 Main ESS (CMG2-125) and up to (2) Expansion ESS (CMG2-Exp) containers strung together in series. All auxiliary power, DC connections, communications and fire safety system wiring used to interconnect ESS containers is installed above ground using built in cable tray.

Multiple systems can be connected in parallel to increase the power of the system and to increase the overall energy of the site.

Each CMG2 Series product comes with ELM's FieldSight EMS technology to manage the charging/discharging of the system along with managing other assets the site may have such as generators and photo voltaic generation.



Typical CMG2 Series Site Layout

The CMG2 Series can be configured for multiple power and energy output configurations depending on a customer's requirements. The table below outlines some of these possible configurations. Alternate configurations can be reviewed by ELM upon request.

Model Variants (Hours of Runtime at Beginning of Life (BOL))									
6 modules	# of Main Containers	1			2				
	# of Exp Containers	0	1	2	0	1	2	3	4
	Energy (kWh)	258	516	774	516	774	1032	1290	1548
PCS Max Power (kVA)	125	2.1	4.1	6.2					
	250				2.1	3.1	4.1	5.2	6.2

Model Variants (Hours of Runtime at Beginning of Life (BOL))									
5 modules	# of Main Containers	1			2				
	# of Exp Containers	0	1	2	0	1	2	3	4
	Energy (kWh)	215	430	645	430	645	860	1075	1290
PCS Max Power (kVA)	107.5	2.0							
	125		3.4	5.2					
	215				2.0				
	250					2.6	3.4	4.3	5.2

 Not Offered

Storage Inverter Specifications

Storage Inverter

The MG2 Series is designed to work with Dynapower's MPS 125 storage inverter. The storage inverter is integrated into ELM's Main ESS and is pre-wired into the battery and controls.

Dynapower MPS 125	
AC Input Voltage	480VAC 3 Phase
Grid Frequency	60 Hz
Rated Output Apparent Power	125kVA
Rated Output Real Power	125kW
Rated Output Current	150ARMS
Overload AC Current	180ARMS
DC Voltage Range	740-1500VDC
Max DC Current	171ADC
Power Factor	0 – 1.00 Leading or Lagging
Current Harmonics	IEEE 1547 Compliant, <5% TDD
Maximum Efficiency	98.70%
CEC Efficiency	97%

CMG2 Main ESS Overview

CMG2-125 Main ESS Specifications

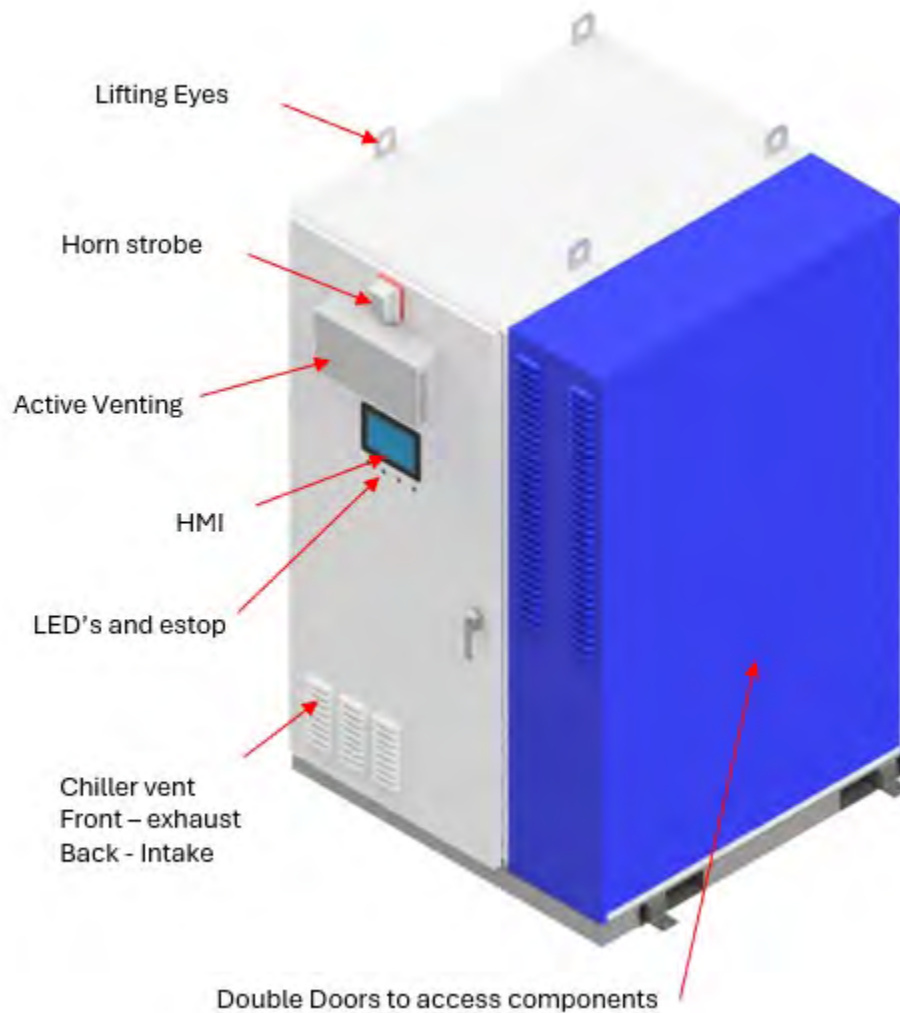


CMG2-125 Main ESS Container

Item	Specification
Cabinet Dimensions LxWxH (inches)	L 60.5" x W 60.2" x H 102"
System Weight	7,800 LBS
Battery Output Voltage	740 – 1051 VDC
Battery Maximum Power	125 kW
Battery Total Energy	215 / 258 kWh
Battery Charge/Discharge Current	145 / 169 A DC
Battery Chemistry	LFP
Cooling System	Liquid Cooled
Nominal AC Voltage	480 VAC
Rated AC Apparent Power	125 kVA
Nominal AC Current	150A

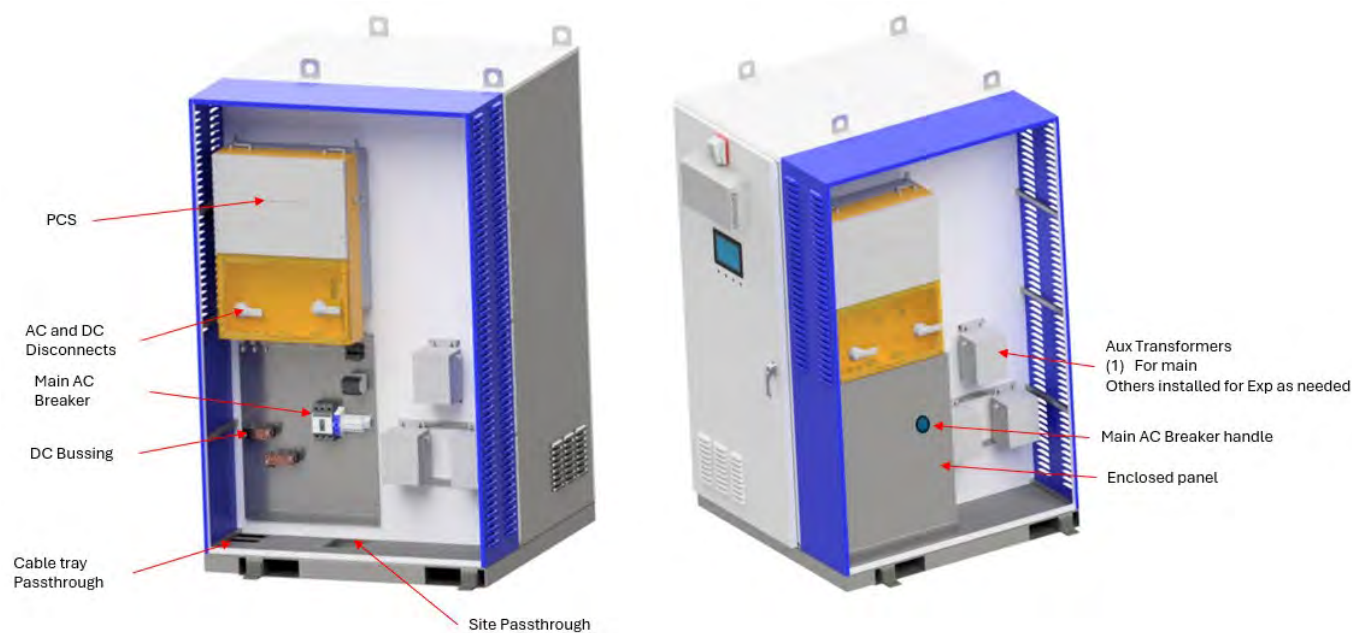
The batteries used in this ESS are manufactured by Hithium Energy Storage Technology Co, Ltd. and are a Lithium Iron Phosphate chemistry. The batteries are UL 1973 certified and have been tested to 9540A per report number CN2200ZY 001. The 9540A testing was completed by TUV Rheinland.

CMG2-125 Main ESS External Layout



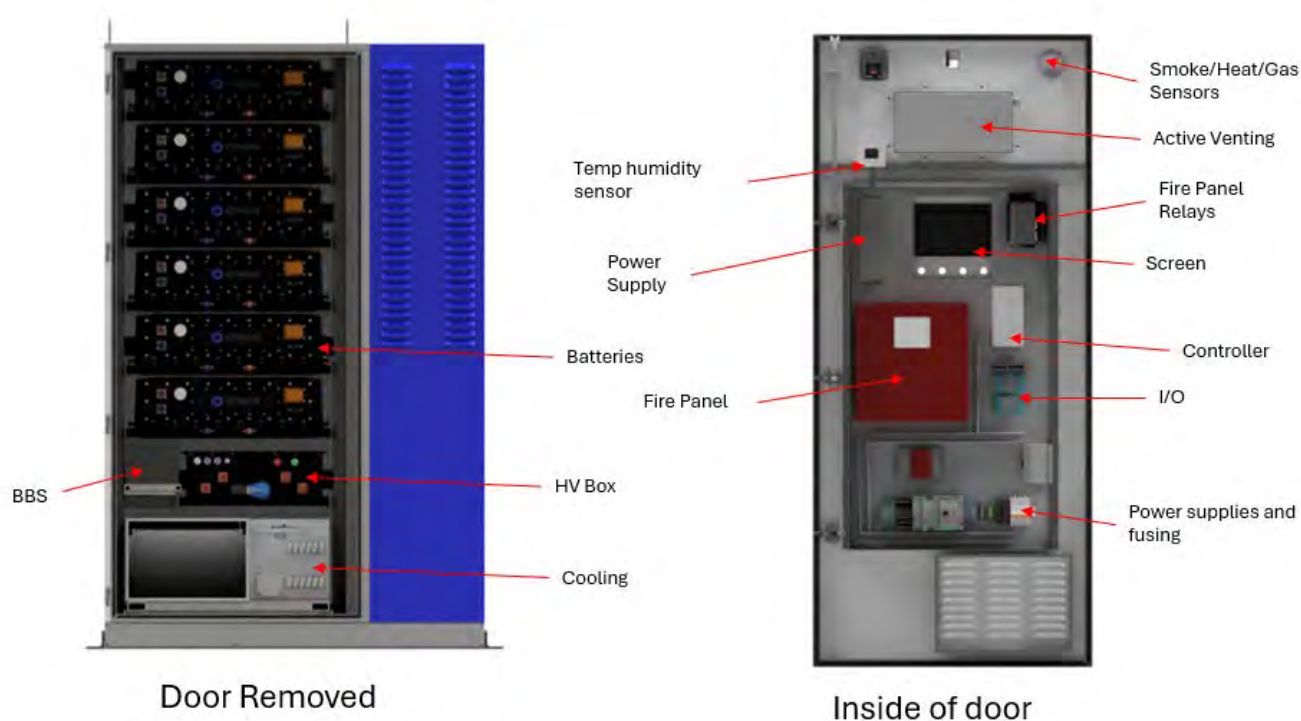
CMG2 Main ESS External Layout

CMG2-125 Main ESS Storage Inverter Cabinet Layout



CMG2 Main ESS Storage Inverter Cabinet Layout

CMG2-125 Main ESS Internal Layout



CMG2 Main ESS Internal Layout

CMG2-EXP ESS Overview

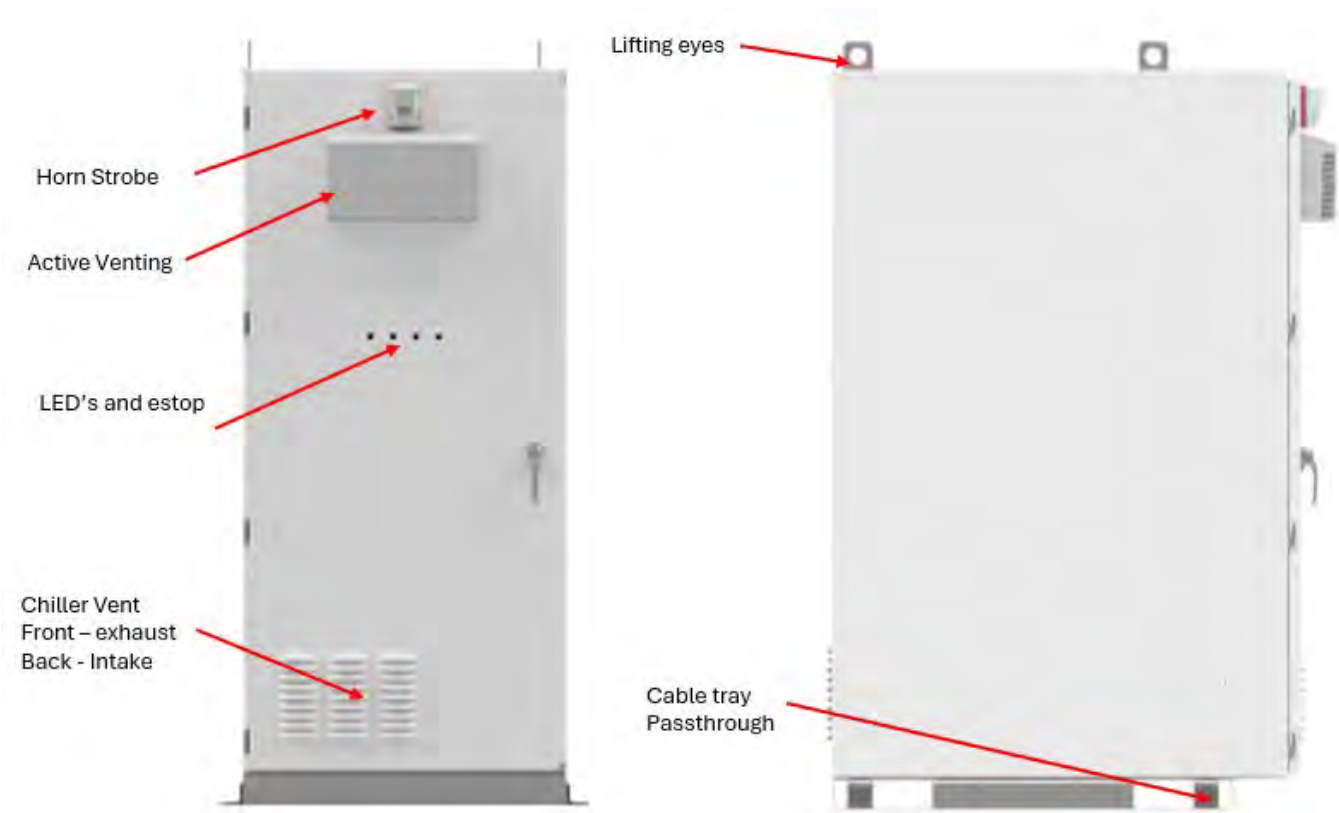
CMG2 Exp ESS Specifications



CMG2-Exp Container

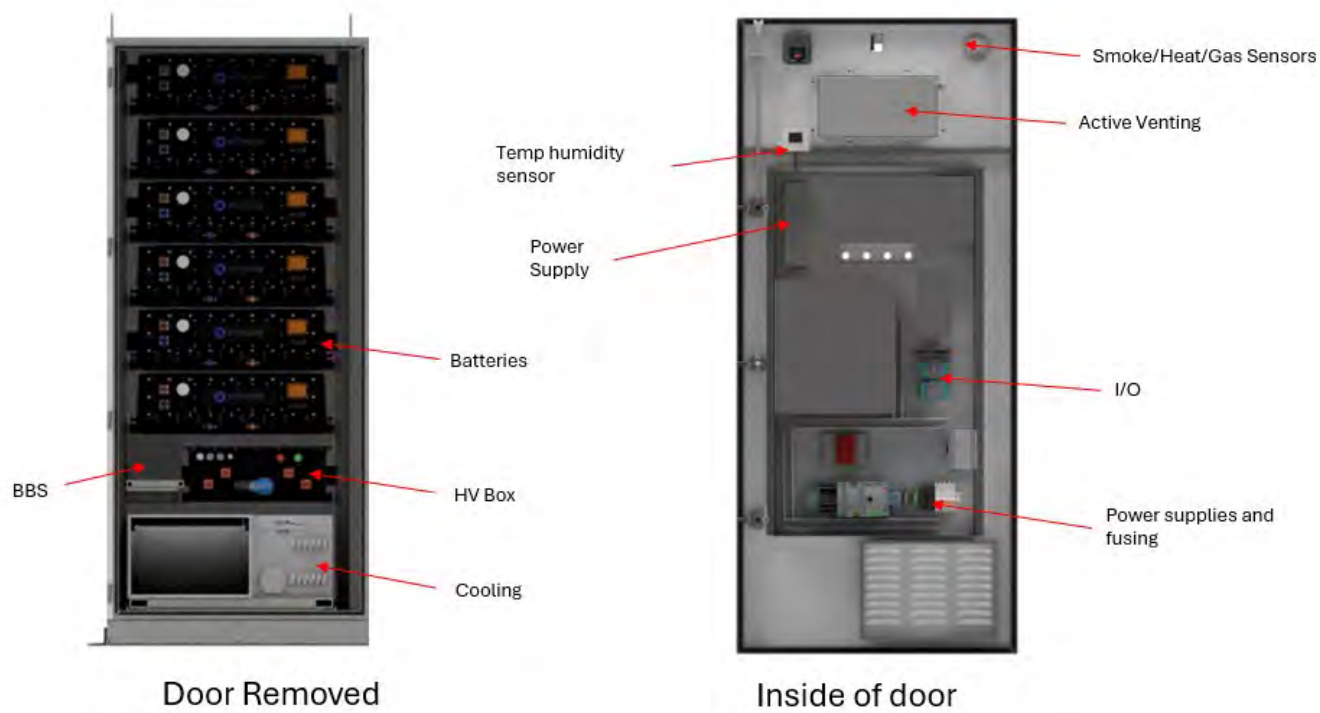
Item	Specification
Cabinet Dimensions LxWxH (inches)	L 42" x W 60.2" x H 102"
System Weight	7,000 LBS
Battery Output Voltage	740 – 1051 VDC
Battery Maximum Power	125 kW
Battery Total Energy	215 / 258 kWh
Battery Charge/Discharge Current	145 / 169 A DC
Battery Chemistry	LFP
Cooling System	Liquid Cooled

CMG2-Exp ESS External Layout



CMG2-Exp External Layout

CMG2-Exp ESS Internal Layout



CMG2-Exp Internal Layout

Site Installation Overview

When installing the equipment at the site, please reference ELM's CMG2 ESS Installation Manual (CMG2-ESS-INSTALL-0001) for transportation, lifting, installation, and inspection requirements.

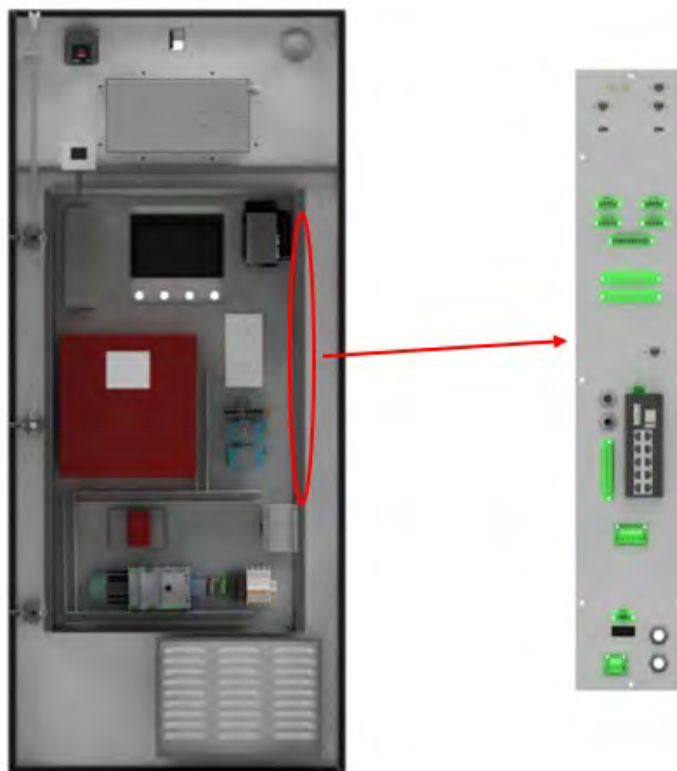
Site – Conductor Current Carrying Capacity Control

If the Microgrid system is being used to manage the current carrying capacity of wires and/or bus bars at the site, the conductors must be labelled with the following:

o "PCS controlled current setting: _____Amps"

External Communication Wiring

The ELM FieldSight EMS is designed to communicate via MODBUS TCP/RTU, CANBUS, and DNP3 (RS485) as required by individual components within the microgrid system or at the site. All communication wiring and protocols between components within the microgrid system will be pre-wired and field installed between containers with pre-fabricated cables. Any site level external communications should be wired per the project specific Communication Diagram that was developed as part of the engineering effort of the project.

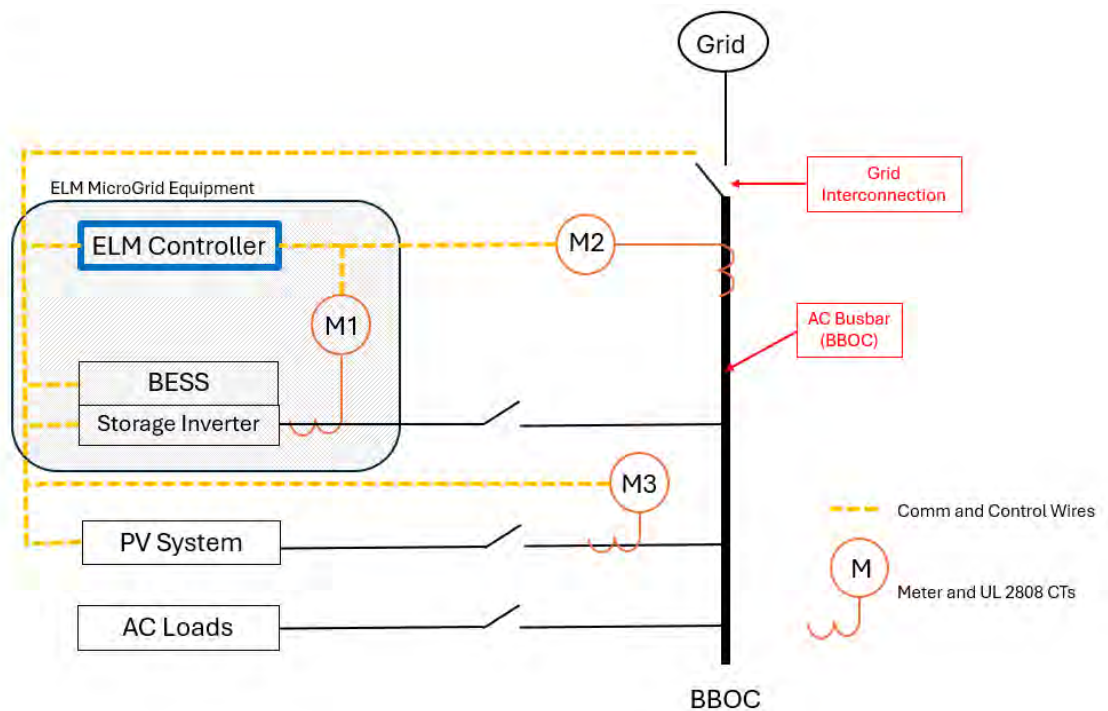


Communication Panel

UL 1741 PCS CRD and UL 3141 Requirements

According to UL1741 PCS CRD guidelines and UL 3141, the ELM FieldSight controller offers the flexibility to function as a Power Control System (PCS) controller and manage the power flow to and from the utility when combined with the equipment that was defined during the UL evaluation. The controller can also function as a means for Busbar current control. In order to meet the requirements of these guidelines, the ESS must be installed at the site in conjunction with power meters located at the input/output of the ESS (M1), the point of interconnection with the utility (M2), and with the PV system (M3) as shown in the following SLD's.

M1: BESS Monitor
M2: Grid Monitor
M3: PV Monitor



SLD for AC Coupled PV

The following components are approved to be used in the system based on the evaluation of the UL1741 PCS CRD and UL 3141:

System Component	Manufacturer / Model Number(s)
ESS	ELM Microgrid / CMG2-XX-YYY-ZZZ (XX is AC or DC, YYY is the PCS Maximum Power rating (50-125kW), ZZZ is the total energy in kWh) MGC125-5-480-50-KPM110-X (X is the number of battery expansion units on the system)
EMS (ESS FieldSight PCS Controller)	ELM Microgrid / Hardware: FSCW-XXX Firmware version: 1.1.2
Meter	Grid: SEL (Schweitzer Engineering Laboratories) / SEL-751 Grid, ESS and PV: AccuEnergy / Acuvim IIR-M-mV-P2v3
CTs	For Accuvim Meter - Current Transformers Continental Control Systems LLC / ACTL-1250, CTBL, CTRC, RSCSL, RSCLL, AccuEnergy / RCTYY For SEL Meter AccuEnergy / AcuCT-0812, AcuCT-2031, AcuCT-125R, AcuCT-200R, AcuCT-4161R, AcuCT-3135R, RCTYY

Note: SEL-751 meter is typically used on a system that has off-grid capabilities. Acuvim meter is typically used on a system that has anti-islanding enabled.

The current ratings of the ESS are configurable and can be de-rated to meet the requirements of the site.

ESS Model	Adjustable Current Range (Amps)
CMG2-125	0 - 200

The current sensors used in the table above should be selected based on the current rating of the ESS, the incoming utility connection, and current rating of the PV system as required. It is recommended to choose a current sensor rating that is within 0 – 20% larger than the max current rating of the system and accuracy of 0.5% or better.

A PCS shall include the following, or equivalent, markings on at least one device which contains the PCS controller functionality:

- o *“The maximum operating current of this system may be controlled electronically. Refer to manufacturer’s instructions for more information.”*

If the Microgrid system is being used to manage the current carrying capacity of wires and/or bus bars at the site, the conductors must be labelled with the following:

- o *“PCS controlled current setting: _____Amps”*
- o *“PIL/PEL controlled setting: _____Watts or Amps”*

Power Meter and Current Transformer (CT) Installation



Follow proper LOTO procedures and verify the absence of voltage in all circuits and equipment in the work area when installing or servicing current transformers. Always wear appropriate PPE. Only qualified personnel shall install, remove, or otherwise service current transformers.

Throughout the site electrical system, different power meters may be installed with CT’s to monitor different items such as import/export power to the grid, site load power, PV power, BESS power, etc. The ELM FieldSight controller utilizes these power readings to aid in its control algorithms when determining when to charge and discharge the batteries. Polarity of CT’s are critical to read accurate results. The electrician or technician on site must indicate the source side of the CT, usually facing the front sticker. After the source side is identified, the electrician shall reference the site drawing to indicate the installation location. The asterisk or period next to the CT on the site drawing shall indicate the source side.

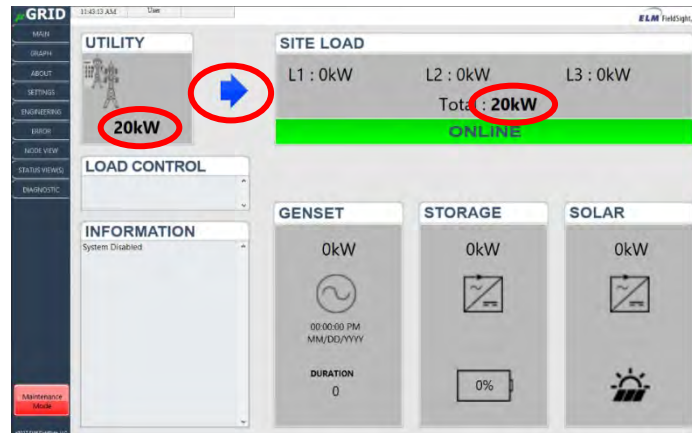
The table below indicates general power meter locations and how to install the CTs.

Location	Source Side
Grid (required)	Source shall be facing the Grid
BESS (required)	Source shall be facing the BESS
Generator (optional)	Source shall be facing the Generator
PV inverters (optional)	Source shall be facing the PV inverters
Load (optional)	Source shall be facing against the Load

*Note: Not all sites will contain all meters. Reference the site drawing for correct meters and their locations.

Connecting the CTs to the power meter shall be done prior to installing the CTs on the primary lines. When connecting the CTs to the power meter, the electrician shall indicate the CT phases and color code them, Brown-Orange-Yellow for 480VAC or Black-Red-Blue for 208VAC, ensure the CTs are landed on the correct phases.

To test whether the power meters and CTs are installed correctly, keep the system in maintenance mode. View the HMI installed on the BESS to verify if the load and grid are matching and showing the correct current flow, shown below. If the load and grid are not matching, check the CTs locations and source facing side. In case this issue is still occurring while the CTs are installed correctly, inform ELM microgrid.



All power meters must comply with UL2808, and be approved by ELM for use within the system.

When installing the power meters, the following label should be attached to each power meter and CT:

“WARNING: Risk of Fire. This sensor is part of a Power Control System. Do not remove. Replace only with same type and rating.”

First Time System Start Up

Before turning on the system for the first time, make sure CMG2 Main ESS and Exp ESS Installation checklists have been completed and submitted to ELM for review.

The following start up information is intended to be informational and may change from site to site. Please refer to ELM for your site specific start up procedures.

Pre-Start Up



Before powering up the system, make sure the following switches, circuit breakers and disconnects are in the Off/Open position:

Site:

- Upstream AC breaker feeding the Storage Inverter

Main ESS: Refer to Main ESS Internal Layout for components locations

- Make sure E-Stop button is Engaged
- ELM Fieldsight EMS power switch
- AC Breaker for incoming AC power
- DC Switch on HV Box in all ESS enclosures
- DC Disconnect S1 on Storage Inverter
- All Aux Power Load Center circuit breakers
- Battery Backup System

Exp ESS: Refer to Exp ESS Internal Layout for components locations

- Make sure E-Stop button is Engaged
- DC Switch on HV Box in all ESS enclosures
- All Aux Power Load Panel circuit breakers

Site Installation Testing

The following site tests are recommended at a minimum to be performed after site installation wiring has been complete and before the site is powered up for the first time. A report documenting the results of these tests should be generated.

- Insulation Resistance Tests on all cables installed through conduits
- Ethernet cable connector test
- Transformer tests as required
 - Review that the transformer has been wired in correctly, and the correct side is facing the Microgrid system. Failure to do so could damage the battery system.
- Site should be energized to the Point of Interconnection (POI) with the CMG2 Microgrid System

CMG2 Main ESS Energization



WARNING: Equipment inside the Main ESS presents arc flash and shock hazards. Refer to equipment labeling for specific hazard levels and required PPE. Only qualified personnel may preform these tasks. Do not perform any energization tasks unless all Main ESS equipment cover panels are fully installed. Do not operate the DC disconnect switch when the DC system is energized.

Energization from site power:

- Verify that all cabling between the site and the Main ESS and between each Exp ESS enclosure is installed correctly per drawings and applicable codes.
- Verify all breakers inside ESS are open
 1. Close the site AC power circuit breaker.
 2. Verify the correct voltage (480VAC) is present at the System AC Input Breaker below storage inverter.
 3. Close the System AC Input Breaker
 4. Verify the correct voltage (480 VAC) is present on the MAIN AUX Fuse Block
 5. Close the MAIN AUX Fuse Block
 6. Verify the correct voltage (240/120 VAC) is present on the MAIN AUX Breaker
 7. Close the MAIN AUX Breaker
 8. Verify the correct voltage (240 VAC) is present on the 48V Power Supply Breaker
 9. Close the 48V Power Supply Breaker
 10. Verify the correct voltage (48 VDC) is present on the cooling system breaker
 11. Close the cooling system breaker
 12. Verify the correct voltage (240/120 VAC) is present on the Fuse Block Breaker
 13. Verify all Fuse holders are installed in each fuse block
 14. Close the Fuse Block Breaker

15. Verify no red lights are present on Fuse Blocks (red light indicates a blown fuse)
16. Turn on panel mounted BBS Power Switch
17. For EXP 1
 - a. Verify the correct voltage (480 VAC) is present on the EXP 1 AUX Fuse Block
 - b. Close the EXP 1 AUX Fuse Block
 - c. Verify the correct voltage (240/120 VAC) is present on the EXP 1 AUX Breaker
 - d. Close the EXP 1 AUX Breaker
 - e. Verify the correct voltage (240 VAC) is present on the 48V Power Supply Breaker
 - f. Close the 48V Power Supply Breaker
 - g. Verify the correct voltage (48 VDC) is present on the cooling system breaker
 - h. Close the cooling system breaker
 - i. Verify the correct voltage (240/120 VAC) is present on the Fuse Block Breaker
 - j. Verify all Fuse holders are installed in each fuse block
 - k. Close the Fuse Block Breaker
 - l. Verify no red lights are present on Fuse Blocks (red light indicates a blown fuse)
 - m. Turn on panel mounted power switch
 - n. Turn on panel mounted BBS Power Switch
18. For EXP 2
 - a. Verify the correct voltage (480 VAC) is present on the EXP 2 AUX Fuse Block
 - b. Close the EXP 2 AUX Fuse Block
 - c. Verify the correct voltage (240/120 VAC) is present on the EXP 2 AUX Breaker
 - d. Close the EXP 2 AUX Breaker
 - e. Verify the correct voltage (240 VAC) is present on the 48V Power Supply Breaker
 - f. Close the 48V Power Supply Breaker
 - g. Verify the correct voltage (48 VDC) is present on the cooling system breaker
 - h. Close the cooling system breaker
 - i. Verify the correct voltage (240/120 VAC) is present on the Fuse Block Breaker
 - j. Verify all Fuse holders are installed in each fuse block
 - k. Close the Fuse Block Breaker
 - l. Verify no red lights are present on Fuse Blocks (red light indicates a blown fuse)
 - m. Turn on panel mounted power switch
 - n. Turn on panel mounted BBS Power Switch
19. Close AC Disconnect on Storage Inverter
20. Close DC Disconnect on Storage Inverter
21. Close DC Disconnect on HV Box in MAIN
22. Close DC Disconnect on HV Box in EXP 1
23. Close DC Disconnect on HV Box in EXP 2

Fire Panel Activation



Complete the following steps to enable the fire panel system before operating the microgrid system:

To activate the fire panel upon installation, the following steps must be made:

1. Install (2) 12V battery modules into fire panel and connect its positive and negative terminals.
 - a. The system is shipped with these batteries disconnected from the fire panel

Commissioning

Once the components have been energized, you may contact ELM FieldSight for execution of the Commissioning Test Plan. The commissioning test plan is broken up into the following phases.

- Inspection
 - o Visual inspection of all wiring and installation
- Communication Check Out
 - o Verify all components within the system are configured properly and communicating with the ELM FieldSight EMS
- Power Testing
 - o Test charging and discharging of the system
 - Typically done at max power of the system, but can be completed based on site specific requirements
 - o Will include thermal check of all electrical connections
 - o Black start testing (if required)
- Functional Test Plan
 - o Utilizing the ELM FieldSight EMS software, have the system transition through all it's different operating modes that it will see during normal operation
 - o These operating modes are defined with the customer during the engineering phase of the project

The site-specific commissioning test plan will be created with input from the customer and reviewed before commissioning is scheduled at the site.

Configuration

The ELM commissioning team will assist in the configuration of all equipment at a site to ensure proper communication and controls are established. Critical items such as configuration of the PCS and ELM FieldSight

Controller will be performed by ELM Personnel through password protected settings or equipment specific configuration software.

ESS panelboard must be protected with overcurrent protection device rated for the maximum output current of the storage inverter. If the overcurrent protection device is undersized, ELM must be notified to adjust the parameters of the ESS to comply with NFPA 70 section 210.20, 705.13.



- i. *“Notice: “The maximum operating currents in controlled busbars or conductors are limited by the settings of the power control system and may be lower than the sum of the currents of the connected controlled power sources.”*



- ii. *Warning: “Only qualified personnel shall be permitted to set or change the setting of the maximum operating current of the PCS. The maximum PCS operating current setting shall not exceed the busbar rating or conductor ampacity of any PCS controlled busbar or conductor.”*

Completion

Upon completion of a CMG2 system commissioning, the ELM FieldSight EMS will begin uploading data from the site to its cloud based database where the system can be monitored utilizing the ELM FieldSight’s web or mobile application. If the user wishes to get access to the online monitoring system, please contact ELM Support.

System Start Up and Shut Down

The following procedures refer how to properly start up and shut down the operations of the Microgrid system.



The shut down procedures will not prevent auxiliary power from flowing through the system or disconnect the AC voltage to the primary terminals of the storage inverter. Unless manual disconnects are opened and locked, automatic or remote controls may energize components at any time. Always follow LOTO procedures and verify absence of voltage before any maintenance. Both DC and AC voltages are present. Multiple power sources may be present.

System Start Up

To start up the FieldSight EMS and begin operations with the Microgrid System:

1. Turn on panel mounted power switch on the MAIN enclosure door panel
2. After about 30 seconds, the EMS should boot up and display the Main control software screen on the HMI.
3. The control software will launch automatically, but it will not begin operation until the “Start” button is pushed.
4. When the user is ready, press the “Start” button found at the top right of the HMI.
 - a. This button will be flashing red/yellow.
5. Once the “Start” button is pushed, it will disappear the Microgrid system will begin normal operations.

System Disable

To disable the FieldSight control system, the user should:

1. Press the yellow “Maintenance Mode” button on the bottom left of the HMI.
 - a. When this button is pushed, a message window will pop up to alert the user that the system is about to be de-energized and stop normal operations. Press OK if you want to continue.
2. Once this is done, the control system will shut down operations by going into its Maintenance Mode and the button will turn red.

The disabling of a system will:

- Disable the charging and discharging of the ESS
- Disable the storage inverter
- Opens battery contactors



The shut down procedures will not prevent auxiliary power from flowing through the system or disconnect the AC voltage to the primary terminals of the storage inverter. Unless manual disconnects are opened and locked, automatic or remote controls may energize components at any

time. Always follow LOTO procedures and verify absence of voltage before any maintenance. Both DC and AC voltages are present. Multiple power sources may be present.

System Re-Enable

To re-enable the microgrid system operations from Maintenance Mode, the user should:

1. Resume the microgrid system by pressing the red “Maintenance Mode” button on the bottom left of the HMI.
 - a. When this button is pushed, a message window will pop up to alert the user that the system is about to be energized and begin normal operations. Press OK if you want to continue.
 - b. Once this done, the control system will begin normal operations and the “Maintenance Mode” button will turn yellow again

System Shut Down

To shut down the Microgrid System, the user should:

1. Follow the steps to Disable the System
2. Follow the steps to de-energize the CMG2 Exp by using the reverse order of the energize steps
 - a. Turn off the BBS within the CMG2 Exp
3. Follow the steps to de-energize the CMG2 Main ESS by using the reverse order of the energize steps
 - a. Turn off the BBS within the CMG2 Main
4. Open the site breaker that is supplying AC voltage to the Main AC Circuit Breaker in the CMG2 Main, just below the storage inverter
5. At this point, the system should be de-energized, but it should be verified before any component is worked upon.
6. Be sure to LOTO all sources of power in the work area and verify absence of voltage before servicing any equipment. Both DC and AC voltages are present. Multiple power sources may be present.

System Emergency Stop

In case of an emergency, the user can do the following to disable the microgrid system:

1. Press any of the e-stops located within the CMG2 microgrid system
 - a. These can be located on:
 - i. CMG2 Main
 - ii. CMG2 Exp
2. If any estop is pressed, the system will enter its e-stop mode where it will:
 - a. Disable the charging and discharging of the ESS
 - b. Disable the storage inverter

- c. Opens battery contactors
- 3. There will still be auxiliary power to the system and AC voltage to the terminals of the storage inverter. If further de-energization is needed
 - a. Open the breaker that is supplying auxiliary power to the CMG2 Exp
 - b. Open the site breaker that is supplying voltage to the storage inverter

Re-Enable after Emergency Stop

To re-enable the microgrid system operations from e-stop mode, the user should:

1. Pull out the e-stop button that was initially engaged
2. Press the red “e-stop” button on the left side of the HMI
 - a. When this button is pushed, a message window will pop up to alert the user that the system is about to be energized and begin normal operations. Press OK if you want to continue.
 - b. Once this done, the control system will begin normal operations, and the “e-stop” button will disappear
3. If the e-stop button has not be cleared, the control system will not allow the user to re-enable the system.

