RESILIENT POWER PROJECT CASE STUDY

The Beehive Microgrid Model:

Mobile Solar+Storage in New Orleans

Olivia Tym, Anna Adamsson and Marriele Mango, Clean Energy Group

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CleanEnergyGroup

RESILIENT POWER PROJECT CASE STUDIES

This case study is one in a series by Clean Energy Group (www.cleanegroup.org) as part of the Resilient Power Project, which seeks to accelerate the equitable development of clean, distributed generation for essential community-serving facilities to keep critical services up and running during power outages, reduce energy expenses, and build local clean energy expertise. This case study series highlights installations of solar photovoltaic and battery storage (solar+storage) systems to demonstrate their economic, community resiliency, and health benefits. More information about this project and others can be found at www.resilient-power.org.

ACKNOWLEDGEMENT

The sources for much of the information in this case study come from our partners at Footprint Project and Groundwork New Orleans. The authors would like to thank Will Heegaard, Todd Reynolds, Seth Mullendore, and Samantha Donalds for their valuable input and review of this case study.

DISCLAIMER

Cover Image: The Gentilly Beehive Microgrid's "Queen Bee" trailer.
Photo Credit: Groundwork New Orleans.

The Beehive Microgrid Model

Mobile Solar+Storage in New Orleans

PROJECT CONTACTS

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LEARN MORE

More information about the Gentilly Beehive Microgrid project in New Orleans can be found on Clean Energy Group's website at: www.cleanegroup.org/gentilly-beehive-microgrid. This webpage includes a project summary, photos, and links to additional resources. This page is updated periodically with new information and materials.

For more information about the Beehive Microgrid Model, visit the Footprint Project website: www.footprintproject.org/long-term-resilience.

An August 2026 Clean Energy Group webinar features speakers from Footprint Project and Groundworks New Orleans. Webinar materials are available here: www.cleanegroup.org/webinar/beehive-microgrid

Table of Contents

THE BEEHIVE MICROGRID MODEL

Mobile solar+storage units provide resilient backup power in the event of a power outage.

THE CHALLENGE: Power Outages Can Be More Dangerous Than the Natural Disasters That Cause Them

As the intensity and frequency of severe weather events continues to grow, so too do power outages. Power outages have increased nationwide, from an annual average of over 8 hours in 2022 to almost 13 hours in 2025.[1] Power outages are problematic year-round, but when an outage corresponds with days of extreme heat or cold, the health implications are especially dangerous. After Hurricane Ida made landfall in New Orleans on August 29, 2021, 26 Louisiana residents' deaths were attributed to the 10-day power outage that followed. Thirteen of these people died from heat exhaustion, five people died due to being evacuated from their nursing home, and six people died from carbon monoxide poisoning caused by diesel-powered backup generators.[2]

The pattern of this tragedy is not uncommon. Prolonged power outages can be life threatening for medically vulnerable or mobility-challenged people whose safety depends on access to power outlets for charging phones and medical devices, heating and cooling to keep buildings at safe temperatures, refrigeration for food and medications, and elevators to allow people to safely enter and exit their homes.

Damaged energy infrastructure in Grand Isle, Louisiana following Hurricane Ida. Credit: Ed Lallo / iStock.

[1] Meris Lutz, "Power outages getting longer as extreme weather takes larger toll, report says," *Utility Dive*, November 2025, www.utilitydive.com/news/power-outages-extreme-weather-jd-power/805658/.
[2] "National Hurricane Center Tropical Cyclone Report: Hurricane Ida," National Oceanic and Atmospheric Administration (NOAA) and National Weather Service (NWS), April 2022, www.nhc.noaa.gov/data/tcr/AL092021_Ida.pdf.

The impacts of a power outage can be compounded during a natural disaster, when roads may be impassible, critical community facilities are shut down or otherwise inaccessible, and diesel fuel for generators is hard to access.