Emergency Event Shut Down

In case of a fire event with the containers, the user should NOT APPROACH THE CONTAINERS OR OPEN ANY DOORS OF THE CONTAINERS. Local fire authority should be contacted for immediate help and the user should stay a safe distance from the system.

The CMG2 series system is equipped with gas, smoke, and thermal sensors to detect an emergency event. Should the sensors detect an event, the fire panel will activate the active venting system on each container. In addition, the FieldSight EMS will automatically put the system into its e-stop mode and disable the system as noted under System Emergency Shutdown section.

Contact ELM Support before resuming the system operation following an emergency event shut down.

User Interface

Main

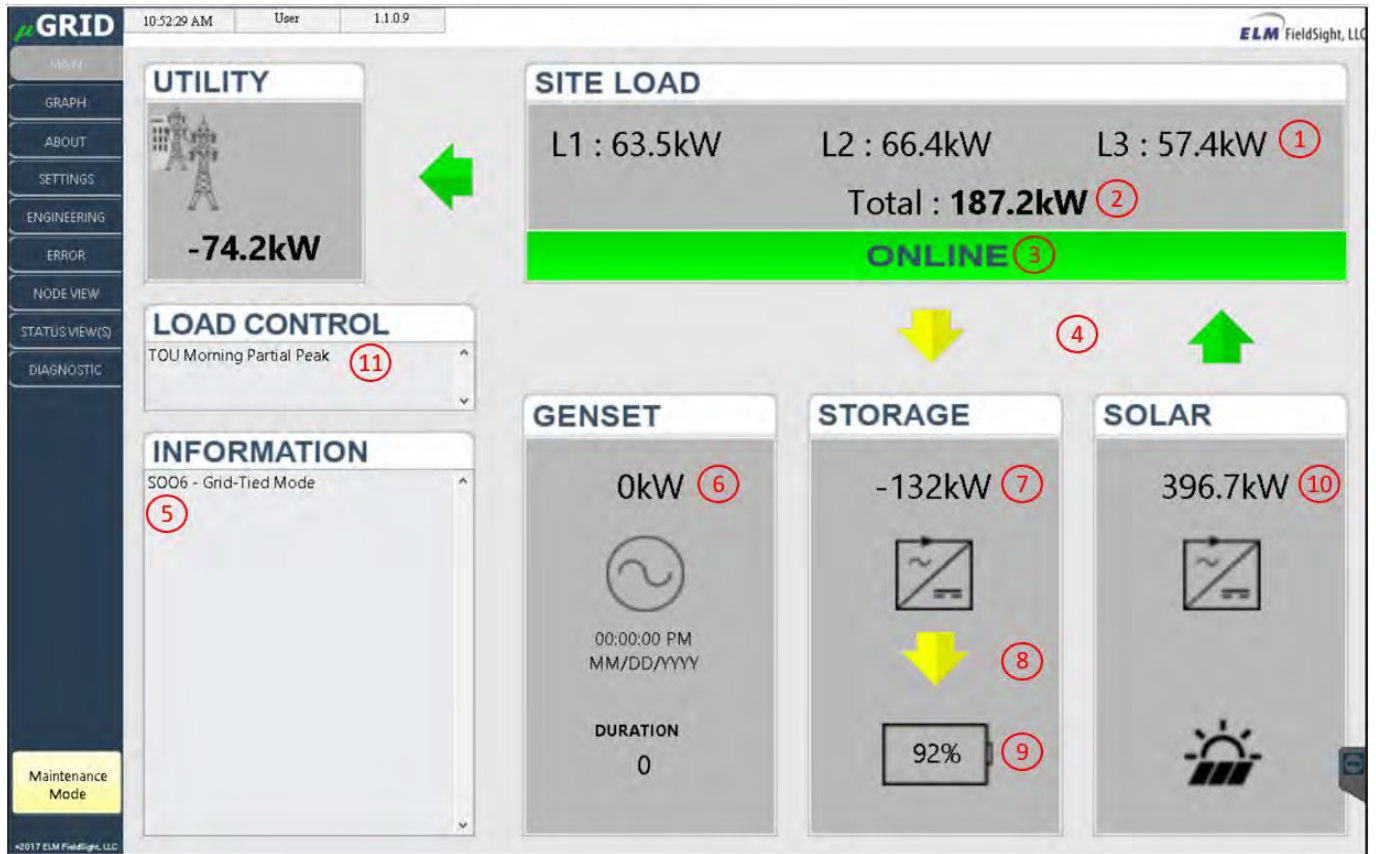


Figure 11. Program GUI Overview

1. This displays power of each phase (L1, L2 and L3) that the site is consuming.
2. This displays the total load of the site (i.e., current power consumption).
3. A green status bar indicates that system is online and operating properly. If there is no power to the site load this will turn red and say "OFFLINE".
4. Arrows will appear showing the direction of power to/from each component of the MicroGrid.
5. Any operational information, alerts, errors, or faults will be displayed here.
6. This displays power (kilowatts) coming from the generator. It also shows the time stamp for the last time the generator ran and for how long it ran.
7. This displays total power (kilowatts) to/from the storage inverter.
8. This displays the flow between the battery system and the inverter. A yellow arrow indicates power is being charged to the batteries; a green arrow indicates the batteries are being discharged.
9. This displays the current state of charge of the battery system (percent of total).
10. This displays power (kilowatts) coming from the solar panels to the solar inverters.
11. This displays if a load control feature is enabled and active.

Maintenance Mode Button

 The shut down procedures will not prevent auxiliary power from flowing through the system or disconnect the AC voltage to the primary terminals of the storage inverter. Unless manual disconnects are opened and locked, automatic or remote controls may energize components at any time. Always follow LOTO procedures and verify absence of voltage before any maintenance. Both DC and AC voltages are present. Multiple power sources may be present.

When this button is pressed, the system will be put into Maintenance Mode. This will put the storage inverter in idle mode and open the PV inverter’s contactors (if connected). It also opens the contactors for the battery system and commands the genset to turn OFF (if connected). It is recommended that all disconnects are opened immediately and prior to any maintenance. This system CANNOT shut off incoming power from the utility. Proceed with extreme caution as equipment may remain energized. To come out of Maintenance Mode, close all disconnects, push the Maintenance Mode button again, and respond to HMI on-screen prompt.

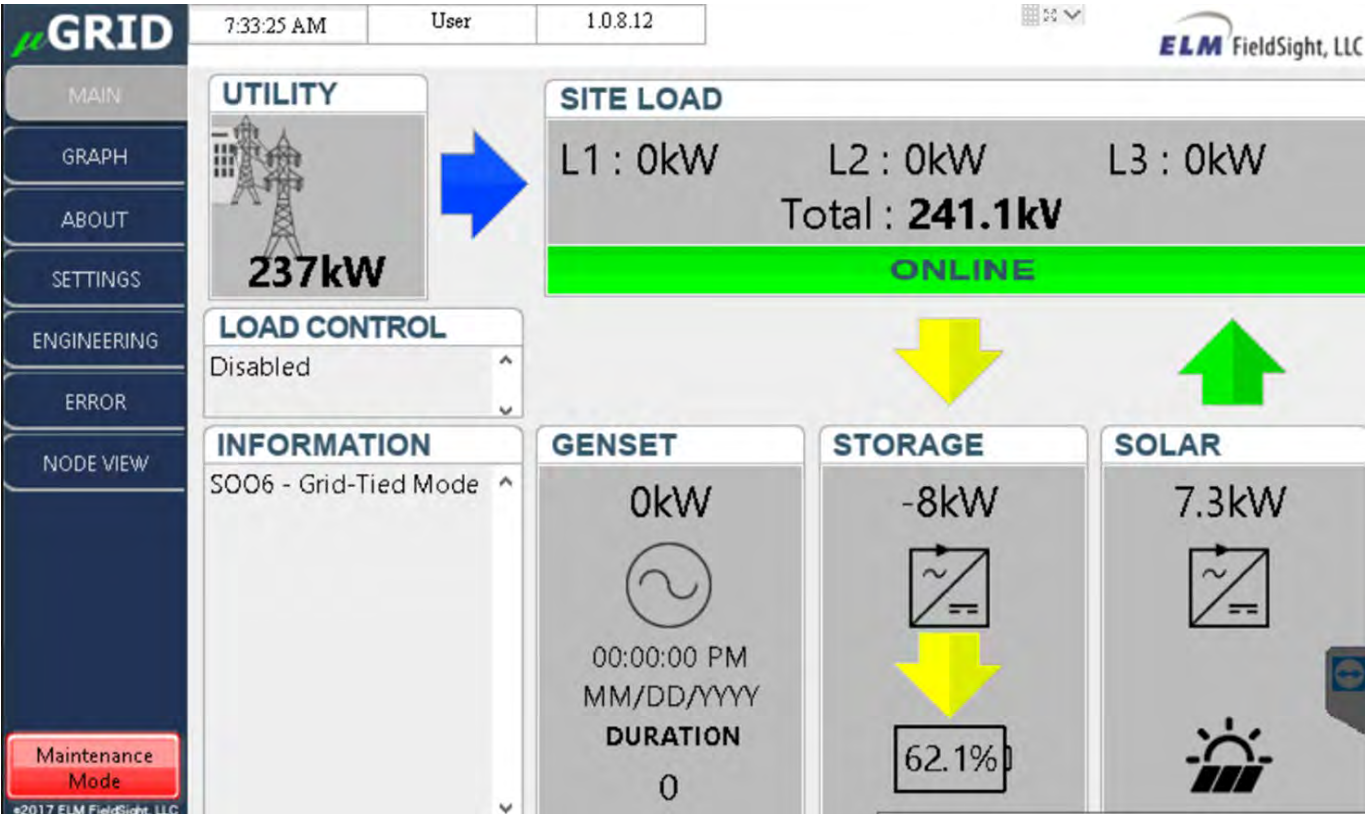


Figure 12. Program Maintenance Mode

Emergency Stop

 The shut down procedures will not prevent auxiliary power from flowing through the system or disconnect the AC voltage to the primary terminals of the storage inverter. Unless manual disconnects are opened and locked, automatic or remote controls may energize components at any time. Always follow LOTO procedures and verify absence of voltage before any maintenance. Both DC and AC voltages are present. Multiple power sources may be present.

When the external emergency stop button is enabled or the fire control panel system alarm is activated in the container, the system will be put into Emergency Stop mode. The storage inverter will be put into E-Stop mode which will disable its outputs. The battery system will open its contactors. The EMS will command the generator to turn off (if connected). The PV inverters will open its contactors (if connected). To come out of E-Stop mode, release the external system E-Stop button and push the Emergency Stop button on the HMI screen. Respond to on-screen prompts as needed.

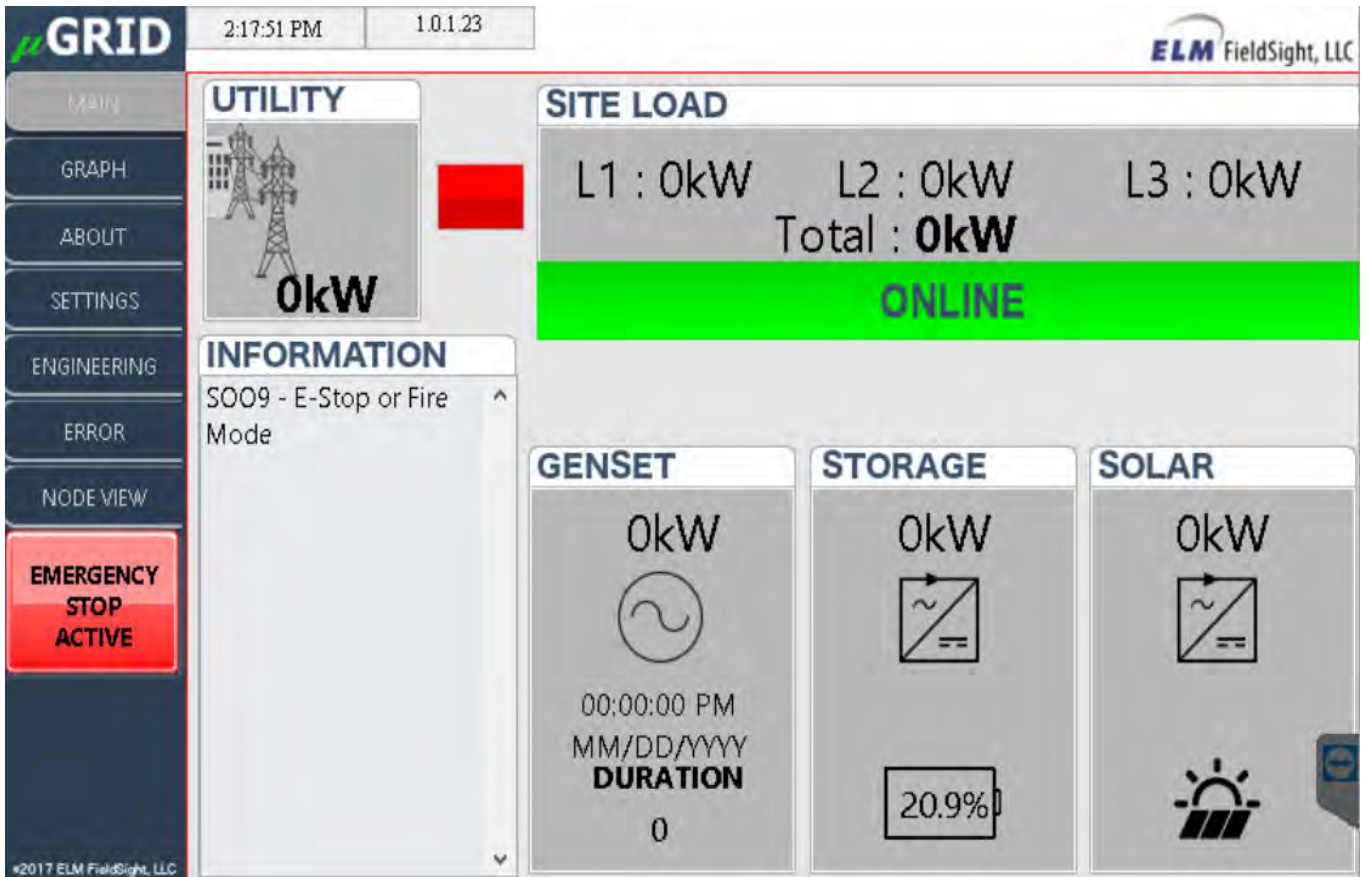


Figure 13. Program Emergency Stop

Graphs

The graphs page compares current power production of the microgrid against the current load of the system. The red bar displays load; the green bar displays grid power; and the blue line displays battery SOC. This graph displays data for the past 30 minutes.

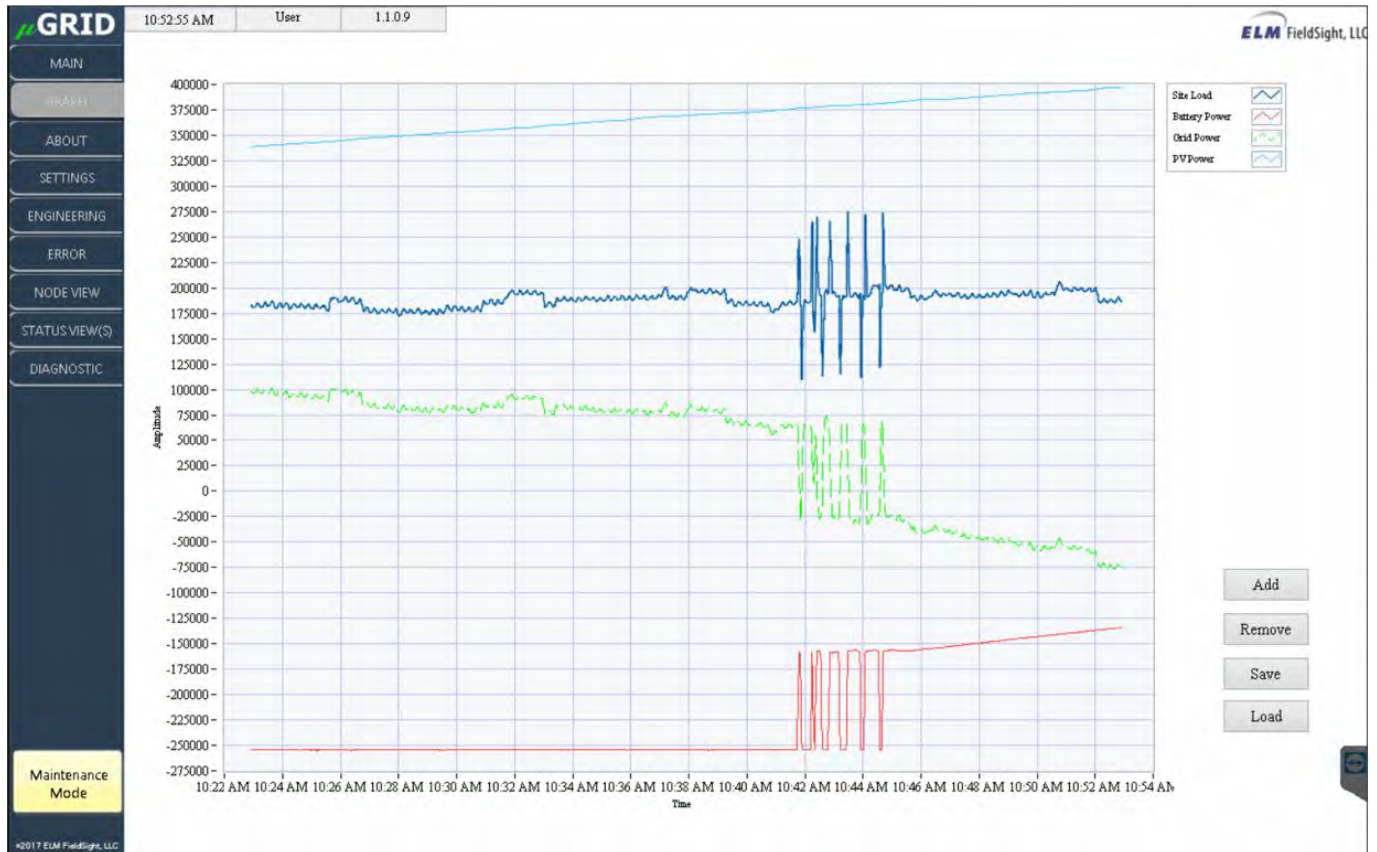


Figure 14. Program Graph Tab

About Screen

This page displays information on the components of the MicroGrid system including make and model of each component and contact information for service / warranty questions. It can also be used to download the last 30 days' worth of data and fault history by using the "Open Logs Folder".

The screenshot shows the 'About' tab in the ELM FieldSight software. The interface includes a sidebar with navigation options: MAIN, GRAPH, About (selected), SETTINGS, ENGINEERING, ERROR, NODE VIEW, STATUS VIEW(S), and DIAGNOSTIC. At the top, the status bar shows the time (10:58:17 AM), user (User), and version (1.1.0.9). The system owner is listed as 'ELM FieldSight, LLC'. A table displays the following components:

Name	Model	Website	Email	Telephone
ELM FieldSight	Site Controller	www.elm-fieldsight.com	support@elm-fieldsight.com	(309) 671-4300
Shoe Palace - ATS				
WattNode	WND-WR-MB	www.ccontrols.com	techsupport@ccontrols.com	(303) 444-7422
Veris Power Meter	E51		support@veris.com	503-598-4564
Shoe Palace - EPC FE924ES - Blue	PD250		support@epcpower.com	858-748-5590
Shoe Palace - Kore - KPMC	Kore KP-MC	korepower.com		208-904-1642
Shoe Palace - Adam 6226	Adam 6226	www.advantech.com	support@advantech.com	(888)-576-9668
Shoe Palace - Adam 6251	Adam 6251	www.advantech.com	support@advantech.com	(888)-576-9668
APC UPS				
Li-ion Tamer generic monitor				
HVAC	Dantherm			

At the bottom, it states 'Powered by ELM FieldSight, LLC' with a link to <http://www.elm-fieldsight.com>. There is also an 'Open Logs Folder' button and a 'Maintenance Mode' indicator.

Figure 15. Program About Tab

Settings

This Settings screen allows the user to adjust parameters for the operation of the system in Peak Shaving, Demand Response, and Island Mode. Additionally, there are password protected component and system parameters that can be adjusted to aid in the testing of the system and to allow further optimization of the system as historical data is gathered. Password protected settings are only available to qualified personnel. See Configurable Setpoints section for more information on setting changes.

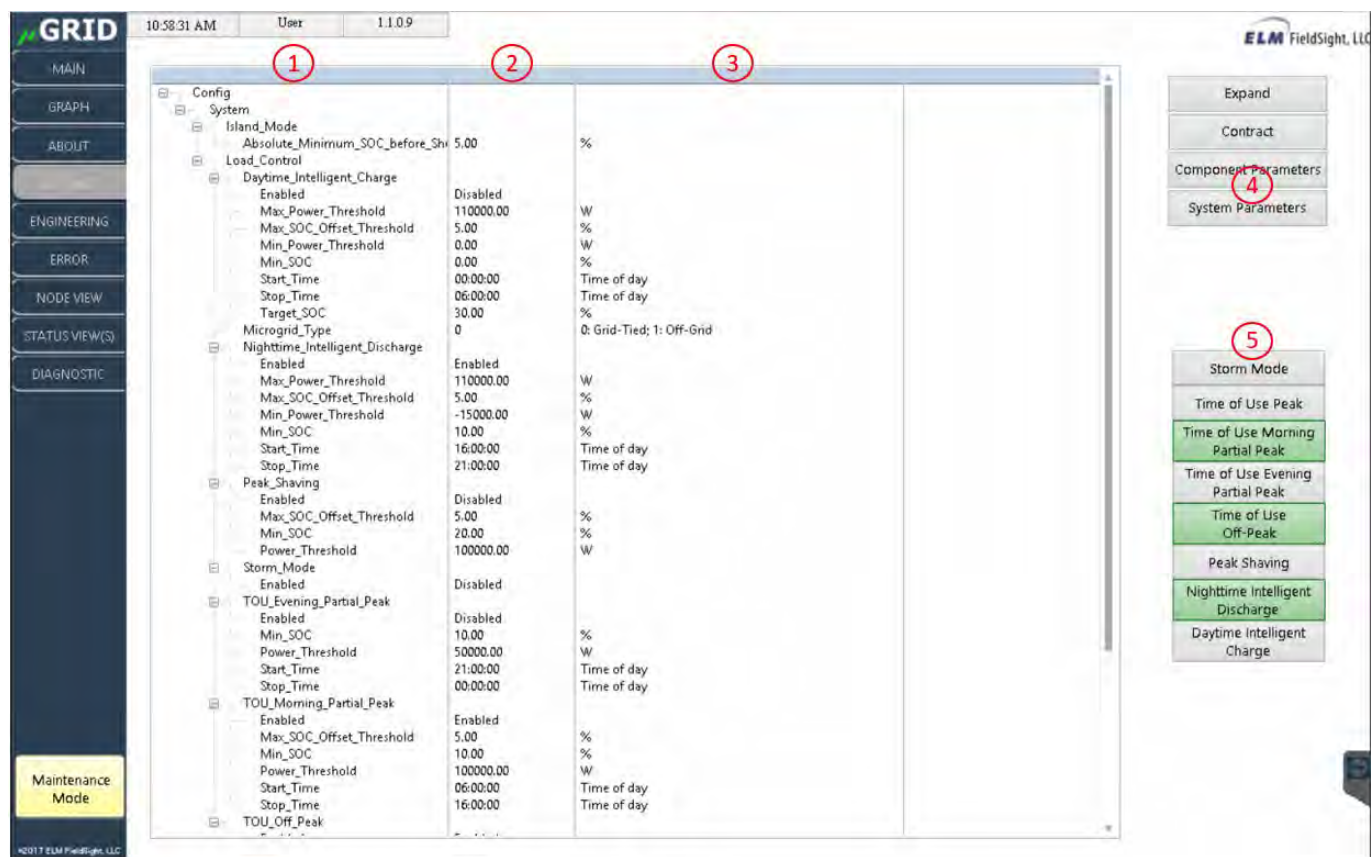


Figure 16. Program Settings Tab

1. Parameter Name
2. Parameter Value. Parameters can be updated by double clicking on the value
3. Parameter units
4. Additional parameters can be accessed at the component and system level. These parameters are password protected
5. Load Control Features Enable/Disable Buttons. Green button indicates the feature is enabled

Engineering

The Engineering Screen provides data from all components monitored by the Fieldsight EMS. Selected datapoints of interest can be added to the Engineering screen to monitor detailed system performance and assist in troubleshooting.

Name	Value	Time
✓ BESS_Mon.Phase_A_Reactive_Power_Unscaled	-123	10:58:47
✓ BESS_Mon.Phase_A_Reactive_Power_VA_	-12300.000000	10:58:47
✓ BESS_Mon.Phase_A_Real_Power_W_	-38100.000000	10:58:47
✓ BESS_Mon.Phase_A_Real_Power_unscaled	-381	10:58:47
✓ BESS_Mon.Phase_B_Apparent_Power_VA_	0.000000	10:58:47
✓ BESS_Mon.Phase_B_Reactive_Power_VA_	-12200.000000	10:58:47
✓ BESS_Mon.Phase_B_Real_Power_W_	-41400.000000	10:58:47
✓ BESS_Mon.Phase_B_Real_Power_unscaled	-414	10:58:47
✓ BESS_Mon.Phase_C_Apparent_Power_VA_	0.000000	10:58:47
✓ BESS_Mon.Phase_C_Reactive_Power_VA_	-12700.000000	10:58:47
✓ BESS_Mon.Phase_C_Real_Power_W_	-37800.000000	10:58:47
✓ BESS_Mon.Phase_C_Real_Power_unscaled	-378	10:58:47
✓ BESS_Mon.Real_Power_W_	-117500.000000	10:58:47
✓ Battery.Connected_String_Count	6	10:58:48
✓ Battery.Max_Cell_Voltage	4.232000	10:58:48
✓ Battery.Max_Charge_Current	300.000000	10:58:48
✓ Battery.Max_Discharge_Current	900.000000	10:58:48
✓ Battery.Max_Module_Temp	35.000000	10:58:48
✓ Battery.Min_Cell_Voltage	4.169000	10:58:48
✓ Battery.Min_Module_Temp	22.000000	10:58:48
✓ Battery.SOC_	93.000000	10:58:48
✓ Battery.SOH_	100.000000	10:58:48
✓ Battery.Total_DC_Current	-95.000000	10:58:48
✓ Battery.Voltage_V_	1144.000000	10:58:48
✓ Grid_Mon.Phase_A_Real_Power_W_	-32905.25 W	10:58:48
✓ Grid_Mon.Phase_B_Real_Power_W_	-28170.62 W	10:58:48
✓ Grid_Mon.Phase_C_Real_Power_W_	-38516.52 W	10:58:48
✓ Grid_Mon.Real_Power_W_	-99592.40 W	10:58:48
✓ Grid_Mon.Voltage_AB	482.28 V	10:58:48
✓ Grid_Mon.Voltage_BC	483.90 V	10:58:48
✓ Grid_Mon.Voltage_CA	482.02 V	10:58:48
✓ HVAC_1.Ambient_Temp	27.00 C	10:58:48
✓ HVAC_2.Ambient_Temp	26.00 C	10:58:48
✓ HVAC_3.Ambient_Temp	26.00 C	10:58:48
✓ HVAC_4.Ambient_Temp	33.00 C	12:43:22
✓ PV_Mon.Phase_A_Real_Power_W_	134257.64 W	10:58:48
✓ PV_Mon.Phase_B_Real_Power_W_	138971.89 W	10:58:48
✓ PV_Mon.Phase_C_Real_Power_W_	134481.59 W	10:58:48

Figure 17. Program Engineering Tab

1. This column displays registers that are currently being monitored by the control system and what their current numeric values are
2. This column displays registers that are currently being monitored by the control system and what their current Boolean value is (On/Off or True/False)
3. The snap shot button can be used to capture the values of all data points being monitored at a single moment in time
4. Additional registers can be added to the engineering screen from a menu of all registers that are being monitored
5. Registers can be deleted from the engineering screen
6. Different engineering screens can be created and saved for future viewing
7. Saved engineering screens can be loaded for current viewing

Error

The error pages will display and communications errors that have occurred in the past 30 seconds along with an error code that can be used for troubleshooting communication issues with components within the system.

[illegible]

Figure 18. Program Error Tab

Node View

The Node View page will display all components that are networked together on the system and their current communication status.

10:59:20 AM

User

1.1.0.9

GRID

MAIN

GRAPH

ABOUT

SETTINGS

ENGINEERING

ERROR

MODE VIEW

STATUS VIEW(S)

DIAGNOSTIC

Maintenance Mode

Node	Time	Status
ATS	10:59:20	Connected
Adam_1	10:59:20	Connected
Adam_2	10:59:20	Connected
BESS_Mon	10:59:19	Connected
Battery	10:59:20	Connected
Grid_Mon	10:59:19	Connected
HVAC_1	10:59:20	Connected
HVAC_2	10:59:20	Connected
HVAC_3	10:59:20	Connected
HVAC_4	10:59:19	Faulted - Restarting
Lilon_Tamer	10:59:20	Connected
PV_Mon	10:59:19	Connected
Storage_Inverter	10:59:20	Connected
UPS	10:59:19	Connected

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Figure 19. Program Node View Tab

Diagnostic

The Diagnostic page allows a user to operate the system manually and bypass the autonomous functionality of the main microgrid program. This mode requires a password and is only available to qualified personnel approved by ELM.

The screenshot displays the ELM FieldSight, LLC Diagnostic interface. The top bar shows the time as 10:59:47 AM, the user as 'User', and the version as 1.1.0.9. The left sidebar contains navigation options: MAIN, GRAPH, ABOUT, SETTINGS, ENGINEERING, ERROR, NODE VIEW, and STATUS VIEW(S). The main area is divided into several sections. On the left, there are control panels for Battery, Storage Inverter, PV Inverter, and Generator, each with a dropdown menu for selecting a controller and a 'Clear Faults' button. In the center, there is a large table displaying system parameters with columns for Name, Value, and Time. On the right, there is another table showing system status with columns for Name and Value. At the bottom right, there are buttons for Add, Remove, Save, and Load. The top of the interface shows the time (10:59:47 AM), user (User), and version (1.1.0.9).

Name	Value	Time
✓ Calc.Battery_Charge_Power	112142.2332	10:59:47
✓ Calc.Battery_Discharge_Power	250000.0000	10:59:47
✓ Calc.Battery_Max_Power	250000.0000	10:59:47
✓ Calc.Site_Load_W	188490.1640	10:59:47
✓ Calc.Total_Battery_Energy	660000.0000	10:59:47
✓ Battery.Max_System_Power	250000.0000	13:45:43
✓ Battery.Total_Battery_Energy	550000.0000	13:45:43
✓ Storage_Inverter_Max_Power_W	250000.0000	13:45:43
✓ BESS_Mon.Average_L-L_Voltage	483.400000	10:59:46
✓ BESS_Mon.Frequency_Hz	60.01 Hz	10:59:46
✓ BESS_Mon.Real_Power_W	-114900.000	10:59:46
✓ Battery.Connected_String_Count	6	10:59:47
✓ Battery.Max_Cell_Voltage	4.233000	10:59:46
✓ Battery.Max_Charge_Current	300.000000	10:59:46
✓ Battery.Max_Discharge_Current	900.000000	10:59:46
✓ Battery.Max_Module_Temp	35.000000	10:59:47
✓ Battery.Min_Cell_Voltage	4.170000	10:59:46
✓ Battery.Min_Module_Temp	22.000000	10:59:47
✓ Battery.SOC	99.000000	10:59:46
✓ Battery.SOH	100.000000	10:59:46
✓ Battery.Total_DC_Current	-92.000000	10:59:46
✓ Battery.Voltage_V	1145.000000	10:59:46
✓ Grid_Mon.Phase_A_Real_Power	-33885.91 W	10:59:46
✓ Grid_Mon.Phase_B_Real_Power	-30412.92 W	10:59:46
✓ Grid_Mon.Phase_C_Real_Power	-40504.86 W	10:59:46
✓ Grid_Mon.Real_Power_W	-104803.68 W	10:59:46
✓ Grid_Mon.Voltage_AB	482.50 V	10:59:46
✓ Grid_Mon.Voltage_BC	483.95 V	10:59:46
✓ Grid_Mon.Voltage_CA	482.31 V	10:59:46
✓ HVAC_1.Ambient_Temp	27.00 C	10:59:46
✓ HVAC_2.Ambient_Temp	26.00 C	10:59:47
✓ HVAC_3.Ambient_Temp	26.00 C	10:59:47
✓ HVAC_4.Ambient_Temp	33.00 C	12:43:22
✓ PV_Mon.Phase_A_Real_Power	134286.64 W	10:59:45
✓ PV_Mon.Phase_B_Real_Power	138786.62 W	10:59:45
✓ PV_Mon.Phase_C_Real_Power	135120.59 W	10:59:45
✓ PV_Mon.Real_Power_W	408193.84 W	10:59:45
✓ PV_Mon.Voltage_AB	482.29 V	10:59:45

Name	Value
Island_Mode.Enabled	0
ATS.Gnd_Available_5_Min	1
ATS.Gnd_Detected	1
Adam_1.Fire_Alarm	0
Adam_1.Fire_Novec_Discharge	0
Adam_1.Fire_Trouble	0
Adam_1.SP	0
Adam_2.Fuse_Block_Neg	0
Adam_2.Fuse_Block_Pos	0
Adam_2.Gnd_Fault_Detection	1
Battery.Charge_Enabled	1
Battery.Contactors_State	1
Lilon_Tamer.Alarm_Any	0
Storage_Inverter.Fault_Flags.Lo_EStop	0
Storage_Inverter.Lo.AC_PWR_AVAIL	1

In this operating mode, the user can:

- Open and Close Battery Contactors
- Start and Stop Storage Inverters and command different setpoints for real power, reactive power, voltage, and frequency
- Control PV power setpoints (if available)
- Start and Stop generators (if available)

Note: In Diagnostic mode, the program does not incorporate all the same safety features as the autonomous program, so careful attention to how the system is operating is important. DO NOT leave the system running in diagnostic mode unattended.

System Operations

All CMG2 Series systems comes with an ELM FieldSight EMS to manage the operations of the storage inverter, CMG2 components and batteries, and any ancillary equipment at a site that might be required (such as generator, PV, load control, grid interconnections, etc.). ELM engineering will work with the customer during the project engineering phase to define the controls and operations required for the site. Typical CMG2 Series systems have the ability to work in the following operating modes:

On Grid Normal Operations:

- Peak Shaving
- Energy Arbitrage
- Demand Response Events
- Intelligent charging and discharging controls
- Direct real and reactive power commands

Grid Support Functions:

- Fixed Power Factor
- Hz-Watt
- Volt-Var
- Volt-Watt
- Volt-Watt Limit
- Watt-Power Factor
- Watt-Var

Off-Grid Operations:

- All systems come with Island Mode capabilities
- Additional site-specific remote sense and relay controls may be required
- Closed Transitions
- Open Transitions
- Generator interface and control

The following is a summary of the typical operations of an ELM FieldSight controlled Microgrid System. Site and project specific operations may differ from these operations.

Sequence of Operations – Local Control

The ELM FieldSight control system can be designed to operate in a local control mode with different Sequence of Operations based on current operating conditions at the site.

Local control mode is defined as the ELM FieldSight is monitoring all equipment at a site and making its own charge and discharge decisions based on its load control feature settings.

These operating states are defined by the following table:

Mode	Operating State	Description
	Initialize	Determine what mode and state the system needs to start in
	SO01	System startup and battery initialization
Island Mode	SO02	Genset On: When the combined maximum output of the PV array and battery (a minimum SOC threshold for the battery has been reached) is insufficient to support the loads, the site EMS should turn ON the genset incorporating a seamless transition. While the genset is ON, the storage inverter will be utilized to support the load and charge the battery in current source mode with all PV inverters disabled.
	SO03	Genset Off: While there is sufficient PV generation and battery capacity available, the generator will remain off and the storage inverter will form the grid and act as the Microgrid master. The PV inverters will sense the AC voltage on their terminals and follow the storage inverter.
	SO04	Fault Mode: Should the storage inverter fault while in Island Mode, the system will transition to this mode and attempt to clear faults on the storage inverter. It will remain in this mode until all faults have been cleared.
Grid Tied	SO05	Fault Mode: Should the storage inverter fault while in Grid-tied Mode, the system will remain connected to the grid, but will attempt to clear faults on the storage inverter. It will remain in this mode until all faults have been cleared.

	SOO6	In this mode, the Microgrid will operate in parallel with the utility grid. The goal is to maximize the local consumption of the PV generation and battery while keeping the batteries partially charged to prepare for an outage. If there is sufficient PV generation, solar array will power the loads on site. If the load is fully met, PV will prioritize charging the battery bank until the battery state-of-charge (SOC) reaches 100%. If the PV generation exceeds the amount of power the battery can absorb (either due to high SOC or charge power limitations), the Microgrid will export excess PV generation to the utility grid if allowed. If PV is not able to support local loads (either due to cloudy days or night times), the Microgrid will use the battery up to a specific SOC threshold (configurable) based on load control features that are enabled such as peak shaving, time of use shifting, or intelligent charging/discharging
Transition	SOO7	Transition Mode: System moves to this mode while in Island Mode after the grid returns by MID is still open.
Low SOC	SOO8	The System enters this mode when in Island Mode and the generator fails to turn on when needed. The batteries will continue to be utilized until they reach an absolute minimum SOC threshold (configurable). At this time, the system will shut down to protect the batteries and can only be resumed through manual intervention.
E-Stop	SOO9	The System enters this mode when the user pushes the physical E-Stop button. In this mode Site EMS turns off the generator(s), opens the battery contactor and disables the storage inverter and all PV inverters. Site EMS maintains the system in this mode until the user resumes system operation on the touch screen (and removes the E-Stop activation).
Maintenance Mode	SOO10	The System enters this mode when the user presses the Maintenance Mode button on the Site EMS touch screen. In this mode Site EMS turns off the generator(s), opens the battery contactor and disables the storage inverter and all PV inverters. Site EMS maintains the system in this mode until the user resumes system operation on the touch screen.

If at any time a container ESS has a fault on the inverter, battery, or communications issues, it will transition to its respective fault mode (SOO5 or SOO4) and attempt to clear the fault. Once the fault is cleared, if the ESS is still enabled, it will automatically restart in its current mode (SOO6 or SOO3)

Sequence of Operations – Remote Control

The ELM FieldSight control system can also be designed to operate in a remote control mode with a different Sequence of Operations.

Remote Control Mode is defined as the ELM FieldSight control system being controlled by a 3rd party control package based on Modbus commands. The ELM FieldSight control system has a predefined Modbus register mapping that defines its monitoring and control features. The ELM FieldSight control system will still maintain its own safety functions and prevent the remote control system from doing something the batteries cannot do.

These operating states are defined by the following table:

Mode	Operating State	Description
	Initialize	Determine what mode and state the system needs to start in
	SOO1	System Stop Mode: The system will close battery contactors but remain with the inverter disabled until the system receives a command to start/enable.
Island Mode	SOO2	V/F Droop Mode: The storage inverter will form the grid and act as the Microgrid master. It will respond to V and F commands.
	SOO3	UPS Mode: The storage inverter will form the grid and act as the Microgrid master. It will set voltage and frequency to its default values of 480V and 60 Hz respectively.
	SOO4	Fault Mode: Should the storage inverter fault while in Island Mode, the system will shut down and attempt to clear faults on the storage inverter. It will remain in this mode until all faults have been cleared. After faults have cleared, it will transition to SOO2 or SOO3 as required.
Grid Mode	SOO5	Fault Mode: Should the storage inverter fault while in Grid-tied Mode, the system will remain connected to the grid, but will attempt to clear faults on the storage inverter. It will remain in this mode until all faults have been cleared. It will re-start and transition to SOO6 or SOO7 as required.

	SOO6	Current Source Mode: the Microgrid will operate in parallel with the utility grid. The inverter will be enabled and operate in one of the 2 following modes: Idle Mode: The inverter will stay enabled with real and reactive power commands set to 0. P/Q Mode: The inverter will respond to both real and reactive power commands. PF Mode: The inverter will respond to both real power and power factor commands. Autonomous Mode: The ESS will manage its own P/Q setpoints based on what load control features are enabled
	SOO7	Voltage Source Mode: The Microgrid will operate in parallel with the utility grid. The inverter will be enabled and operate in the following mode: V/F Mode: The inverter will respond to V and F commands
Low SOC	SOO8	The System enters this mode when in Island Mode and the batteries reach an absolute minimum SOC threshold (configurable). At this time, the system will shut down to protect the batteries.
E-Stop / Fire	SOO9	The System enters this mode when the user pushes the physical E-Stop button or the fire control panel system alarm has activated. In this mode, battery EMS opens the battery contactor and disables the storage inverter. Site EMS maintains the system in this mode until the user resumes system operation on the touch screen (and removes the E-Stop activation).
Maintenance Mode	SOO10	The System enters this mode when the user presses the Maintenance Mode button on the Site EMS touch screen . In this mode, battery EMS opens the battery contactor and disables the storage inverter. Site EMS maintains the system in this mode until the user resumes system operation on the touch screen.

If at any time a container ESS has a fault on the inverter, battery, or communications issues, it will transition to its respective fault mode (SOO5 or SOO4) and attempt to clear the fault. Once the fault is cleared, if the ESS is still enabled, it will automatically restart in its current mode (SOO6 or SOO3)

Load Control Features

The ELM FieldSight ESS control system has built in algorithms to perform load control functionality of the ESS based on user input parameters and thresholds. These load control features are defined by:

- Peak shaving:
 - o User inputs a power threshold and minimum SOC

- o Battery will be discharging and charging will be managed such that the grid import power is less than the user threshold
 - o Battery will discharge until minimum SOC is reached
- Time of Use:
 - o User inputs a power threshold, time range, and minimum SOC
 - o Battery will be discharging and charging will be managed such that the grid import power is less than the user threshold
 - o Battery will only discharge during the user prescribed time range
 - o Battery will discharge until minimum SOC is reached
 - o The user can define 4 different time ranges and power thresholds
- Intelligent Discharge:
 - o Similar to “Time of Use” function except the site EMS will automatically calculate the power threshold with the goal of hitting a minimum SOC target by a certain time. It does this based on the following parameters:
 - o The current time of day vs. the user defined “stop” time of day
 - o Current SOC vs the user defined minimum SOC target
 - o Average grid import power over the last 30 minutes
 - o A user can also define a minimum and maximum power threshold that the site EMS must maintain the calculated value between
 - o There is one time range function for this feature
- Intelligent Charge:
 - o Similar to “Intelligent Discharge” function except the site EMS will automatically calculate the power threshold with the goal of hitting a maximum SOC target by a certain time. It does this based on the following parameters:
 - o The current time of day vs. the user defined “stop” time of day
 - o Current SOC vs the user defined maximum SOC target
 - o Average grid import power over the last 30 minutes
 - o A user can also define a minimum and maximum power threshold that the site EMS must maintain the calculated value between
 - o There is one time range function for this feature
- Storm Mode
 - o When enabled, the site EMS will disable any other load control mode currently active. The site EMS will prioritize charging the battery up to 100% SOC
 - o The goal is to keep the battery fully charged due to a pending storm or event that has a high likelihood of disturbing the grid.

Grid Import and Export Control

According to UL1741 PCS CRD and UL 3141 guidelines, the ELM controller offers the flexibility to function as a Power Control System (PCS) controller and manage the power flow to and from the utility and within a busbar. The ELM controller can function in both export-only and import-only modes. To align with specific site and utility requirements, please reach out to ELM microgrid for the necessary adjustments.

The ELM Controller has 4 distinct on-grid operating modes for utility interconnection

- Unrestricted Mode
 - User can import and export as much power as needed between the grid and the ESS
- Export Only Mode
 - User cannot import any power from the grid to charge the ESS
 - User can specify the percent of rated system rated power that is allowed to be exported to the grid from the ESS
- Import Only Mode
 - User cannot export any power from the ESS to the grid
 - User can specify the percent of system rated power that is allowed to be imported from the grid to charge the ESS
- No Exchange Mode – User cannot import or export any power between the grid and the ESS

Alerts and Faults

System Status, Alerts and Faults on the system are available to be read through the ELM FieldSight EMS.

If the system has an internet connection, it will send out text and/or email alerts for different operating states. These notifications can be enabled/disabled utilizing the ELM-Fieldsight.com web interface. These alerts include, but are not limited to:

- System Fault and System Fault Cleared
- Grid Outage and Grid Outage Cleared
- Emergency Stop and Emergency Stop Cleared
- Maintenance Mode and Maintenance Mode Cleared
- High Temperature Warnings
- Battery Rack(s) offline
- Low SOC Warnings and Shutdowns
- Severe Fault Condition

Severe Fault Notification: The ESS operating system has a built-in feature to shut the system down and send it to a “Severe Fault” mode when 5 faults occur in less than a 60 minute period. The system can only be resumed from its “Severe Fault” mode by 3 methods:

1. If it is a remote controlled system by an outside EMS, the severe fault can be cleared by sending a disable command.
2. If it is a locally controlled system, the severe fault can be cleared by putting the system into maintenance mode
3. If it is remote or locally controlled, an ELM support member can reset the severe fault mode through the password protected settings.

It is recommended to review what issues are causing the repeated faults before resuming the system.

Data Log Recovery

To access the data logs for a battery system, the user can navigate to the ‘About’ tab on the system touchscreen. Once on the about screen, the user can click on “Open Logs Folder” in the bottom right of the screen. This will open a File Explorer window where all the log files can be found. All data logs on the system are stored locally for 14 days unless contractually required to store them longer.

10:58:17 AM User 1.1.0.9

System Owner ELM FieldSight, LLC

Name	Model	Website	Email	Telephone
ELM FieldSight	Site Controller	www.elm-fieldsight.com	support@elm-fieldsight.com	(309) 671-4300
Shoe Palace - ATS				
WattNode	WHD-WR-MB	www.ccontrols.com	techsupport@ccontrols.com	(303) 444-7422
Veris Power Meter	ES1		support@veris.com	503-598-4564
Shoe Palace - EPC FE924E5 - Blueb	PD250		support@epcpower.com	858-748-5590
Shoe Palace - Kore - KPMC	Kore KP-MC	korepower.com		208-904-1642
Shoe Palace - Adam 6226	Adam 6226	www.advantech.com	support@advantech.com	(888)-576-9668
Shoe Palace - Adam 6251	Adam 6251	www.advantech.com	support@advantech.com	(888)-576-9668
APC UPS				
Li-ion Tamer generic monitor				
HVAC	Dantherm			

Maintenance Mode

Powered by ELM FieldSight, LLC
<http://www.elm-fieldsight.com>

Open Logs Folder

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Once the user is in the “logs” folder, they will find the following folder structure.

Config	3/24/2021 6:33 PM	File folder
Data	3/26/2021 11:28 AM	File folder
Error	3/25/2021 8:00 PM	File folder
Message Logs	3/26/2021 11:27 AM	File folder
Projects	3/12/2021 10:30 AM	File folder
Web Logs	3/22/2021 5:10 PM	File folder

The ‘Data’ folder contains the following files that may be useful to the user:

MicroGrid Transition Log: This records when different transitions between SOO’s occur and what constraint caused the system to transition to the new SOO

Microgrid Fault Log: This records the time and type of any faults that are logged on the batteries or the storage inverters.

Microgrid Settings Log: This records any settings that are changed in the program and logs the old and new parameter value along with a time stamp.

Microgrid “date” QuarterDay.tdms: This is a raw data file that can be used for troubleshooting a system if needed. These files do require an ELM FieldSight Proprietary software tool to view the files.

The ‘Error’ folder contains any communication errors that occur between components.

The ‘Message Logs’ folder records all commands that are sent to the different components in the system.

Off-Site Remote Control Operations

The ESS utilizes ELM’s FieldSight EMS to monitor and control the equipment built into the site’s Microgrid system. If the ELM’s FieldSight EMS is connected to either an internet connection provided by the site or has their cellular modem enabled, and the site has provided permission for remote access, ELM has the ability to remote into their system through a secure network to assist any troubleshooting activities and provide program updates as needed.

If a customer wishes to disable this remote access, they can unplug the internet connection or disable the cellular modem at the site. This is not recommended as it will prevent ELM from providing timely support when issues arise with a system.

Battery Discharging

It is important to note that the batteries within an ESS will self-discharge over time. This means it is important to not discharge the batteries to a low SOC and let it sit idle for an extended amount of time. If this happens, the batteries will continue to self-discharge to a point where the battery cell voltage will drop below the allowable minimum cell voltage allowed by the BMS, and the BMS will prevent the system from allowing it to operate and charge the batteries back up. If this occurs, the batteries will have to be manually charged using an external power supply and could impact the warranty of the system.

Sub-Assembly Operations

The following descriptions outline some of the critical sub-assemblies contained within the CMG2 Series System.

Liquid Cooling System

The liquid cooling system is designed to manage the temperature of the battery cells within the ESS. The cooling system will cycle its compressor and fan on and off during the operation of the ESS to main a stable fluid temperature running the battery system. The cooling system does require the intake and exhaust louvers on the cooling system cavity door be kept free of any obstruction within 36" of the front of the door and the back of the container.

Manufacturer	Dantherm	
Model Number	CC-14-48-ET-P26	
Voltage	48	Volts DC
Max Current	30	Amps
Cooling Capacity	14,000	BTU/hr
Heating Capacity	300	Watts

Fire Safety System

The fire safety system is managed by an addressable control panel (Potter ARC-50) that is interconnected with several different sensors throughout the CMG2 system. It consists of the following sensors in each of the containers:

CMG2 Main and Exp ESS:

- Smoke Sensor
- Heat Sensor
- Gas Sensor

See CMG2 Series ESS Fire Safety Design Analysis for more details on the operation of the safety system.

Active Venting System

The active venting system is designed to purge the ESS of toxic fumes should its gas sensor detect a higher level of hydrogen gas buildup within the system. The active venting system is activated automatically from the fire system releasing control panel and is shut down only upon sensors clearing their alarm and the control panel clearing its alarm. The active venting system can also be deployed manually by the site through a remote switch if one is installed.

Manufacturer	Dantherm	
Model Number	EF-50-24	
Voltage	24	Volts DC
Max Current	1.3	Amps
Fan Capacity	170	CFM

Battery Backup System (BBS) System

Each ESS container has an integrated BBS that provides back up power to critical components. It is rated for the following:

CMG2-125 Main Battery Backup System	
Stored Energy	960 Wh
Continuous Power Rating	240 W

CMG2-EXP Battery Backup System	
Stored Energy	480 Wh
Continuous Power Rating	240 W

The CMG2 system, can provide 19 hours of continuous runtime to its critical components. The critical components that are supported by the BBS include:

- ELM FieldSight EMS
- Network switch and other communication equipment
- Battery Rack control power
- Digital Input and Output devices

Surge Suppression

The system is equipped with surge protection devices on the high voltage DC buses to protect ESS system equipment from voltage spikes. The DC surge protection device is monitored by the FieldSight EMS, and a failure

of this device will cause the system to shutdown. Surge protectors need to be periodically inspected, and failed / expended surge protectors need to be replaced immediately.

AC surge protection is built into the storage inverter.



DC Surge Protection

Ground Fault Detection

One (1) ground fault detector per AC system is mounted below the Storage Inverter. The Ground fault detector or IMD (Insulation Monitor Device) monitors the insulation resistance between the line and the earth in real time in a live wire state in an ungrounded system in both AC and DC isolated systems. The GFD will monitor the insulation level of the system and if it reaches to a warning threshold (or a single ground fault) it will alert the microgrid EMS and will fault the system before there's a line-to-line fault which can result in dangerous overcurrent situation.

Supply Voltage:	24VDC
Operating Temp:	-25 °C to 60 °C
Measuring Circuit Nominal Voltage:	0-690V AC/DC
Max System Leakage Capacitance:	1000µF
Model Number:	1SVR470670R1000
Manufacturer:	ABB

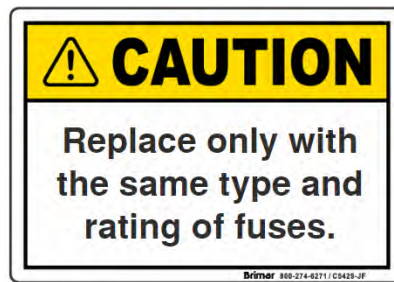


Fuse Replacement



Follow proper LOTO procedures and verify the absence of voltage in all circuits and equipment in the work area when installing or servicing current transformers. Always wear appropriate PPE. Only qualified personnel shall install, remove, or otherwise service equipment fuses.

Replacement of any Fuse shall be of the same manufacturer, type destination and equal or greater interrupting rating. The following warning label is next to fuses on the equipment.



The following table shows the fuses type and rating used on the CMG2 MAIN and EXP.

Fuse Size (A)	Manufacturer	Part Number	Voltage	Short Circuit Rating
10	Littlefuse	CCMR010.HXP	600 VAC / 250 VDC	300 kA AC, 20kA DC
6.25	Littlefuse	CCMR6.25HXP	600 VAC / 250 VDC	300 kA AC, 20kA DC
5	Littlefuse	0232005.MXP	250 V	
20	Littlefuse	0287020.PXCN	32 V	
315	Dynapower	Storage Inverter	1500 VDC	50kA

Maintenance

The following table outlines the basic service requirements for the CMG2 Series System. More detailed information for performing the tasks can be found in the individual manufacturer owner's manual. The schedule shown is a recommended schedule and systems in harsh environments or where uptime is critical may want to increase the frequency of the maintenance. Carefully review the following procedure below before performing any installation or maintenance work.



1. Work must be performed by qualified personnel only.
2. Clearly identify work locations and get familiarized with site interconnection drawings.
3. Engage E-Stop on system to prevent remote control operations.
4. Follow the sequence from this document for "System Shut Down"
5. Lock Out Tag Out (LOTO) site auxiliary power feed and all DC disconnects before performing any work on the CMG2 ESS containers to prevent any accidental energization of the container.
6. Lock Out Tag Out (LOTO) site AC feed to the storage inverter and all ESS disconnects before performing any work on the storage inverter to prevent any accidental energization of the container.
7. Inverters contain capacitors which require several minutes to discharge after removing power. Verify that system and component voltages are at or near 0V by measuring with a voltmeter.
8. Batteries will continue to hold energy, refer to battery O&M manual for safety instructions.
9. All electrical installations must comply with the electrical standards applicable on-site.
10. Always verify absence of voltage before any maintenance. Both DC and AC voltages are present. Multiple power sources may be present.

For additional information in regard to specific component maintenance and troubleshooting procedures, please refer to:

- Storage Inverter – Dynapower MPS 125 Operation and Maintenance Manual
- Fire Control Panel – ARC-50 Fire Alarm Control Panel Manual
- Cooling System - Dantherm
- Battery – Hithium 280Ah Battery Module User Manual

Preventative Maintenance (PM) Procedures

ELM has developed a mobile application for assisting with performing and tracking your preventative maintenance. This app is called ELM FieldTech. For access to this app, please notify support@elm-ess.com.

To maintain the warranty provided on the CMG2 series equipment, the listed PM procedures must be performed routinely and documented.

Frequency	Equipment	Operation	Subsystem
6 Month	System	Audible Inspection	System
		Thermal Inspection	System
	ESS Main / Exp	Visual Inspection	Container
		Fire Panel Inspection	Fire Panel
		Visual Inspection	Cooling System
		Visual Inspection	Battery
		Pictures	Container
	Storage Inverter	Visual Inspection	External
		Pictures	Inverter
12 Month	System	6 Month Inspection	All
	ESS Main / Exp	Coolant Inspection	Cooling System
	Storage Inverter	Visual Inspection	Internal
60 Month	System	6 Month Inspection	All
		12 Month Inspection	All
	ESS	Coolant Component Replacement	Cooling System
		Gas Detector Replacement	Gas Detection
120 Month	ESS	Battery Replacement	BBS

6- Month:

- CMG2 System (Perform while system is energized):
 - Audible Inspection:
 - Before shutting the site down, listen to ESS containers and Storage Inverter for any abnormal sounds
 - Thermal Inspection:
 - While the system is running, perform a thermal camera inspection of the following and create pictures:

- CMG2 Main Side Area: Breakers, fuses, storage inverter
 - CMG2 Main: Battery Rack , Cooling System Cavity, controls panel
 - CMG2 Exp: Battery Rack , Cooling System Cavity, controls panel
- Any hot spots that are found during this process, should have the connections torque checked after shutting the system down. Thermal camera check should happen again after re-energizing the system.
- CMG2 Main (Perform while system is de-energized):
 - Visual Inspection:
 - Open doors and visually inspect container for noticeable intrusion of dust, rodents & pests, and water.
 - Ensure door latches are not loose and seals are still intact.
 - Make sure all breakers are still in the “on” position
 - Check AC Surge Protection Device
 - Should have a green indicator present
 - Check DC Surge Protection Device
 - Inspect for any signs of corrosion or deterioration
 - Check fire panel for normal operating conditions
 - Verify at the control panel for any fault or trouble indication with regards to the panel signaling circuit(s).
 - Visual Inspection – Cooling System:
 - Clean and unblock any clogging on the cooling system filter and fan to prevent disruption to the air flow using unpressurized water as needed.
 - Pull out cooling system skid and look for any cooling system leaks
 - Inspect all cooling system coolant lines, fittings, and seals. Retighten or replace any lines that are visibly damaged.
 - Return cooling system to its normal position and lock in place.
 - Visual Inspection - Battery:
 - Visually inspect cables/wires, busbars, system components for damage, wear, or signs of insulation degradation.
 - Check to ensure communication cable connections are secure.
 - Pictures:
 - External: All 4 sides
 - Internal: Side area, battery area, cooling system area, inside of door
- CMG2 Exp (Perform while system is de-energized):
 - Visual Inspection:
 - Open doors and visually inspect container for noticeable intrusion of dust, rodents & pests, and water.
 - Ensure door latches are not loose and seals are still intact.

- Make sure all breakers are still in the “on” position
- Visual Inspection – Cooling System:
 - Clean and unblock any clogging on the cooling system filter and fan to prevent disruption to the air flow using unpressurized water as needed.
 - Pull out cooling system skid and look for any cooling system leaks
 - Inspect all cooling system coolant lines, fittings, and seals. Retighten or replace any lines that are visibly damaged.
 - Return cooling system to its normal position and lock in place.
- Visual Inspection - Battery:
 - Visually inspect cables/wires, busbars, system components for damage, wear, or signs of insulation degradation.
 - Check to ensure communication cable connections are secure.
- Pictures:
 - External: All 4 sides
 - Internal: battery area, cooling system area, inside of door
- Storage Inverter (Perform while system is de-energized):
 - Visual Inspection External:
 - Check the enclosure for signs of corrosion, dents or damage
 - Check for signs of water infiltration or damage around cable grommets and communication connection points on the bottom of the unit
 - Pictures:
 - External: all four sides

12 Month:

- Perform all 6 month inspections.
- ESS Main and Exp:
 - Cooling System Coolant Inspection:
 - Remove cooling system side panel and check fluid level. Fluid level should be about $\frac{3}{4}$ full on the site glass.
 - Return cooling system to its normal position and lock in place.
- Storage Inverter:
 - Visual Inspection Internal
 - Check the AC and DC switch for functionality
 - Check the torque for power cabling
 - Check the surge arrestor as active and non-tripped.
 - Check fuses for thermal stress or cracks
 - Check operation of all fans. Free of blockage, locked rotors, fans spin freely

- For corrosive environments, wash down container to remove accumulated salt and grime. Note: Do Not use a high pressure washer.
- Refer to Fire Control Panel manual for annual testing and maintenance requirements

60 Month:

- Perform all 6 month and 12 month inspections
- ESS:
 - o Perform replacement of the following within the cooling system as needed
 - Fan
 - Pump
 - o Replace the cooling system fluid. Make sure to replace with the right fluid mixture
 - -20C to 50C ambient temps: 50/50 Ethylene Glycol and water mixture
 - o Perform the replacement of the gas detector in each ESS

120 Month:

- Perform all 6 month, 12 month, and 60 month inspections
- ESS:
 - o Replace the batteries in the battery back up system
 - Batteries may be tested at this point to determine if they have a longer life

Cooling System Draining and Filling

The following procedure should be used whenever the cooling system needs to be drained of its fluid. This should only be done for the following instances:

- Fixing a leak within the system
- Replacing a battery module
- Replacing the fluid after 5 years

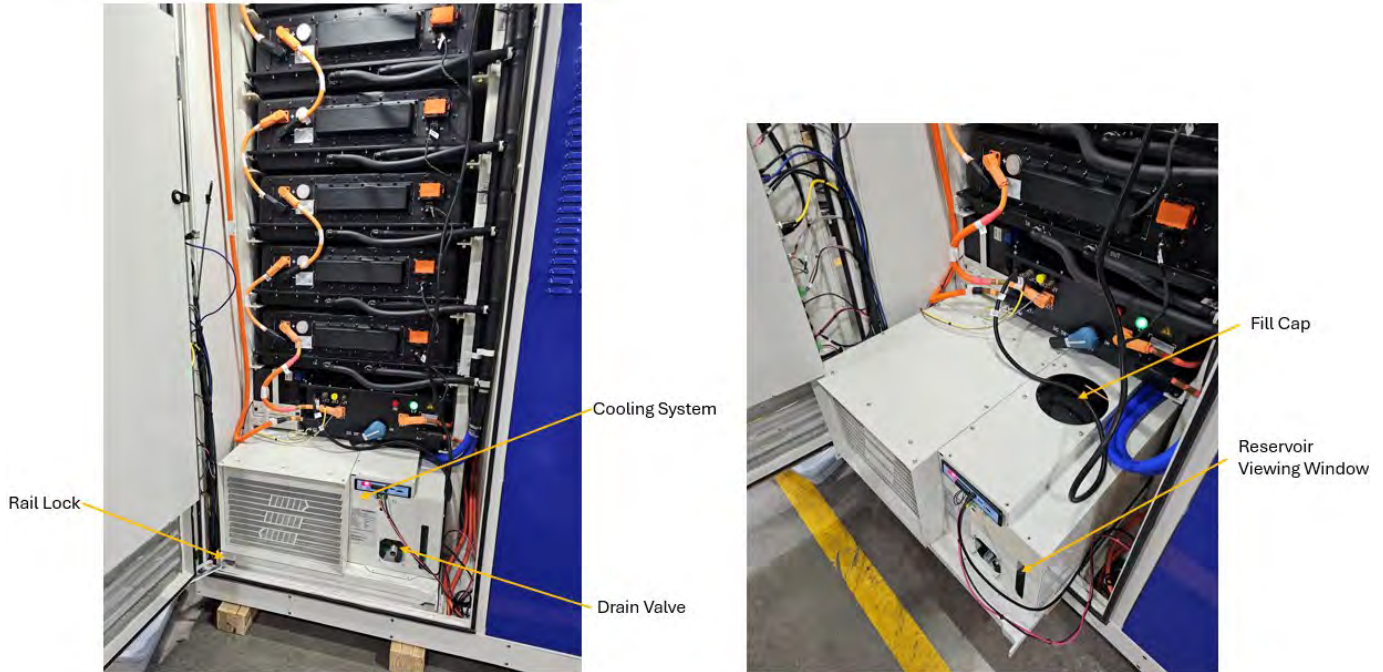
Equipment needed for draining and filling:

1. Hose with a typical female garden hose fitting on one side
2. Drill Driven Pump Kit
 - a. Equivalent to Dayton Drill Driven Pump (P/N: 3YU62)
3. Qty (2) 5 gallon “clean” buckets
4. Large Funnel (minimum 4”)
 - a. Rags, towels, or paper towels.
6. If replacing fluid, 8 gallons of the appropriate mixture of ethylene glycol and water.





The following procedure should only be done on a system that has been disabled and shut down properly. Verify no voltage exists in the ESS before proceeding.



Draining the Cooling System

1. Remove the rail lock that holds the cooling system in place.
2. Pull the cooling system out on its rail until it stops.
3. Install hose on to drain fitting on the front of cooling system.
4. Install drill driven pump onto hose
5. Install secondary hose onto other end of drill driven pump.
6. Place end of hose into 1 of the 5 gallon buckets
7. Once the hoses are attached and hose is secured into the 5 gallon bucket, open the valve inside the cooling system to begin draining.
8. When the 5 gallon bucket is about 80% full, close the valve on the cooling system, and switch to a new 5 gallon bucket.
9. Repeat this process until no more fluid is coming from the hose.
10. Utilizing the drill driven pump, turn on the drill to assist with pumping any additional fluid out of the system.
 - a. Note: There will always be some residual fluid in the lines and battery modules. When disconnecting any fittings, make sure to have some rags or towels available to help absorb any additional fluid that might leak out of the fittings

11. Once all fluid is out of the system, close the drain valve and remove the drain hose from the cooling system
12. Keep the filled buckets free of debris if the fluid will be re-used
13. If new fluid is being put into the system, the containers from the new fluid can be used to dispose of the old fluid
 - a. Fluid must be disposed of properly. Consult local laws on where to dispose of ethylene glycol "antifreeze" properly. It may not be poured into the sewer or the ground.

Filling the Cooling System

1. Remove the rail lock that holds the cooling system in place.
 2. Pull the cooling system out on its rail until fill cap is accessible.
 3. Remove the filling cap on the top of the cooling system.
 4. Place the large funnel into the filling cap
 5. Slowly start filling the system with the appropriate mixture of Ethylene Glycol and water mixture.
 6. Continue this process until the reservoir is about $\frac{3}{4}$ full.
 7. Run the cooling system until the fluid level drops down near the bottom of the reservoir
 8. Continue filling the system and repeating this process until the fluid in the reservoir no longer drops below the $\frac{3}{4}$ full point.
 - a. This should require between 6-7 gallons of fluid.
 9. When complete, place the filling cap back on to the cooling system.
 10. Slide the cooling system back into place and re-insert the rail lock.
-

Decommissioning

This section describes the systematic process of decommissioning an ELM FieldSight Energy Storage System. The ESS contains high voltage and hazardous components, and proper safety and disposal protocols must be followed.

Scheduling

When a customer wants to decommission their ESS, the customer shall inform supplier at least two months in advance. The supplier will work with customer to develop a decommissioning schedule and cost. At this time, the customer will issue the PO for the decommissioning costs proposed by the supplier.

Responsibilities

During the decommissioning process, the customer will be responsible for the shut down, disconnection, and disassembly of the ESS. The supplier will be responsible for the disposal and the final disposal report for the customer.

System Shut Down

Before any work is performed on or inside the container, the system must be safely turned off and prepared for disassembly.

Battery Discharge

Before turning the system off, work with ELM Support to discharge the batteries down to 15-20% State of Charge (SOC). This reduced voltage will make for a safer handling, transportation, and disposal of the battery modules.

System Turn Off

Refer to the System Shutdown section of this manual

Verify System is Off

At this point, all voltage should be off in the container except at the bottom of each battery rack. Using a multimeter, verify at various points in the container that there is a zero voltage reading.

System Disconnect

After the system has been successfully shut down, the following steps should be performed to physically disconnect the system

Disconnect DC Power Cables

Disconnect the incoming DC cabling to and from each container

Disconnect AC Auxiliary Cables

Disconnect the incoming AC conductors on each container.

Disconnect Communication Cables

Disconnect any incoming communication wires on each container.

Disconnect Ground Cables

Disconnect all Ground cables on the outside of the container.

System Disassemble

After disconnecting the system from its primary DC, AC, and communication connections, it is now safe to remove the battery modules.

Remove Battery Modules

Note:

Lithium-Ion batteries are not to be discarded or disposed in common landfills or trash disposal facilities. Federal law states that certain batteries must be recycled, and lithium-ion batteries fits these criteria. The “Battery Act” (The Mercury-Containing and Rechargeable Battery Management Act of 1996) was set out to ensure that batteries such as Li-ion batteries in equipment can be recycled for reuse, instead of being released into the environment. For more information on local battery recycling centers see www.batterycouncil.org for information on state and local laws for recycling Lithium-Ion batteries.

Make sure to read all instructions and wear all proper PPE before proceeding. Battery modules still have voltage on each battery module at this point. Place all hardware, power cables, and communication cables into bags and/or boxes upon removal.

1. Remove all orange Module Safety Disconnects (MSD) from all Battery modules. Install black plastic MSD safety covers into all battery modules.
2. Remove all communication cables between each battery module.
3. Remove the power cables from the HV Box at the bottom of the rack and the battery modules.
4. Remove the power cables between each battery module.
5. Unscrew all fasteners that are mounting the battery module into the rack.
6. Remove each battery module and place into approved transporting boxes.
 - a. Battery modules are over 650 lbs and should be lifted using a forklift or crane device.

Cooling System

Make sure cooling system is locked into place so that it cannot slide on its rails during transportation.

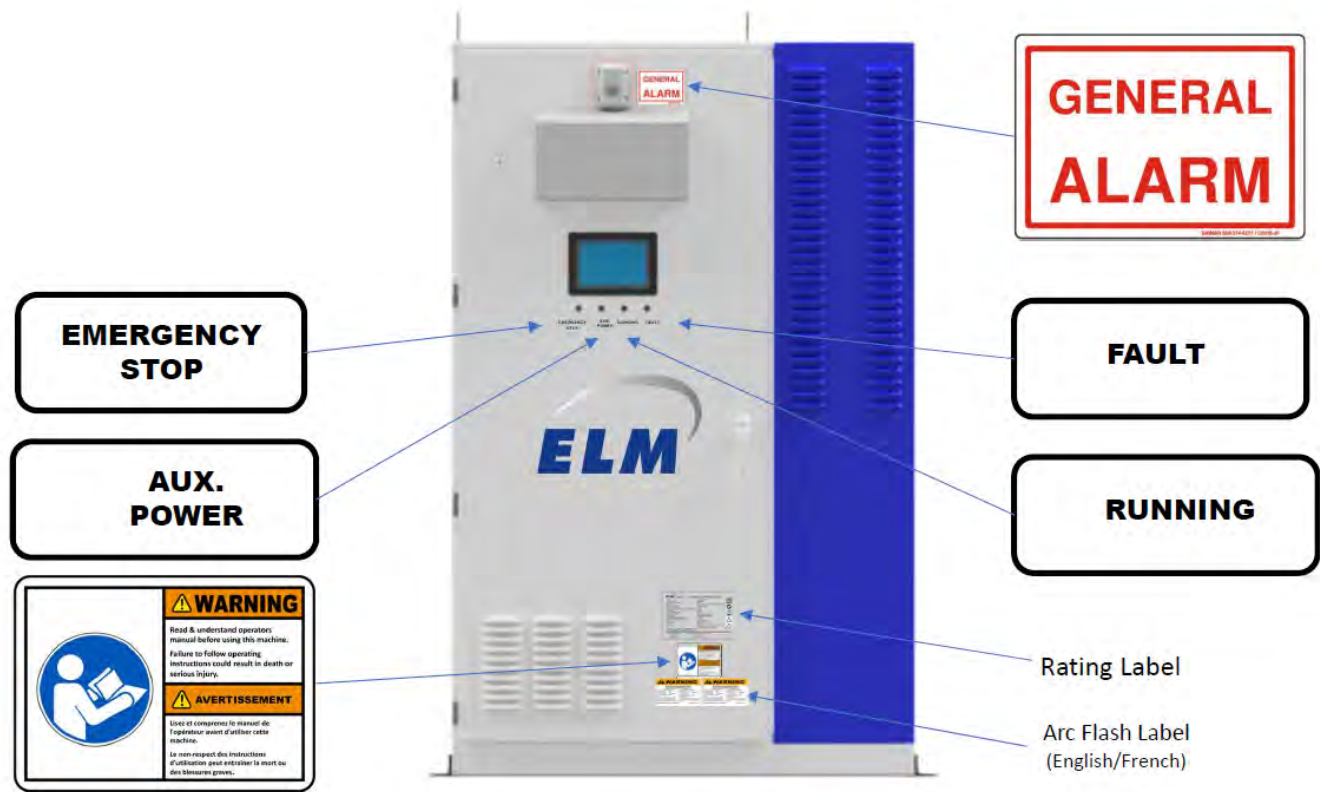
System Return

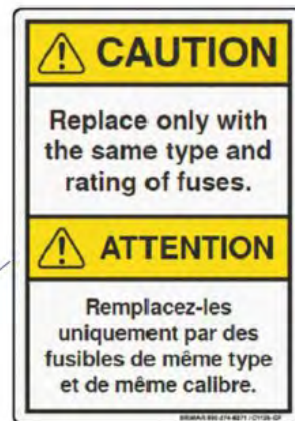
At this point, the system is safe to return both the battery modules and the container to the recycler for safe disposal of the equipment and material. Make sure battery modules are packaged into appropriate packaging material with its proper hazardous markings. The container and battery modules should be returned on a flat bed trailer using tarps to protect the battery modules.

Upon system receipt, the recycler will properly dispose or recycle the contents of the ESS and provide customer with a final decommissioning report.

CMG2 Series Labeling

CMG2 Main Labeling





CMG2-125 Rating Label:



AC ENERGY STORAGE SYSTEM

This system has been evaluated as a multi-part ESS.

SYSTEM MODEL:

SERIAL NUMBER:

DATE OF MANUFACTURING:

BATTERY TYPE:

SYSTEM DC VOLTAGE RANGE:

SYSTEM DC NOMINAL VOLTAGE:

SYSTEM MAX POWER:

SYSTEM ENERGY STORAGE CAPACITY:

MAX CONTINUOUS CHARGE AND DISCHARGE CURRENT:

AC OUTPUT CONFIGURATION:

AUXILIARY AC INPUT:

MAX AC SHORT CIRCUIT CURRENT:

TYPE 3R

DIMENSIONS:

WEIGHT:

UL LISTING

CMG2-AC-125-744

#####

TBD

LITHIUM IRON PHOSPHATE LITHIUM ION BATTERY

740V – 1051.2V

921.6 V

125 KW AC

744 kWh

150 A AC

480 VAC, +10%/-12%, 60Hz, IT, 3-WIRE (3P3W)

120/240 VAC, 1Φ, 12.5 A, 60Hz

1.42 kA (0.4 ms)

INDOOR/OUTDOOR

60.5”L * 60.2”W * 99.4”H

8,100 LBS

Conforms to ANSI/UL STD 9540

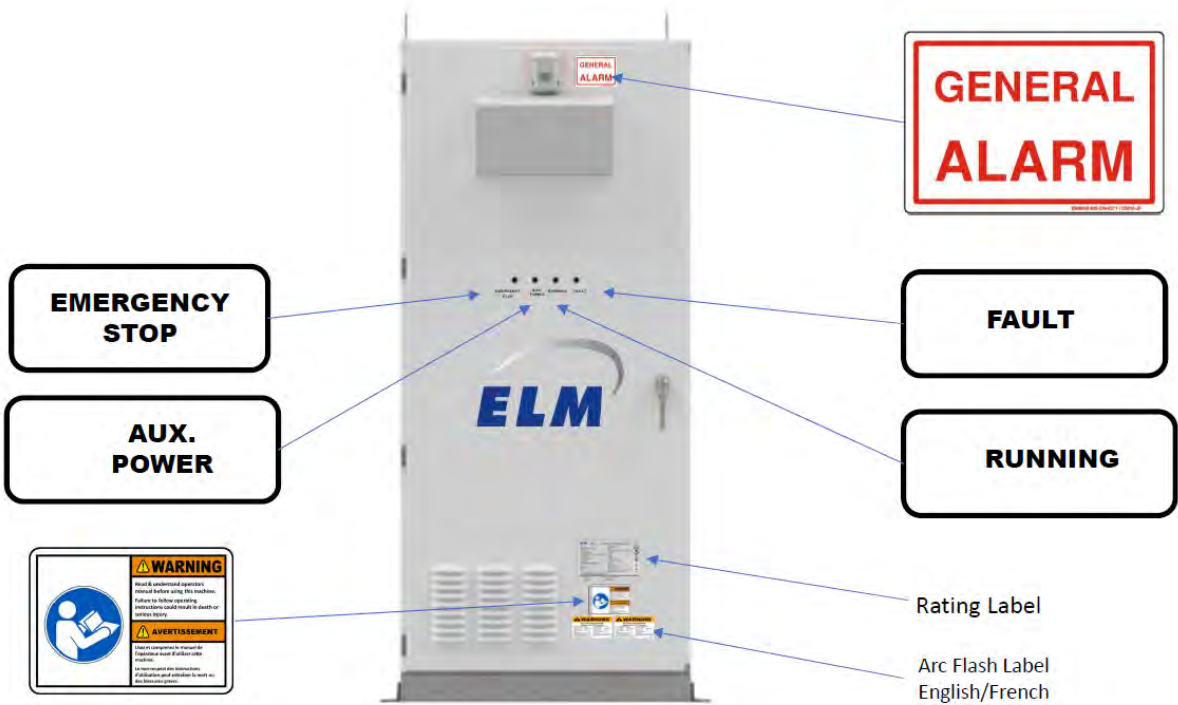


SYSTEM INCLUDES; (2) CMG2-EXP-DC-258

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ELM Microgrid
4300 Live Oak Drive
The Colony, TX 75056

FOR SERVICE CONTACT ELM MICROGRID
(469) 676-1648
support@elm-ess.com

CMG2 EXP Labeling

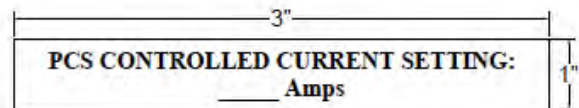
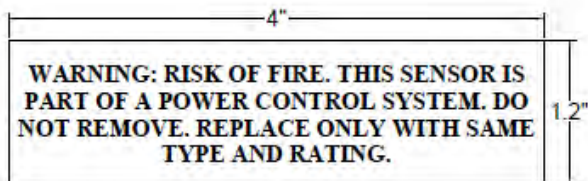
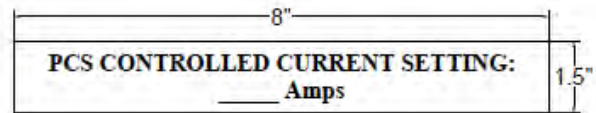
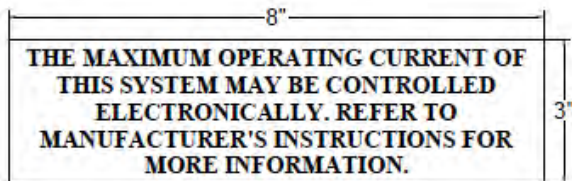


CMG2-Exp Rating Label:

	DC ENERGY STORAGE SYSTEM	
<i>This system has been evaluated as a multi-part ESS.</i>		
SYSTEM MODEL:	CMG2-DC-258	
SERIAL NUMBER:	#####	
DATE OF MANUFACTURING:	TBD	
BATTERY TYPE:	LITHIUM IRON PHOSPHATE LITHIUM ION BATTERY	
SYSTEM DC VOLTAGE RANGE:	740V – 1051.2V	
SYSTEM DC NOMINAL VOLTAGE:	921.6 V	
MAX CONTINUOUS CHARGE AND DISCHARGE CURRENT:	174 ADC	
MAX POWER:	129 kW	
ENERGY STORAGE CAPACITY:	258 kWh	
AUXILIARY AC INPUT:	120/240 VAC, 1Φ, 12.5 A, 60Hz	
MAX DC SHORT CIRCUIT CURRENT:	74.3 kA (10 ms)	
TYPE 3R	INDOOR/OUTDOOR	
DIMENSIONS:	42" L * 60.2" W * 99.4" H	
WEIGHT:	7,300 LBS	
UL LISTING	Conforms to ANSI/UL STD 9540	

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--	--

UL 1741 CRD and UL 3141 PCS Specific Labeling



- PCS Marking – 1 shall be used on ESS panelboard
- PCS Marking – 2 shall be used on ESS power meters and CT's
- PCS Marking – 3 shall be used on undersized busbars
- PCS Marking – 4 shall be used on ESS overcurrent protection device

Note: All markings shall be weather resistant per UL 969 standard and permanent adhesive shall be used to secure the markings. DO NOT USE SCREWS TO SECURE MARKINGS.

Troubleshooting

If a component of the CMG2 Series system is not operating properly, please refer to this manual or contact ELM FieldSight customer support.

In case a component in the system faults, ELM has provided ways for the end user to compile Error and Data Logs. These faults can be found in the 'Data' Folder as described in the data log recovery section.

If the MicroGrid EMS is not operating properly or has locked up, try to reboot the system by cycling the power on the FieldSight EMS. Please note: if the system is currently in Island Mode, a reboot will reset the system causing a brief power outage.

If that does not fix the issue, contact ELM FieldSight customer support at support@elm-fieldsight.com

Technical Specifications

CMG2-XX-YYY-ZZZ		
Maximum Power Ratings		
Max. Power Output Ratings	50-125kW	
PCS Ratings*		
DC Input SCCR Rating	50 kA	
DC Voltage Input Range	740 – 1500 VDC	
DC Maximum Input Continuous Current	171 A	
DC Ratings		
DC Configuration	6 modules in series rack	5 modules in series rack
System DC Voltage Range	740V – 1051.2V	740V – 876V
System DC Nominal Voltage	921.6V	768V
Maximum Discharge Current	169A	145A
Maximum Charge Current	169A	145A
DC Energy (kWh)	See CMG2 System Model Identification and Capacity Table.	
AC Output Ratings		
Nominal Voltage	480V	
Operating Voltage Range	+10%/-12%	
Rated Frequency	60Hz	
Rated AC Import/Export Apparent Power	125kVA	
Rated AC Import/Export Real Power	125kW	
Nominal AC Current	150A	
Overload Capacity	120% (10s)	
Power Factor	-1 to 1, Leading/Lagging	
AC Fault Current Contribution	1.42 kA (0.4 ms)	
Maximum Efficiency	98.7%	
CEC Efficiency	97%	
THD (UL1741 / IEEE 1547)	<5%	
AC Configuration	IT, 3-WIRE (3P3W)	
AC Input SCCR	35kA	
MAIN Auxiliary Consumption**		
PCS Standby Consumption	200W	
Standby Control Circuits Consumption	100W	
Nominal Control Circuits Consumption	1100W	
Maximum Control Circuits Consumption	2200W	
EXP Auxiliary Consumption**		
Standby Control Circuits Consumption	25W	
Nominal Control Circuits Consumption	1025W	
Maximum Control Circuits Consumption	1840W	

* These are minimum PCS ratings. Different PCS ratings might be available. Consult with ELM for pre-approved PCS.