THE SOLUTION: A Mobile Solar+Storage "Beehive" Microgrid

In the wake of Hurricane Ida, New Orleans-based nonprofit Footprint Project developed a new model to help communities access resilient power during the next big disaster: the Beehive Microgrid Model.[3]

A Beehive Microgrid consists of a "**Hive**" – a grid-connected microgrid powered by solar and energy storage (solar+storage) – and "**Bees**" – a group of mobile solar+storage trailers. Bees are charged and stationed at the Hive. During a power outage, the Bees can be deployed throughout a region to support emergency response and recovery efforts, providing reliable backup power to support first responder field operations. Bees can also act as "**battery libraries,**" allowing residents to borrow a portable battery to charge small devices at home. Once in-the-field, the trailers solar system can replenish the battery, as long as solar is available, providing indefinite power to the Bee. Unlike traditional backup power sources, like gas or diesel generators, mobile solar+storage units are emission-free and immune to fuel shortages, a common occurrence after natural disasters.

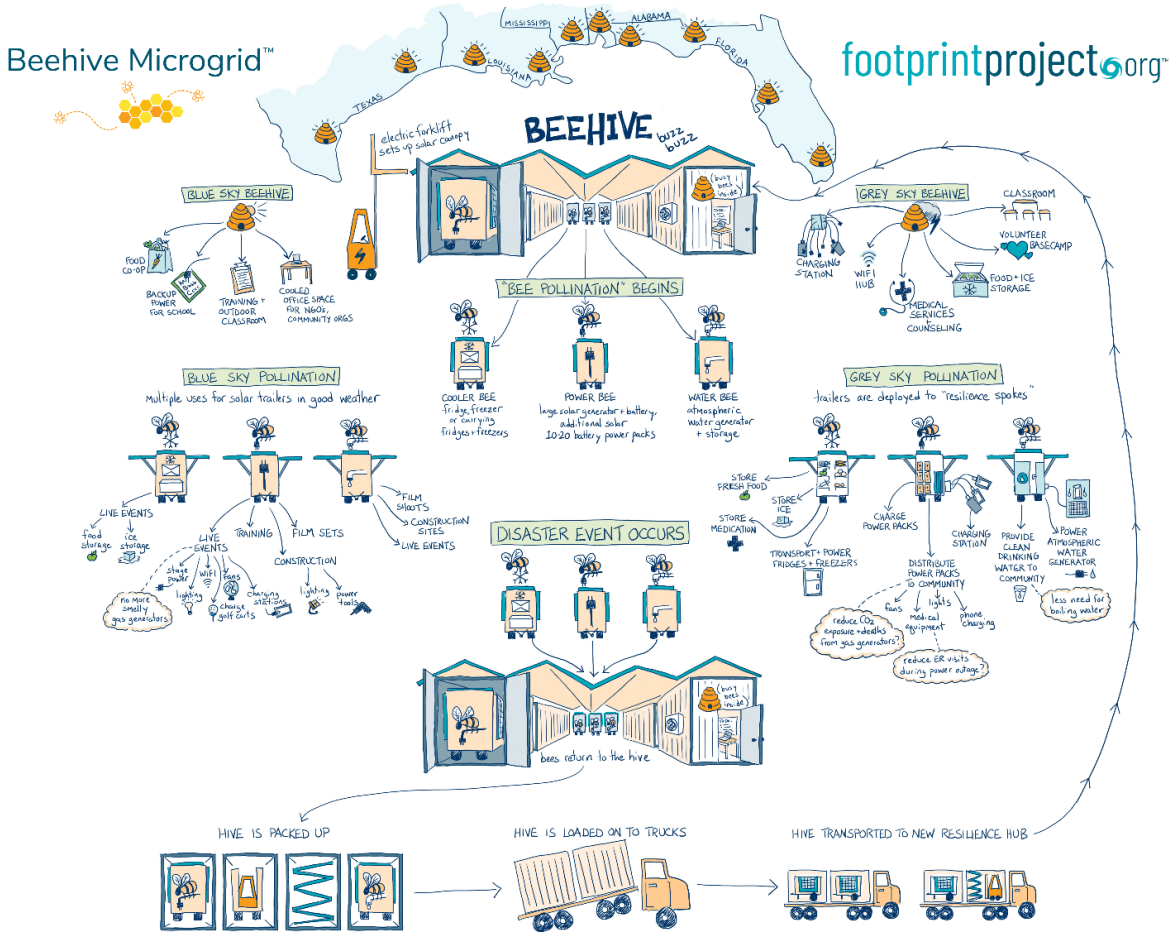
During "**grey sky**" conditions, such as when there are regional power outages following a natural disaster, the stationary Hive unit can function as a **resilience hub**, providing services such as Wi-Fi, electrical outlets for charging phones and other devices, refrigeration for food and medicine, or serving as a hub for volunteers or medical providers. Meanwhile, the Bee units are deployed to "**resilience spokes**" – smaller permanent or temporary sites established deeper in a disaster-affected region to serve people who are unable to access the Hive. During disasters and outage events, Bees can remain within a community to support long-term recovery.