** Consumption varies per ambient temperature on cooling system.

General Data	
Internal operating ambient temperature	0 to 49 °C
External operating ambient temperature	-25 ¹ to 50 °C
Storage temperature	-20 to 35 °C (Recommended)
Relative humidity	Up to 95% <u>Non-Condensing</u>
Altitude	3000m
Wind Load	150 MPH (Exposure Cat. C) (ASCE/SEI 7-16)

Notes : 1. Minimum external operating ambient temperature is based on the assumption the system is running at least 25% of the rated power

ATTACHMENT B - SYSTEM SITE ASSESSMENT TABLE

TO GENERAL CONDITIONS AND TECHNICAL SPECIFICATIONS

HOLT RENEWABLES		Section 1 Site and System Information														
Site Name	Site Designator	Service Account ID	Meter Number	Service Address	Site Address	Proposed Battery System Size (kW)	Proposed Battery System Size (kWh)	NEM-A (Y/N)	NEM-A SAIDs	Annual Meter Consumption (kWh)	Annual Ex-Solar Meter Consumption (kWh)	Meter Max Demand (kW)	Ex-Solar Max Demand (kW)	Current Rate Schedule	Post Construction Rate Schedule	Interconnection Point Rating (Volts / Amps)
Main Wastewater Treatment Plant	A	8012123110	259000-093610	5351 6TH ST, CARPINTERIA, CA 93013	5351 6TH ST, CARPINTERIA, CA 93013	#N/A	#N/A	N	-	1,274,501	N/A	278	N/A	TOU-PA-3-D	TOU-PA-3-E	480V/277V-1600A

		Section 3 Battery System											Section 5 System Offer Costs						
Distribution Utility Transformer Size (kVA)	Existing Other Generation	Battery System Size (kWh)	Battery System Inverter Size (kW-AC)	Duration (hrs.)	Battery OEM	Battery System Inverter OEM	Battery System Round Trip Efficiency (%)	Additional System De-rate (%)	Anticipated Annual Full Discharges (Yr. 1 #)	Battery System Transformer Size (kVA)	Capable of Exporting for NEM Credits (Y/N)	Battery System Warranty Term (YRS)	Anticipated ADA Upgrade Costs Included in "Contract Sum" (\$)	Anticipated Grading Costs Included in "Contract Sum" (\$)	Anticipated EV Charger and Infrastructure Costs Included in "Contract Sum" (\$)	Anticipated Site Electrical System Upgrade Costs Included in "Contract Sum" (\$)	Anticipated Distribution Utility Upgrade Costs (\$)	Incentive Amount (\$)	Incentive Program
TBD	Battery and diesel genset	1,044.0	250.0	4.0	ELM	DynaPower	94.00%	0.00%	340	250.0	Y	15							

Extendable up to 15 total years

			Section 6 Utility Billing (assume 0% escalation for rates)											Section 7 Other Cost Savings (assume 0% escalation for rates)		Section 8 Performance Guarantee		
ITC Percentage (%)	Solar Facility Cost (\$)	Incremental Cost for Solar Facility Extended Inverter Warranty (\$)	YR 0 Existing Utility Bill (\$)	YR 0 Existing Utility Bill Demand Charges (\$)	YR 0 Existing Utility Bill Energy Charges (\$)	YR 1 Total Utility Bill (\$)	Utility Bill Energy Charges Post-Solar PV (\$)	Utility Bill Demand Charges Post-Solar PV (\$)	Utility Bill Energy Charges Post-Battery System (\$)	Utility Bill Demand Charges Post-Battery System (\$)	YR 1 Utility Bill Demand Charge Savings (\$)	YR 1 Utility Bill Energy Savings (\$)	YR 1 Total Utility Bill Savings (\$)	Demand Response Revenue (YR 1 \$)	Other	Solar Facility Output Guarantee Rate (YR 1 \$/kWh)	Solar Facility Output Guarantee Rate* Annual Escalation (%)	Solar Facility Output Guarantee (YR 1 kWh)
			\$ 245,935.00	\$ 71,618.00	\$ 124,149.00	\$ 217,837.00			\$ 103,232.00	\$ 62,699.00	\$ 8,919.00	\$ 20,917.00	\$ 28,098.00	N/A	N/A			0

ATTACHMENT C - PROJECT SCHEDULE

TO GENERAL CONDITIONS AND TECHNICAL SPECIFICATIONS

Contractor will develop, with input from District, a Project Schedule using Microsoft® Project or equivalent and submit the Project Schedule to District. Contractor and District will establish a weekly construction meeting at which time the work of the previous week will be reviewed, and a three-week look-ahead schedule will be coordinated. The three-week look-ahead schedule shall be created in MS Excel® and present the list of activities occurring at each Site on a daily basis.

The work on the Project shall be completed on or before the Commercial Operation Deadline in accordance with the Project Schedule set forth below and as may be amended from time to time during the Agreement Term but in no case extending beyond the Commercial Operation Deadline. The Project Schedule shall only be modified upon the written approval of District. Any modified schedule approved by District shall replace the existing Project Schedule set forth below.

Deadlines dictated by any and all incentive programs, including SGIP and the Investment Tax Credit, must be accounted for in the Project Schedule.

The Project Schedule (Anticipated Key Engineering and Construction Dates) shall include, at a minimum, the following and shall become a part of the Agreement upon approval of District:

- 50%, 90% and 100% drawings due to District
- District review of 50%, 90%, 100% drawings
- Permit approval
- Procurement
- Site preparation
- Construction start
- Electrical & Mechanical completion
- Interconnection sign off
- Testing & commissioning
- Utility meter and rate switch completion
- Permission to Operate
- Final completion date

The Project Schedule shall not show more than 10% of the total activities as critical, and no activity shall have duration longer than thirty (30) days. The Project Schedule shall indicate the beginning and completion dates of all phases of construction and shall use the “critical path method” (“*CPM*”) for the planning and scheduling of all work required. The schedule will separately identify those milestones or events that must be completed before other portions of the work can be accomplished. The Project Schedule shall incorporate float for inclement weather due to rain and shall also include any potential acceleration paths. Scheduled float for non-working rain-related days shall be based upon the latest and nearest available data from acceptable data issued from the National Weather Service.

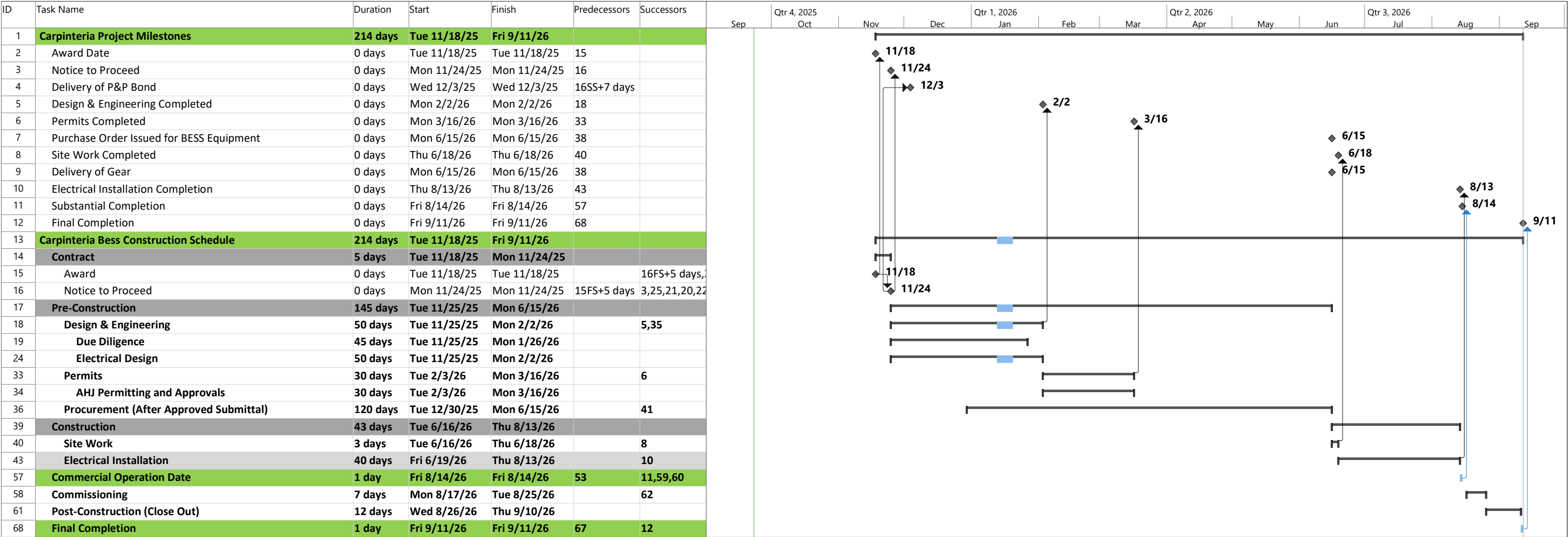
A monthly project schedule update shall be provided to accurately indicate the actual progress of the work against the baseline Project Schedule for the prior month, and the remaining planned completion of the work.

The scheduling is necessary for District's adequate monitoring of the progress of the work. District may disapprove such a schedule and require modification to it if, in the opinion of District, adherence to the progress schedule will cause the work not to be completed in accordance with the Agreement. Contractor shall adhere to any such modifications required by District. Between the monthly schedule updates, it is the obligation of Contractor to monitor the progress of the work against the current construction schedule activities, and to notify District in writing of all changed activity start dates and finish dates.

Contractor will exchange scheduling information with subcontractors and suppliers. Contractor will order work, equipment and materials with sufficient lead time to avoid interruption of the work.

Contractor shall also, if requested by District, provide revised schedules within fifteen (15) days if, at any time, District considers the Commercial Operation Deadline to be in jeopardy. The revised schedule shall be designed to show how Contractor intends to accomplish the work to meet the original Commercial Operation Deadline. The form and method employed by Contractor shall be the same as for the original progress schedule. Contractor shall modify any portions of the schedule that become infeasible because of "activities behind schedule" or for any other valid reason. Contractor will provide documents and justification for any schedule changes. An activity that cannot be completed by its original Commercial Operation Deadline shall be deemed to be behind schedule.

IF CONTRACTOR SUBMITS A REVISED SCHEDULE SHOWING AN EARLIER COMMERCIAL OPERATION DATE FOR THE PROJECT, DISTRICT'S ACCEPTANCE OF THIS REVISED SCHEDULE SHALL NOT ENTITLE CONTRACTOR TO ANY ADDITIONAL COMPENSATION OR CLAIM DUE TO ANY SUCH REVISED SCHEDULE.



ATTACHMENT D - COMMISSIONING REPORT(S)

TO GENERAL CONDITIONS AND TECHNICAL SPECIFICATIONS

Table of Contents

TABLE OF CONTENTS	34
<i>Objective</i>	<i>36</i>
<i>Installation Schedule & Technician Coordination</i>	<i>36</i>
SOLAR TESTING PROCEDURES	37
<i>Site Information</i>	<i>37</i>
<i>General Items</i>	<i>37</i>
<i>Repetitive Source Circuit String Wiring</i>	<i>38</i>
<i>Wiring Tests</i>	<i>38</i>
<i>Inverter Startup Tests</i>	<i>39</i>
<i>Onsite Monitoring System Commissioning – Load Site Metering</i>	<i>39</i>
<i>Onsite Monitoring System Commissioning – Generation Metering</i>	<i>40</i>
<i>Online System Commissioning</i>	<i>40</i>
<i>System Testing</i>	<i>40</i>
BATTERY TESTING PROCEDURES	42
<i>Battery Pack</i>	<i>42</i>
<i>Switchgear & Electrical Panel Commissioning</i>	<i>42</i>
<i>Microgrid Control System Commissioning</i>	<i>42</i>
<i>Battery Capacity Testing</i>	<i>42</i>
<i>Island Mode Testing</i>	<i>42</i>
<i>Reporting and Remediation</i>	<i>43</i>
<i>Microgrid Backup Power Duration Baseline & Testing</i>	<i>43</i>
MICROGRID TESTING PROCEDURES	44
<i>Microgrid Controller</i>	<i>44</i>
<i>Islanding and Reconnection Tests</i>	<i>44</i>
<i>Load Prioritization and Shedding</i>	<i>44</i>
<i>Black Start Capability</i>	<i>44</i>
<i>Energy Management Logic</i>	<i>44</i>
<i>Backup Generator (if applicable)</i>	<i>44</i>
<i>Cybersecurity & Communications</i>	<i>44</i>
<i>Regulatory & Utility Interface</i>	<i>45</i>
POWER AND ENERGY CAPACITY VERIFICATION	46
<i>Test Setup and Prerequisites</i>	<i>46</i>
<i>Test Procedure</i>	<i>46</i>
<i>Calculation of Actual Energy Capacity</i>	<i>46</i>

<i>Acceptance Criteria</i>	47
ROUND TRIP EFFICIENCY (RTE) TEST	47
<i>Definition</i>	47
<i>Test Setup and Prerequisites</i>	47
<i>Test Procedure</i>	47
<i>Acceptance Criteria</i>	48
AVAILABILITY VERIFICATION	48
<i>Definition of Availability</i>	48
<i>Performance Requirement</i>	49
<i>Availability Verification Checklist</i>	49
<i>Test Result Summary</i>	50
FUNCTIONAL TESTING.....	50
<i>Seven-Day Functional Test and Performance Verification</i>	50
<i>Functional Tests & Compliance Testing</i>	51

Objective

In addition to the requirements included in the GENERAL CONDITIONS AND TECHNICAL SPECIFICATIONS document, Provider shall conduct all activities required for proper testing and commissioning of the solar and battery energy storage system (“BESS” or “battery”) microgrid and any related installations/systems. Commissioning will include testing for all systems to ensure proper operations per the design standards and testing parameters, and is required to verify that the system is functioning as expected within acceptable parameters: 1) as designed at a nameplate capacity; 2) as designed production capacity; and 3) as required by the requirements of the Agreement. Contractor shall manage all necessary final inspections with all governmental authorities having jurisdiction over the project, the distribution utility, site host representatives, and any other required inspectors.

Provider will notify the site host and Owner no less than five (5) days prior to the commencement of any testing and/or inspections, and site host and Owner and/or its representative will have the right to observe all such tests and/or inspections. As part of the commissioning activities, Provider must confirm that no negative impacts are experienced by existing facilities that connect to or interface with the new installations and systems, and shall be solely responsible for resolving all issues that arise.

Commissioning and acceptance testing are critical final steps in the implementation of a solar and battery microgrid system. These activities ensure that all system components have been properly installed, are operating as intended, and meet the performance expectations defined in the contract documents. This manual outlines the process, responsibilities, and testing requirements to verify and document successful commissioning and system acceptance. Ensure compliance with IEEE 1187, 1188, 1657 for battery installation and testing, ANSI/NETA 2021 ATS for acceptance testing specifications, and NFPA 855 for fire safety in energy storage systems.

Any equipment that is required to be factory tested to an applicable standard shall be accompanied by the results of those factory tests, and further those results will be submitted to the Owner.

Installation Schedule & Technician Coordination

- ☐ Installation contractor and project manager develop a projected commissioning timeline.
- ☐ All required pre-commissioning checklists are submitted to the relevant equipment manufacturers.
- ☐ Schedule manufacturer technicians for on-site support based on projected readiness dates.

1. Solar Testing Procedures

Site Information

Site Name:

Address (City, State, Zip):

Capacity (kW DC-STC):

Capacity (kW AC):

Utility meter number:

Commissioning report submitted by:

Contractor:

Time and date of commissioning:

Weather at time of commissioning:

Record and document inverter serial number and inverter location:

This checklist is a guide to establish post construction Solar Facility operation, performance and safety. The local authorities having jurisdiction over the project or inspector have the final say on what is or is not acceptable. Local codes may modify the requirements of the NEC. This list should be used in conjunction with Article 690 and other applicable articles. If Article 690 differs from other articles of the NEC, Article 690 takes precedence.

General Items

Complete each item on the checklist below, check the box to the left of the item when it is complete

- ☐ Verify that all combiner fuses are removed and that no voltage is present at the output of the combiner box
- ☐ Recheck that fuses are removed and all switches are open
- ☐ Check that non-current carrying metal parts are grounded properly (array frames, metal boxes, etc. are connected to the grounding system)
- ☐ All debris has been removed from roof or ground
- ☐ Take photos of all sub-arrays and all inverters
- ☐ Inspect all roof penetrations and wall penetrations (ensure conduits and structural brackets are properly sealed/waterproofed) (where applicable)
- ☐ Ensure all labels and safety signs required by applicable law and any additional labels and signs specified in the Agreement Documents are in place
- ☐ Check that all home runs are properly identified at the inverter back to the combiner boxes
- ☐ Check that combiner boxes are properly labeled
- ☐ Check source strings in DC combiner box are in the proper order and make sure labeling is clearly visible
- ☐ Verify that all AC and DC disconnect switches are in the open position
- ☐ Check that the solar modules are secured to the mounting system
- ☐ Visually inspect the array for cracked modules
- ☐ Check to see that all wiring is neat and well supported
- ☐ Visually check that the rows of ground mount modules have been installed in straight lines that are parallel to each other.

- ☐ Check that all nuts and bolts have been properly torqued and record results using array naming nomenclature matching the As-Built drawings.

Repetitive Source Circuit String Wiring

- ☐ Verify that the both the positive and negative string connectors are identified properly with permanent wire marking
- ☐ Repeat this sequence for all source circuit strings
- ☐ VERIFY POLARITY OF EACH SOURCE CIRCUIT STRING in the DC String Combiner Box (place common lead on the negative grounding block and the positive on each string connection—pay particular attention to make sure there is NEVER a negative measurement)

WARNING: IF POLARITY OF ONE SOURCE CIRCUIT STRING IS REVERSED, THIS CAN START A FIRE IN THE FUSE BLOCK RESULTING IN THE DESTRUCTION OF THE COMBINER BOX AND POSSIBLY ADJACENT EQUIPMENT. REVERSE POLARITY ON AN INVERTER CAN ALSO CAUSE DAMAGE THAT IS NOT COVERED UNDER THE EQUIPMENT WARRANTY

- ☐ Record the I-V curve for each string using an I-V curve tracer. Results should be submitted as an MS Excel file generated by the I-V curve tracer. The MS Excel files must be named and organized such that the location of the fuse (i.e. facility name, inverter name/size, combiner box name, fuse and string number) can be conveniently identified and the nomenclature shall match that of the as-built drawings.
- ☐ Verify open-circuit voltage of each source circuit string is within proper range according to manufacturer's installation manual and number each string and note string position on as-built drawing. (Record the string voltage for each string using the same nomenclature as used in the as-built drawings in the attached Appendix, provide one attachment per combiner)
- ☐ Retighten all terminals in the DC String Combiner Box

Wiring Tests

- ☐ Check the AC line voltage(s) at the main AC disconnect and record the voltage here:
- ☐ If installation contains additional AC disconnect switches, repeat the voltage check on each switch working from the main service entrance to the inverter AC disconnect switch, closing each switch after the test is made except for the final switch before the inverter (it is possible that the system only has a single AC switch)
- ☐ Check an electrical connection between the ground and the conductive surface of the PV modules. Perform test with a multi-meter or 100 mA dc source. If the resistance is less than 1 Ω , then the ground is considered good
- ☐ Cable continuity tests shall be performed on all cables in the System and recorded using cable naming nomenclature matching the As-Built drawings. Each cable shall be labeled in the field using the same nomenclature.

- ☐ Insulation resistance tests shall be performed on all cables in the System by qualified personnel using appropriate methods and IR values for the cable being tested (not required for PV string wiring) and recorded using cable naming nomenclature matching the As-Built drawings.

Inverter Startup Tests

- ☐ Be sure that the inverter is off before proceeding with this section
- ☐ Test the continuity of all DC fuses to be installed in the DC string combiner box, install all string fuses, and close fuse switches in combiner box
- ☐ Check open circuit voltage at DC disconnect(s) switch(s) to ensure it is within proper limits according to the manufacturer's installation manual and record the voltage here:

-
- ☐ If installation contains additional DC disconnect switches, repeat the voltage check on each switch working from the PV array to the inverter DC disconnect switch, closing each switch after the test is made except for the final switch before the inverter (it is possible that the system only has a single DC switch)

-
- ☐ At this point, consult the inverter manual and follow proper startup procedure (all power to the inverter should be off at this time)
 - ☐ Confirm that the inverter is operating and record the DC operating voltage here:

-
- ☐ Cross check that the power output shown on the inverter is the same as on the supplied performance meter within a + or – 2% tolerance

Inverter kW _____

Onsite Monitoring System Commissioning – Load Site Metering

Note: To be performed at metering enclosure and CT location

- ☐ Check CT's are orientated in the correct direction and take a picture, the black wire's from the CT's should be facing towards the Utility service panel
- ☐ CT's _____ manufacturer _____
- ☐ CT serial numbers A _____ B _____
C _____
- ☐ Meter manufacturer and serial number (Ex: Shark or ION)

- ☐ Remove the **meter calibration report** from the monitoring enclosure for delivery to Owner with this report
- ☐ Power Factor (PF) _____ (If the Power Factor is negative then one or more of the CT's are installed backwards)
- ☐ Watts (W) _____ Hz _____ Amps _____
- ☐ Volts L-N A _____ B _____ C _____

- ☐ Volts L-L A_____ B_____ C_____
- ☐ If Static IP -- IP Address_____ Subnet _____
Gateway_____
- ☐ Verify that AC Power of Phase A, B and C are positive and within 2% of each other with the PV system disconnected

Onsite Monitoring System Commissioning – Generation Metering

Note: To be performed at metering enclosure and CT location

- ☐ Check CT's are orientated in the correct direction and take a picture, the black wire's from the CT's should be facing towards the Utility service panel
- ☐ CT's _____ manufacturer _____
- ☐ CT serial numbers A_____ B_____ C_____
- ☐ Meter manufacturer and serial number (Ex: Shark or ION)

- ☐ Remove the **meter calibration report** from the monitoring enclosure for delivery to Owner with this report
- ☐ Power Factor (PF)_____ (If the Power Factor is negative then one or more of the CT's are installed backwards)
- ☐ Watts (W)_____ Hz _____ Amps _____
- ☐ Volts L-N A_____ B_____ C_____
- ☐ Volts L-L A_____ B_____ C_____
- ☐ If Static IP -- IP Address_____ Subnet _____
Gateway_____
- ☐ Verify that AC Power of Phase A, B and C are positive and within 2% of each other

Online System Commissioning

Check that the following field devices are communicating and the data feedback is accurate:

- ☐ Go to [http://www.\[\]](http://www.[])
- ☐ Login to the system provider's website
- ☐ Generation Meter - Check kW output of system is accurate
- ☐ Environment - Check that the feedback from the weather station sensors is accurate
- ☐ Inverter Monitoring
- ☐ DC Monitoring

System Testing

SYSTEM DATA – COMPLETE ONE FORM FOR EVERY DC STRING COMBINER BOX OR INVERTER

Note: Irradiance must at least measure 500 W/m² during testing

Combiner Box # _____

Combiner box serial number # _____

Inverter _____

Operating Voltage _____

Recorded											Calculated*	
String No.	Ω +/-	Ω +/G	Ω -/G	Polarity	V _{OC}	I	I _{SC}	T _C	T _A	I _{POA}	V _{OC}	I _{SC}
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												

Table Legend

Ω +/- String Wire Resistance Positive to Negative (ohms)

Ω +/G String Wire Resistance Positive to Ground (ohms)

Ω -/G String Wire Resistance Negative to Ground (ohms)

V_{OC} Open Circuit Voltage (V)

I Operating Current (Amp)

I_{SC} Short Circuit Current (Amp)

T_C Cell Temperature (°C)

T_A Ambient Temperature (°C)

I_{POA} Irradiance in Plane of Array (W/m²)

*Note: Calculated V_{OC} and I_{SC} values must be within 5% of the recorded values.

2. Battery Testing Procedures

Battery Pack

- ☐ Complete remote pre-commissioning and diagnostics in coordination with and per the manufacturer requirements to maintain warranty.
- ☐ Perform onsite testing, including safety checks, performance validation, and communication verification per the manufacturer requirements.
- ☐ Document results using the manufacturer's approved testing forms.

Switchgear & Electrical Panel Commissioning

- ☐ Conduct visual inspections, breaker function checks, and insulation resistance tests per design engineer drawings or manufacturers requirements.
- ☐ Measure phase-to-phase and phase-to-ground insulation resistance at appropriate test voltages per design engineer drawings or manufacturers requirements.
- ☐ Submit a completed commissioning report upon test completion.

Microgrid Control System Commissioning

- ☐ Verify communication interfaces between all microgrid components (e.g., solar inverter, battery inverter, switchgear, controllers).
- ☐ Confirm that the system follows the programmed Sequence of Operations to be created by Provider.
- ☐ Perform Island Mode test to evaluate microgrid autonomy and recovery during utility outage simulation per the [Microgrid Specific Considerations](#) instructions.

Battery Capacity Testing

- ☐ Schedule capacity test with the Owner for each battery system.
- ☐ Charge system to 100% State of Charge (SoC), then discharge to 10% SoC.
- ☐ Measure total energy (kWh) discharged to verify rated capacity.

Island Mode Testing

- ☐ Coordinate Island Mode simulation with the Owner and site host to prove the backup power duration per the Microgrid Backup Power Duration Baseline & Testing table.
- ☐ Manually initiate transition to and from Island Mode using microgrid controls.
- ☐ Monitor and record system behavior and performance in real time.
- ☐ Confirm system stability, proper sequencing, and safe return to grid-connected mode.

Reporting and Remediation

- ☐ Submit results to the Owner for review.
- ☐ Address any failed test items immediately with the manufacturer and installation team.
- ☐ Schedule re-inspections as needed and update commissioning documentation accordingly.

- ☐ After completion of all testing and inspections, compile and submit final commissioning reports.
- ☐ Submit documentation to the Owner for review and formal system acceptance.

Microgrid Backup Power Duration Baseline & Testing

Populate this table for each hour of the year using the final microgrid system design. Then test for a sample set of hours during commissioning and acceptance testing to confirm backup power duration.

Month	Day	High Temp (degrees)	Day of Week	Facility Peak (kW)	Facility Load (kWh)	Load Post Solar & Battery (kWh)	Avg hourly consumption (kWh)	Backup duration (hours)
1	1							
1	2							
1	3							
...	...							
...	...							
...	...							
12	29							
12	30							
12	31							

3. Microgrid Testing Procedures

Microgrid Controller

- Verify microgrid controller is installed and operational.
- Confirm integration between the controller and solar, battery, existing generator, and grid by validating the command pathways, setpoint control, and automated transitions in the Sequence of Operations.
- Test control modes including islanding, grid-following, grid-forming, etc. as required.
- Verify that real-time data feeds and control signals are active and accurate.

Islanding and Reconnection Tests

- Confirm anti-islanding protection per UL 1741 SA/IEEE 1547.
- Simulate grid outage – validate smooth transition to islanded mode.
- Simulate grid return – validate reconnection protocol and synchronization.

Load Prioritization and Shedding

- Confirm load prioritization and shedding logic is programmed as designed.
- Test non-critical load disconnection during island mode or SOC limits.
- Verify restoration of loads upon return to grid or sufficient generation.

Black Start Capability

- If included, test black start from batteries or generator.
- Ensure safe energization of bus without grid presence.

Energy Management Logic

- Verify time-of-use, demand charge management, and economic dispatch algorithms are functional.
- Test responses to utility signals or market prices (if applicable).
- Simulate set point overrides or manual control.

Backup Generator (if applicable)

- Verify auto-start and load transfer sequences.
- Confirm fuel availability and compliance with local emissions standards.
- Integrate monitoring and alarms into microgrid controller.

Cybersecurity & Communications

- Confirm firewall or network segmentation is in place.
- Verify all endpoints have unique credentials and access controls.
- Confirm remote access protocols and monitoring software are secure.

Regulatory & Utility Interface

- Confirm interconnection approval and relevant permits are in hand.
- Test telemetry and SCADA handoffs to the Owner (if required).
- Ensure compliance with utility-specific Rule 21.

4. **Power and Energy Capacity Verification**

To verify that the installed battery meets the contractual energy and power capacity requirements as defined in the contract, including auxiliary loads and losses, by conducting a constant-power charge and discharge test at the point of revenue-grade metering.

Test Setup and Prerequisites

- Revenue-grade power meters installed at the battery meter point.
- If auxiliaries are fed from other points, calibrated meters installed to measure auxiliary consumption separately.
- Battery temperatures confirmed within normal operating range before initiating test.
- Ensure all test instruments are calibrated and within valid certification periods.
- Confirm IEC 62933-2-1 test standard compliance (or submit alternative method for Owner approval, if outside IEC jurisdiction).

Test Procedure

Charging Phase

- Fully discharge battery to minimum available energy level in line with system specs.
- Charge battery at Rated Import Power to full available energy level.
- Terminate charge when system is no longer able to charge at rated import power.

Transition

- Begin discharge within 2 hours of completing charge.
- Record ambient and internal system temperature profiles throughout test.
- Confirm no thermal events occurred that could degrade energy capacity.

Discharging Phase

- Discharge battery at Rated Export Power as defined in system specs.
- Continue until battery can no longer sustain rated export power.
- Record:
 - o Constant output power (kW)
 - o Discharge duration (h)
 - o Auxiliary subsystem energy consumption

Calculation of Actual Energy Capacity

Energy Capacity (kWh) = (Output Power (kW) × Discharge Time (h) – Auxiliary Load Energy

- Calculate actual Energy Capacity and compare with contractual baseline.
- Document any deviation >2% (or project-defined threshold).
- Verify test pass/fail status based on contract acceptance criteria.

Acceptance Criteria

- Battery must meet or exceed contractual energy capacity requirements.
- Any failure to reach rated power or full charge/discharge state due to internal system limits or thermal protection shall result in test failure.
- Test Failures shall be documented, and root cause analysis initiated.

Round Trip Efficiency (RTE) Test

To validate the Round Trip Efficiency (RTE) of the battery in accordance with the contractual performance requirements. The RTE test measures the percentage of input energy (during charge) that is successfully recovered (during discharge), accounting for all losses, including auxiliary loads up to the battery revenue-grade meter.

Definition

Round Trip Efficiency (RTE) is defined as:

$$\text{RTE}(\%) = \left(\frac{\text{Energy Discharged (kWh)}}{\text{Energy Charged (kWh)}} \right) \times 100$$

- All energy values must be recorded at the battery revenue-grade meter.
- Results must reflect the inclusive effect of auxiliary energy consumption and internal system losses.
- The RTE value must meet or exceed the minimum efficiency threshold defined in the contract and must be warranted for a minimum of 10 years.

Test Setup and Prerequisites

- Revenue-grade meters installed at battery input and output points.
- Auxiliary power use metering in place if auxiliaries are fed from separate source.
- Confirm ambient and system temperature within normal operating ranges.
- Charge/discharge profile aligned with Energy Capacity Test (Section 5.2.1).
- Battery system initialized and stabilized prior to testing.

Test Procedure

This test shall be conducted as a constant-power cycle consisting of one full charge and discharge event:

Step 1: Full Charge

- Discharge battery to minimum available energy per system specs.
- Charge battery at Rated Import Power until charge cannot be maintained.
- Log total Energy In (kWh) from battery revenue-grade meter.

Step 2: Full Discharge

- Discharge battery at Rated Export Power until discharge cannot be maintained.
- Log total Energy Out (kWh) at the battery revenue-grade meter.
- Note any auxiliary energy consumption during both phases.

Step 3: RTE Calculation and Evaluation

- Calculate RTE using energy input and output data.
- Adjust for auxiliary loads if necessary (if external to battery meter).
- Compare to contractual RTE requirement (e.g., $\geq 85\%$).
- Record and archive all test data and equipment logs.

Acceptance Criteria

- Measured RTE meets or exceeds the warranted efficiency value in the contract.
- No interruptions, thermal events, or control system overrides during the cycle.
- Test performed under stable conditions with valid metering and logging.

Test Result Summary:

- Energy Charged (kWh): _____
- Energy Discharged (kWh): _____
- Auxiliary Energy Used (if external): _____
- Calculated RTE (%): _____
- Pass/Fail: ☐ Pass ☐ Fail
- Notes: _____

Availability Verification

To verify that the battery meets the minimum availability requirement defined in the contract, by assessing the system's ability to deliver rated power at the Point of Interconnection (POC) over time.

Definition of Availability

Availability is defined as the proportion of time that the battery is capable of delivering its rated power (charge or discharge) at the POC, excluding outages caused by the Owner or grid operator.

$$\text{Availability} = \frac{H_{\text{year}} - (SO + UO)}{H_{\text{year}}}$$

Where:

- H_{year} : Total hours in the year (8760 for standard year, 8784 for leap year)
- SO : Equivalent hours of **scheduled outages**

$$SO = \sum \left(\frac{\text{Outage Duration (h)} \times \text{Power Unavailable (kW)}}{\text{Rated Power (kW)}} \right)$$

- UO : Equivalent hours of **unscheduled outages**

$$UO = \sum \left(\frac{\text{Outage Duration (h)} \times \text{Power Unavailable (kW)}}{\text{Rated Power (kW)}} \right)$$

Performance Requirement

- The battery must achieve $\geq 97\%$ Availability, averaged over any year.
- Availability tracking shall be visible via the SCADA system, with 1-second time resolution for status changes.
- Trial Run period (Section 5.3) is used to evaluate short-term Availability prior to long-term operational assessment.

Availability Verification Checklist

System Setup

- SCADA system installed and operational.
- Availability data logging set to 1-second resolution.
- Rated Power Capacity at POC documented: _____ kW
- Availability tracking formulas confirmed in SCADA logic.

Data Collection

- Total test period hours: _____
- Total Scheduled Outages (SO) logged with reasons and power impact.
- Total Unscheduled Outages (UO) logged with root cause and impact.
- Downtime caused by Owner or grid operator clearly flagged.

Availability Calculation

- SO Equivalent Hours: _____
- UO Equivalent Hours: _____
- Total Availability: _____ %
- Meets Threshold of 97%: [] Yes [] No

If Availability < 97%

- Root cause analysis performed for UO
- Corrective action plan submitted and logged
- Retest or monitoring extension planned: ☐ Yes ☐ No

Test Result Summary

- Trial Period Start: _____
- Trial Period End: _____
- Observed Availability: _____ %
- Pass/Fail: ☐ Pass ☐ Fail
- Notes/Exceptions: _____

Functional Testing

Seven-Day Functional Test and Performance Verification

The commissioning phase shall include a seven-day Trial Run conducted by Provider to demonstrate the operational readiness and performance of the battery and associated components. The Owner will monitor and verify the performance tests during this period.

Success Criteria:

- battery maintains an average availability of at least 97% over seven (7) consecutive days.
- No on-site intervention is required during the test period, excluding issues due to external faults.
- Any defects identified shall be documented as snagging items and addressed per contract terms.

A. Test Conditions

- All equipment must be operating in automatic local mode, or as directed by the Owner (e.g., for frequency regulation and state-of-charge management).
- Contractor and subcontractors shall have full access to site and data systems for monitoring.

Checklist: Functional Test Preparation

- All relevant equipment is fully installed and commissioned.
- Owner and Contractor agree on test modes and operation schedule.
- Communication systems (e.g., SCADA/DAS/EMS) are operational.
- Site access granted to all relevant parties.

B. Required Demonstrations During Functional Test

1. Monitoring System
 - o Reporting interface is updating data in real-time or as per design latency.
 - o Energy and power data in the interface matches revenue meter readings.
 - o Alerts are active, functional, and acknowledged by O&M team.
 - o Data system (e.g., EMS/SCADA) is successfully integrated with other business platforms.
2. System Availability
 - o Availability calculated and recorded per section 5.2.3 with 1-second resolution.
 - o Changes in availability status are tracked and time-stamped.
3. Battery and Inverter Operations
 - o Inverters and batteries operate autonomously.
 - o Inverters respond appropriately to AC/DC disconnections and grid faults.
 - o System automatically transmits data using Modbus protocol.
 - o Local display panels available for Owner observation.

Functional Tests & Compliance Testing

Provider shall complete all functional and compliance tests required to confirm the system meets the battery Minimum Functional Requirements and grid interconnection standards, including support for ancillary services where applicable.

Checklist: Functional Test Completion

- All specified services (e.g., demand charge reduction, frequency response) tested.
- Tests conducted per grid operator procedures and contract Exhibit specifications.
- Reports compiled using standard templates from grid operators and submitted for review.
- Any failed tests re-executed with documented corrective action.

ATTACHMENT E - NOTICE TO PROCEED TEMPLATE

TO GENERAL CONDITIONS AND TECHNICAL SPECIFICATIONS

<DISTRICT LETTERHEAD>

Date: <DATE>

To: <PROVIDER CONTACT NAME>
<TITLE>
<COMPANY>
<ADDRESS>
<FAX NUMBER>
<PHONE NUMBER>
<EMAIL>

Subject: **ENERGY SERVICES AGREEMENT FOR [SITE NAME]**

<CONTACT NAME>,

You are hereby authorized to proceed based on the successful completion of the system design for the above-referenced Agreement beginning <**DATE**>. Subject to the terms of the Agreement, the date for completion of the project shall be no later than <**DATE**>.

Sincerely,

<DISTRICT NAME>
<TITLE>
<ENTITY>
<ADDRESS>
<FAX NUMBER>
<PHONE NUMBER>
<EMAIL>

CC: <CC NAME>
<TITLE>
<COMPANY>
<ADDRESS>
<FAX NUMBER>
<PHONE NUMBER>
<EMAIL>

<MORE CCs IF DESIRED>

**EXHIBIT C
TO ENERGY SERVICES AGREEMENT**

EXHIBIT C - PROGRESS PAYMENT SCHEDULE

TOTAL <i>(Total Due to Company - Including Sales Tax)</i>	\$1,039,140.00
EXECUTION OF CONTRACT (2%)	\$20,782.80
DESIGN COMPLETED (7%)	\$72,739.80
INTERCONNECTION APPROVED (8%)	\$83,131.20
PERMITTING APPROVED (4%)	\$41,565.60
PURCHASE ORDER ISSUED FOR BESS GEAR (10%)	\$103,914.00
MOBILIZATION (11%)	\$114,305.40
DELIVERY OF GEAR (15%)	\$155,871.00
PAD & BATTERY INSTALL (14%)	\$145,479.60
ELECTRICAL INSTALL (16%)	\$166,262.40
PERMISSION TO OPERATE (PTO) (5%)	\$51,957.00
COMMISSIONING (5%)	\$51,957.00
PUNCHLIST/OWNER APPROVAL (3%)	\$31,174.20

**EXHIBIT D
TO ENERGY SERVICES AGREEMENT**

EXHIBIT D - MANUFACTURERS' WARRANTIES

List of manufacturers' warranties on a site-by-site basis:

BESS Battery System Warranty

BESS Power Conversion System Warranty

BESS Power Control System Warranty

Transformer Manufacturer Warranty

Other Equipment Manufacturer Warranties



TERMS AND CONDITIONS OF SALE

General Policies and Conditions

1. This Proposal is offered subject to the following: 1) attached TERMS AND CONDITIONS OF SALE, 2) an executed Master Supply Agreement ("MSA"), and 3) ABB Inc.'s current general Terms and Condition of Sale. Any conflict among the documents comprising the terms of this Proposal shall be resolved in accordance with the following order of precedence: (i) an executed MSA incorporating the following Terms and Conditions of Sale (ii) attached TERMS AND CONDITIONS OF SALE incorporating ABB Inc. General Terms and Conditions of Sale (iii) or ABB Inc. General Terms and Conditions of Sale. Non-ABB preprinted PO terms have no force and/or effect and are hereby rejected by ABB.
2. All quoted or agreed prices are subject to revision at any time in the event of: (i) a material increase in component, raw material, or energy costs; or (ii) governmental action such as new or increased tariffs.
3. Buyer represents and warrants that there are no federal, state, or local (collectively "Governmental") contracting provisions, regulations, flow-downs, or requirements that apply to this transaction, including without limitation any Governmental domestic preference or prevailing wage, other than such terms that have been disclosed and agreed to by Seller in writing. Buyer assumes sole responsibility for any costs associated with non-compliance of terms not agreed by Seller in writing. Unless expressly provided in writing, Seller makes no representation that the quoted product(s) or service(s) comply with any Governmental contracting provisions and regulations.
4. This proposal expires in 30 calendar days, unless terminated sooner by notice. This proposal is not inclusive of taxes of any kind, unless explicitly stated.
5. Orders not requiring engineered drawings for approval must be released by Buyer for manufacture within 90 days of PO receipt. If engineered drawings are required, they must be returned and approved by Buyer for release within 60 days of mailing. If not, and/or shipment is delayed for any reason the price will increase by 1.5% for each partial/full month that shipment release is delayed after the 90-day period. If project is delayed 6 months or more after PO receipt, project will be repriced based off current market values.
6. For MV Transformers (including Padmount, Substation, & Power transformers), refer to the factory proposal for applicable terms and conditions including, but not limited to quote validity, price validity, escalation, warranty, cancellation, estimated delivery, and freight terms.