The benefits of Beehive Microgrids extend beyond emergencies and power outages – they can also provide year-round benefits. During "**blue sky**" conditions, when there are no disasters or power outages to respond to, the solar+storage systems can generate economic benefits, such as utility bills savings, for the Hive, and the Bees can be deployed to power outdoor community events, like concerts and picnics.

[3] "Long-Term Resilience: Beehive Microgrids," Footprint Project, accessed May 2026, www.footprintproject.org/programs#longtermresilience.

Bees can be designed to meet a variety of community needs, including:

- Supplying backup power to support small loads such as charging phones and home health devices.
- Providing access to Wi-Fi, communication channels, and refrigeration.
- Powering an atmospheric water generator, so communities that are experiencing disruptions in their normal water service can access potable water.
- Supporting small, rural health clinics during power outages. For example, Bees can be equipped with walk-in coolers to keep medicine and vaccines from spoiling during outages, saving health clinics from significant economic losses during outages and enabling them to continue providing care to patients.



Footprint Project: A Leader in Mobile Solar+Storage for Disaster Relief

Footprint Project has deployed mobile solar+storage systems to over 22 disaster response and recovery missions, providing emergency clean power access to more than 50,000 people. Footprint's mobile solar+storage systems have been used by firefighters in California, to power warming shelters following Winter Storm Fern, and to support rural Appalachian communities devastated by Hurricane Helene. Mobile community charging stations have hosted battery libraries in New Orleans, allowing residents without power to check out and borrow a cell phone battery charger at no cost.

GENTILLY: The First Beehive Project

In 2023, Footprint Project partnered with local nonprofit Groundwork New Orleans to install the first-ever Beehive Microgrid project in New Orleans, Louisiana.

The NET Charter High School in the Gentilly neighborhood was selected as a convenient central location for the Hive microgrid. The school is located on the University of New Orleans' (UNO) campus and operated by Educators for Quality Alternatives (EQA). Gentilly is a large, historical residential neighborhood in New Orleans, and its central location within the city means that mobile trailers could be easily dispatched to other neighborhoods and either charge in-the-field using the trailer's solar system or return to the Hive to recharge.

Four battery storage units and the solar inverter, located inside the Queen Bee semi-permanent trailer. (Credit: Groundworks New Orleans)

Adapting the Model to Meet Siting Challenges

During the project development process, the school decided against installing a permanent, roof-mounted and grid-connected solar array. Footprint Project and Groundwork New Orleans adapted the Beehive Model to center around one large "**Queen Bee**" unit: a 30-foot solar+storage-powered trailer that will remain on-site at the school but will not be grid connected. The Queen Bee trailer is accompanied by one standard-size mobile Bee trailer.

Rendering of the outdoor classroom space at the NET Charter High School: Gentilly. The semi-permanent Queen Bee unit and the mobile Bee unit are located in the adjacent parking lot. When not in use for emergencies or community events, the high school uses the microgrid to power their outdoor classrooms and as a learning opportunity for students. (Credit: Groundwork New Orleans)

Workforce Development

The Gentilly Beehive Microgrid development process served as a workforce development opportunity, allowing Groundwork New Orleans staff and students to learn about solar+storage installation from Solar Alternatives, the Beehive's installer. After the systems were installed, Groundwork New Orleans staff were trained to be responsible for monitoring and maintaining the system. The Bees will need routine electrical and mechanical maintenance performed, tires checked, batteries tested, and solar panels cleaned.

Groundwork New Orleans staff can also use the microgrid as part of their Green Team Initiative, an environmental workforce training program for high school students. The program focuses on solar energy, stormwater management, and reforestation. Groundwork New Orleans engages community members in training and resilience projects across the city.

Groundwork New Orleans staff and participants construct the outdoor classroom and resilience shelter at the NET Charter High School: Gentilly. This space, which is powered by the Queen Bee, serves as a class workspace, cooling area, and charging station. In the event the Queen Bee has to be deloyed, the site has separate solar+storage to run the outside loads. (Credit: Groundwork New Orleans)

Groundwork New Orleans staff construct the first Bee – a mobile solar+storage trailer. (Credit: Groundwork New Orleans)

Pollinators: Spreading Solar Visibility Through Community Engagement

In addition to the solar+storage-powered Bees, Groundwork New Orleans worked with students to construct smaller solar cabinets. These cabinets are a simple design that can be quickly and cheaply constructed. Footprint Project refers to these small solar cabinets as "**pollinators**" because their role is to leave the Hive and find a permanent home elsewhere in the community. Solar cabinets are often donated to small local community organizations and mutual aid groups to be used as charging stations, for backup power, or to power refrigerators or coolers. These Pollinators serve an important role by providing full-time support to small organizations and increasing awareness and visibility of solar powered devices. Multiple studies over the past decade have shown that visibility is a key factor in increasing renewable adoption among communities.

The Microgrid in Action

The Gentilly Beehive Microgrid was tested in December 2022 when a tornado hit New Orleans. The mobile solar+storage Bee was quickly deployed to a church in Morrero, and powered charging stations for residents to charge cellphones and other small electrical devices. The Bee also powered wireless internet to enable communication services until grid-power was restored.

When not in use for disaster relief, the mobile solar+storage units could be dispatched to provide emissions-free power at community events. The high school also uses the Queen Bee microgrid to power their outdoor classrooms and as a learning opportunity for students.

New Orleans residents charge phones and connect to Wi-Fi at the mobile solar+storage Bee trailer following a tornado in December 2022. (Credit: Footprint Project)

The Gentilly Beehive Microgid: Solar & Battery Storage System Details

System Owner: Groundwork New Orleans

Location: NET Charter High School: Gentilly in New Orleans, Louisiana

Year Commissioned: 2022

Services Provided: Backup power, disaster response and recovery

Supported Infrastructure: A Beehive Microgrid consisting of one stationary Queen Bee unit and one mobile Bee unit.

Solar: 24 kW total (16 kW on the stationary unit and 8 kW on the mobile unit). An additional 16 kW is planned for two additional mobile Bees.

Storage: 74 kWh total (55.5 kWh on the stationary unit and 18.5 kWh on the mobile unit). An additional 37 kWh is planned for two additional mobile Bees.

Battery Manufacturer: Fortress

Microgrid Design & Installation: The microgrid was designed and installed by Solar Alternatives, who were responsible for technical engineering oversight while incorporating workforce development goals.

Project Partners: Groundwork New Orleans, Footprint Project, NET Charger High School: Gentilly, Clean Energy Group

Funding: The installation was funded through a grant from the U.S. Environmental Protection Agency through the Collaborative Problem-Solving Cooperative Agreement Program.

Queen Bee Stationary Unit Details:

- **Solar System Size:** 16 kW
- **Battery storage size:** 55.5 kWh
- **Solar System Annual Production:** 15,000 kWh
- **Installed cost:** $237,000

Bee Mobile Unit Details:

- **Solar system size:** 8 KW
- **Battery storage size:** 18.5 kWh
- **Annual solar production:** 7,000 kWh
- **Installed cost:** $40,000

FINANCIAL DETAILS

Early-Stage Technical Assistance Funding

In 2022, this project was awarded $7,500 through Clean Energy Group's Technical Assistance Fund to support a solar+storage feasibility assessment for the initial microgrid design.

Securing Funding for Installation

In 2022, the U.S. Environmental Protection Agency (EPA) awarded a $500,000 grant in support of the Gentilly Beehive Microgrid project to Groundwork New Orleans through the Collaborative Problem-Solving Cooperative Agreement Program. Footprint Project partnered with Groundwork New Orleans as a subawardee for the grant. Funded through the 2022 Inflation Reduction Act, this EPA program provided financial assistance to organizations working to address local environmental and public health issues in their communities. Project partners began collaborating with school officials and solar installers to plan for the Gentilly Beehive Microgrid after the grant was awarded in 2022.