Payment Terms

1. Net 30 days from the date of invoice
2. For projects up to \$1,000,000 net, terms of payment are 100% upon invoicing.
3. If project value exceeds \$1,000,000 net, progress payments are required payable at the following milestones. These milestones will be applied at a line-item level and will be tailored to the project schedule.
 - 20% upon delivery of drawings
 - 30% upon release of equipment
 - 50% upon shipment

Warranty

1. The warranty for Products shall expire one (1) year from date of installation or eighteen (18) months after date of shipment, whichever occurs first, except that software is warranted for ninety (90) days from delivery. The warranty for Services shall expire one (1) year after performance of the Service, except that software related Services are warranted for ninety (90) days.
2. Additional 12 months available for 2% adder, 24 months for 4% adder. Engage ABB representative if longer durations are needed.
3. All warranty claim remedies are provided under the General Terms and Conditions of Sale, or any applicable MSA, whichever is applicable between the parties.

Order Cancellation – Schedule of Charges

1. 10% - Order received.
2. 30% - Drawings for approval submitted, if required.
3. 50% - Revisions to approval drawings submitted, if required.
4. 80% - Order released for manufacturing and shipment.
5. 100% - Production started.

Delivery and Transportation

1. CPT/FCA ABB's facility, place of manufacture or warehouse (Incoterms 2020). Title and risk of loss passes upon shipment.
2. ABB will assume the risk of loss or damage to the destination for a 2% adder (but not less than \$500 net) applied to the total price of the equipment. "Destination" is defined as ABB's common carrier's delivery point nearest first destination or point of export within the continental U.S.
3. Transportation and handling are prepaid and billed, unless otherwise noted in this quotation or MSA.
4. Shipment via Air or Open Top/Flatbed/Lift gate truck not included unless specifically listed herein.
5. Special Instruction - The Receiving Associate is required to sign, date, and note specific visible or concealed damage on Bill of Lading at time of delivery. Freight Company Associate is required to witness Receiver's signature, date, and damage claim annotations. ABB's Post Sales Service Department must be provided with copy of annotated BOL within five (5) days of delivery or Shipper's responsibility ends.

Other Notes

1. Standard factory test procedures will be performed. Customer inspections, customer witness tests, and any other non-standard test procedures are not included unless specifically noted herein.
2. The accompanying Bill of Material is our interpretation of what is required to meet the intent of the listed Drawings and Specifications. Please review thoroughly for accuracy and completeness and advise immediately if any revisions are required. This proposal is limited to the attached Bill of Material only. Selective coordination of the system should be verified by a qualified engineer and may require changes to the design, Bill of Material, and price.
3. The Parties are aware of the shortage of raw materials, electronic components worldwide which is likely to last for the foreseeable future, as well as, of market fluctuations in the availability and cost of other raw materials, commodities, other critical components, and transportation capacities. Notwithstanding anything to the contrary in the contract terms and conditions / purchase order, if after the date of ABB's proposal / offer or during the term of the performance of the contract / purchase order there are any changes to availability and / or market conditions for electronic components, raw materials, commodities, and transportation capabilities directly or indirectly affecting ABB's performance, ABB shall be entitled to relief in the schedule of the performance or delivery of the directly or indirectly affected scope of work under the contract / purchase order. In such circumstances, the Parties shall meet without delay and discuss in good faith to find a mutually agreeable solution, with equitable adjustment to the contract / purchase order date of delivery or completion. Customer hereby acknowledges and agrees that in said circumstances ABB may not be able to comply with the originally agreed delivery or completion schedule and that ABB shall not be liable for any liquidated or actual damages in connection thereto.



ABB INC. GENERAL TERMS AND CONDITIONS OF SALE

(2025-02 U.S.)

1. General.

The terms and conditions contained herein, together with any additional or different terms contained or referenced in ABB's proposal or, quotation and ("Proposal"), any addenda to the Proposal, the purchase order (excluding any pre-printed terms and conditions and any terms that conflict with the Proposal or ABB's acknowledgment), and ABB's acknowledgement, submitted to Purchaser constitute the entire agreement (the "Agreement") between the parties with respect to the purchase order and supersede all other prior communications and agreements regarding the purchase order and ABB objects to any additional terms proposed by Purchaser. Acceptance by ABB of the purchase order, or Purchaser's acceptance of ABB's Proposal, is expressly limited to and conditioned upon Purchaser's acceptance of these terms and conditions, payment for or acceptance of any performance by ABB being acceptance. "Equipment" as used herein means all the equipment, parts, accessories sold, and all software and software documentation, if any, licensed to Purchaser by ABB ("Software") under the purchase order. "Services" as used herein means all labor, supervisory, technical and engineering, installation, repair, consulting or other services provided by ABB under the purchase order. "Purchaser" shall include the initial end user of the Equipment and/or services; provided, however, that Article 14(a) shall apply exclusively to the initial end user. "Hazardous Materials" means any toxic or hazardous substance, hazardous material, dangerous or hazardous waste, dangerous good, radioactive material, petroleum or petroleum-derived products or by-products, or any other chemical, substance, material or emission, that is regulated, listed or controlled pursuant to any national, state, provincial, or local law, statute, ordinance, directive, regulation or other legal requirement of the United States ("U.S.") or the country of the Site.

2. Prices.

(a) Unless otherwise specified in writing, all Proposals expire thirty (30) days from the date thereof and may be modified or withdrawn by ABB before receipt of Purchaser's conforming acceptance. All prices set forth in a purchase order may be revised by ABB at any time prior to delivery or performance based on ABB's sole but reasonable estimate of its cost increases (after the Proposal date) resulting directly or indirectly from factors such as: (i) a significant increase in raw material, component, labor, or energy costs or (ii) governmental actions, such as increased tariffs on the Equipment, raw material, or components.

(b) Unless otherwise stated herein, Services prices are based on normal business hours (8 a.m. to 5 p.m. Monday through Friday). Overtime and Saturday hours will be billed at one and one-half (1 1/2) times the hourly rate; and Sunday hours will be billed at two (2) times the hourly rate; holiday hours will be billed at three (3) times the hourly rate. If a Services rate sheet is attached hereto, the applicable Services rates shall be those set forth in the rate sheet. Rates are subject to change without notice.

(c) Except as otherwise agreed by ABB, the price does not include any federal, state or local property, license, privilege, sales, use, excise, gross receipts, tariffs or other like taxes ("Taxes") which may now or hereafter be applicable. Purchaser agrees to pay or reimburse any such Taxes, or ABB's reasonable estimated cost impact thereof, which ABB or its suppliers are required to pay or collect. If Purchaser is exempt from the payment of any Tax or holds a direct payment permit, Purchaser shall, upon purchase order placement, provide ABB a copy, acceptable to the relevant governmental authorities of any such certificate or permit.

3. Payment.

(a) Unless specified to the contrary in writing by ABB, payment terms are net cash, payable without offset, in United States Dollars, 30 days from date of invoice by wire transfer to the account designated by ABB in the Proposal. ABB is not required to commence or continue its performance unless and until invoiced payments have been received in a timely fashion. For each day of delay in receiving required payments, ABB shall be entitled to a matching extension of the schedule.

(b) If in the judgment of ABB, the financial condition of Purchaser at any time prior to delivery does not justify the terms of payment specified, ABB may require payment in advance, payment security satisfactory to ABB and suspend its performance until said advance payment or payment security is received or may terminate the purchase order, whereupon ABB shall be entitled to receive reasonable cancellation charges. If delivery is delayed by Purchaser, payment shall be due on the date ABB is prepared to make delivery. Delays in delivery or nonconformities in any installments delivered shall not relieve Purchaser of its obligation to accept and pay for remaining installments.

(c) Purchaser shall pay, in addition to the overdue payment, a late charge equal to the lesser of 1 1/2% per month or any part thereof or the highest applicable rate allowed by law on all such overdue amounts plus ABB's attorneys' fees and court costs incurred in connection with collection. If Purchaser fails to make payment of any amounts due under any purchase order and fails to cure such default within ten (10) days after receiving written notice specifying such default, then ABB may by written notice, at its option, suspend its performance under the purchase order until such time as the full balance is paid or terminate the purchase order, as of a date specified in such notice. In the event of suspension, cancellation or termination hereunder, ABB will be entitled to recover all costs for work performed to date, costs associated with suspension, cancellation or termination of the work and all other costs recoverable at law.

4. Changes.

(a) Any changes requested by Purchaser affecting the ordered scope of work must first be reviewed by ABB and any resulting adjustments to affected provisions, including price, schedule, and guarantees mutually agreed in writing prior to implementation of the change.

(b) ABB may, at its expense, make any changes in the Equipment or Services as it deems necessary, in its sole discretion, to conform the Equipment or Services to the applicable specifications (including but not limited to technical, standards, codes, performance, schedule, location or performance, plus applicable laws and regulations). If Purchaser objects to any such changes, ABB shall be relieved of its obligation to conform to the applicable specifications to the extent that conformance may be affected by such objection. ABB will not be obligated to meet specifications if not provided by Purchaser in the scope of work.

5. Delivery.

(a) All Equipment manufactured, assembled or warehoused in the continental United States is delivered FCA ABB point of shipment, Incoterms® 2020 unless otherwise mutually agreed in writing. Equipment shipped outside the continental United States is delivered FCA Incoterms® 2020 United States port of export unless otherwise mutually agreed in writing. Purchaser shall be responsible for any and all demurrage or detention charges.

(b) If the scheduled delivery of Equipment is delayed by Purchaser or by Force Majeure, ABB may move the Equipment to storage for the account of and at the risk of Purchaser whereupon it shall be deemed to be delivered.

(c) Shipping and delivery dates are contingent upon Purchaser's timely approvals and delivery by Purchaser of any documentation required for ABB's performance hereunder.

(d) Claims for shortages or other errors in delivery must be made in writing to ABB within ten (10) days of delivery. Equipment may not be returned except with the prior written consent of and subject to terms specified by ABB. Claims for damage after delivery shall be made directly by Purchaser with the common carrier.

6. Title & Risk of Loss.

Except with respect to Software (for which title shall not pass, use being licensed) title to Equipment shall transfer to Purchaser upon delivery according to the applicable freight term. Notwithstanding any agreement with respect to delivery terms or payment of transportation charges, risk of loss or damage with respect to the sale of Equipment shall pass from ABB to Purchaser at delivery as defined in this Agreement.

7. Inspection, Testing and Acceptance.

(a) Any inspection by Purchaser of Equipment on ABB's premises shall be scheduled in advance to be performed during normal working hours and subject to rules and regulations in place at the ABB premises.

(b) If the purchase order provides for factory acceptance testing, ABB shall notify Purchaser when ABB will conduct such testing prior to shipment. Unless Purchaser states specific objections in writing within ten (10) days after completion of factory acceptance testing, completion of the acceptance test constitutes Purchaser's factory acceptance of the Equipment and its authorization for shipment.

(c) If the purchase order provides for site acceptance testing, testing will be performed by ABB personnel to verify that the Equipment has arrived at site complete, without physical damage, and in good operating condition. Completion of site acceptance testing constitutes full and final acceptance of the Equipment. If, through no fault of ABB, acceptance testing is not completed within thirty (30) days after arrival of the Equipment at the site, the site acceptance test shall be deemed completed and the Equipment shall be deemed accepted.

8. Warranties and Remedies.

(a) **Equipment and Services Warranty.** ABB warrants that Equipment (excluding Software, which is warranted as specified in paragraph (d) below) shall be delivered free of defects in material and workmanship and that Services shall be free of defects in workmanship. The Warranty Remedy Period for Equipment (excluding Software and spare parts) shall end twelve (12) months after installation or eighteen (18) months after date of shipment, whichever first occurs. The Warranty Remedy Period for new spare parts shall end twelve (12) months after date of shipment. If the purchase order includes the sale of refurbished or repaired parts, the Warranty Remedy Period for such parts shall end ninety (90) days after date of shipment. The Warranty Remedy Period for Services shall end ninety (90) days after the date of completion of Services.

(b) **Equipment and Services Remedy.** If a nonconformity to the foregoing warranty is discovered in the Equipment or Services during the applicable Warranty Remedy Period, as specified above, under normal and proper use and provided the Equipment has been properly stored, installed, operated and maintained and written notice of such nonconformity is provided to ABB promptly after such discovery and within the applicable Warranty Remedy Period, ABB shall, at its option, either (i) repair or replace the nonconforming portion of the Equipment or re-perform the nonconforming Services or (ii) refund the portion of the price applicable to the nonconforming portion of Equipment or Services. If any portion of the Equipment or Services so repaired, replaced or re-performed fails to conform to the foregoing warranty, and written notice of such nonconformity is provided to ABB promptly after discovery and within the original Warranty Remedy Period applicable to such Equipment or Services or thirty (30) days from completion of such repair, replacement or re-performance, whichever is later, ABB will repair or replace such nonconforming Equipment or re-perform the nonconforming Services. The original Warranty Remedy Period shall not otherwise be extended.

(c) **Exceptions.** ABB shall not be responsible for providing temporary power, removal, installation, reimbursement for labor costs or working access to the nonconforming Equipment, including disassembly and re-assembly of non-ABB supplied equipment, or for providing transportation to or from any repair facility, or for any other expenses incurred in connection with the repair or replacement, all of which shall be at Purchaser's risk and expense. ABB shall have no obligation hereunder with respect to any Equipment which (i) has been improperly repaired or altered; (ii) has been subjected to misuse, negligence or accident; (iii) has been used in a manner contrary to ABB's instructions; (iv) is comprised of materials provided by or a design specified by Purchaser; or (v) has failed as a result of ordinary wear and tear. Equipment supplied by ABB but manufactured by others is warranted only to the extent of the manufacturer's warranty, and only the remedies, if any, provided by the manufacturer will be allowed.

(d) **Software Warranty and Remedies.** ABB warrants that, except as specified below, the Software will, when properly installed, execute in accordance with ABB's published specification. If a nonconformity to the foregoing warranty is discovered during the period ending one (1) year after the date of shipment and written notice of such nonconformity is provided to ABB promptly after such discovery and within that period, including a description of the nonconformity and complete information about the manner of its discovery, ABB shall correct the nonconformity by, at its option, either (i) modifying or making available to the Purchaser instructions for modifying the Software; or (ii) making available at ABB's facility necessary corrected or replacement programs. ABB shall have no obligation with respect to any nonconformities resulting from (i) unauthorized modification of the Software or (ii) Purchaser-supplied software or interfacing. ABB does not warrant that the functions contained in the software will operate in combinations which may be selected for use by the Purchaser, or that the software products are free from errors in the nature of what is commonly categorized by the computer industry as "bugs".

(e) THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES OF QUALITY AND PERFORMANCE, WHETHER WRITTEN, ORAL OR IMPLIED, AND ALL OTHER WARRANTIES INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USAGE OF TRADE ARE HEREBY DISCLAIMED. THE REMEDIES STATED HEREIN CONSTITUTE PURCHASER'S EXCLUSIVE REMEDIES AND ABB'S ENTIRE LIABILITY FOR ANY BREACH OF WARRANTY.

9. Intellectual Property Infringement.

(a) ABB shall defend at its own expense any action brought against Purchaser alleging that the Equipment or the use of the Equipment to practice any process for which such Equipment is specified by ABB (a "Process") directly infringes a patent in effect in the United States, an European Union member state or the country of the Site (provided there is a corresponding patent issued by the U.S., UK or an EU member state), or any copyright or trademark registered in the country of the Site and to pay all damages and costs finally awarded in any such action, provided that Purchaser has given ABB prompt

written notice of such action, all necessary assistance in the defense thereof and the right to control all aspects of the defense thereof including the right to settle or otherwise terminate such action in behalf of Purchaser.

(b) ABB shall have no obligation hereunder and this provision shall not apply to: (i) any other equipment or processes, including Equipment or Processes which have been modified or combined with other equipment or process not supplied by ABB; (ii) any Equipment or Process supplied according to a design, other than an ABB design, required by Purchaser; (iii) any products manufactured by the Equipment or Process; (iv) any use of the Equipment or Process contrary to ABB instructions; (v) any patent issued after the date hereof; or (vi) any action settled or otherwise terminated without the prior written consent of ABB.

(c) If, in any such action, the Equipment is held to constitute an infringement, or the practice of any Process using the Equipment is finally enjoined, ABB shall, at its option and its own expense, procure for Purchaser the right to continue using said Equipment; or modify or replace it with non-infringing equipment or, with Purchaser's assistance, modify the Process so that it becomes non-infringing; or remove it and refund the portion of the price allocable to the infringing Equipment. THE FOREGOING PARAGRAPHS STATE THE EXCLUSIVE LIABILITY OF ABB AND EQUIPMENT MANUFACTURER FOR ANY INTELLECTUAL PROPERTY INFRINGEMENT.

(d) To the extent that said Equipment or any part thereof is modified by Purchaser, or combined by Purchaser with equipment or processes not furnished hereunder (except to the extent that ABB is a contributory infringer) or said Equipment or any part thereof is used by Purchaser to perform a process not furnished hereunder by ABB or to produce an article, and by reason of said modification, combination, performance or production, an action is brought against ABB, Purchaser shall defend and indemnify ABB in the same manner and to the same extent that ABB would be obligated to indemnify Purchaser under this "Intellectual Property Indemnification" provision.

10. Waiver of Consequential Damages.

In no event shall ABB, its suppliers or subcontractors be liable for special, indirect, incidental or consequential damages, whether in contract, warranty, tort, negligence, strict liability or otherwise, including, but not limited to, loss of profits or revenue, loss of data, loss of use, loss of use of any of the Equipment or any associated equipment, cost of capital, cost of substitute equipment, facilities or services, downtime costs, delays, and claims of customers of the Purchaser or other third parties for any damages.

11. Limitation of Liability.

(a) ABB's aggregate liability for all claims whether in contract, warranty, tort, negligence, strict liability, or otherwise for any loss or damage arising out of, connected with, or resulting from this Agreement or the performance or breach thereof, or from the design, manufacture, sale, delivery, resale, repair, replacement, installation, technical direction of installation, inspection, operation or use of any equipment covered by or furnished under this Agreement, or from any services rendered in connection therewith, shall in no case (except as provided in the section entitled "Intellectual Property Indemnification") exceed the purchase order price.

(b) All causes of action against ABB arising out of or relating to this Agreement or the performance or breach hereof shall expire unless brought within one (1) year of the time of accrual thereof.

(c) In no event, regardless of cause, shall ABB be liable for penalties or penalty clauses of any description or for indemnification of Purchaser or others for costs, damages, or expenses arising out of or related to the Equipment and/Services.

(d) The rights and remedies of the parties contained under these terms and conditions shall be sole and exclusive.

12. Laws and Regulations.

ABB does not assume any responsibility for compliance with federal, state or local laws and regulations, except as expressly set forth in this Agreement, and compliance with any laws and regulations related to Purchaser's duties, obligations, and business practices including the application, operation, or use and disposal of the Equipment Services or Software is the sole responsibility of the Purchaser. All laws and regulations referenced in this Agreement shall be those in effect as of the original Proposal date. In the event of any subsequent revisions or changes thereto, ABB assumes no responsibility for compliance therewith. If Purchaser desires a modification as a result of any such change or revision, it shall be treated as a change per Article 4. Nothing contained herein shall be construed as imposing responsibility or liability upon ABB for obtaining any permits, licenses or approvals from any agency required in connection with the supply, erection or operation of the Equipment. This Agreement shall in all respects be governed by, and construed, interpreted and enforced in accordance with the laws of the State of New York, USA, excluding its conflicts of laws rules and the provisions of the United Nations Convention

on Contracts for the International Sale of Goods, and both parties hereby agree that any litigation concerning, arising out of, or related to this Agreement, whether claims are based on contract, tort, equity or otherwise, shall be conducted only in the state or federal courts functioning in the State of New York, New York County and waive the defense of an inconvenient forum in respect to any such litigation. If any provision hereof, partly or completely, shall be held invalid or unenforceable, such invalidity or unenforceability shall not affect any other provision or portion hereof and these terms shall be construed as if such invalid or unenforceable provision or portion thereof had never existed.

13. OSHA.

ABB warrants that the Equipment will comply with the relevant standards of the Occupational Safety and Health Act of 1970 ("OSHA") and the regulations promulgated thereunder as of the date of the Proposal. Upon prompt written notice from the Purchaser of a breach of this warranty, ABB will replace the affected part or modify it so that it conforms to such standard or regulation. ABB's obligation shall be limited to such replacement or modification. In no event shall ABB be responsible for liability arising out of the violation of any OSHA standards relating to or caused by Purchaser's design, location, operation, or maintenance of the Equipment, its use in association with other equipment of Purchaser, or the alteration of the Equipment by any party other than ABB.

14. Software License. (a) ABB owns all rights in or has the right to sublicense all of the Software, if any, to be delivered to Purchaser under this Agreement. As part of the sale made hereunder Purchaser hereby obtains a limited license to use the Software, subject to the following: (i) the Software may be used only in conjunction with equipment specified by ABB; (ii) the Software shall be kept strictly confidential; (iii) the Software shall not be copied, reverse engineered, or modified; (iv) the Purchaser's right to use the Software shall terminate immediately when the specified equipment is no longer used by the Purchaser or when otherwise terminated, e.g. for breach, hereunder; and (v) the rights to use the Software are non-exclusive and non-transferable, except with ABB's prior written consent. (b) Nothing in this Agreement shall be deemed to convey to Purchaser any title to or ownership in the Software or the intellectual property contained therein in whole or in part, nor to designate the Software a "work made for hire" under the Copyright Act, nor to confer upon any person who is not a named party to this Agreement any right or remedy under or by reason of this Agreement. In the event of termination of this License, Purchaser shall immediately cease using the Software and, without retaining any copies, notes or excerpts thereof, return to ABB the Software and all copies thereof and shall remove all machine-readable Software from all of Purchaser's storage media.

15. Intellectual Property, Inventions and Information.

(a) "Intellectual Property Rights" means all current and future rights in copyrights, trade secrets, trademarks, mask works, patents, design rights, trade dress, and any other intellectual property rights that may exist anywhere in the world, including, in each case whether unregistered, registered or comprising an application for registration, and all rights and forms of protection of a similar nature or having equivalent or similar effect to any of the foregoing. "Technology" means all inventions, discoveries, ideas, concepts, methods, code, executables, manufacturing processes, unique compositions, mask works, designs, marks, and works of authorship fixed in the medium of expression, and materials pertaining to any of the preceding; whether or not patentable, copyrightable or subject to other forms of protection. (b) ABB shall maintain all right, title and interest in any Technology and Intellectual Property Rights that ABB owned, created, conceived or discovered prior to entering into this Agreement, or owns, creates or discovers separately from the activities contemplated by this Agreement. Unless otherwise agreed in writing by ABB and Purchaser, ABB shall have all right, title and interest in any Technology and Intellectual Property Rights that ABB creates, conceives or discovers in furtherance of this Agreement, and ABB shall have all right, title and interest in any Technology and Intellectual Property Rights embodied in the Equipment and Services. Any design, manufacturing drawings or other information submitted to the Purchaser remains the exclusive property of ABB. Purchaser shall not, without ABB's prior written consent, copy or disclose such information to a third party, unless required by a public information request from a governmental body. Such information shall be used solely for the operation or maintenance of the Equipment and not for any other purpose, including the duplication thereof in whole or in part.

16. Force Majeure.

ABB shall neither be liable for loss, damage, detention or delay nor be deemed to be in default for failure to perform when prevented from doing so by causes beyond its reasonable control including but not limited to acts of war (declared or undeclared), delays attributable to outbreaks, epidemics and pandemics (including any variations), Acts of God, fire, strike, labor difficulties, acts or omissions of any governmental authority or of Purchaser, compliance with government regulations, insurrection or riot, embargo, delays or shortages in transportation or inability to obtain necessary labor, materials, or manufacturing facilities from usual sources or from defects or delays in the performance of its suppliers or subcontractors due to any of the foregoing enumerated causes. In the event of delay due to any such cause, the date of delivery will be extended by period equal to the delay plus a reasonable time to resume production, and the price will be adjusted to compensate ABB for such delay.

17. Cancellation.

Special order, custom designed, and made-to-order Equipment are non-cancelable and non-returnable. Any other purchase order may be cancelled by Purchaser only upon prior written notice and payment of termination charges as set forth in the cancellation schedule included in the Proposal or payment of, including but not limited to, the purchase price of the work performed prior to the effective date of notice of termination, the costs identified to the purchase order incurred by ABB for work not completed, and all expenses incurred by ABB attributable to the termination, plus a fixed sum of ten (10) percent of the final total price to compensate for disruption in scheduling, planned production and other indirect costs.

18. Termination.

(a) No termination by Purchaser for material default shall be effective unless, within fifteen (15) days after receipt by ABB of Purchaser's written notice specifying such default, ABB shall have failed to initiate and pursue with due diligence correction of such specified default. (b) If the event of termination for a material default, ABB shall reimburse Purchaser the difference between that portion of the Agreement price allocable to the terminated scope and the actual amounts reasonably incurred by Purchaser to complete that scope, and Purchaser shall pay to ABB the portion of the Agreement price allocable to Equipment completed and any amounts due for Services performed before the effective date of termination. (c) ABB may terminate the Agreement (or any affected portion thereof) immediately for cause if Purchaser becomes insolvent/bankrupt, or materially breaches the Agreement, including, but not limited to, failure or delay in Purchaser making any payment when due, or fulfilling any payment conditions.

19. Export Control.

(a) The following definitions apply to this Article 19: "Trade Control Laws" means all applicable trade and economic sanctions laws and regulations, specifically including but not limited to the U.S. International Traffic in Arms Regulations ("ITAR"), 22 C.F.R. 120 et seq.; the Export Administration Regulations ("EAR"), 15 C.F.R. 730-774; the Foreign Assets Control Regulations ("FACR"), 31 C.F.R. 500-598; the Foreign Trade Regulations ("FTR"), 15 C.F.R. 30-199; and, any administrative or regulatory decisions or guidelines adopted pursuant to Trade Control Laws. "Purchaser Entities" means Purchaser's officers, directors, employees, parent company, subsidiaries and other affiliates, and if the Equipment, Software and/or Services are subject to resale or other distribution, Purchaser's customers and end-users of the same. (b) Purchaser shall comply in all respects with Trade Control laws and shall not export, re-export, transfer, disclose or otherwise provide or make accessible the Equipment, Software, data or other information provided to Purchaser by ABB hereunder, to any non-U.S. person or entity (including Purchaser's dual and/or third-country national employees or third party contractors) without first complying with all requirements of the applicable Trade Control Laws. If Purchaser is a U.S. entity and is engaged in the business of either exporting or manufacturing (whether exporting or not) Defense Articles or furnishing Defense Services as defined in the ITAR, Purchaser represents that it shall maintain an active registration with the U.S. Department of State's Directorate of Defense Trade Controls ("DDTC"), as required by the ITAR, throughout the performance of this Contract, and that it maintains an effective export and import compliance program in accordance with the ITAR. If Purchaser is a U.S. entity and will export ABB's Equipment, Software, and/or data, Purchaser will be considered an exporter within the meaning of the U.S. export regulations. Therefore, ABB should not be listed as the exporter or U.S. Principal Party in Interest ("USPPI") on any documentation or filings relating to any export. Purchaser acknowledges it's acting on its own behalf and not as ABB's agent for export or any other purposes.

(c) Purchaser represents and warrants that the Equipment, Software and Services provided hereunder, and the "direct product" thereof are intended for civil use only and will not be used, directly or indirectly, for the production of chemical or biological weapons or of precursor chemicals for such weapons, or for any direct or indirect nuclear end use or any other end use prohibited by Trade Control Laws.

(d) Purchaser represents and warrants that: (1) neither Purchaser nor any Purchaser Entity is included on any of the restricted party lists maintained by the U.S. Government, including the Specially Designated Nationals List administered by the U.S. Treasury Department's Office of Foreign Assets Control ("OFAC"), Denied Parties List, Unverified List or Entity List maintained by the U.S. Commerce Department's Bureau of Industry and Security ("BIS"), or the List of Statutorily Debarred Parties maintained by the U.S. State Department's Directorate of Defense Trade Controls, listed, the ITAR §126.1 Restricted Parties List, or the consolidated list of asset freeze targets designated by the United Nations, European Union, and United States or any similar list maintained by the European Union or European member state (collectively "Restricted Parties List"); and (2) no entity or person listed on the Restricted Parties List (or owned directly or indirectly, in whole or in part, by an entity or person on the Restricted Parties List) has any property, financial or other interest in the Equipment, Software or Services, and that the same shall not be transferred, reexported, disclosed to or otherwise provided to an entity or person on the Restricted Parties List. Purchaser shall notify ABB immediately if Purchaser or a Purchaser Entity becomes listed on the Restricted Party List.

(e) Purchaser shall notify ABB immediately upon awareness of any breach or suspected breach of this Article 19. Any violation of Purchaser's obligations under this Article 19 is a material breach of this Agreement and ABB reserves the right to terminate the Agreement immediately upon written notice for Purchaser's default. Purchaser shall indemnify, defend and hold harmless ABB, its officers, directors, employees, agents, affiliates, successors, and permitted assigns from and against all claims, causes of action, damages, liabilities, and expenses, including attorney's fees arising from Purchaser's breach of this Article 19 and any resulting termination of this Agreement.

(f) If agreed to by the Parties pursuant to a written statement of work or elsewhere in this Agreement, ABB shall file for a U.S. export license, but only after appropriate documentation for the license application has been provided by Purchaser. Purchaser shall furnish such documentation within a reasonable time after purchase order acceptance. Any delay in obtaining such license shall suspend performance of this Agreement by ABB. If an export license is not granted or, if once granted, is thereafter revoked or modified by the appropriate authorities, this Agreement may be canceled by ABB without liability for damages of any kind resulting from such cancellation. At ABB's request, Purchaser shall provide to ABB a Letter of Assurance and End-User Statement in a form reasonably satisfactory to ABB.

(g) When applicable, the party considered the exporter of the Equipment, Software, Services and/or data, will apply for the export license in compliance with all applicable Trade Control Laws. If ABB is the applicant of the export license, the Purchaser agrees to immediately provide all the necessary information and documentation (i.e. End-User/End-Use Certificate and Letter of Assurance) required to apply for the license. If an export license is denied or revoked, the applicant must notify the other party immediately and this Agreement may be terminated by ABB without liability for damages of any kind resulting from such termination.

20. Trade Controls

a) The Parties agree to comply with all applicable sanctions and export control laws in connection with this Agreement. Sanctions and export control laws and regulations include any applicable laws, regulations, or administrative or regulatory decisions or guidelines that sanction, prohibit or restrict certain activities including, but not limited to, (i) import, export, re-export, transfer, or trans-shipment of goods, services, technology, or software; (ii) financing of, investment in, or direct or indirect transactions or dealings with certain countries, territories, regions, governments, projects, or specifically designated persons or entities, including any future amendments to these provisions; or (iii) any other laws, regulations, administrative or regulatory decisions, or guidelines adopted, maintained, or enforced by any Sanctions Agency on or after the date of the [purchase order] (collectively, "Trade Control Laws"). "Sanctions Agency" means any governmental or regulatory body, instrumentality, authority, institution, agency or court that promulgates or administers Trade Control Laws including, but not limited to, the aforementioned governmental and regulatory bodies of (i) the United Nations, (ii) the United States of America (including the U.S. Department of Treasury Office of Foreign Assets Control, U.S. Department of State and U.S. Department of Commerce), (iii) the European Union or (iv) Switzerland.

(b) The Parties confirm that they have not violated, shall not violate, and shall not cause the other Party to violate, any applicable Trade Control Laws.

Each Party represents and warrants that, to the best of its knowledge, at the date of the [purchase order] neither it, nor any of their respective directors or officers are a Restricted Person. Each Party agrees that it shall promptly notify the other Party if it becomes a Restricted Person. "Restricted Person" means any entity or person included on a list (including U.S. and EU lists) of targeted parties, blocked parties, or persons subject to asset-freezing or other restrictions introduced under any applicable Trade Control Laws (and includes any entity that is directly or indirectly owned fifty (50) percent or more, in the aggregate or individually, or otherwise controlled by any Restricted Person).

(c) If, as a result of Trade Control Laws issued or amended after the date of the [purchase order], including, but not limited to, (i) the Purchaser or the end-user is/becomes a Restricted Person, or (ii) any necessary export license or authorization from a Sanctions Agency is not granted, the performance by ABB or any of its affiliates becomes illegal or impracticable, ABB shall be entitled to either immediately suspend the performance of the affected obligation under the [purchase order] until such time as ABB may lawfully discharge such obligation or unilaterally terminate the [purchase order] in whole or in part. ABB will not be liable to the Purchaser for any costs, expenses or damages associated with such suspension or termination of the [purchase order].

(d) The Parties undertake to obtain all the necessary licenses and/or permits from the competent authorities for the import or export, re-export, or in-country transfer of Equipment and Services. Equipment and Software, and the "direct product" thereof, that originate from the United States are subject to the U.S. Export Administration Regulations ("EAR") and must not be exported, re-exported, or transferred (in-country) without obtaining the necessary valid li-censes/authorizations of the competent US authorities. At ABB's request, Purchaser shall provide to ABB a Letter of Assurance and End-User Statement in a form reasonably satisfactory to ABB.

(e) The Purchaser represents and warrants that the Equipment and Services are for civil use only. The Purchaser further represents that it will not directly or indirectly sell, export, re-export, release, transmit or otherwise transfer any items received from ABB to any Restricted Parties, or parties that operate, or whose end use will be, in a jurisdiction/region prohibited by ABB including Belarus, Crimea, Cuba, Iran, North Korea, Russia, Syria, as well as the Donetsk, Luhansk, Kherson, and Zaporizhzhia regions of Ukraine (such list may be amended by ABB at any time).

(f) If the Purchaser infringes any obligations in this Trade Controls clause in connection with the [purchase order], the Purchaser must immediately notify ABB. Failure to comply with these Trade Compliance obligations shall be considered a material breach, and ABB shall have the right to unilaterally terminate the Agreement with immediate effect. Such termination would be without prejudice to all rights of recourse which could be exercised by ABB, and ABB shall not be liable to Purchaser for any claim, losses or damages whatsoever related to its decision to terminate performance under this provision. Further, Purchaser shall indemnify ABB for all liabilities, damages, costs, or expenses incurred as a result of any such violation, breach and/or termination of the Agreement. ABB may report such violations to relevant authorities as required by applicable Trade Control Laws.

(g) For the avoidance of doubt, no provision in this Agreement shall be interpreted or applied in a way that would require any Party to do, or refrain from doing, any act which would constitute a violation of, or result in a loss of economic benefit under, applicable Trade Control Laws.

21. Bribery and Corruption.

(a) Purchaser hereby warrants that it will not, directly or indirectly, and it has no knowledge that other persons will, directly or indirectly, make any payment, gift or other commitment to its customers, to government officials or to agents, directors and employees of ABB or any other party in a manner contrary to applicable laws (including but not limited to the Corruption of Foreign Public Officials Act (Canada), the Foreign Corrupt Practices Act (United States) and, where applicable, legislation enacted by member States and signatories implementing the OECD Convention Combating Bribery of Foreign Officials) and shall comply with all relevant laws, regulations, ordinances and rules regarding bribery and corruption.

(b) Nothing hereunder shall render ABB liable to reimburse Purchaser for any such consideration given or promised.

(c) Purchaser's material violation of any of the obligations contained in Article 21(a) above may be considered by ABB to be a material breach hereunder and shall entitle ABB to terminate this agreement with immediate effect and without prejudice to any further right or remedies on the part of ABB hereunder or applicable law. Purchaser shall indemnify ABB for all liabilities, damages, costs or expenses incurred as a result of any such violation of the above-mentioned obligations and termination of this agreement.

(d) Purchaser understands that ABB's Code of Conduct is available for consultation online at <http://www.abb.com/integrity>. Purchaser agrees to perform its contractual obligations hereunder with substantially similar

standards of ethical behavior as those found in Supplier's Code of Conduct.
(e) ABB has established the following reporting channels where Purchaser and its employees may report suspected violations of applicable laws,

policies or standards of conduct:
Web portal: www.abb.com/integrity
Telephone: number specified on the above Web portal
Mail: address specified on the above Web portal

22. Assignment.

Any assignment of this Agreement or of any rights or obligations under the Agreement without prior written consent of ABB shall be void.

23. Nuclear.

Equipment and Services sold hereunder are not intended for use in connection with any nuclear facility or activity, and Purchaser warrants that it shall not use or permit others to use Equipment or Services for such purposes, without the advance written consent of ABB. If, in breach of this, any such use occurs, ABB (and its parent, affiliates, suppliers and subcontractors) disclaims all liability for any nuclear or other damage, injury or contamination, including without limitation any physical damage to a nuclear facility itself, resulting from a nuclear incident and, in addition to any other rights of ABB, Purchaser shall indemnify and hold ABB (and its parent, affiliates, suppliers and subcontractors) harmless against all such liability including, but not limited to, any physical damage to the nuclear facility or surrounding properties, if any. Consent of ABB to any such use, if any, will be conditioned upon additional terms and conditions that ABB determines to be acceptable for protection against nuclear liability including but not limited to the requirement that the Purchaser and/or its end user customer shall have complete insurance protection against liability and property damage including without limitation physical damage to a nuclear facility itself or any surrounding properties, if any, resulting from a nuclear incident and shall indemnify ABB, its subcontractors, suppliers and vendors against all claims resulting from a nuclear incident including, but not limited to, any physical damage to the nuclear facility.

24. Resale.

If Purchaser resells any of the Equipment or Services, the sale terms shall limit ABB's liability to the buyer to the same extent that ABB's liability to Purchaser is limited hereunder. Additionally, if the end-user intends to use the Equipment or Services in connection with any nuclear facility or activity, the Purchaser shall require the end-user comply with the financial requirements under Price-Anderson Act (PAA) and secure a written release of liability which flows from the end-user to the benefit of ABB.

25. Environmental, Health and Safety Matters.

(a) Purchaser shall be obligated to maintain safe working conditions at its facility or location (the "Site"), including the implementing of appropriate procedures regarding Hazardous Materials, confined space entry, and energization and de-energization of power systems (electrical, mechanical and hydraulic) using safe and effective lock-out/tag-out ("LOTO") procedures including physical LOTO or a mutually agreed upon alternative method.

(b) Purchaser shall immediately advise ABB in writing of all applicable Site-specific health, safety, security and environmental requirements and procedures. Without limiting Purchaser's responsibilities hereunder, ABB has the right but not the obligation to, from time to time, review, audit and inspect applicable health, safety, security and environmental documentation, procedures and conditions at the Site.

(c) If, in ABB's reasonable opinion, the health, safety, or security of personnel or the Site is, or is likely to be, imperiled by security risks, the presence of or threat of exposure to Hazardous Materials, or unsafe working conditions, ABB may, in addition to other rights or remedies available to it, remove some or all of its personnel from Site, suspend performance of all or any part of the purchase order, and/or remotely perform or supervise work. Any such occurrence shall be considered a Force Majeure event. Purchaser shall reasonably assist in ensuring the safe departure of personnel from the Site.

(d) Purchaser shall not require or permit ABB's personnel to operate Purchaser's equipment at Site.

(e) Purchaser will make its Site medical facilities and resources reasonably available to ABB personnel who need medical attention.

(f) ABB has no responsibility or liability for the pre-existing condition of Purchaser's equipment or the Site, which is the sole responsibility of Purchaser. Prior to ABB starting any work at Site, Purchaser will provide documentation that identifies the presence and condition of any Hazardous Materials existing in or about Purchaser's equipment or the Site that ABB may encounter while performing under this Agreement. The provision of such documentation shall in no way release Purchaser from its responsibility for said conditions. Purchaser shall disclose to ABB industrial hygiene and environmental monitoring data regarding conditions that may affect ABB's work

or personnel at the Site. Purchaser shall keep ABB informed of changes in any such conditions.

(g) ABB shall promptly notify Purchaser if ABB becomes aware of: (i) conditions at the Site differing materially from those disclosed by Purchaser, or (ii) previously unknown physical conditions at Site differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Agreement. If any such conditions cause an increase in ABB's cost of, or the time required for, performance of any part of the work under the Agreement, an equitable adjustment in price and schedule shall be made.

(h) If ABB encounters Hazardous Materials in Purchaser's equipment or at the Site that require special handling or disposal, ABB is not obligated to continue work affected by the hazardous conditions. In such an event, Purchaser shall at its sole cost and expense eliminate the hazardous conditions in accordance with applicable laws and regulations so that ABB's work under the Agreement may safely proceed, and ABB shall be entitled to an equitable adjustment of the price and schedule to compensate for any increase in ABB's cost of, or time required for, performance of any part of the work. Purchaser shall properly store, transport and dispose of all Hazardous Materials introduced, produced or generated in the course of ABB's work at the Site.

(i) Purchaser shall indemnify ABB for any and all claims, damages, losses, and expenses arising out of or relating to any Hazardous Materials which are or were (i) present in or about Purchaser's equipment or the Site prior to the commencement of ABB's work, (ii) improperly handled or disposed of by Purchaser or Purchaser's employees, agents, contractors or subcontractors, or (iii) brought, generated, produced or released on Site by parties other than ABB.

26. Confidentiality.

a) ABB and Purchaser (as to information disclosed, the "Disclosing Party") may each provide the other party (as to information received, the "Receiving Party") with Confidential Information in connection with this Agreement. "Confidential Information" means (a) information that is designated in writing as "confidential" or "proprietary" by Disclosing Party at the time of written disclosure, and (b) information that is orally designated as "confidential" or "proprietary" by Disclosing Party at the time of oral or visual disclosure and is confirmed to be "confidential" or "proprietary" in writing within fifteen (15) days after the oral or visual disclosure. In addition, prices for Products and Services shall be considered ABB's Confidential Information.