The proposed project originally included 10 Bees; however, in February 2025, the EPA issued a termination notice for the funding awarded, forcing the project team to scale back the design. One Bee is currently built, and there are plans for two additional Bee units.

Revenue Sources

Because the Gentilly Beehive Microgrid is not grid-connected, the project's economic benefits stem from avoiding the costs related to power outages and use of fossil fuel generators. Grid-connected microgrids have access to other revenue streams such as offsetting grid electricity with onsite solar generation, demand charge reduction, providing grid services, participation in virtual power plant (VPP) platforms, and enrollment in state or local incentive programs.

Replicating the Beehive Model

The Beehive Microgrid Model can be adopted by communities across the country and adapted to meet their needs. Community advocates interested in replicating the Beehive Microgrid Model can reference *Appendix A: Financial Details for Project Replicability*, which outlines estimated costs for developing a solar+storage-powered mobile microgrid.

LESSONS LEARNED

Flexible Project Design Allows for Customizable, Adaptable Resilient Power Systems

A benefit of the Beehive Model is its ability to adapt. When Footprint Project and Groundwork New Orleans had to pivot away from building a permanent, grid-connected solar+storage installation (Hive), they designed a large solar+storage trailer (Queen Bee) that would meet many of the same needs. The Beehive Microgrid Model and the implementation of a Hive, Resilience Spoke, and Bees are fully customizable to the community it serves and their needs.

Workforce Development and Community Engagement Plans Strengthen Long-Term Project Impacts

By incorporating workforce training and engagement with local youth and community members, the Gentilly Beehive Microgrid builds long-term community resilience. Groundwork New Orleans' use of the Beehive as a hands-on training tool for students and adults in their green infrastructure and solar installation classes increases the benefit and value of the installation. Additionally, their work creating and distributing Pollinator solar cabinets for local organizations and mutual aid groups helps expand solar visibility and more widespread adoption of solar.

Diversify Funding Sources to Ensure Project Viability

Footprint Project and Groundwork New Orleans were awarded a $500,000 EPA grant, which was intended to support 10 mobile solar+storage-powered Bees and a permanent rooftop-mounted microgrid on the school building. In February 2025, the EPA issued a termination notice, forcing the project team to scale back the design. Future Beehive Microgrids can work to prevent this challenge by securing multiple, diverse funding sources, and can explore revenue-generating opportunities such as solar and energy storage incentive programs, revenue through providing grid-services, or savings through demand charge reduction to ensure that the project is economically viable even with the loss of funding streams.

PLANS FOR EXPANSION

New Orleans

Groundwork New Orleans and Footprint Project plan to add two more mobile units to the Gentilly Beehive Microgrid. One of the planned units will be equipped with refrigeration for cooling and storing food and medication, and the other will be equipped with atmospheric water generation technology that will produce potable water during outages when wells or other water infrastructure may be unavailable. Each unit will include an 8-kW solar array and a 18-kWh battery storage system.

North Carolina

In August 2025, the North Carolina Department of Environmental Quality (DEQ) State Energy Office announced they will be investing $5 million in permanent and mobile microgrids that will provide accessible power in the wake of future weather disasters. This funding was awarded to Footprint Project, Land of Sky Regional Council, and the North Carolina Sustainable Energy Association to be implemented in collaboration with a network of regional partners. The project will support up to 24 stationary microgrids across six North Carolina counties affected by Hurricane Helene in September 2024. It will also fund the implementation of two Beehive Microgrids: one each in the western and eastern parts of the state. The DEQ described the projects as an "innovative disaster recovery model that will strengthen emergency power access for critical community services and serve thousands of North Carolinians."

APPENDIX A: Financial Details for Project Replicability

The Beehive Microgrid Model can be adopted by communities across the country and adapted to meet their needs. Community advocates interested in replicating this model can reference the following table, which outlines estimated costs for developing a solar+storage-powered mobile microgrid.