(b) Receiving Party agrees: (i) to use the Confidential Information only in connection with the Agreement and use of Products and Services, (ii) to take reasonable measures to prevent disclosure of the Confidential Information to third parties, and (iii) not to disclose the Confidential Information to a competitor of Disclosing Party. Notwithstanding these restrictions, each party shall permit access to the other's Confidential Information only to its employees who: (i) reasonably require access to Confidential Information for purposes approved by this Agreement, and (ii) have undertaken a binding obligation of confidentiality with respect to the confidential information of others entrusted to him or her, and (iii) have been apprised of the confidentiality obligations hereunder. ABB may disclose Confidential Information to its affiliates and subcontractors in connection with performance of the purchase order. A Receiving Party may only disclose Confidential Information to any other third party with the prior written permission of Disclosing Party, and in each case, only so long as the Receiving Party obtains a non-disclosure commitment from any such third party that prohibits disclosure of the Confidential Information and provided further that the Receiving Party remains responsible for any unauthorized use or disclosure of the Confidential Information. Receiving Party shall upon request return to Disclosing Party or destroy all copies of Confidential Information except to the extent that a specific provision of the Agreement entitles Receiving Party to retain an item of Confidential Information. ABB may also retain one archive copy of Purchaser's Confidential Information.

(c) The obligations under this Article 25 shall not apply to any portion of the Confidential Information that: (i) is or becomes generally available to the public other than as a result of disclosure by Receiving Party, its representatives or its affiliates; (ii) is or becomes available to Receiving Party on a non-confidential basis from a source other than Disclosing Party when the source is not, to the best of Receiving Party's knowledge, subject to a confidentiality obligation to Disclosing Party; (iii) is independently developed by Receiving Party, its representatives or affiliates, without reference to the Confidential Information; (iv) is required to be disclosed by law or valid legal process provided that the Receiving Party intending to make disclosure in response to such requirements or process shall promptly notify the Disclosing Party in advance of such disclosure and reasonably cooperate in attempts to maintain the confidentiality of the Confidential Information.

(d) As to any individual item of Confidential Information, the restrictions under this Article 25 shall expire five (5) years after the date of disclosure. This Article 25 does not supersede any separate confidentiality or nondisclosure agreement signed by the parties.



27. Non-Survival.

The following Articles shall not survive termination or cancellation of this Agreement: 5, 7, 8, 17 and 18. All other Articles shall survive the termination or cancellation of the Agreement.

28. Entire Agreement.

This Agreement constitutes the entire agreement between ABB and Purchaser. There are no agreements, understandings, restrictions, warranties, or representations between ABB and Purchaser other than those set forth herein or herein provided. As stated in Article 1 of this Agreement, ABB's Proposal, policies, addendum(s), if any, submitted to Purchaser, shall control over any conflicting terms. ABB specifically rejects any exceptions to this Agreement, Proposals, policies, and/or addendum(s) on the face of any purchase order. Purchaser shall advise ABB in writing of all conflicts, errors, omissions, or discrepancies among the Proposal, Policies, Addendum(s) and this Agreement immediately upon discovery. This Agreement shall supersede any standard, preprinted terms and conditions that are automatically attached to purchase orders issued by Purchaser.

29. US Government Contracts.

This Article 28 applies only if the Agreement is for the direct or indirect sale, or is funded in whole or in part by, an agency of the U.S. federal government, or a state government, or any other U.S. government instrumentality or political subdivision (collectively "U.S. government entity").

Unless otherwise expressly stated and specifically agreed in ABB's Proposal:

(a) Purchaser agrees that:

(i) all Equipment, Software, and Services provided by ABB meet the definition of "commercial-off-the-shelf" ("COTS") or "commercial product" or "commercial service" or "commercial computer software" as those terms are defined in Federal Acquisition Regulation ("FAR") 2.101.

(ii) ABB technical data and computer software are developed at ABB's private expense and not in performance of the Agreement. ABB retains ownership and proprietary rights in all technical data and computer software provided to Purchaser under the Agreement and under a U.S. Government contract or subcontract. Neither the Purchaser, the U.S. Government nor any higher-tier contractor under a U.S. Government contract will obtain any rights in ABB technical data or computer software beyond the rights provided under ABB's standard commercial licenses consistent with FAR 12.211 and 12.212.

(iii) to the extent the Buy American Act (41 U.S.C. §§ 8301 –8305, as amended), Trade Agreements Act (19 U.S.C. §§ 2501 – 2581, as amended), Build America, Buy America (Pub. L. 117-58, December 29, 2022, as amended) or other domestic preference requirements are applicable to this Agreement, the country of origin of Equipment or Software is unknown.

(iv) the version of any applicable FAR clause listed in this Article 28 shall be the one in effect on the effective date of this Agreement.

(b) If Purchaser is an agency of the U.S. Government, then as permitted by FAR 12.302, Purchaser agrees that:

(i) all paragraphs of FAR 52.212-4 (except those listed in 12.302(b)) are replaced with these Terms and Conditions.

(ii) only the clauses identified in FAR 52.212-5 apply and only to the extent applicable for sale of COTS and/or commercial products and/or commercial services and as appropriate for the purchase order price.

(iii) any Services offered by ABB are exempt from the Service Contract Act of 1965 (41 U.S.C. §§ 6701 - 6707, as amended).

(iv) all other U.S. Government agency contract provisions are rejected.

(c) If Purchaser is procuring as a contractor, or subcontractor at any tier, on behalf of an agency of a U.S. government entity, then Purchaser agrees that:

(i) only the clauses identified in FAR 52.212-5(e)(1) or 52.244-6(c)(1) (whichever is applicable) apply and only to the extent applicable for sale of COTS and/or commercial products and/or services and as appropriate for the purchase order price.

(ii) Purchaser shall notify ABB prior to transmitting any Controlled Unclassified Information ("CUI") to ABB, and only upon written authorization by ABB may Purchaser transmit CUI to ABB. Purchaser shall transmit CUI to ABB in accordance with applicable CUI safeguarding and/or dissemination authority requirements.

(iii) prevailing wage and related public works labor and employment laws or regulations are not applicable to ABB's services offered in the Proposal.

(iv) Purchaser is solely responsible for its obligations to its customer(s), including validating that ABB's Proposal fulfills Purchaser's U.S. Government contracting obligations, if any. To the extent the terms and conditions of Purchaser's customer contract(s) are different from the terms and conditions of this Agreement, Purchaser shall defend, indemnify and hold ABB harmless from and against all losses, liabilities, cost, expense (including attorney's fees and expenses of litigation and/or settlement), damages, allegations, claims, causes of action and judgments resulting from such difference. In no event will Purchaser withhold payment due to ABB for any dispute or liability incurred between Purchaser and its customer(s).

30. Data Protection.

(a) The parties agree that the protection of Personal Data is very important. If Purchaser discloses Personal Data to ABB, ABB shall comply with all applicable data protection laws and regulations. Purchaser shall comply with all applicable data protection laws and regulations in respect of any Personal Data it receives from ABB in the course of receiving the Equipment or Services.

(b) The parties agree that neither will withhold or delay its consent to any changes to this clause which are required to be made in order to comply with applicable data protection laws and regulations and/or with guidelines and order from any competent supervisory authority, and their application to the Equipment or Services from time to time, and agrees to implement any such changes at no additional cost to the other party.

(c) The parties acknowledge that the processing of Personal Data in accordance with this purchase order may require the conclusion of additional data processing agreements or additional data protection agreements. If and to the extent such additional data processing agreements or additional data protection agreements are not initially concluded as part of the purchase order, the parties shall, and shall ensure that their relevant affiliates or subcontractors shall, upon the other's request promptly enter into any such agreement with an affiliate, as designated by the other party and as required by mandatory law or a competent data protection or other competent authority.

Limited Warranty on ELM MicroGrid Products

Contents

Section 1 - Warranty Overview	1
1.1 Warranty Terms and Conditions	1
1.2 Warrantied Performance	2
1.4 Choice of Law and Disputes	3
Section 2 - Preventative Maintenance (PM) Requirements	3
2.1 O&M PM Schedule	3
2.2 ELM FieldTech App	3
Section 3 - Remote Operational Monitoring Requirements	4
3.1 ELM FieldSight Access	4
Section 4 - Support Contact	5
Section 5 - Warranty Extension Options	5
5.1 Warranty Extension	5

Section 1 - Warranty Overview

1.1 Warranty Terms and Conditions

ELM FieldSight, LLC dba ELM Microgrid warrants, subject to the exclusions contained herein, that the Product shall include a parts only warranty for a period of Sixty (60) months. The warranty period will start at the earlier of a) The product is factory acceptance tested or b) Delivered to the Buyer, whichever occurs first. Additional warranty extensions are available for purchase by the customer (see the extended warranty options in Table 1). This warranty excludes any issues and defects caused by abuse, neglect, or improper maintenance of the system, or equipment, as specified in all owner's and operation manuals or any other written information from Seller.

Unless otherwise specified in the contractual agreement with the Buyer, Remote Operational Monitoring is required via the ELM FieldSight Energy Management System in order to maintain compliance with this warranty. Please see Section 3 of this document for an overview of the Remote Monitoring Operational Requirements.

Purchaser agrees to look solely to Seller's products for any warranty, repair or product liability claims arising out of the performance, condition or use of such accessories or parts. Seller shall not be liable for any repairs, replacements or adjustment to the Product or any costs of labor performed by Purchaser without Seller's prior written approval. The effects of corrosion, erosion and normal wear and tear are specifically excluded from Seller's warranty.

These warranties are exclusive and are in Lieu of any and all other warranties, express or implied, arising by law or custom, including but limited to, the implied warranty of merchantability and the implied warranty of fitness for a particular purpose.

Purchaser shall, within warranty period, notify Seller in writing of any defect(s) and fully cooperate with Seller in pursuing the remedy thereof. The sole remedy for breach of the foregoing warranty shall be repair and or replacement of any defective product, as determined by ELM FieldSight, LLC, based on its evaluation and reasonable discretion. In no event shall ELM FieldSight, LLC be liable for special, indirect, or consequential damages including but not limited to lost profits, non-compliance penalties, down time related costs or damages to the premises. In no event shall the aggregate liabilities of ELM FieldSight, LLC arising out of these transactions exceed the price for the goods in respect to which such claim is made. Except as stated herein, Seller makes no performance warranty of any kind respecting the Product.

1.2 Warrantied Performance

This warranty includes a performance guarantee of Three Hundred and Sixty-Five (365) cycles per year regarding the guaranteed capacity as defined in the purchase order and scope of deliverables for the duration of this standard warranty. Performance guarantees are subject to operating conditions per the degradation profile provided in the project quote. Additionally, any extended warranty purchase is limited to Three Hundred and Sixty-Five (365) cycles per year for the duration of the warranty period purchased by customer and subject to the operating conditions per the degradation profile provided in the original project quote.

1.3 Limitation of Liability

Buyer expressly agrees that, notwithstanding any other provisions of this Agreement, under no circumstances shall Seller have any liability resulting from the performance, failure to perform or breach of any of Seller's obligations hereunder or from any activity undertaken with respect to the goods covered by this Agreement, except as expressly set forth herein. In particular, SELLER SHALL NOT BE LIABLE TO BUYER OR ANY THIRD PARTY FOR INCIDENTAL, CONSEQUENTIAL, INDIRECT, OR SPECIAL COST OR DAMAGES OR LOST PROFITS, SAVINGS OR REVENUES OF ANY KIND THAT MAY ARISE AS A RESULT OF SELLER'S PERFORMANCE OR FAILURE TO PERFORM UNDER THE TERMS OF THIS AGREEMENT, WHETHER OR NOT SELLER WAS OR SHOULD HAVE BEEN AWARE OF THE POSSIBILITY OF SUCH COSTS OR DAMAGES.

1.4 Choice of Law and Disputes

This Agreement shall be construed in accordance with and be governed by the laws of the State of Illinois.

Section 2 - Preventative Maintenance (PM) Requirements

2.1 O&M PM Schedule

Example PM Schedule below is for reference. Please refer to the specific ELM O&M Manual provided for your system for specific O&M requirements.

Frequency	Operation	Subsystem
6 Month	Battery Inspection	Battery
	Door Inspection	Container
	Inspect Fire Suppression Gauges	Fire Suppression
	Clean HVAC air filter	HVAC
	Heat Exchanger Inspection	Heat Exchanger (if applicable)
	Loose Connections Check	All
12 Month	Annual Inspection and Cleaning	All
	Battery Function	Battery
	UPS Performance	UPS
	Clean Container	Container
	Fire System Inspection	Fire Control Panel
60 Month	UPS Replacement	APC UPS
	Coolant Replacement	Heat Exchanger (if applicable)

2.2 ELM FieldTech App

ELM Microgrid's FieldTech app is an integral tool for performing preventative maintenance on all ELM Battery Energy Storage Systems (BESS). Below is a breakdown of how the app is utilized for this purpose:

- **Asset Management:** The FieldTech app serves as a comprehensive asset management platform for ELM Microgrid's BESS systems. It maintains a detailed inventory of all BESS assets, including specifications, installation dates, and maintenance histories.
- **Scheduled Inspections:** The app allows maintenance technicians to schedule regular inspections of BESS components based on predefined maintenance intervals or manufacturer recommendations. These inspections help identify potential issues before they escalate into major problems.

- **Checklist-Based Inspections:** Technicians can conduct inspections using predefined checklists within the FieldTech app. These checklists cover various aspects of BESS operation and performance, including battery health, cooling systems, electrical connections, and safety features.

Section 3 - Remote Operational Monitoring Requirements

3.1 ELM FieldSight Access

Monitoring ELM Microgrid's Battery Energy Storage Systems (BESS) through the ELM FieldSight Energy Management Software is crucial for maintaining the ELM Warranty for several reasons:

- **Performance Optimization:** ELM FieldSight allows for real-time monitoring of the BESS systems, enabling ELM Microgrid to optimize their performance. By tracking key metrics such as energy storage levels, charge/discharge rates, and system efficiency, any deviations from expected performance can be quickly identified and addressed.
- **Early Fault Detection:** The software provides advanced analytics and fault detection capabilities, allowing ELM Microgrid to detect potential issues or abnormalities in the BESS systems early on. Timely identification of these issues minimizes downtime and prevents more serious problems from occurring, thus ensuring the reliability and longevity of the systems.
- **Remote Diagnostics and Troubleshooting:** FieldSight enables remote diagnostics and troubleshooting of BESS systems, reducing the need for on-site visits by technicians. This not only saves time and resources but also facilitates faster resolution of issues, further minimizing downtime and disruption to operations.
- **Compliance with Maintenance Requirements:** The ELM Warranty includes specific maintenance and monitoring requirements to ensure the longevity and reliability of the BESS systems. By using FieldSight for continuous monitoring and ELM FieldTech for maintenance tracking, ELM Microgrid can demonstrate compliance with these requirements, thereby maintaining the validity of the warranty.
- **Enhanced Customer Support:** Monitoring BESS systems through FieldSight allows ELM Microgrid to provide proactive customer support and maintenance services. By identifying and addressing issues before they impact customers' operations, ELM Microgrid can maintain high levels of customer satisfaction and trust.

*In unique situations where remote access to ELM FieldSight needs to be restricted due to security driven issues, ELM may, at its sole discretion, work with the customer to identify solutions to monitoring the system performance and health.

Section 4 - Support Contact

ELM's Customer Support Center is staffed 8:00AM to 5:00PM (CST) Monday through Friday. Dedicated team members are on call outside 8-5 hours to monitor the support email and sites. You may reach the support team at:

support@elm-ess.com or by phone at 469-676-1648

Section 5 - Warranty Extension Options

5.1 Warranty Extension

Extension Chosen	Warranty Extension Options	Extension Cost
	5 Years (10 Years Total)	
	10 Years (15 Years Total)	

Table 1. Extended warranty options

Signature

Date

**EXHIBIT E
TO ENERGY SERVICES AGREEMENT**

EXHIBIT E - PAYMENT BOND

**Contractor's Labor & Material Bond
(100% of Contract Price)**

(Note: Contractor must use this form, NOT a surety company form.)

KNOW ALL PERSONS BY THESE PRESENTS:

WHEREAS, the governing board ("Board") of **Carpinteria Sanitary District** ("District") and **[Insert Name of Company]** ("Principal") have entered into a contract for the furnishing of all materials and labor, services and transportation, necessary, convenient, and proper to

(Project Name)

("Project" or "Contract")

which Contract dated _____, 20____, and all of the Contract Documents attached to or forming a part of the Contract, are hereby referred to and made a part hereof, and

WHEREAS, pursuant to law and the Contract, the Principal is required, before entering upon the performance of the work, to file a good and sufficient bond with the body by which the Contract is awarded in an amount equal to 100 percent (100%) of the Contract price, to secure the claims to which reference is made in the Civil Code of California, including section 9100, and the Labor Code of California, including section 1741.

NOW, THEREFORE, the Principal and _____, ("Surety") are held and firmly bound unto all laborers, material men, and other persons referred to in said statutes in the sum of _____ Dollars (\$ _____), lawful money of the United States, being a sum not less than the total amount payable by the terms of Contract, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, or assigns, jointly and severally, by these presents.

The condition of this obligation is that if the Principal or any of his or its subcontractors, of the heirs, executors, administrators, successors, or assigns of any, all, or either of them shall fail to pay for any labor, materials, provisions, provender, or other supplies, used in, upon, for or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or for amounts due under the Unemployment Insurance Act with respect to such work or labor, that the Surety will pay the same in an amount not exceeding the amount herein above set forth, and also in case suit is brought upon this bond, will pay a reasonable attorney's fee to be awarded and fixed by the Court, and to be taxed as costs and to be included in the judgment therein rendered.

It is hereby expressly stipulated and agreed that this bond shall inure to the benefit of any and all persons, companies, and corporations entitled to file claims under sections 9000 through 9566 of the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

Should the condition of this bond be fully performed, then this obligation shall become null and void; otherwise it shall be and remain in full force and affect.

And the Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of Contract or the specifications accompanying the same shall in any manner affect its obligations on this bond, and it does hereby waive notice of any such change, extension, alteration, or addition.

IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above named, on the day of , 20____.

(Affix Corporate Seal)

Principal

By

Surety

By

Name of California Agent of Surety

Address of California Agent of Surety

Telephone Number of California Agent of Surety

Contractor must attach a Notarial Acknowledgment for all Surety's signatures and a Power of Attorney and Certificate of Authority for Surety. The California Department of Insurance must authorize the Surety to be an admitted surety insurer.

**EXHIBIT F
TO ENERGY SERVICES AGREEMENT**

EXHIBIT F - PERFORMANCE BOND

(100% of Contract Price)

(Note: Contractor must use this form, NOT a surety company form.)

KNOW ALL PERSONS BY THESE PRESENTS:

WHEREAS, the governing board (“Board”) of **Carpinteria Sanitary District** (“District”) and **[Insert Name of Company]** (“Principal”) have entered into a contract for the furnishing of all materials and labor, services and transportation, necessary, convenient, and proper to perform the following project:

(Project Name)
 (“Project” or “Contract”)

which Contract dated _____, 20____, and all of the Contract Documents attached to or forming a part of the Contract, are hereby referred to and made a part hereof, and

WHEREAS, said Principal is required under the terms of the Contract to furnish a bond for the faithful performance of the Contract;

NOW, THEREFORE, the Principal and _____ (“Surety”) are held and firmly bound unto the Board of the District in the penal sum of _____ DOLLARS (\$ _____), lawful money of the United States, for the payment of which sum well and truly to be made we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally, firmly by these presents, to:

- Perform all the work required to complete the Project; and
- Pay to the District all damages the District incurs as a result of the Principal’s failure to perform all the Work required to complete the Project.

The condition of the obligation is such that, if the above bounden Principal, his or its heirs, executors, administrators, successors, or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions, and agreements in the Contract and any alteration thereof made as therein provided, on his or its part to be kept and performed at the time and in the intent and meaning, including all contractual guarantees and warranties of materials and workmanship for one (1) year from the completion date of the work of this Contract, and shall indemnify and save harmless the District, its trustees, officers and agents, as therein stipulated, then this obligation shall become null and void, otherwise it shall be and remain in full force and virtue.

As a condition precedent to the satisfactory completion of the Contract, the above obligation shall hold good for one (1) year from the completion date of the work of this Contract, during which time Surety’s obligation shall continue if Contractor shall fail to make full, complete, and satisfactory repair, replace and totally protect the District from loss or damage resulting from or caused by defective materials or faulty workmanship. Nothing herein shall limit the District’s rights or the Contractor’s or Surety’s obligations under the Contract, law or equity, including, but not limited to, California Code of Civil Procedure section 337.15 during the bond term.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the Contract or to the work or to the specifications.

Any claims under this bond may be addressed to the Surety at the following address. This cannot be the Contractor's broker for this bond, but must be an employee of the Surety or the Surety's legal counsel:

Attention:

Telephone No.: () -

Fax No.: () -

E-mail Address:

IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above named, on the day of , 20____.

(Affix Corporate Seal)

Principal

By

Surety

By

Name of California Agent of Surety

Address of California Agent of Surety

Telephone Number of California Agent of Surety

Contractor must attach a Notarial Acknowledgment for all Surety's signatures and a Power of Attorney and Certificate of Authority for Surety. The California Department of Insurance must authorize the Surety to be an admitted surety insurer.

**EXHIBIT G
TO ENERGY SERVICES AGREEMENT**

EXHIBIT G - UNUSED

**EXHIBIT H
TO ENERGY SERVICES AGREEMENT**

EXHIBIT H - ESCROW AGREEMENT FOR SECURITY DEPOSIT IN LIEU OF RETENTION

[TO BE PROVIDED BY LEGAL COUNSEL]

**EXHIBIT I
TO ENERGY SERVICES AGREEMENT**

EXHIBIT I - WAIVER AND RELEASE FORM

UNCONDITIONAL WAIVER AND RELEASE UPON PROGRESS PAYMENT

The undersigned has been paid and has received a progress payment in the sum of \$_____ for labor, services, equipment, or material furnished to Owner on the job located at _____ [Job Description] (the "Project") and does hereby unconditionally and irrevocably waive and release any mechanic's lien, stop notice, or bond right that the undersigned has on the above referenced job to the following extent.

This release covers a progress payment for labor, services, equipment, or materials furnished to Owner through _____ [Date] only and does not cover any retentions retained before or after the release date; extras furnished before the release date for which payment has not been received; extras or items furnished after the release date. Rights based upon work performed or items furnished under a written change order which has been fully executed by the Parties before the release date are covered by this release unless specifically reserved by the claimant in this release. This release of any mechanic's lien, stop notice, or bond right shall not otherwise affect the contract rights, including rights between Parties based upon a rescission, abandonment, or breach of the contract, or the right of the undersigned to recover compensation for furnished labor, services, equipment, or material covered by this release if that furnished labor, services, equipment, or material was not compensated by the progress payment. If the undersigned has filed with a public agency a U.C.C. Financing Statement evidencing a security interest in equipment delivered or installed in connection with the Project, the undersigned agrees to promptly execute and file with such public agency any documents necessary to terminate the effectiveness of such U.C.C. Financing Statement.

Dated: _____
Contractor
By _____
(Title)

NOTICE: THIS DOCUMENT WAIVES RIGHTS UNCONDITIONALLY AND STATES THAT YOU HAVE BEEN PAID FOR GIVING UP THOSE RIGHTS. THIS DOCUMENT IS ENFORCEABLE AGAINST YOU IF YOU SIGN IT, EVEN IF YOU HAVE NOT BEEN PAID. IF YOU HAVE NOT BEEN PAID, USE A CONDITIONAL RELEASE FORM

UNCONDITIONAL WAIVER AND RELEASE UPON FINAL PAYMENT

The undersigned has been paid in full for all labor, services, equipment, or material furnished to Owner on the job located at _____ [Job Description] (the "Project") and does hereby unconditionally and irrevocably waive and release any right to a mechanic's lien, stop payment notice, or any right against a labor and material bond on the job, except for disputed claims for extra work in the amount of \$_____. If the undersigned has filed with a public agency a U.C.C. Financing Statement evidencing a security interest in equipment delivered or installed in connection with the Project, the undersigned agrees to promptly execute and file with such public agency any documents necessary to terminate the effectiveness of such U.C.C. Financing Statement.

Dated: _____

Contractor

By _____
(Title)

NOTICE: THIS DOCUMENT WAIVES RIGHTS UNCONDITIONALLY AND STATES THAT YOU HAVE BEEN PAID FOR GIVING UP THOSE RIGHTS. THIS DOCUMENT IS ENFORCEABLE AGAINST YOU IF YOU SIGN IT, EVEN IF YOU HAVE NOT BEEN PAID. IF YOU HAVE NOT BEEN PAID, USE A CONDITIONAL RELEASE FORM.

**EXHIBIT J
TO ENERGY SERVICES AGREEMENT**

EXHIBIT J - CERTIFICATION REGARDING CLAIM

Name _____ of _____ Contractor:

Name _____ of _____ Owner:

Name _____ of _____ Project:

Claim (state any amount and time adjustment requesting: Amount
\$ _____

Time _____

The undersigned, whose name and title are stated below, declare the following:

1. The above-listed Contractor has contracted with the above-listed Owner for the Project stated above. I am authorized by Contractor to prepare and did prepare the attached claim for money and/or time extension to Owner regarding the Project. I am the person most knowledgeable at Contractor regarding the attached claim.
2. The attached claim is submitted in compliance with all laws applicable to submission of the claim, including but not limited to California Penal Code section 72, Government Code sections 12650 et seq. (False Claims Act), and Business and Professions Code sections 17200 et seq. (Unfair Business Practices Act). I am aware that submission or certification of false claims or other claims that violate law or the contract with Owner, may lead to fines, imprisonment, and/or other severe legal consequences for myself and/or Contractor.
3. The attached claim does not breach the contract between Contractor and Owner for the Project, is not a false claim, does not violate any applicable laws, satisfies all provisions of the contract applicable to the submission of such claim, contains truthful and accurate supporting data, and requests an amount that accurately reflects the adjustments to money and time for which I honestly and in good faith believe that Owner is responsible under the contract.
4. So that I could declare that the statements in this declaration and the attached claim are true and correct, while preparing this declaration and the attached claim, I consulted with others (including attorneys, consultants, or others who work for or are retained by Contractor) when necessary to assure myself that said statements are true and correct.
5. Contractor understands and agrees that any claim submitted without this certification does not meet the terms of the contract and Owner may reject the claim on that basis, and unless Contractor properly and timely files the claim with this certification, Contractor cannot further pursue the claim in any forum and all rights to additional money or time for the issues covered by the claim are waived due to a condition precedent not having been satisfied.

I declare under the penalty of perjury under the laws of the State of California that the foregoing is true and correct. This certification is executed on the date stated below.

By: _____

Date:

Print Name: _____

Title: _____

**EXHIBIT K
TO ENERGY SERVICES AGREEMENT**

EXHIBIT K – UNUSED



Carpinteria Sanitary District

Board of Directors Meeting

STAFF REPORT

TO: Board of Directors

FROM: Craig Murray, P.E. - General Manager

SUBJECT: **Amendment No. 2 to Cash Contract No. 524 – TerraVerde Energy
Energy Consulting Services**

DATE: November 18, 2025

REQUESTED ACTION: That the Board approve an amendment to Cash Contract No. 524 between the District and TerraVerde Energy for energy consulting services during construction of a battery energy storage project at the District's wastewater treatment facility.

FUNDING SOURCE: Capital Improvement Program / SGIP Incentive / IRA-ITC Tax Credit

BACKGROUND: On December 17, 2024 the District approved Cash Contract No.524, engaging TerraVerde Energy LLC (TerraVerde) to review energy use across the District facilities and evaluate the potential benefits of implementing battery energy storage and/or on-site solar generation at the District's wastewater treatment facility. In April 2025, a contract amendment was approved for continuing project development support, including managing an RFP process to solicit design-build proposals from qualified vendors for a battery only installation and a battery/solar installation. The currently authorized contract amount is \$40,900.

The RFP process resulted in favorable outcome and the District issued a notice of intent to proceed with a design build contractor to install a battery energy storage system. TerraVerde provided a proposal to perform continuing project management and consulting support through the construction phase of this project. Their proposed scope includes finalizing contract negotiations, overseeing design activities, project permitting and project management through startup. The attached proposal provides further detail on the work, which would proceed on a time and materials basis. If authorized, Cash Contract No. 524 would be increased by \$81,000, making the total contract value **\$121,900**.

As indicated above, we expect that some of the project management costs, including services provided by TerraVerde, will be eligible for partial reimbursement through the SGIP funding program that is being pursued for this project.

RECOMMENDATION: Staff recommends that the Board approve Amendment No. 2 to Cash Contract No. 524 between the Carpinteria Sanitary District and TerraVerde Energy, increasing the authorized fee by \$81,000 to **\$121,900**.

SUGGESTED MOTION: I move that the Board approve Amendment No. 2 to Cash Contract No. 524 between the Carpinteria Sanitary District and TerraVerde Energy as presented.

M _____ S _____

Ayes: _____ Nays: _____ Abstentions: _____

Prepared By:  _____
Craig Murray, P.E. - General Manager

Attachments: Contract Amendment Letter
11/10/25 Letter Proposal from TerraVerde Energy LLC



CARPINTERIA
Sanitary District

5300 Sixth Street
Carpinteria, CA 93013

Phone (805) 684-7214 · Fax (805) 684-7213

November 18, 2025

Mr. Tony Pastore
TerraVerde Energy LLC
1300 22nd Street, Unit 401
San Francisco, CA 94107

Subject: Carpinteria Sanitary District Cash Contract No. 524
Energy Consulting Services
Contract Amendment No. 2

Dear Tony,

This letter authorizes an amendment to the scope of services and authorized fee set forth in the subject agreement between TerraVerde Energy and the Carpinteria Sanitary District (District). We have greatly benefitted from your ongoing services and look forward to TerraVerde's support through the project implementation phase.

Cash Contract No. 524 is hereby modified to include the tasks outlined in your November 10, 2025 proposal to provide construction support consulting services. Accordingly, the authorized fee will be increased by \$81,000, making the revised contract amount **\$120,900**. All other provisions of Cash Contract No. 524 remain in full force and effect.

Thank you very much for your continued assistance on this important project. Please don't hesitate to contact me at 684-7214 x112 or by email at craigm@carpsan.com with any questions or comments.

Sincerely,
CARPINTERIA SANITARY DISTRICT

Craig M. Murray, P.E.
General Manager



TerraVerde ENERGY

Owner's Representative Construction Support Consulting Services

November 10, 2025

Prepared for
Craig Murray, General Manager
Carpinteria Sanitary District
craigm@carpsan.com



Prepared by
Tony Pastore, Senior Advisor
TerraVerde Energy
tony@terraverde.energy

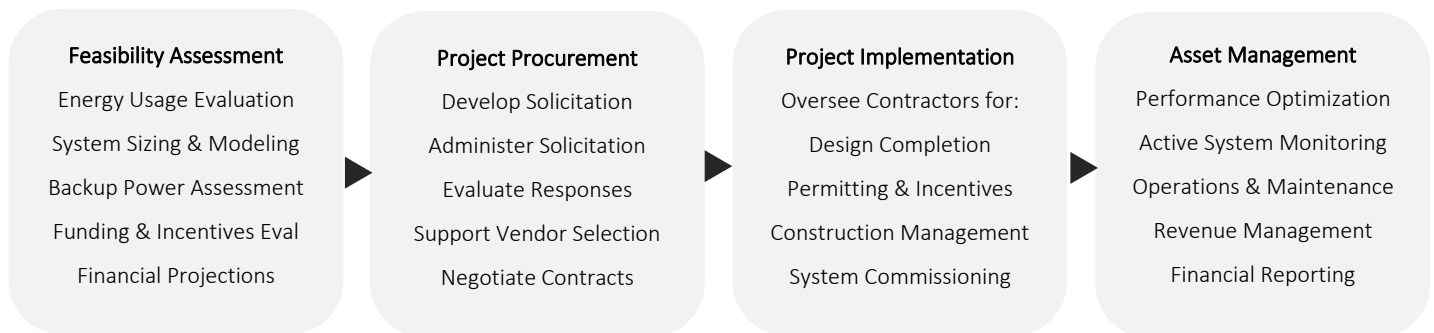


About Us

TerraVerde Energy is an **energy consulting** firm proudly supporting California public agencies since 2009. We provide **owner's representative** services for planning, procurement, and project management of energy projects and programs. We support public agencies with reducing operational costs, increasing facility reliability & resilience, and regulatory compliance. Over the past 15 years, we have supported more than **140 public entities** with over **270** energy project assessments and procurements.

Our Approach

We specialize in helping public agencies with their **energy infrastructure** planning, procurement & operation. Our expertise is in **solar, battery, bio-gas** utilization including combined heat & power generation, **microgrids**, and **Advanced Clean Fleets (ACF)** compliance as well as **fleet electrification** and **EV charging infrastructure**. We typically support public agencies in a Stage Gate Model approach as shown here:



Our Services

Key services we provide to public agencies:

1. **Feasibility Assessment** - Project ideation, needs assessment, and CIP integration
2. **Savings Analysis** - Technology and vendor independent technical and financial feasibility analyses
3. **Competitive Procurement** - Project procurement services including competitive RFQ/RFP solicitations
4. **Contract Negotiation** - Design-build, design-bid-build, & progressive design-build contract negotiations
5. **Project Oversight** - Project management and contractor/installer oversight
6. **Design Review** - Design review, code, and permit compliance assessment
7. **Incentives & Tariffs** - Securing utility interconnections, grant funds, and incentives
8. **ACF Compliance** – CARB Advanced Clean Fleets compliance planning services
9. **IRA Rebate Validation** - Inflation Reduction Act Elective Pay filing to secure refund from the IRS
10. **Operations & Maintenance** - Ongoing savings and performance reporting of installations

As part of our owner's representative services, we also provide ongoing asset management services. This includes system monitoring, savings guarantee assessment, O&M management, and detailed energy & financial performance reporting. TerraVerde currently manages nearly 500 solar, battery, and microgrid systems for public agencies. To date, we have helped our clients realize over \$50,000,000 in provable energy cost savings.

Serving public agencies like **Carpinteria Sanitary District** is why TerraVerde has assembled a dedicated team of engineers and project managers — to deliver actionable insights, ensure successful implementation, and help public agencies lead the way in energy optimization and resilience.

Sincerely,



Tony D. Pastore, Senior Advisor

We Are Proud Members of



Select California Public Agency Clients



Proposed Energy Consulting Services

1. Installer Contracting & Construction Support

Upon District selecting a Battery System installer (Estimated cost \$1M) and notice to proceed (NTP) from the District to TerraVerde, TerraVerde will provide District with support services as owner's representative through completion of the project implementation phase, including:

1. Lead Installer contract negotiations with support from District's staff and legal counsel.
2. Finalize the Installer contract and support both CEQA and relevant GC 4217 contracting requirements for approval by District Board of Directors.
3. Prepare cash flow savings projections based on Installer contract to support the contract execution.
4. Oversee and review the design, engineering and permitting process including 50%, 90%, 100% design drawings.
5. Review interconnection application, permit applications, and incentive application documents provided by Installer.
6. Review and refine the project schedule provided by the Installer, support to optimize schedule to fit District requirements.
7. Review and respond to the Request for Information (RFIs) submitted by installer through construction phase, ensuring projects are delivered on-time, on-budget, and per contract scope.
8. Join site audits as needed and attend scheduled virtual meetings.
9. Review and validate project closeout and delivery of final project documentation per contract terms.

#	Service	Timeline	NTE Fee	Payment
1	Installer Contracting & Construction Support	Nov. 2025 – June 2027	\$81,000	- Time and Material + Milestone at completion - Monthly Billing

Hourly Rates

Role	Hourly Rate	Role	Hourly Rate
Project Coordinator	\$195	Project Manager	\$245
Project Developer	\$245	Technical Supervisor	\$295
Sr. Engineer	\$245	Administrative	\$160
Principal Advisor	\$255	Accounting	\$185
Project Engineer	\$225	Software Developer	\$245

Our Team



Years of Experience

13

Education

BA, Architecture,
University of
Pennsylvania, 2012

Miya Turner

Title: Director of Projects Role: Project Developer

Summary of Professional Experience

TerraVerde Energy, San Francisco, CA Project Director, 2014 – Present
Over her years with TerraVerde Energy, Miya has served in various roles including Energy Auditor, Energy Analyst, Project Engineer, Project Manager. In these roles, Miya's responsibilities have included: conducting energy efficiency audits, performing project feasibility analyses, managing the development and implementation of energy infrastructure projects, as well as developing project modeling and management tools. Now, as a Sr. Project Manager, Miya leads analytics activities on several projects while overseeing performance reporting on existing energy systems as well as our portfolio of client renewable energy certificates.



Years of Experience

19

Education

BS, Engineering, 2006

Certificates & Training

Professional
Engineer, APEGA

Ali Chehrehsez, P.Eng.

Title: CEO Role: Technical Supervisor – Executive

TerraVerde Energy, San Francisco, CA
CEO, 2011 – Present
Co-founded TerraVerde; lead analysis, engineering, and project development; transitioned to CEO in December of 2019

Tessera Solar, Houston, TX Project Manager, 2009 – 2011
Provided project management and development support as part of an IPP development team for multiple green field large scale solar electric power plants of up to 750 MW in generation capacity using PV and solar dish Stirling CSP technologies.

Petro-Canada, Calgary, AB & Houston, TX Project Engineer, 2006 – 2009
Conducted concept screening, front-end engineering and design, procurement, and construction planning of Fort Hills Oil Sands Projects.



Daniel Postoian

Title: Sr. Electrical Engineer Role: Design & Permitting

TerraVerde Energy, San Francisco, CA Senior Project Developer, 2021 – Present
Focuses on project development, RFP administration, technical due diligence and contract negotiation for solar PV and battery energy storage projects on behalf of public agencies.

Years of Experience
18

Education
BS, Electrical
Engineering, 2004

Baker Electric, Escondido, CA Engineering Manager, 2015 – 2021
Primary accountability for commercial solar & battery permitting and construction packages. Primary engineer on highest complexity projects, engineering contributor on many projects, engineering quality control on all project.



Tony D. Pastore

Title: Senior Advisor

Summary of Professional Experience

TerraVerde Energy, San Francisco, CA Senior Energy Advisor, 2024 – Present
Focuses on supporting TerraVerde’s water agency clients in evaluating and deploying various projects and programs that reduce costs, increase resiliency, and meet regulatory requirements; including the development of solar, battery, and energy resiliency projects; fleet zero-emission vehicle transitions; energy asset management.

Years of Experience
33

Education
Humboldt State
University

Central Coast Community Energy, Monterey, CA Manager, 2021 - 2023
Led numerous efforts including: \$25MM UPS Fund, Microgrid SmartConnect Program, Front of the Meter battery with municipal clients, Summer Readiness Demand Response, Municipal Member Agency Services, microgrids, other CPUC, CEC, CAISO & IOU engagements.

Pastore-Ryan Design and Engineering Inc, Tahoe, CA Founder Operator, 2005 – 2010
Green Civil Engineering and Landscape Design carefully optimizing system design to improve performance and reduce environmental impacts.



Christine Dawson

Title: Client Success Manager

Summary of Professional Experience

TerraVerde Energy, San Francisco, CA

Project Coordinator 2024 – Present

Provides project management support on a variety of facility planning engagements including fleet electrification, electric vehicle infrastructure planning, and solar and battery projects. Assists with RFP development and supports project feasibility analyses. Provides support in data collection, technical analyses, project diligence, and other as needed project support services.

Years of Experience

10

Education

BA, Psychology
UC Irvine, 2014

Follow on Services

Scope	Description
Interconnection Application Submittal	If needed, TerraVerde can provide Interconnection Application submittal(s), including: - Prepare Interconnection Application package(s) per the applicable requirements from the electric utility. - Submit Interconnection Application(s) and confirm acceptance by the utility. - Respond to all questions and RFIs from the electric utility as needed and track application review/approval progress.
Asset Management	Upon completion of the implementation of the systems, TerraVerde can provide the following asset management services. - Active system performance monitoring. - Issue management: manage and enforce warranty claims, maintenance obligations, and performance guarantees. - Create & maintain a Facility Operation Plan: a data room with current, relevant, source of truth documentation for the installations including contracts, contacts, drawings, and utility authorizations. - Oversee & Manage Maintenance Protocols: managing completion of warranty and corrective maintenance work. - Annual Preventive Maintenance & System inspections. - Revenue creation through monetizing REC and LCFS credits, as well as Demand Response program participation administration. - Quarterly reporting on actual vs. expected energy systems performance, and issues management. - Detailed annual financial reporting on actual vs. expected avoided costs, revenue, expenses, net savings.



Carpinteria Sanitary District

Board of Directors Meeting

STAFF REPORT

TO: Board of Directors

FROM: Craig Murray, P.E. - General Manager

SUBJECT: **Cash Contract No. 531 – Sancon Technologies
Lift Station 3 Wetwell Rehabilitation**

DATE: November 18, 2025

REQUESTED ACTION: That the Board approve and execute Cash Contract No. 531 between the District and Vortex Services LLC, dba Sancon Technologies (Sancon). for structural rehabilitation and epoxy lining of the Lift Station No. 3 wetwell.