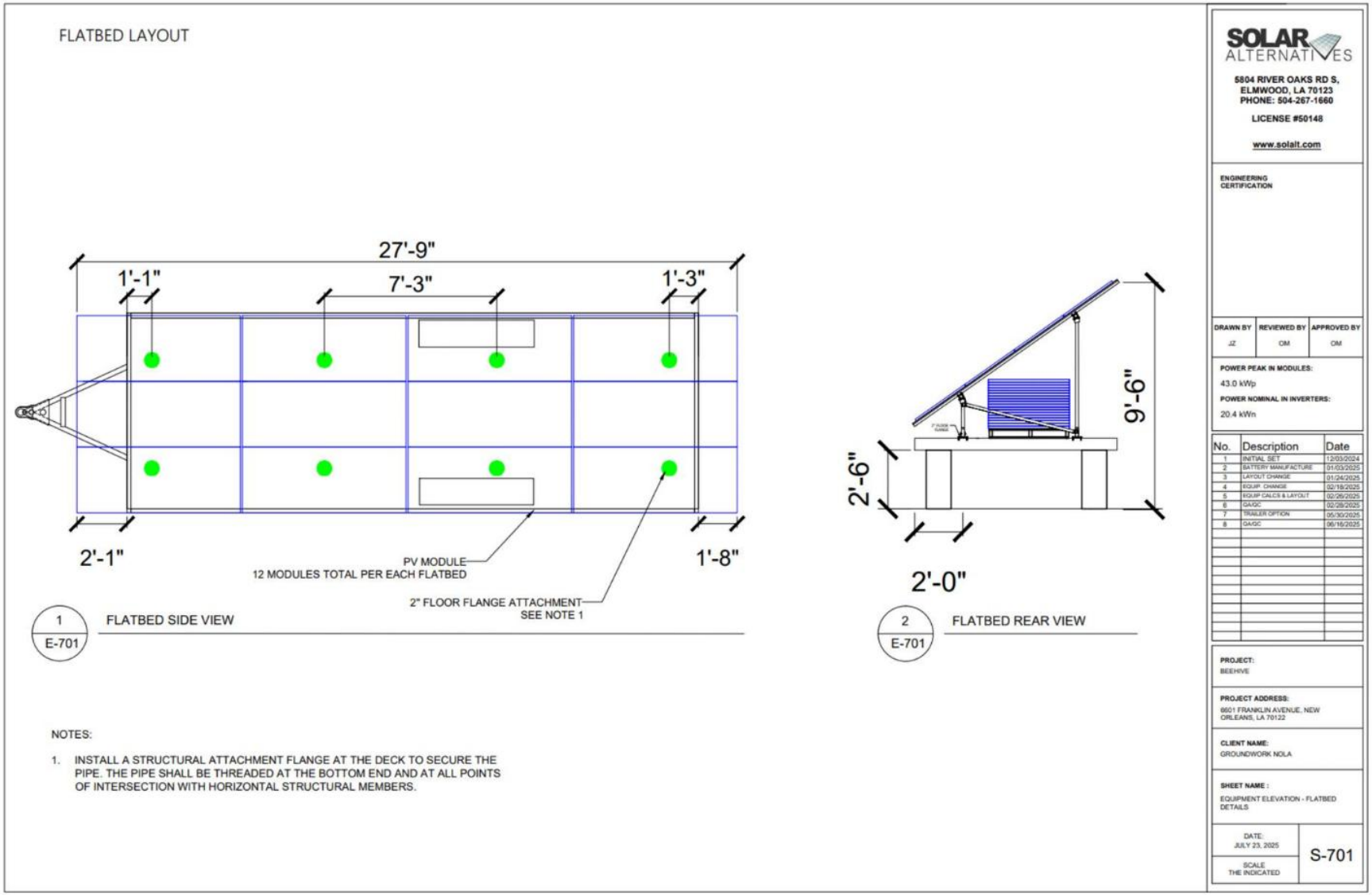
Other Beehive Microgrid projects installed using this model will have costs that vary significantly depending on many factors and details about the project's configuration. For Bees, costs will depend on the physical characteristics of the mobile trailers (size of trailers, axels, doors), solar and storage capacity, and add-on capabilities including wireless connectivity, refrigeration, water filtration, laundry, or kitchen appliances. Hive costs depend on the location needs (including condition of the existing roof or parking structures), total solar and battery storage capacity, switch gear, remote monitoring equipment, and workforce development programming incorporated into the installation process.

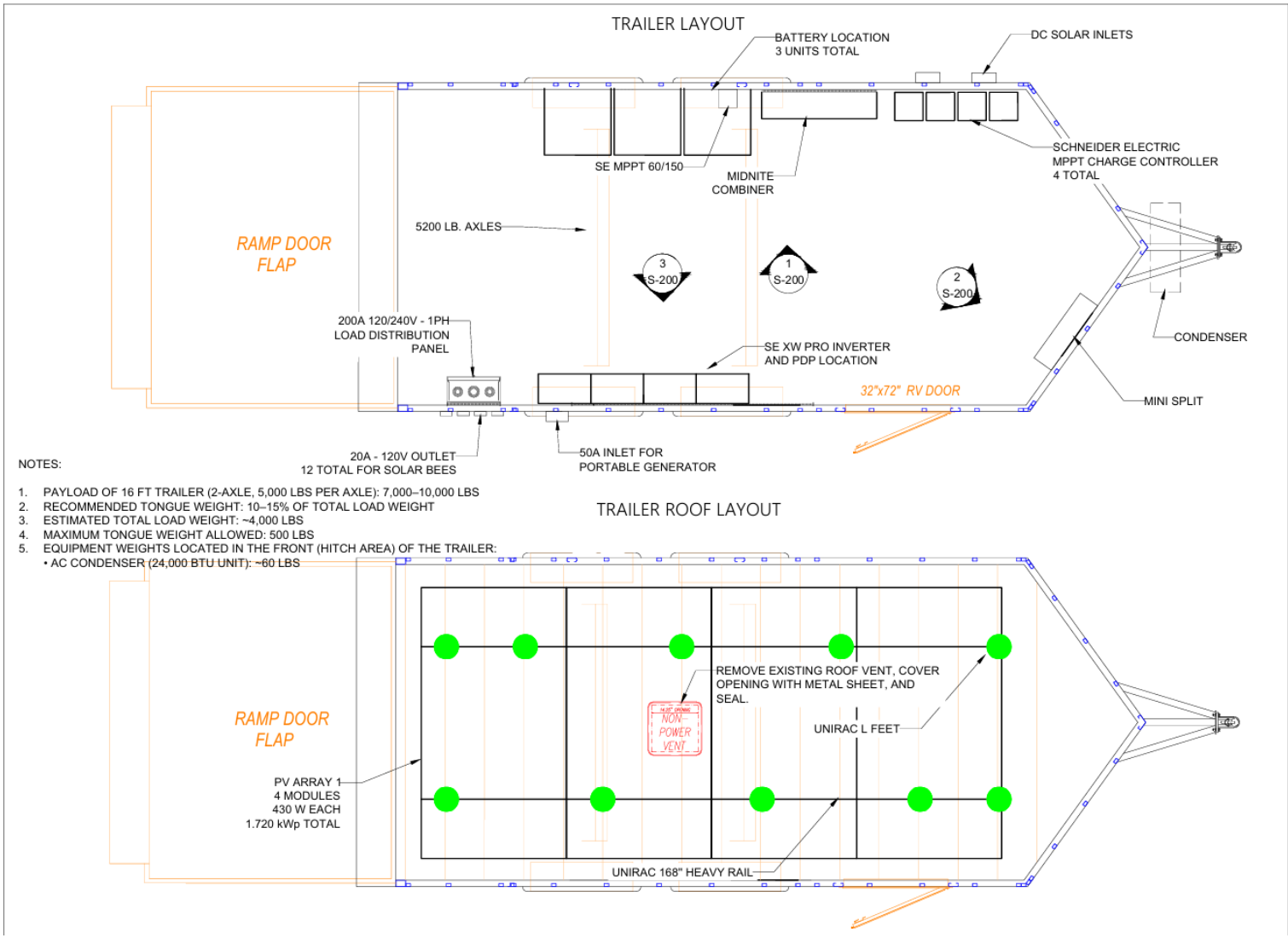
Breakdown	Details	Cost
Hive Microgrid Installation	Includes design, procurement, permitting, construction, and commissioning	$350,000
Bee Procurement	$50,000 per Bee, 10 procured total	$500,000
Program Costs	Includes first year of staff time, insurance, administrative fees, and initial activation logistics	$150,000
Total estimated budget		**$1,000,000**

These estimated project costs are based on financial estimates from 2022. These costs do not reflect the installation at the NET Charter High School: Gentilly.