FUNDING SOURCE: CIP Fund

BACKGROUND: The District is a participating member in the California Uniform Public Construction Cost Accounting Act (CUPCCA) following adoption of Board Resolution R-294 in May 2016. This program allows for informal bidding on projects valued less than \$240,000. The District may solicit informal bids from its list of qualified contractors under this program and award a contract for qualifying projects to the contractor submitting the lowest bid.

A request for informal bids to fully rehabilitate the Lift Station No. 3 wetwell was distributed in July 2024. The scope of work at that time included restoration and epoxy lining of both sides of the structure (the original wetwell chamber and the converted drywell chamber), as well as bypass pumping. A single bid was received for that solicitation that exceeded the UPCCAA limit, which at that time was \$200,000. As such, we were unable to proceed with awarding a contract. Based on a debriefing meeting with the bidder, pricing was affected by the bidding climate and significant risk related to the bypass pumping requirements.

District staff revisited the project design and critical scope of work. Detailed inspection determined that only the original wetwell structure had major structural deterioration and that lining of the former drywell could safely be deferred. To facilitate the bypass operations, a manhole was installed upstream of Lift Station No. 3 under a separate contract. District staff will also be replacing the wetwell access manhole frame and cover with a larger aluminum hatch.

A revised Request for Informal Bids was distributed in October to qualified specialty contractors on our UPCCAA list. The scope of work was limited to structural restoration and epoxy lining of the original wetwell chamber. Additional detail on the new bypass manhole was provided. Informal bids were received on November 12th. A single bid was received by the 2:00 p.m. deadline.

Sancon Technologies submitted a bid in the amount of \$109,245. The District has worked with Sancon on numerous similar projects, most recently the structural rehabilitation and epoxy lining of the wetwell at Lift Station No. 2. Sancon has also successfully complete numerous manhole rehabilitation and cured in place pipe (CIPP) lining projects for the District.

Cash Contract No. 531 was prepared to engage Sancon to complete the wetwell rehabilitation project. The lump sum price for the work is \$109,250 and the project would be completed within 45 working days following issuance of a Notice to Proceed. The form of agreement is based on the District's standard contract for public works construction.

RECOMMENDATION: Staff recommends that the Board approve and execute Cash Contract No. 531 between the District and Vortex Services LLC, dba Sancon Technologies for the Lift Station 3 Wetwell Rehabilitation project with a not to exceed price of \$109,250.

SUGGESTED MOTION: I move that the Board approve and execute Cash Contract No. 531 between the District and Sancon as presented.

M _____ S _____

Ayes: _____ Nays: _____ Abstentions: _____

Prepared By:  _____
Craig Murray, P.E. - General Manager

Attachments: Cash Contract No. 531

CASH CONTRACT NO. 531

PUBLIC WORKS CONTRACT BETWEEN THE CARPINTERIA SANITARY DISTRICT AND VORTEX SERVICES LLC, dba SANCON TECHNOLOGIES for LIFT STATION NO. 3 WETWELL REHABILITATION

This CONTRACT is entered into this 18th day of November 2025, by and between the CARPINTERIA SANITARY DISTRICT, a special district ("the District") and VORTEX SERVICES LLC, dba SANCON TECHNOLOGIES ("the Contractor").

1. WORK.

- A. The Contractor will provide all work required by the Contract Documents (the "Work"). The Contractor agrees to do additional work arising from changes ordered by the District in accordance with the Contract Documents.
- B. The Contractor and the District agree to abide by the terms and conditions contained in the Contract Documents;
- C. The Contractor will furnish all of the labor; supplies and materials; equipment; printing; vehicles; transportation; office space and facilities; all tests, testing and analyses; and all matters whatsoever (except as otherwise expressly specified to be furnished by the District) needed to perform and complete the Work and provide the services required of the Contractor by the Contract Documents.
- D. "Contract Documents" means the Notice Inviting Bids; Instructions to Bidders; Supplementary Instructions to Bidders; Proposal; this Contract; Standard Specifications; Supplementary Conditions; Exhibits; Technical Specifications; List of Drawings; Drawings; Addenda; Notice to Proceed; Change Orders; Notice of Completion; and all other documents identified in the Contract Documents which together form the contract between the District and the Contractor for the Work. The Contract Documents constitute the complete agreement between the District and the Contractor and supersede any previous agreements or understandings.

2. CONTRACT SUM. The District agrees to pay the Contractor a sum not to exceed dollars (\$109,250) for the Work in the manner set forth in the Contract Documents. The District may adjust this amount as set forth in the Contract Documents.

3. TIME FOR PERFORMANCE.

- A. The Contractor will fully complete the Work within 45 working days (the "Contract Time.")
- B. The Contract Time will commence when the District issues a notice to proceed. The Contract Documents will supersede any conflicting provisions included on

the notice to proceed issued pursuant to this Contract.

- C. The Contractor may not perform any Work until:
 - i. The Contractor furnishes proof of insurance as required by the Contract Documents; and
 - ii. The District gives the Contractor a written, signed, and numbered purchase order and notice to proceed.
- D. By signing this Contract, the Contractor represents to the District that the Contract Time is reasonable for completion of the Work and that the Contractor will complete the Work within the Contract Time.
- E. Should the Contractor begin the Work before receiving written authorization to proceed, any such Work is at the Contractor's own cost and risk.

4. DISPUTES. Disputes arising from this contract will be determined in accordance with the Contract Documents and Public Contracts Code §§ 10240-10240.13.

5. THIRD PARTY CLAIMS. In accordance with Public Contracts Code § 9201, the District will promptly inform the Contractor regarding third-party claims against the Contractor, but in no event later than 10 business days after the District receives such claims. Such notification will be in writing and forwarded in accordance with the "Notice" section of the Contract Documents. As more specifically detailed in the Contract Documents, the Contractor agrees to indemnify and defend the District against any third- party claim.

6. TAXPAYER IDENTIFICATION NUMBER. The Contractor will provide the District with a Taxpayer Identification Number.

7. PERMITS AND LICENSES. Unless otherwise provided, the Contractor, at its sole expense, will obtain and maintain during the Contract Time, all necessary permits, licenses, and certificates that may be required in connection with the Work.

8. OWNERSHIP OF DOCUMENTS. All documents, data, studies, drawings, maps, models, photographs and reports prepared by the Contractor under the Contract Documents are the District's property. The Contractor may retain copies of said documents and materials as desired, but will deliver all original materials to the District upon the District's written notice.

9. INDEMNIFICATION. The Contractor agrees to indemnify, defend, and hold the District harmless as set forth in the Contract Documents. The requirements as to the types and limits of insurance coverage to be maintained by the Contractor as required by the Contract Documents, and any approval of such insurance by the District, are not intended to and will not in any manner limit or qualify the liabilities and obligations otherwise assumed by the Contractor pursuant to the Contract Documents, including, without limitation, to the provisions concerning indemnification.

10. INDEPENDENT CONTRACTOR. The District and the Contractor agree that the

Contractor will act as an independent contractor and will have control of all work and the manner in which it is performed. The Contractor will be free to contract for similar service to be performed for other employers while under contract with the District. The Contractor is not an agent or employee of the District and is not entitled to participate in any pension plan, insurance, bonus or similar benefits the District provides for its employees. Any provision in this Contract that may appear to give the District the right to direct the Contractor as to the details of doing the work or to exercise a measure of control over the work means that the Contractor will follow the direction of the District as to end results of the work only.

11. AUDIT OF RECORDS. The Contractor will maintain full and accurate records with respect to all services and matters covered under this Contract. The District will have free access at all reasonable times to such records, and the right to examine and audit the same and to make transcript therefrom, and to inspect all program data, documents, proceedings and activities. The Contractor will retain such financial and program service records for at least three years after termination or final payment under the Contract Documents.

12. NOTICES. All communications to either party by the other party will be deemed made when received by such party at its respective name and address as follows:

If to CONTRACTOR:

Attention: Ryan Helmuth
Vortex Services LLC, dba Sancon Technologies
5841 Engineer Drive
Huntington Beach, CA 92649.
(714) 891-2823

If to DISTRICT:

Attention: Craig Murray
Carpinteria Sanitary District
5300 Sixth Street
Carpinteria, CA 93013
(805) 684-7214 x112
craigm@carpsan.com

Any such written communications by mail will be conclusively deemed to have been received by the addressee three days after deposit thereof in the United States Mail, postage prepaid and properly addressed as noted above. In all other instances, notices will be deemed given at the time of actual delivery. Changes may be made in the names or addresses of persons to whom notices are to be given by giving notice in the manner prescribed in this paragraph.

13. NO THIRD PARTY BENEFICIARY. This Contract and every provision herein is for the exclusive benefit of the Contractor and the District and not for the benefit of any other party. There will be no incidental or other beneficiaries of any of the Contractor's or the District's obligations under this Contract.

14. INTERPRETATION. This Contract was drafted in, and will be construed in accordance with the laws of the State of California, and exclusive venue for any action involving this Contract will be in Santa Barbara County.

15. EFFECT OF CONFLICT. In the event of any conflict, inconsistency, or incongruity between any provision of the Contract Documents, precedence will be as follows:

- A. This Contract;
- B. The Standard Specifications; and
- C. Precedence of documents as determined in the Standard Specifications.

16. SEVERABILITY. If any portion of the Contract Documents are declared by a court of competent jurisdiction to be invalid or unenforceable, then such portion will be deemed modified to the extent necessary in the opinion of the court to render such portion enforceable and, as so modified, such portion and the balance of this Contract will continue in full force and effect.

17. AUTHORITY/MODIFICATION. The Parties represent and warrant that all necessary action has been taken by the Parties to authorize the undersigned to execute this Contract and to engage in the actions described herein. This Contract may be modified by written amendment. The District's General Manager, or designee, may execute any such amendment on the District's behalf.

18. ELECTRONIC SIGNATURES. This Contract may be executed by the Parties on any number of separate counterparts, and all such counterparts so executed constitute one agreement binding on all the Parties notwithstanding that all the Parties are not signatories to the same counterpart. In accordance with Government Code §16.5, the Parties agree that this Contract, agreements ancillary to this Contract, and related documents to be entered into in connection with this Contract will be considered signed when the signature of a party is delivered by electronic transmission. Such electronic signature will be treated in all respects as having the same effect as an original signature.

19. COVENANTS AND CONDITIONS. The parties agree that all of the provisions hereof will be construed as both covenants and conditions, the same as if the words importing such covenants and conditions had been used in each separate paragraph.

20. CAPTIONS. The captions of the paragraphs of this Contract are for convenience of reference only and will not affect the interpretation of this Contract.

21. TIME IS OF ESSENCE. Time is of the essence for each and every provision of the Contract Documents.

IN WITNESS WHEREOF the parties hereto have executed this contract the day and year first hereinabove written.

CARPINTERIA SANITARY DISTRICT

CONTRACTOR

Craig Murray, General Manager
Carpinteria Sanitary District

By: _____
Vortex Services LLC, dba Sancon Technologies

INFORMAL BID FORM

PROJECT IDENTIFICATION:

CARPINTERIA SANITARY DISTRICT (Owner)

Lift Station No. 3 Wetwell Rehabilitation Project

Cash Contract Number: 530

THIS INFORMAL BID IS SUBMITTED BY:

VORTEX SERVICES LLC, DBA SANCON TECHNOLOGIES

(Bidder)

5641 ENGINEER DRIVE HUNTINGTON BEACH CA 92649

(Bidder Address)

1.0 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an agreement with Owner in the form included in the Request for Informal Bids to perform all Work as specified or indicated therein, within the specified time and for the price indicated in this Informal Bid and in accordance with the other terms and conditions of the Request for Informal Bids.

2.0 In submitting this Informal Bid, Bidder represents that:

- A. Bidder has examined and carefully studied the information provided in this Request for Informal Bids.
- B. Bidder has visited the Facility Site and/or become familiar with and satisfied itself as to the general, local, and site conditions that may affect cost, progress, and performance of the Work.
- C. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Request for Informal Bids.
- D. In accordance with Section 1861, California Labor Code, the Bidder states the following as its certification:

"I am aware of the provisions of Section 3700 of the California Labor Code which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the Work of this Contract."

- E. Bidder declares that it possesses a valid State of California Class A - General Engineering Contractor's license at the time of submitting this Bid. Bidder shall state its license number, classification and expiration date on its Bid Form. Bidder further declares that it is currently registered in good standing as a public works contractor with the California Department of Industrial Relations. Bidder shall keep its license in good standing during the term of the Agreement.
- F. Bidder agrees that, if awarded the Contract, the undersigned and all of its subcontractors shall pay all laborers, workers, and mechanics employed in the performance of such

Contract, or any subcontract thereunder, not less than the general prevailing rate of per diem wages and rates for overtime and legal holidays in the locality in which the work is to be performed, as ascertained and determined by the statutes and regulations applicable thereto. Any subcontractor(s) shall also be registered and in good standing as a public works contractor with the California Department of Industrial Relations.

3.0 Bidder will complete the Work in accordance with this Request for Informal Bids for the following lump sum prices. Quantities indicated are not guaranteed; they are solely for comparing Bids and establishing the initial Contract Price. Final payment will be based on actual quantities.

INFORMAL BID SCHEDULE				
Number	Item	Unit	Unit Price	Extended Price
1	Mobilization, Demobilization, Bonds and Insurance	LS	\$14,150	\$14,150
2	Lift Station No. 3 Wetwell Rehabilitation and Coating, Complete and In Place	LS	\$62,200	\$62,200
3	Bypass Flow Control	LS	\$32,900	\$32,900

TOTAL CONTRACT PRICE (Lump-Sum Plus Extended Unit Prices)

\$ 109,250.00
 (Price in figures)
ONE HUNDRED NINE THOUSAND TWO HUNDRED FIFTY DOLLARS
 (Price in words)

4.0 Bidder agrees that the Work will be completed and ready for final payment within the number of working days indicated in the Request for Informal Bids.

5.0 A Construction Contractor's Qualification Statement, listing similar projects completed by Bidder, is attached to and made a condition of this Informal Bid.

6.0 Proof of current Certified Applicator status from the epoxy lining system manufacturer is attached to this Informal Bid.

SUBMITTED BY:

Contractor: VORTEX SERVICES LLC, DBA SANCON TECHNOLOGIES

By: 
(Individual's signature)

Printed Name: RYAN HELMUTH

Business Address: 5841 ENGINEER DRIVE
HUNTINGTON BEACH, CA 92649

Phone Number: (714) 891-2323

Contractor's License No: 1030653

Date Submitted: 11/10/2025

SANCON TECHNOLOGIES

Wetwell Rehabilitation Submittal:

Scope of Work:

- Sancon Technologies will coordinate work so as not to interfere with City maintenance crews or disrupt normal sewer service. Manhole / structure rehabilitation will include the following phases: Preparation of substrate, , Mortar Repair, Application Quadex Epoxy & Spark Testing.

General:

- Sancon Technologies will furnish all labor, material and equipment necessary for all traffic control, preparation of surfaces, application of lining, safety procedures per Cal-OSHA Permit Required Confined Space Requirements, protection of existing utilities or surfaces and equipment / jobsite cleanup.

Access:

- The owner or prime contractor is responsible for marking, locating and arranging access for structure to be rehabilitated. Access should be provided for truck and towable spray equipment to be within 50' of each manhole unless otherwise specified.

Flow Control:

- Sancon will provide bypass during our rehabilitation.

Surface Preparation:

- All concrete, brick or mortar surfaces to be lined will be waterblasted to remove all deteriorated concrete, oil, grease, or existing lining to produce a good sound, clean concrete or brick. All manhole steps / stairs will be removed.
- Waterblasting equipment will be capable of 10,000-psi. Cleaning will be accomplished with a minimum of 5,000-psi using no detergents, solvents or chemicals of any kind.
- All debris produced from the Waterblasting operation will be removed from the structure prior to lining by use of Vactor equipment provided by GC / Agency. The concrete or brick surface will be air dried prior to lining application.

Mortar Repair (where required)

- When wall resurfacing is required all loose concrete and spalled areas will be removed.
- Rapid set mortar will be hand troweled to the walls when a smaller area of patching is required.

Infiltration Control:

- All active structure infiltration must be eliminated prior to liner application. All grouting will be completed in accordance with NASSCO Specifications (Refer to 8th edition, January 1994 NASSCO Specification on manhole sealing (page 130 section 3a).

Liner Application:

- The lining application will be performed only by workmen trained and experienced with the specified material. The lining will be applied through plural component equipment specifically designed for this material. The equipment will be in good working order to insure correct proportioning and mixing of the components.
- The lining will be applied to a thickness of 125 mils (1/8 inch) in one continuous coat, without seams, free from any holes or defects. The lining will extend from the flow level to the base of ring and cover over dry concrete for manholes. Floor coating in wet wells is not recommended, nor is it included unless explicitly agreed upon prior to work commencement.
- During lining application, Sancon will take wet gauge thickness readings as required to insure correct lining thickness.
- The uniform lining will be free from porosity, without bubbles or pinholes and uniform in color. All areas in question will be removed, reworked and patched.
- Application of the lining will not take place when exposed to rain, or high winds. Sancon Technologies will insure protection of the work from the above mentioned conditions.
- Structure can be returned to service within 4 hours of application

Spark Testing:

- Spark testing will be performed upon completion of lining installation and visual inspection.
- Spark testing voltage will be set at 100 volts per mil of coating thickness specified.
- Spark testing equipment shall be Tinker and Razor APW or equivalent.
- Spark Testing shall be witnessed by inspection or other appropriate person



May 2nd, 2023

RE: Sancon Technologies Qualified Applicator of Quadex StructureGuard

This letter is to certify that Sancon Technologies out of Huntington Beach, CA is currently the sole Quadex StructureGuard applicator qualified for coating installation with Orange County Sanitation District. Sancon has been licensed and certified through Quadex, which includes equipment verification and extensive material and on-site installation training.

Please do not hesitate to reach out with any questions, my direct cell # is 303-598-3798.

Thanks,

Brock Stone

Brock Stone

VP, Quadex Materials



Carpinteria Sanitary District

Board of Directors Meeting
General Manager's Status Report

TO: Board of Directors

FROM: Craig Murray, P.E. – General Manager

SUBJECT: General Manager's Status Report

DATE: November 18, 2025

Employee Recognition. We recognized just one District anniversary during the month of November:

- Vinicio Pacheco – 3 years

Congratulations and thank you for the committed service!

Zach Mata passed the Grade 1 Collection System Maintenance certification exam through the CWEA Technical Certification Program. Congrats Zach!

Hydropneumatic Tank Replacement Project Update. The replacement pressure vessel was delivered by Hanson Tank during the first week of November. District staff removed the deteriorated tank and installed the new tank using our crane truck and a rental telehandler forklift. Reconnection of piping, electrical and instrumentation is nearly complete and we expect the tank to go back online this week. See attached photos.

SSC Program Redevelopment. Based on a referral, we identified a computer programmer with experience developing custom database applications for small agencies with similar needs. Following an assessment, we are working with the consultant to develop a plan and scope to rebuild our SSC program using current architecture and protocols. We expect to bring a contract to the Board and hope to get this important capital project moving forward and completed for the next billing cycle.

Operations Update

System operations updates are as follows:

- The treatment plant is operating well and in full compliance with our NPDES discharge permit.
- Operations staff are inspecting/servicing the aeration basins and are necessarily bypassing one of the tanks. Concurrently, we are evaluating performance efficacy for longer term operation in the single tank mode for energy optimization.
- Influent pump number 3 was disassembled at Xylem Flygt's shop as part of a planned training event but was found to be damaged to a greater than anticipated extent and required ordering of parts. Staff returned with the pump and a pump for Lift Station No. 3 to do the repair training on November 13th.
- We have been running the Huber screw press for dewatering in preparation for installation of the new belt press. Operations staff has dialed in performance and is completing a number of minor mechanical repairs at this time.
- West Coast Air Conditioning planned to mobilize on November 17th to install the new HVAC equipment at the treatment plant, but the rain event at the end of the prior week

caused a delay. This work will commence after the Thanksgiving holiday week.

- Staff scheduled factory service for the APG Neuros turbo blowers based on recommendation from their service technician. This on-site work is being schedule for December.
- The ELAP inspection of our certified laboratory was conducted by SWRCB staff in October. It reportedly went well, but we are awaiting issuance of the final report.
- The collection system is operating normally with no mainline blockages or other operational issues reported.
- Collections staff continue to perform hydrocleaning and CCTV inspections throughout the District's service area. Night work in the downtown tee is being scheduled in the coming weeks.
- The Vactor was sent to Haaker Equipment to address an intermittent control issue. Montecito Sanitary District stood by for any emergency callouts while the repairs were being made. The equipment is now back in service.





Carpinteria Sanitary District

Board of Directors Meeting

TO: Board of Directors
FROM: Kim Garcia – District Administrator
SUBJECT: **Financial Status and Transaction Report**
DATE: November 18, 2025

Disbursements/checks*. Review of disbursements/checks for the period of September 1 through October 31, 2025.

*Publication of the check register is in compliance with Section 53065.5 of the Government Code which requires the District to disclose reimbursements to employees and/or directors at least annually.

Operating Financial Report. Period of September 1 – October 31, 2025. The District operating account balances as of October 31, 2025. Shown are book balance figures to the nearest dollar and indicate the funds available to the District at the time of reconciliation for the period.

Fund Balances

General and Payroll (MB&T)	\$ 591,078
Non-Restricted Investment Accounts (LAIF)	\$ 1,538,858
Non-Restricted Investment Accounts (CLASS)	\$ 6,219,781
Restricted Capital Improvement Project Fund (CLASS)	\$ 3,542,407
Development Impact Fund (CLASS)	\$ 31,434
Section 115 Trust Fund	\$ 523,929
Total	<u>\$ 12,447,487</u>

Operating Expenditures

Period Total Wages and Benefits	\$ 484,097
Period Expenses	<u>\$ 194,351</u>
Total Period Operating Expenses	<u>\$ 678,448</u>

Report Criteria:

Report type: GL detail

Check.Type = {<>} "Adjustment"

GL Period	Check Issue Date	Check Number	Vendor Number	Payee	Invoice Number	Invoice Sequence	Invoice GL Account	Invoice Amount	Check Amount
45666									
09/25	09/05/2025	45666	1515	MICHAEL HARRINGTON, DDS, I	AGUILAR_5.	1	1-1000-5127	261.00-	261.00- V
Total 45666:									261.00-
45886									
09/25	09/11/2025	45886	1050	AQUATIC BIOASSAY & CONSUL	CSD0825.05	1	1-1000-5320	1,460.00	1,460.00
Total 45886:									1,460.00
45887									
09/25	09/11/2025	45887	1098	BURKE, WILLIAMS & SORENSEN	348821	1	1-0000-5849	2,091.60	2,091.60
Total 45887:									2,091.60
45888									
09/25	09/11/2025	45888	1135	CARPINTERIA VALLEY WATER	16-160003-0	1	1-0000-5440	59.19	59.19
09/25	09/11/2025	45888	1135	CARPINTERIA VALLEY WATER	16-160086-0	1	1-1000-5440	59.19	59.19
09/25	09/11/2025	45888	1135	CARPINTERIA VALLEY WATER	16-168193-0	1	1-1000-5440	214.79	214.79
09/25	09/11/2025	45888	1135	CARPINTERIA VALLEY WATER	16-169000-0	1	1-1000-5440	105.84	105.84
09/25	09/11/2025	45888	1135	CARPINTERIA VALLEY WATER	16-169005-0	1	1-1000-5440	157.69	157.69
09/25	09/11/2025	45888	1135	CARPINTERIA VALLEY WATER	16-169040-0	1	1-1000-5440	81.18	81.18
09/25	09/11/2025	45888	1135	CARPINTERIA VALLEY WATER	16-169049-0	1	1-1000-5440	91.60	91.60
09/25	09/11/2025	45888	1135	CARPINTERIA VALLEY WATER	16-169050-0	1	1-0000-5440	275.90	275.90
Total 45888:									1,045.38
45889									
09/25	09/11/2025	45889	1140	CASELLE INC.	10504	1	1-0000-5851	2,260.00	2,260.00
Total 45889:									2,260.00
45890									
09/25	09/11/2025	45890	1176	COASTAL COPY	1162598	1	1-0000-5610	286.85	286.85
Total 45890:									286.85
45891									
09/25	09/11/2025	45891	1226	DATA SUPPORT CO. INC.	124934	1	1-1000-5310	977.84	977.84
Total 45891:									977.84
45892									
09/25	09/11/2025	45892	1228	DATCO SERVICES CORPORATI	92557482	1	1-1000-5132	35.00	35.00
Total 45892:									35.00
45893									
09/25	09/11/2025	45893	1355	GRAINGER	9622944453	1	1-1000-5650	161.72	161.72
Total 45893:									161.72

M = Manual Check, V = Void Check

GL Period	Check Issue Date	Check Number	Vendor Number	Payee	Invoice Number	Invoice Sequence	Invoice GL Account	Invoice Amount	Check Amount
45894									
09/25	09/11/2025	45894	1411	INTERSTATE BATTERY SYSTEM	61001149	1	1-1000-5640	174.19	174.19
Total 45894:									174.19
45895									
09/25	09/11/2025	45895	1428	JCI JONES CHEMICALS INC.	976622	1	1-1000-5522	9,630.94	9,630.94
Total 45895:									9,630.94
45896									
09/25	09/11/2025	45896	1446	JOY EQUIPMENT PROTECTION,	7989	1	1-1000-5610	857.37	857.37
Total 45896:									857.37
45897									
09/25	09/11/2025	45897	1459	KIMIA ATTAR, DDS	VALIKONIS,	1	1-1000-5127	135.00	135.00
Total 45897:									135.00
45898									
09/25	09/11/2025	45898	1507	MC CORMIX CORP.	32376	1	1-1000-5260	920.33	920.33
Total 45898:									920.33
45899									
09/25	09/11/2025	45899	1515	MICHAEL HARRINGTON DDS IN	AGUILAR_5.	1	1-1000-5127	261.00	261.00
09/25	09/11/2025	45899	1515	MICHAEL HARRINGTON DDS IN	ROGERS, TA	1	1-1000-5127	1,777.50	1,777.50
Total 45899:									2,038.50
45900									
09/25	09/11/2025	45900	1610	PURETEC	2332643	1	1-1000-5310	121.60	121.60
Total 45900:									121.60
45901									
09/25	09/11/2025	45901	1683	SANTA BARBARA LAFCO	FY25.26	1	1-0000-6031	6,953.00	6,953.00
Total 45901:									6,953.00
45902									
09/25	09/11/2025	45902	1721	SOUTHERN CALIFORNIA EDISO	7004056877	1	1-1000-5420	105.00	105.00
09/25	09/11/2025	45902	1721	SOUTHERN CALIFORNIA EDISO	7004056877	2	1-1000-5420	66.08	66.08
09/25	09/11/2025	45902	1721	SOUTHERN CALIFORNIA EDISO	7004056877	3	1-1000-5420	364.18	364.18
09/25	09/11/2025	45902	1721	SOUTHERN CALIFORNIA EDISO	7004056877	4	1-1000-5420	699.81	699.81
09/25	09/11/2025	45902	1721	SOUTHERN CALIFORNIA EDISO	7004056877	5	1-1000-5420	121.25	121.25
Total 45902:									1,356.32
45903									
09/25	09/11/2025	45903	1778	THE WHARF	460593	1	1-1000-5527	192.28	192.28
09/25	09/11/2025	45903	1778	THE WHARF	460596	1	1-1000-5527	200.00	200.00
09/25	09/11/2025	45903	1778	THE WHARF	463068	1	1-1000-5527	163.89	163.89

M = Manual Check, V = Void Check

GL Period	Check Issue Date	Check Number	Vendor Number	Payee	Invoice Number	Invoice Sequence	Invoice GL Account	Invoice Amount	Check Amount
Total 45903:									556.17
45904									
09/25	09/11/2025	45904	1796	TRITECH SOFTWARE SOLUTIO	445047	1	1-1000-5843	1,170.00	1,170.00
Total 45904:									1,170.00
45905									
09/25	09/11/2025	45905	1806	UNDERGROUND SERVICE ALE	25260544	1	1-1000-5480	30.41	30.41
09/25	09/11/2025	45905	1806	UNDERGROUND SERVICE ALE	820250209	1	1-1000-5480	122.00	122.00
Total 45905:									152.41
45906									
09/25	09/11/2025	45906	1819	USA BLUE BOOK	INV0080625	1	1-0000-1820	4,822.94	4,822.94
09/25	09/11/2025	45906	1819	USA BLUE BOOK	INV0081533	1	1-0000-1820	2,916.79	2,916.79
Total 45906:									7,739.73
45907									
09/25	09/11/2025	45907	1476	LEO BASICA	661	1	1-0000-5847	1,170.00	1,170.00
Total 45907:									1,170.00
45908									
09/25	09/16/2025	45908	1005	ACME ANALYTICAL SOLUTIONS	27380	1	1-1000-5310	130.31	130.31
Total 45908:									130.31
45909									
09/25	09/16/2025	45909	1032	ALPHA FIRE UNLIMITED	64754	1	1-0000-5490	195.00	195.00
Total 45909:									195.00
45910									
09/25	09/16/2025	45910	1402	ASEVA	135250	1	1-0000-5430	192.57	192.57
09/25	09/16/2025	45910	1402	ASEVA	135250	2	1-1000-5430	192.56	192.56
Total 45910:									385.13
45911									
09/25	09/16/2025	45911	1098	BURKE, WILLIAMS & SORENSEN	350165	1	1-0000-5831	199.20	199.20
Total 45911:									199.20
45912									
09/25	09/16/2025	45912	1175	COAST AUTO PARTS	793809	1	1-1000-5526	15.70	15.70
09/25	09/16/2025	45912	1175	COAST AUTO PARTS	793999	1	1-1000-5650	32.69	32.69
09/25	09/16/2025	45912	1175	COAST AUTO PARTS	794434	1	1-1000-5640	220.52	220.52
09/25	09/16/2025	45912	1175	COAST AUTO PARTS	794539	1	1-1000-5510	33.33	33.33
Total 45912:									302.24
45913									
09/25	09/16/2025	45913	1204	COX COMMUNICATIONS	00130110246	1	1-1000-5843	130.02	130.02

M = Manual Check, V = Void Check

GL Period	Check Issue Date	Check Number	Vendor Number	Payee	Invoice Number	Invoice Sequence	Invoice GL Account	Invoice Amount	Check Amount
09/25	09/16/2025	45913	1204	COX COMMUNICATIONS	00130110246	2	1-0000-5843	130.01	130.01
Total 45913:									260.03
45914									
09/25	09/16/2025	45914	1205	CRAIG MURRAY	CASA REIM	1	1-0000-5244	99.50	99.50
Total 45914:									99.50
45915									
09/25	09/16/2025	45915	1285	ESRI INC.	900089098	1	1-1000-5843	920.00	920.00
Total 45915:									920.00
45916									
09/25	09/16/2025	45916	1305	FISHER SCIENTIFIC	3024650	1	1-1000-5310	138.27	138.27
09/25	09/16/2025	45916	1305	FISHER SCIENTIFIC	3088825	1	1-1000-5310	55.96	55.96
09/25	09/16/2025	45916	1305	FISHER SCIENTIFIC	3179924	1	1-1000-5310	166.94	166.94
09/25	09/16/2025	45916	1305	FISHER SCIENTIFIC	3401614	1	1-1000-5310	1,111.43	1,111.43
Total 45916:									1,472.60
45917									
09/25	09/16/2025	45917	1317	FRONTIER COMMUNICATIONS	805-684-249	1	1-1000-5430	79.03	79.03
Total 45917:									79.03
45918									
09/25	09/16/2025	45918	1391	HOSE-MAN INC.	00101333	1	1-1000-5640	724.33	724.33
09/25	09/16/2025	45918	1391	HOSE-MAN INC.	00101364	1	1-1000-5650	796.79	796.79
Total 45918:									1,521.12
45919									
09/25	09/16/2025	45919	1507	MC CORMIX CORP.	32874	1	1-1000-5526	480.28	480.28
Total 45919:									480.28
45920									
09/25	09/16/2025	45920	1515	MICHAEL HARRINGTON DDS IN	ROGERS, J	1	1-1000-5127	184.50	184.50
09/25	09/16/2025	45920	1515	MICHAEL HARRINGTON DDS IN	ROGERS, M	1	1-1000-5127	211.50	211.50
Total 45920:									396.00
45921									
09/25	09/16/2025	45921	1523	MISSION UNIFORM SERVICE	524362348	1	1-1000-5241	296.49	296.49
09/25	09/16/2025	45921	1523	MISSION UNIFORM SERVICE	524362349	1	1-1000-5510	44.61	44.61
09/25	09/16/2025	45921	1523	MISSION UNIFORM SERVICE	524367469	1	1-1000-5510	152.60	152.60
09/25	09/16/2025	45921	1523	MISSION UNIFORM SERVICE	524402071	1	1-1000-5241	296.49	296.49
09/25	09/16/2025	45921	1523	MISSION UNIFORM SERVICE	524402072	1	1-1000-5510	44.61	44.61
09/25	09/16/2025	45921	1523	MISSION UNIFORM SERVICE	524437851	1	1-1000-5241	348.51	348.51
09/25	09/16/2025	45921	1523	MISSION UNIFORM SERVICE	524437852	1	1-1000-5510	44.61	44.61
09/25	09/16/2025	45921	1523	MISSION UNIFORM SERVICE	524442759	1	1-1000-5510	154.51	154.51
09/25	09/16/2025	45921	1523	MISSION UNIFORM SERVICE	524484383	1	1-1000-5510	154.51	154.51
09/25	09/16/2025	45921	1523	MISSION UNIFORM SERVICE	524485494	1	1-1000-5241	318.84	318.84
09/25	09/16/2025	45921	1523	MISSION UNIFORM SERVICE	524485495	1	1-1000-5510	44.61	44.61

GL Period	Check Issue Date	Check Number	Vendor Number	Payee	Invoice Number	Invoice Sequence	Invoice GL Account	Invoice Amount	Check Amount
Total 45921:									1,900.39
45922									
09/25	09/16/2025	45922	1580	PAYCHEX HR	10707723	1	1-0000-5851	148.35	148.35
Total 45922:									148.35
45923									
09/25	09/16/2025	45923	1581	PAYCHEX OF NEW YORK LLC	2025082800	1	1-0000-5851	58.00	58.00
Total 45923:									58.00
45924									
09/25	09/16/2025	45924	1594	PLUMBERS DEPOT INC.	PD-59532	1	1-1000-5690	143.77	143.77
Total 45924:									143.77
45925									
09/25	09/16/2025	45925	1628	RELIANCE STANDARD LIFE INS	LTD 105669	1	1-0000-5124	452.92	452.92
09/25	09/16/2025	45925	1628	RELIANCE STANDARD LIFE INS	LTD 105669	2	1-1000-5124	1,041.62	1,041.62
Total 45925:									1,494.54
45926									
09/25	09/16/2025	45926	1710	SMARDAN - HATCHER CO.	S4268819.00	1	1-1000-5680	12.22	12.22
Total 45926:									12.22
45927									
09/25	09/16/2025	45927	1715	SOCAL GAS	0485143000	1	1-1000-5410	69.20	69.20
Total 45927:									69.20
45928									
09/25	09/16/2025	45928	1732	STANDARD INSURANCE COMP	615642_SEP	1	1-0000-5126	84.80	84.80
09/25	09/16/2025	45928	1732	STANDARD INSURANCE COMP	615642_SEP	2	1-1000-5126	275.60	275.60
Total 45928:									360.40
45929									
09/25	09/16/2025	45929	1778	THE WHARF	465643	1	1-1000-5527	200.00	200.00
Total 45929:									200.00
45930									
09/25	09/16/2025	45930	1843	WALTER MICHAJLENKO, DDS,	AGUILAR, J	1	1-1000-5127	710.00	710.00
Total 45930:									710.00
45931									
09/25	09/16/2025	45931	1926	BEACH CITIES DENTAL GROUP	SULLIVAN	1	1-1000-5127	840.00	840.00
09/25	09/16/2025	45931	1926	BEACH CITIES DENTAL GROUP	SULLIVAN	2	1-1000-5127	726.00	726.00
09/25	09/16/2025	45931	1926	BEACH CITIES DENTAL GROUP	SULLIVAN	3	1-1000-5127	141.00	141.00

GL Period	Check Issue Date	Check Number	Vendor Number	Payee	Invoice Number	Invoice Sequence	Invoice GL Account	Invoice Amount	Check Amount
Total 45931:									1,707.00
45932									
09/25	09/16/2025	45932	1274	ENGEL & GRAY, INC.	58X00099	1	1-1000-5470	14,375.88	14,375.88
Total 45932:									14,375.88
45933									
09/25	09/16/2025	45933	1719	SOLENIS LLC	134425646	1	1-1000-5524	6,017.55	6,017.55
Total 45933:									6,017.55
45934									
09/25	09/16/2025	45934	1721	SOUTHERN CALIFORNIA EDISO	7004056877	1	1-1000-5420	116.04	116.04
09/25	09/16/2025	45934	1721	SOUTHERN CALIFORNIA EDISO	7004056877	2	1-1000-5420	42.49	42.49
09/25	09/16/2025	45934	1721	SOUTHERN CALIFORNIA EDISO	7004056877	3	1-1000-5420	433.23	433.23
09/25	09/16/2025	45934	1721	SOUTHERN CALIFORNIA EDISO	7004056877	4	1-1000-5420	661.53	661.53
09/25	09/16/2025	45934	1721	SOUTHERN CALIFORNIA EDISO	7004056877	5	1-1000-5420	118.62	118.62
09/25	09/16/2025	45934	1721	SOUTHERN CALIFORNIA EDISO	7004056877	6	1-1000-5420	1,432.57	1,432.57
09/25	09/16/2025	45934	1721	SOUTHERN CALIFORNIA EDISO	7004056877	7	1-1000-5420	1,642.58	1,642.58
09/25	09/16/2025	45934	1721	SOUTHERN CALIFORNIA EDISO	7004056877	8	1-1000-5420	18,779.12	18,779.12
09/25	09/16/2025	45934	1721	SOUTHERN CALIFORNIA EDISO	7004056877	9	1-1000-5420	21,168.47	21,168.47
09/25	09/16/2025	45934	1721	SOUTHERN CALIFORNIA EDISO	7004056877	10	1-1000-5420	1,452.85	1,452.85
09/25	09/16/2025	45934	1721	SOUTHERN CALIFORNIA EDISO	7004056877	11	1-1000-5420	1,445.19	1,445.19
Total 45934:									47,292.69
45935									
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	1	1-0000-5843	16.99	16.99
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	2	1-0000-5244	10.20	10.20
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	3	1-0000-5210	21.59	21.59
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	4	1-0000-5210	89.00	89.00
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	5	1-1000-5244	21.97	21.97
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	6	1-1000-5244	21.75	21.75
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	7	1-1000-5244	12.91	12.91
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	8	1-1000-5244	20.88	20.88
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	9	1-1000-5244	65.92	65.92
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	10	1-1000-5244	27.01	27.01
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	11	1-1000-5244	57.92	57.92
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	12	1-1000-5244	44.35	44.35
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	13	1-1000-5244	21.07	21.07
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	14	1-1000-5244	66.29	66.29
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	15	1-1000-5244	32.01	32.01
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	16	1-1000-5244	796.27	796.27
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	17	1-0000-5210	100.00	100.00
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	18	1-1000-5242	365.00	365.00
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	19	1-1000-5244	37.46	37.46
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	20	1-1000-5244	31.01	31.01
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	21	1-1000-5244	21.15	21.15
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	22	1-1000-5244	68.28	68.28
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	23	1-1000-5244	34.82	34.82
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	24	1-1000-5244	20.15	20.15
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	25	1-1000-5680	98.05	98.05
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	26	1-1000-5525	277.94	277.94
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	27	1-1000-5680	91.54	91.54

M = Manual Check, V = Void Check

GL Period	Check Issue Date	Check Number	Vendor Number	Payee	Invoice Number	Invoice Sequence	Invoice GL Account	Invoice Amount	Check Amount
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	28	1-1000-5843	.99	.99
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	29	1-1000-5525	280.12	280.12
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	30	1-0000-1820	435.53	435.53
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	31	1-1000-5510	19.61	19.61
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	32	1-1000-5510	24.80	24.80
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	33	1-1000-5510	42.40	42.40
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	34	1-1000-5510	400.75	400.75
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	35	1-1000-5244	795.00	795.00
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	36	1-1000-5650	144.25	144.25
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	37	1-1000-5650	1,426.38	1,426.38
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	38	1-1000-5244	314.09	314.09
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	39	1-1000-5843	34.99	34.99
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	40	1-1000-5610	105.10	105.10
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	41	1-1000-5244	437.91	437.91
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	42	1-1000-5244	25.45	25.45
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	43	1-1000-5244	11.10	11.10
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	44	1-1000-5244	34.20	34.20
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	45	1-1000-5244	17.62	17.62
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	46	1-1000-5244	23.70	23.70
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	47	1-1000-5215	136.24	136.24
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	48	1-1000-5525	35.51	35.51
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	49	1-1000-5244	1,375.00	1,375.00
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	50	1-1000-5244	825.00	825.00
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	51	1-1000-5244	453.64	453.64
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	52	1-1000-5244	60.70	60.70
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	53	1-1000-5244	54.95	54.95
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	54	1-1000-5244	94.86	94.86
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	55	1-1000-5244	9.04	9.04
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	56	1-1000-5244	61.85	61.85
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	57	1-1000-5242	399.00	399.00
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	58	1-1000-5242	10.97	10.97
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	59	1-1000-5244	32.46	32.46
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	60	1-1000-5244	43.35	43.35
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	61	1-1000-5244	27.31	27.31
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	62	1-1000-5244	44.83	44.83
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	63	1-1000-5244	83.61	83.61
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	64	1-1000-5244	34.94	34.94
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	65	1-1000-5244	27.31	27.31
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	66	1-1000-5526	104.63	104.63
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	67	1-1000-5526	40.49	40.49
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	68	1-1000-5510	45.72	45.72
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	69	1-1000-5640	6.52	6.52
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	70	1-1000-5210	66.37	66.37
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	71	1-0000-5210	4.99	4.99
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	72	1-1000-5244	14.94	14.94
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	73	1-1000-5244	85.10	85.10
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	74	1-1000-5244	249.92	249.92
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	75	1-1000-5210	6.29	6.29
09/25	09/16/2025	45935	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	76	1-1000-5310	24.36	24.36
Total 45935:									11,505.42
45936									
09/25	09/16/2025	45936	1843	WALTER MICHAJLENKO, DDS,	JIMENEZ, C	1	1-1000-5127	2,224.00	2,224.00

GL Period	Check Issue Date	Check Number	Vendor Number	Payee	Invoice Number	Invoice Sequence	Invoice GL Account	Invoice Amount	Check Amount
Total 45936:									2,224.00
45937									
10/25	10/08/2025	45937	1927	ALDO MACIAS, DDS	DAMRON, M	1	1-0000-5228	165.00	165.00
Total 45937:									165.00
45938									
10/25	10/08/2025	45938	1028	ALL AROUND LANDSCAPE SUP	157057087-0	1	1-1000-5650	75.09	75.09
10/25	10/08/2025	45938	1028	ALL AROUND LANDSCAPE SUP	157139242-0	1	1-1000-5650	14.02	14.02
10/25	10/08/2025	45938	1028	ALL AROUND LANDSCAPE SUP	157629370-0	1	1-1000-5680	16.85	16.85
10/25	10/08/2025	45938	1028	ALL AROUND LANDSCAPE SUP	158372102-0	1	1-1000-5650	82.50	82.50
10/25	10/08/2025	45938	1028	ALL AROUND LANDSCAPE SUP	159136656-0	1	1-1000-5650	76.22	76.22
10/25	10/08/2025	45938	1028	ALL AROUND LANDSCAPE SUP	159208536-0	1	1-1000-5650	24.39	24.39
Total 45938:									289.07
45939									
10/25	10/08/2025	45939	1402	ASEVA	136208	1	1-0000-5430	192.57	192.57
10/25	10/08/2025	45939	1402	ASEVA	136208	2	1-1000-5430	192.56	192.56
Total 45939:									385.13
45940									
10/25	10/08/2025	45940	1104	CA SANITATION RISK MGMT AU	7450	1	1-0000-5231	81,455.69	81,455.69
10/25	10/08/2025	45940	1104	CA SANITATION RISK MGMT AU	7541	1	1-1000-5128	2,585.00	2,585.00
Total 45940:									84,040.69
45941									
10/25	10/08/2025	45941	1120	CANNON CORPORATION	93240	1	1-1000-5844	1,791.25	1,791.25
Total 45941:									1,791.25
45942									
10/25	10/08/2025	45942	1127	CARPINTERIA EYE CARE	AGUILAR, N	1	1-1000-5127	140.00	140.00
Total 45942:									140.00
45943									
10/25	10/08/2025	45943	1133	CARPINTERIA VALLEY LUMBER	570117	1	1-1000-5510	8.71	8.71
10/25	10/08/2025	45943	1133	CARPINTERIA VALLEY LUMBER	570199	1	1-1000-5510	16.79	16.79
10/25	10/08/2025	45943	1133	CARPINTERIA VALLEY LUMBER	570289	1	1-1000-5650	14.58	14.58
10/25	10/08/2025	45943	1133	CARPINTERIA VALLEY LUMBER	570291	1	1-1000-5510	28.84	28.84
10/25	10/08/2025	45943	1133	CARPINTERIA VALLEY LUMBER	570585	1	1-1000-5510	10.21	10.21
10/25	10/08/2025	45943	1133	CARPINTERIA VALLEY LUMBER	570589	1	1-1000-5510	111.98	111.98
10/25	10/08/2025	45943	1133	CARPINTERIA VALLEY LUMBER	570628	1	1-1000-5510	4.87	4.87
10/25	10/08/2025	45943	1133	CARPINTERIA VALLEY LUMBER	571227	1	1-1000-5630	85.07	85.07
10/25	10/08/2025	45943	1133	CARPINTERIA VALLEY LUMBER	571562	1	1-1000-5510	6.95	6.95
10/25	10/08/2025	45943	1133	CARPINTERIA VALLEY LUMBER	572231	1	1-0000-5630	49.79	49.79
10/25	10/08/2025	45943	1133	CARPINTERIA VALLEY LUMBER	572551	1	1-0000-5630	40.31	40.31
10/25	10/08/2025	45943	1133	CARPINTERIA VALLEY LUMBER	572552	1	1-1000-5510	9.36	9.36
10/25	10/08/2025	45943	1133	CARPINTERIA VALLEY LUMBER	572558	1	1-1000-5640	7.39	7.39
10/25	10/08/2025	45943	1133	CARPINTERIA VALLEY LUMBER	572635	1	1-1000-5510	8.71	8.71
10/25	10/08/2025	45943	1133	CARPINTERIA VALLEY LUMBER	573110	1	1-1000-5650	7.56	7.56

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GL Period	Check Issue Date	Check Number	Vendor Number	Payee	Invoice Number	Invoice Sequence	Invoice GL Account	Invoice Amount	Check Amount
10/25	10/08/2025	45943	1133	CARPINTERIA VALLEY LUMBER	573202	1	1-1000-5650	32.11	32.11
10/25	10/08/2025	45943	1133	CARPINTERIA VALLEY LUMBER	573417	1	1-1000-5510	35.41	35.41
10/25	10/08/2025	45943	1133	CARPINTERIA VALLEY LUMBER	573716	1	1-1000-5525	7.51	7.51
10/25	10/08/2025	45943	1133	CARPINTERIA VALLEY LUMBER	573939	1	1-1000-5510	19.59	19.59
Total 45943:									505.74
45944									
10/25	10/08/2025	45944	1135	CARPINTERIA VALLEY WATER	16-160003-0	1	1-0000-5440	59.19	59.19
10/25	10/08/2025	45944	1135	CARPINTERIA VALLEY WATER	16-160086-0	1	1-1000-5440	59.19	59.19
10/25	10/08/2025	45944	1135	CARPINTERIA VALLEY WATER	16-168193-0	1	1-1000-5440	178.89	178.89
10/25	10/08/2025	45944	1135	CARPINTERIA VALLEY WATER	16-169000-0	1	1-1000-5440	105.84	105.84
10/25	10/08/2025	45944	1135	CARPINTERIA VALLEY WATER	16-169005-0	1	1-1000-5440	152.48	152.48
10/25	10/08/2025	45944	1135	CARPINTERIA VALLEY WATER	16-169040-0	1	1-1000-5440	86.39	86.39
10/25	10/08/2025	45944	1135	CARPINTERIA VALLEY WATER	16-169049-0	1	1-1000-5440	96.81	96.81
10/25	10/08/2025	45944	1135	CARPINTERIA VALLEY WATER	16-169050-0	1	1-0000-5440	445.73	445.73
Total 45944:									1,184.52
45945									
10/25	10/08/2025	45945	1140	CASELLE INC.	INV-11794	1	1-0000-5851	2,260.00	2,260.00
Total 45945:									2,260.00
45946									
10/25	10/08/2025	45946	1929	CHRISTOPHER SHEPARD, DMD	MURPHY, D	1	1-0000-5228	503.00	503.00
Total 45946:									503.00
45947									
10/25	10/08/2025	45947	1165	CIO SOLUTIONS LP	123263-125	1	1-0000-5843	1,501.80	1,501.80
10/25	10/08/2025	45947	1165	CIO SOLUTIONS LP	123263-125	2	1-1000-5843	1,501.80	1,501.80
10/25	10/08/2025	45947	1165	CIO SOLUTIONS LP	123332-125	1	1-0000-5843	91.75	91.75
10/25	10/08/2025	45947	1165	CIO SOLUTIONS LP	123332-125	2	1-1000-5843	91.75	91.75
10/25	10/08/2025	45947	1165	CIO SOLUTIONS LP	123470-125	1	1-0000-5843	19.50	19.50
10/25	10/08/2025	45947	1165	CIO SOLUTIONS LP	123470-125	2	1-1000-5843	19.50	19.50
Total 45947:									3,226.10
45948									
10/25	10/08/2025	45948	1175	COAST AUTO PARTS	195535	1	1-1000-5650	14.56	14.56
10/25	10/08/2025	45948	1175	COAST AUTO PARTS	794899	1	1-1000-5650	22.76	22.76
10/25	10/08/2025	45948	1175	COAST AUTO PARTS	795544	1	1-1000-5650	11.51	11.51
10/25	10/08/2025	45948	1175	COAST AUTO PARTS	795922	1	1-1000-5650	10.13	10.13
10/25	10/08/2025	45948	1175	COAST AUTO PARTS	795930	1	1-1000-5640	5.44	5.44
Total 45948:									64.40
45949									
10/25	10/08/2025	45949	1176	COASTAL COPY	1166205	1	1-0000-5270	292.85	292.85
Total 45949:									292.85
45950									
10/25	10/08/2025	45950	1215	D & H WATER SYSTEMS	I2025-1248	1	1-1000-5650	533.01	533.01
10/25	10/08/2025	45950	1215	D & H WATER SYSTEMS	I2025-1337	1	1-1000-5650	841.93	841.93

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GL Period	Check Issue Date	Check Number	Vendor Number	Payee	Invoice Number	Invoice Sequence	Invoice GL Account	Invoice Amount	Check Amount
Total 45950:									1,374.94
45951									
10/25	10/08/2025	45951	1228	DATCO SERVICES CORPORATI	194846	1	1-0000-5210	258.00	258.00
Total 45951:									258.00
45952									
10/25	10/08/2025	45952	1299	FECHTER & COMPANY	4121	1	1-0000-5849	18,994.00	18,994.00
10/25	10/08/2025	45952	1905	FETCHER & COMPANY CERTIFI	4121	1	1-0000-5821	18,994.00	18,994.00
Total 45952:									37,988.00
45953									
10/25	10/08/2025	45953	1303	FGL ENVIRONMENTAL	511707A	1	1-1000-5320	522.00	522.00
10/25	10/08/2025	45953	1303	FGL ENVIRONMENTAL	511942A	1	1-1000-5320	93.00	93.00
10/25	10/08/2025	45953	1303	FGL ENVIRONMENTAL	512307A	1	1-1000-5320	93.00	93.00
10/25	10/08/2025	45953	1303	FGL ENVIRONMENTAL	512642A	1	1-1000-5320	93.00	93.00
10/25	10/08/2025	45953	1303	FGL ENVIRONMENTAL	513003A	1	1-1000-5320	93.00	93.00
10/25	10/08/2025	45953	1303	FGL ENVIRONMENTAL	513881A	1	1-1000-5320	93.00	93.00
10/25	10/08/2025	45953	1303	FGL ENVIRONMENTAL	513883A	1	1-1000-5320	53.00	53.00
10/25	10/08/2025	45953	1303	FGL ENVIRONMENTAL	514250A	1	1-1000-5320	2,534.00	2,534.00
10/25	10/08/2025	45953	1303	FGL ENVIRONMENTAL	514586A	1	1-1000-5320	93.00	93.00
10/25	10/08/2025	45953	1303	FGL ENVIRONMENTAL	514811A	1	1-1000-5320	121.00	121.00
10/25	10/08/2025	45953	1303	FGL ENVIRONMENTAL	515159A	1	1-1000-5320	93.00	93.00
10/25	10/08/2025	45953	1303	FGL ENVIRONMENTAL	515618A	1	1-1000-5320	93.00	93.00
10/25	10/08/2025	45953	1303	FGL ENVIRONMENTAL	516409A	1	1-1000-5320	93.00	93.00
10/25	10/08/2025	45953	1303	FGL ENVIRONMENTAL	516410A	1	1-1000-5320	93.00	93.00
Total 45953:									4,160.00
45954									
10/25	10/08/2025	45954	1355	GRAINGER	9632998317	1	1-1000-5620	410.32	410.32
10/25	10/08/2025	45954	1355	GRAINGER	9633452769	1	1-1000-5650	1,566.41	1,566.41
10/25	10/08/2025	45954	1355	GRAINGER	9646378639	1	1-1000-5650	81.07	81.07
10/25	10/08/2025	45954	1355	GRAINGER	9647787333	1	1-1000-5650	120.29	120.29
10/25	10/08/2025	45954	1355	GRAINGER	9665448453	1	1-1000-5650	98.14	98.14
Total 45954:									2,276.23
45955									
10/25	10/08/2025	45955	1375	HARDY DIAGNOSTICS	648360	1	1-1000-5310	29.12	29.12
10/25	10/08/2025	45955	1375	HARDY DIAGNOSTICS	649552	1	1-1000-5310	36.86	36.86
Total 45955:									65.98
45956									
10/25	10/08/2025	45956	1387	HILL BROTHERS CHEMICAL CO	INV1313842	1	1-1000-5521	3,658.98	3,658.98
Total 45956:									3,658.98
45957									
10/25	10/08/2025	45957	1428	JCI JONES CHEMICALS INC.	979016	1	1-1000-5522	7,325.62	7,325.62
10/25	10/08/2025	45957	1428	JCI JONES CHEMICALS INC.	979510	1	1-1000-5522	9,571.96	9,571.96

GL Period	Check Issue Date	Check Number	Vendor Number	Payee	Invoice Number	Invoice Sequence	Invoice GL Account	Invoice Amount	Check Amount
Total 45957:									16,897.58
45958									
10/25	10/08/2025	45958	1899	JOHN VALIKONIS	ORTHO REI	1	1-1000-5127	1,150.00	1,150.00
Total 45958:									1,150.00
45959									
10/25	10/08/2025	45959	1507	MC CORMIX CORP.	33287	1	1-1000-5526	613.47	613.47
Total 45959:									613.47
45960									
10/25	10/08/2025	45960	1523	MISSION UNIFORM SERVICE	524508554	1	1-1000-5510	95.72	95.72
10/25	10/08/2025	45960	1523	MISSION UNIFORM SERVICE	524518821	1	1-1000-5241	298.99	298.99
10/25	10/08/2025	45960	1523	MISSION UNIFORM SERVICE	524518822	1	1-1000-5510	44.61	44.61
10/25	10/08/2025	45960	1523	MISSION UNIFORM SERVICE	524568603	1	1-1000-5241	298.99	298.99
10/25	10/08/2025	45960	1523	MISSION UNIFORM SERVICE	524568604	1	1-1000-5510	44.61	44.61
10/25	10/08/2025	45960	1523	MISSION UNIFORM SERVICE	524610003	1	1-1000-5510	263.71	263.71
10/25	10/08/2025	45960	1523	MISSION UNIFORM SERVICE	524612586	1	1-1000-5241	301.49	301.49
10/25	10/08/2025	45960	1523	MISSION UNIFORM SERVICE	524612587	1	1-1000-5510	44.61	44.61
10/25	10/08/2025	45960	1523	MISSION UNIFORM SERVICE	524659773	1	1-1000-5241	296.49	296.49
10/25	10/08/2025	45960	1523	MISSION UNIFORM SERVICE	524659774	1	1-1000-5510	44.61	44.61
10/25	10/08/2025	45960	1523	MISSION UNIFORM SERVICE	524666688	1	1-1000-5510	95.72	95.72
Total 45960:									1,829.55
45961									
10/25	10/08/2025	45961	1594	PLUMBERS DEPOT INC.	PD-59663	1	1-1000-5510	145.15	145.15
Total 45961:									145.15
45962									
10/25	10/08/2025	45962	1610	PURETEC	2342956	1	1-1000-5310	139.19	139.19
10/25	10/08/2025	45962	1610	PURETEC	2344281	1	1-1000-5310	121.60	121.60
Total 45962:									260.79
45963									
10/25	10/08/2025	45963	1928	Samantha Jones	MODUGNO,	1	1-0000-5228	4,584.00	4,584.00
10/25	10/08/2025	45963	1928	Samantha Jones	MODUGNO,	2	1-0000-5228	181.00	181.00
Total 45963:									4,765.00
45964									
10/25	10/08/2025	45964	1678	SANTA BARBARA COUNTY WAT	997	1	1-0000-6032	106.92	106.92
Total 45964:									106.92
45965									
10/25	10/08/2025	45965	1721	SOUTHERN CALIFORNIA EDISO	7004056877	1	1-1000-5420	112.99	112.99
10/25	10/08/2025	45965	1721	SOUTHERN CALIFORNIA EDISO	7004056877	2	1-1000-5420	23.47	23.47
10/25	10/08/2025	45965	1721	SOUTHERN CALIFORNIA EDISO	7004056877	3	1-1000-5420	425.83	425.83
10/25	10/08/2025	45965	1721	SOUTHERN CALIFORNIA EDISO	7004056877	4	1-1000-5420	574.53	574.53
10/25	10/08/2025	45965	1721	SOUTHERN CALIFORNIA EDISO	7004056877	5	1-1000-5420	122.98	122.98

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GL Period	Check Issue Date	Check Number	Vendor Number	Payee	Invoice Number	Invoice Sequence	Invoice GL Account	Invoice Amount	Check Amount
10/25	10/08/2025	45965	1721	SOUTHERN CALIFORNIA EDISO	7004056877	6	1-1000-5420	1,343.10	1,343.10
Total 45965:									2,602.90
45966									
10/25	10/08/2025	45966	1793	TRI-CO REPROGRAPHICS	224414	1	1-0000-5210	45.89	45.89
Total 45966:									45.89
45967									
10/25	10/08/2025	45967	1796	TRITECH SOFTWARE SOLUTIO	447235	1	1-1000-5843	630.00	630.00
Total 45967:									630.00
45968									
10/25	10/08/2025	45968	1806	UNDERGROUND SERVICE ALE	25-260918	1	1-1000-5480	30.41	30.41
10/25	10/08/2025	45968	1806	UNDERGROUND SERVICE ALE	920250213	1	1-1000-5480	86.00	86.00
Total 45968:									116.41
45969									
10/25	10/08/2025	45969	1833	VERIZON	6122841906	1	1-1000-5430	327.43	327.43
Total 45969:									327.43
45970									
10/25	10/08/2025	45970	1868	WINCAN LLC	10070	1	1-1000-5843	1,500.00	1,500.00
Total 45970:									1,500.00
45971									
10/25	10/08/2025	45971	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	1	1-1000-5650	87.19	87.19
10/25	10/08/2025	45971	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	2	1-0000-5244	119.48	119.48
10/25	10/08/2025	45971	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	3	1-0000-5244	139.48	139.48
10/25	10/08/2025	45971	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	4	1-0000-5210	40.89	40.89
10/25	10/08/2025	45971	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	5	1-0000-5244	314.09	314.09
10/25	10/08/2025	45971	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	6	1-0000-5210	16.99	16.99
10/25	10/08/2025	45971	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	7	1-1000-5310	11.92	11.92
10/25	10/08/2025	45971	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	8	1-1000-5242	83.23	83.23
10/25	10/08/2025	45971	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	9	1-1000-5526	35.10	35.10
10/25	10/08/2025	45971	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	10	1-1000-5242	240.00	240.00
10/25	10/08/2025	45971	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	11	1-1000-5242	240.00	240.00
10/25	10/08/2025	45971	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	12	1-1000-5210	39.86	39.86
10/25	10/08/2025	45971	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	13	1-1000-5244	1,240.00	1,240.00
10/25	10/08/2025	45971	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	14	1-1000-5650	821.21-	821.21-
10/25	10/08/2025	45971	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	15	1-1000-5215	9.79	9.79
10/25	10/08/2025	45971	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	16	1-1000-5650	856.22	856.22
10/25	10/08/2025	45971	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	17	1-1000-5843	1,469.11	1,469.11
10/25	10/08/2025	45971	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	18	1-0000-5847	233.00	233.00
10/25	10/08/2025	45971	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	19	1-1000-5242	316.00	316.00
10/25	10/08/2025	45971	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	20	1-1000-5843	.99	.99
10/25	10/08/2025	45971	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	21	1-1000-5843	403.83	403.83
10/25	10/08/2025	45971	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	22	1-1000-5210	117.00	117.00
10/25	10/08/2025	45971	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	23	1-0000-6033	124.98	124.98
10/25	10/08/2025	45971	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	24	1-0000-5210	46.88	46.88
10/25	10/08/2025	45971	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	25	1-0000-5215	517.50	517.50

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GL Period	Check Issue Date	Check Number	Vendor Number	Payee	Invoice Number	Invoice Sequence	Invoice GL Account	Invoice Amount	Check Amount
10/25	10/08/2025	45971	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	26	1-0000-5210	429.68	429.68
10/25	10/08/2025	45971	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	27	1-0000-5843	46.38	46.38
10/25	10/08/2025	45971	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	28	1-1000-5690	31.49	31.49
10/25	10/08/2025	45971	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	29	1-1000-5843	62.12	62.12
10/25	10/08/2025	45971	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	30	1-1000-5242	316.00	316.00
10/25	10/08/2025	45971	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	31	1-1000-5510	47.93	47.93
10/25	10/08/2025	45971	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	32	1-1000-5640	129.25	129.25
10/25	10/08/2025	45971	1799	U.S. BANK CORPORATE PAYME	4246-0445-5	33	1-1000-5525	123.70	123.70
Total 45971:									7,068.87
45972									
10/25	10/08/2025	45972	1931	WATER SYSTEMS CONSULTIN	11452	1	1-0000-5849	1,884.00	1,884.00
Total 45972:									1,884.00
45973									
10/25	10/27/2025	45973	1030	ALLIANT INSURANCE SERVICE	3286728	1	1-0000-5231	528.00	528.00
Total 45973:									528.00
45974									
10/25	10/27/2025	45974	1105	CA SPECIAL DISTRICT ASSOC.	2026CSDA_	1	1-0000-5242	9,665.00	9,665.00
Total 45974:									9,665.00
45975									
10/25	10/27/2025	45975	1165	CIO SOLUTIONS LP	124097-125	1	1-0000-5843	1,496.80	1,496.80
10/25	10/27/2025	45975	1165	CIO SOLUTIONS LP	124097-125	2	1-1000-5843	1,496.80	1,496.80
Total 45975:									2,993.60
45976									
10/25	10/27/2025	45976	1204	COX COMMUNICATIONS	00130110246	1	1-0000-5843	130.02	130.02
10/25	10/27/2025	45976	1204	COX COMMUNICATIONS	00130110246	2	1-1000-5843	130.01	130.01
Total 45976:									260.03
45977									
10/25	10/27/2025	45977	1205	CRAIG MURRAY	CASA2025_9	1	1-0000-5244	21.94	21.94
10/25	10/27/2025	45977	1205	CRAIG MURRAY	WATERREU	1	1-0000-5244	7.31	7.31
Total 45977:									29.25
45978									
10/25	10/27/2025	45978	1459	KIMIA ATTAR, DDS	GRAF_10.14	1	1-0000-5228	295.00	295.00
Total 45978:									295.00
45979									
10/25	10/27/2025	45979	1507	MC CORMIX CORP.	33777	1	1-1000-5526	945.05	945.05
Total 45979:									945.05
45980									
10/25	10/27/2025	45980	1580	PAYCHEX HR	11139006	1	1-0000-5851	296.70	296.70

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GL Period	Check Issue Date	Check Number	Vendor Number	Payee	Invoice Number	Invoice Sequence	Invoice GL Account	Invoice Amount	Check Amount
Total 45980:									296.70
45981									
10/25	10/27/2025	45981	1581	PAYCHEX OF NEW YORK LLC	2025092500	1	1-0000-5851	58.00	58.00
Total 45981:									58.00
45982									
10/25	10/27/2025	45982	1628	RELIANCE STANDARD LIFE INS	LTD105669_	1	1-1000-5124	1,041.62	1,041.62
10/25	10/27/2025	45982	1628	RELIANCE STANDARD LIFE INS	LTD105669_	2	1-0000-5124	452.92	452.92
Total 45982:									1,494.54
45983									
10/25	10/27/2025	45983	1933	ROY E. HANSON JR. MFG.	80105	1	1-0000-1820	42,945.04	42,945.04
Total 45983:									42,945.04
45984									
10/25	10/27/2025	45984	1371	SB ORAL AND MAXILOFACIAL	GARCIA	1	1-0000-5127	1,230.00	1,230.00
10/25	10/27/2025	45984	1371	SB ORAL AND MAXILOFACIAL	REISSUE	1	1-0000-5228	4,765.00	4,765.00
Total 45984:									5,995.00
45985									
10/25	10/27/2025	45985	1715	SOCAL GAS	0485143000	1	1-1000-5410	34.14	34.14
Total 45985:									34.14
45986									
10/25	10/27/2025	45986	1732	STANDARD INSURANCE COMP	615642_9.18	1	1-0000-5126	169.60	169.60
10/25	10/27/2025	45986	1732	STANDARD INSURANCE COMP	615642_9.18	2	1-1000-5126	487.60	487.60
Total 45986:									657.20
45987									
10/25	10/27/2025	45987	1740	STATE WATER RESOURCES CO	ROGERS_G	1	1-1000-5242	464.00	464.00
Total 45987:									464.00
45988									
10/25	10/27/2025	45988	1798	TWO TRUMPETS COMMUNICAT	1532	1	1-0000-5847	2,000.00	2,000.00
Total 45988:									2,000.00
45989									
10/25	10/27/2025	45989	1833	VERIZON	6125325587	1	1-1000-5430	327.45	327.45
Total 45989:									327.45
45990									
10/25	10/27/2025	45990	1261	E.J. HARRISON & SONS, INC.	091625	1	1-1000-5450	550.99	550.99
10/25	10/27/2025	45990	1261	E.J. HARRISON & SONS, INC.	101725	1	1-1000-5450	550.99	550.99

GL Period	Check Issue Date	Check Number	Vendor Number	Payee	Invoice Number	Invoice Sequence	Invoice GL Account	Invoice Amount	Check Amount
Total 45990:									1,101.98
45991									
10/25	10/27/2025	45991	1291	EVOQUA WATER TECHNOLOGI	907256012	1	1-1000-5521	4,090.11	4,090.11
Total 45991:									4,090.11
45992									
10/25	10/27/2025	45992	1292	EXPRESS - ROOTER	595421	1	1-1000-5690	4,500.00	4,500.00
Total 45992:									4,500.00
45993									
10/25	10/27/2025	45993	1305	FISHER SCIENTIFIC	3463934	1	1-1000-5310	158.35	158.35
10/25	10/27/2025	45993	1305	FISHER SCIENTIFIC	4101833	1	1-1000-5310	369.11	369.11
Total 45993:									527.46
45994									
10/25	10/27/2025	45994	1317	FRONTIER COMMUNICATIONS	8056842498	1	1-1000-5430	79.03	79.03
Total 45994:									79.03
45995									
10/25	10/27/2025	45995	1366	HAAKER EQUIPMENT COMPAN	16869	1	1-1000-5640	2,596.31	2,596.31
10/25	10/27/2025	45995	1366	HAAKER EQUIPMENT COMPAN	17177	1	1-1000-5640	354.28	354.28
Total 45995:									2,950.59
45996									
10/25	10/27/2025	45996	1367	HACH COMPANY	14667780	1	1-1000-5310	336.63	336.63
Total 45996:									336.63
45997									
10/25	10/27/2025	45997	1375	HARDY DIAGNOSTICS	661091	1	1-1000-5310	52.39	52.39
Total 45997:									52.39
45998									
10/25	10/27/2025	45998	1932	JACOB BROAD	BROAD_10.2	1	1-1000-5310	22.76	22.76
Total 45998:									22.76
45999									
10/25	10/27/2025	45999	1434	JOANNE GRONQUIST, O.D.	VELASCO_1	1	1-0000-5228	264.00	264.00
Total 45999:									264.00
46000									
10/25	10/27/2025	46000	1451	KAESER COMPRESSORS INC.	917881411	1	1-1000-5610	775.06	775.06
Total 46000:									775.06

GL Period	Check Issue Date	Check Number	Vendor Number	Payee	Invoice Number	Invoice Sequence	Invoice GL Account	Invoice Amount	Check Amount
46001									
10/25	10/27/2025	46001	1556	OCCHIALI FINE EYEWEAR	VELASCO_1	1	1-0000-5228	400.00	400.00
Total 46001:									400.00
46002									
10/25	10/27/2025	46002	1654	ROTARY CLUB OF CARPINTERI	2025106-34	1	1-0000-5242	229.00	229.00
Total 46002:									229.00
46003									
10/25	10/27/2025	46003	1710	SMARDAN - HATCHER CO.	4280831	1	1-1000-5510	55.43	55.43
Total 46003:									55.43
46004									
10/25	10/27/2025	46004	1833	VERIZON	6125325587	1	1-1000-5430	327.45	327.45
10/25	10/27/2025	46004	1833	VERIZON	6125325587	1	1-1000-5430	327.45-	327.45- V
Total 46004:									.00
46033									
10/25	10/27/2025	46033	1009	ADT SECURITY SERVICES	403982720_	1	1-0000-5490	194.17	194.17
Total 46033:									194.17
46034									
10/25	10/27/2025	46034	1028	ALL AROUND LANDSCAPE SUP	159713233	1	1-1000-5650	97.18	97.18
Total 46034:									97.18
46035									
10/25	10/27/2025	46035	1045	APGN INC.	22657	1	1-1000-5650	1,482.00	1,482.00
Total 46035:									1,482.00
46036									
10/25	10/27/2025	46036	1402	ASEVA	137145	1	1-0000-5430	192.82	192.82
10/25	10/27/2025	46036	1402	ASEVA	137145	2	1-1000-5430	192.82	192.82
Total 46036:									385.64
46037									
10/25	10/27/2025	46037	1120	CANNON CORPORATION	93369	1	1-1000-5844	1,386.00	1,386.00
10/25	10/27/2025	46037	1120	CANNON CORPORATION	93533	1	1-1000-5844	2,050.00	2,050.00
Total 46037:									3,436.00
Grand Totals:									410,234.07

Summary by General Ledger Account Number

GL Account	Debit	Credit	Proof
1-0000-1820	51,120.30	.00	51,120.30
100002000	1,409.66	411,643.73-	410,234.07-
1-0000-5124	905.84	.00	905.84
1-0000-5126	254.40	.00	254.40
1-0000-5127	1,230.00	.00	1,230.00
1-0000-5210	1,053.91	.00	1,053.91
1-0000-5215	517.50	.00	517.50
1-0000-5228	11,157.00	.00	11,157.00
1-0000-5231	81,983.69	.00	81,983.69
1-0000-5242	9,894.00	.00	9,894.00
1-0000-5244	712.00	.00	712.00
1-0000-5270	292.85	.00	292.85
1-0000-5430	577.96	.00	577.96
1-0000-5440	840.01	.00	840.01
1-0000-5490	389.17	.00	389.17
1-0000-5610	286.85	.00	286.85
1-0000-5630	90.10	.00	90.10
1-0000-5821	18,994.00	.00	18,994.00
1-0000-5831	199.20	.00	199.20
1-0000-5843	3,433.25	.00	3,433.25
1-0000-5847	3,403.00	.00	3,403.00
1-0000-5849	22,969.60	.00	22,969.60
1-0000-5851	5,081.05	.00	5,081.05
1-0000-6031	6,953.00	.00	6,953.00
1-0000-6032	106.92	.00	106.92
1-0000-6033	124.98	.00	124.98
1-1000-5124	2,083.24	.00	2,083.24
1-1000-5126	763.20	.00	763.20
1-1000-5127	8,500.50	261.00-	8,239.50
1-1000-5128	2,585.00	.00	2,585.00
1-1000-5132	35.00	.00	35.00
1-1000-5210	229.52	.00	229.52
1-1000-5215	146.03	.00	146.03
1-1000-5241	2,456.29	.00	2,456.29
1-1000-5242	2,434.20	.00	2,434.20
1-1000-5244	7,879.10	.00	7,879.10
1-1000-5260	920.33	.00	920.33
1-1000-5310	4,004.64	.00	4,004.64
1-1000-5320	5,620.00	.00	5,620.00
1-1000-5410	103.34	.00	103.34
1-1000-5420	51,251.91	.00	51,251.91
1-1000-5430	1,718.33	327.45-	1,390.88
1-1000-5440	1,389.89	.00	1,389.89
1-1000-5450	1,101.98	.00	1,101.98
1-1000-5470	14,375.88	.00	14,375.88
1-1000-5480	268.82	.00	268.82
1-1000-5510	2,350.19	.00	2,350.19
1-1000-5521	7,749.09	.00	7,749.09
1-1000-5522	26,528.52	.00	26,528.52
1-1000-5524	6,017.55	.00	6,017.55
1-1000-5525	724.78	.00	724.78
1-1000-5526	2,234.72	.00	2,234.72
1-1000-5527	756.17	.00	756.17
1-1000-5610	1,737.53	.00	1,737.53
1-1000-5620	410.32	.00	410.32
1-1000-5630	85.07	.00	85.07
1-1000-5640	4,218.23	.00	4,218.23

GL Account	Debit	Credit	Proof
1-1000-5650	8,710.70	821.21-	7,889.49
1-1000-5680	218.66	.00	218.66
1-1000-5690	4,675.26	.00	4,675.26
1-1000-5843	9,561.91	.00	9,561.91
1-1000-5844	5,227.25	.00	5,227.25
Grand Totals:	413,053.39	413,053.39-	.00

Report Criteria:

Report type: GL detail

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Carpinteria Sanitary District

Board of Directors Meeting

STAFF REPORT

TO: Board of Directors

FROM: Craig Murray, P.E. - General Manager

SUBJECT: **Board Workshop Planning**

DATE: November 18, 2025

REQUESTED ACTION: That the Board discuss and provide direction to staff regarding a strategic planning workshop.

BACKGROUND: Periodically, the District's Board of Directors participates in a workshop style meeting for the purpose of strategic and long range planning. The last formal Board workshop held in May 2024 considered topics that included succession planning, pension liability management and climate change adaptation. Currently, there are a number of timely and important items that staff believe might be best covered in a workshop setting. These are:

- Review Agency Mission, Vision and Values
- Organization Succession Planning and Development
- Financial Stability and Rate Setting Strategies
- CAPP Implementation and Operations Planning

Of course, there may be other topics or issues that the Board or individual Board members would like to cover in a workshop setting. Staff would like to receive input from the Board regarding workshop timing, format, location and other administrative matters. As with every convened meeting of the District Board of Directors, the workshop would be a public meeting that is properly noticed and open to any member of the public.

RECOMMENDATION: It is recommended that the Board provide direction to staff regarding a Board workshop as outlined herein.

SUGGESTED MOTION: None. Item for Board discussion and staff direction.

Prepared By: 
Craig Murray, P.E. - General Manager



Carpinteria Sanitary District

Board of Directors Meeting

STAFF REPORT

TO: Board of Directors

FROM: Craig Murray, P.E. - General Manager

SUBJECT: 2026 CASA Winter Conference

DATE: November 18, 2026

REQUESTED ACTION: None. Board Decision.

FUNDING SOURCE: Account 5222-0 (Director Conferences & Training)

BACKGROUND: The 2026 Winter Conference for the California Association of Sanitation Agencies (CASA) will be held January 13-16, 2026 in Palm Springs. Board members interested in participating in the conference are encouraged to contact the Board Clerk as soon as possible regarding registration.

RECOMMENDATION: None. Board Decision.

SUGGESTED MOTION: None.

Prepared by:


Craig Murray, P.E. - General Manager

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Winter Conference 2026
Pipelines for Progress
Preliminary Program (11/4/25)
Subject to Change

Tuesday, January 13

3:00 p.m. – 5:00 p.m. CSRMA Executive Board Meeting

Wednesday, January 14

7:00 a.m. – 12:00 p.m. CSRMA Training Seminar (Separate Registration Required)

9:00 a.m. – 5:00 p.m. Registration

9:00 a.m. – 10:00 a.m. CASA Education Foundation Board Meeting

10:00 a.m. – 11:00 a.m. CASA Board of Directors Meeting

11:00 a.m. – 12:00 p.m. Women of Wastewater Meeting

12:00 p.m. – 1:30 p.m. Associates Committee Meeting

12:00 p.m. – 1:30 p.m. Lunch on Your Own

12:00 p.m. – 4:00 p.m. Tour of Valley Sanitary District (VSD)

1:30 p.m. – 4:00 p.m. Concurrent Sessions

Track 1A: ACE in Focus Part 1: Policies and Initiatives	Track 2A: Directors Track: Understanding and Navigating the Brown Act and the Conflict of Interest Code	Track 3A: Nutrient Management
Track 1B: ACE in Focus Part 2: Agency Projects and Drivers	Track 2B: Cutting Red Tape: The Future of Federal Deregulation and Permitting Reform	Track 3B: Biosolids Regionalization Efforts

1:30 p.m. – 2:30 p.m. Track 1A, 2A, 3A

2:30 p.m. – 3:00 p.m. Break

3:00 p.m. – 4:00 p.m. Track 1B, 2B, 3B

4:00 p.m. – 5:00 p.m. Federal Legislative Committee Meeting

4:00 p.m. – 5:00 p.m. CSRMA Board of Directors Meeting

5:30 p.m. – 6:30 p.m. Welcome Reception

Thursday, January 15

8:00 a.m. – 9:30 a.m. Breakfast

7:30 a.m. – 4:30 p.m. Registration

8:00 a.m. – 9:00 a.m.	Statewide Biosolids Meeting
9:15 a.m. – 11:45 a.m.	Morning Sessions
9:15 a.m. – 9:30 a.m.	Welcome Address Tony Trembley, CASA President
9:30 – 10:30 a.m.	Keynote
10:30 a.m. – 11:45 a.m.	Behavior Change Strategies: Changing Consumer Behavior Surrounding PFAS and Microplastics Exposure and Promoting Product Stewardship.
11:45 a.m. – 12:00 p.m.	Networking Break
12:00 p.m. – 1:30 p.m.	Luncheon CEF Presentation Jessica and Eric Federal and State Legislative Updates
1:30 p.m. – 1:45 p.m.	Networking Break
1:45 p.m. – 3:45 p.m.	Afternoon Session: Agency Funding and Project Financing Opportunities from A to Z
4:00 p.m. – 5:00 p.m.	Engineering and Research Group Meeting
4:00 p.m. – 5:00 p.m..	Communications Committee Meeting
5:30 p.m. – 7:00 p.m.	Reception
Friday, January 16	
8:00 a.m. – 10:30 a.m.	Registration
8:00 a.m. – 9:30 a.m.	Breakfast
8:00 a.m. – 9:00 a.m.	State Legislative Committee Meeting
9:15 a.m. – 10:45 a.m.	Closing Session
9:15 – 9:45 a.m.	Closing Keynote
9:45 – 10:30 a.m.	Workforce Development in Focus: Connecting Your Agency with the Emerging Labor Force
10:30 – 10:45 a.m.	President's Closing Remarks
11:00 a.m. – 1:00 p.m.	General Managers Meeting
11:00 p.m. – 3:00 p.m.	Attorneys Committee Meeting



Carpinteria Sanitary District

Board of Directors Meeting

STAFF REPORT

TO: Board of Directors

FROM: Craig Murray, P.E. - General Manager

SUBJECT: Carpinteria Advanced Purification Project (CAPP) Update

DATE: November 18, 2025

REQUESTED ACTION: None. Information Only.

BACKGROUND: Progress continues to be made on development of an indirect potable reuse (IPR) recycled water project in conjunction with the Carpinteria Valley Water District (CVWD). A brief summary of activities underway is provided below.

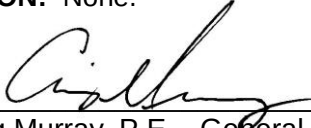
Design Activities. Bids for the AWPf portion of the CAPP project were received on Friday, November 14th. An oral report on the bid results will be provided to the Board. The project team will be reviewing the bids and CVWD could consider a project award as soon as December 10th at their regular Board meeting. CVWD will also be considering contracts for construction management and engineering services during construction at that meeting. The conveyance design package is currently out to bid, with bids expected the first week of December. As ongoing issue related to the new SCE service for the AWPf seems to have been resolved, following months of active engagement at various levels within the utility.

Permitting Activities. The Carpinteria City Council is scheduled to consider vacation of a small portion of Olive Avenue near the entrance to the District's wastewater treatment facility on November 24th with a subsequent public hearing tentatively on December 8th. A mutual indemnification agreement is anticipated to be a City requirement for this action. District legal counsel drafted a form of agreement that was provided to the City.

Other Items. A Recycled Water Committee meeting on November 17th was scheduled to discuss final edits to the Operations Agreement between CSD and CVWD. A subsequent joint meeting with the CVWD committee will be scheduled if further negotiation is required, but we expect the item to come to this Board in December.

RECOMMENDATION: None. Information Only.

SUGGESTED MOTION: None.

Prepared by: 
Craig Murray, P.E. - General Manager