APPENDIX B: Design and Schematics

Designs and schematics for the mobile solar trailer stationed at the school. (Credit: Solar Alternatives)




TRAILER LAYOUT
BATTERY LOCATION
3 UNITS TOTAL
DC SOLAR INLETS
SE MPPT 60/150
MIDNITE
COMBINER
SCHNEIDER ELECTRIC
MPPT CHARGE CONTROLLER
4 TOTAL
RAMP DOOR
FLAP
5200 LB. AXLES
3
S-200
1
S-200
2
S-200
200A 120/240V - 1PH
LOAD DISTRIBUTION
PANEL
SE XW PRO INVERTER
AND PDP LOCATION
CONDENSER
32"x72" RV DOOR
MINI SPLIT
20A - 120V OUTLET
12 TOTAL FOR SOLAR BEES
50A INLET FOR
PORTABLE GENERATOR
NOTES:
1. PAYLOAD OF 16 FT TRAILER (2-AXLE, 5,000 LBS PER AXLE): 7,000–10,000 LBS
2. RECOMMENDED TONGUE WEIGHT: 10–15% OF TOTAL LOAD WEIGHT
3. ESTIMATED TOTAL LOAD WEIGHT: ~4,000 LBS
4. MAXIMUM TONGUE WEIGHT ALLOWED: 500 LBS
5. EQUIPMENT WEIGHTS LOCATED IN THE FRONT (HITCH AREA) OF THE TRAILER:
• AC CONDENSER (24,000 BTU UNIT): ~60 LBS
TRAILER ROOF LAYOUT
RAMP DOOR
FLAP
REMOVE EXISTING ROOF VENT, COVER
OPENING WITH METAL SHEET, AND
SEAL.
NON-
POWER
VENT
UNIRAC L FEET
PV ARRAY 1
4 MODULES
430 W EACH
1.720 kWp TOTAL
UNIRAC 168" HEAVY RAIL
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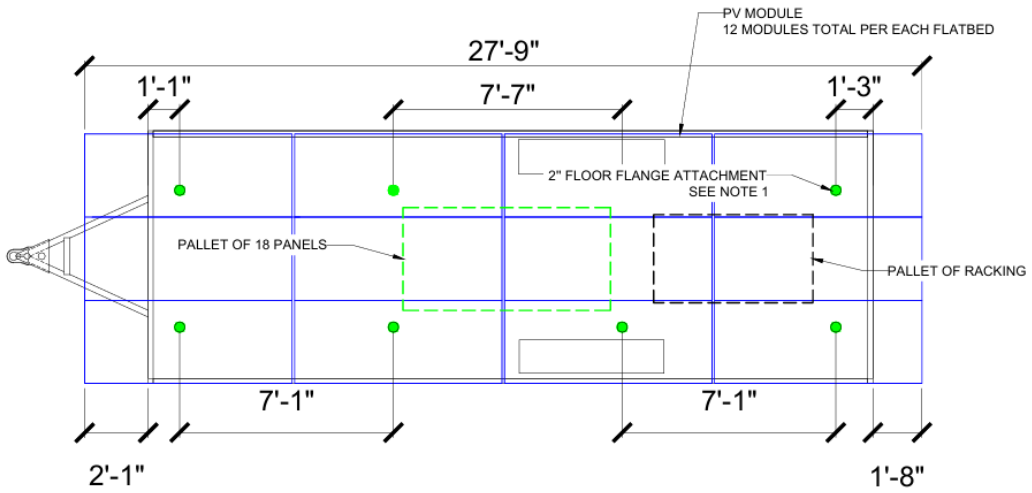
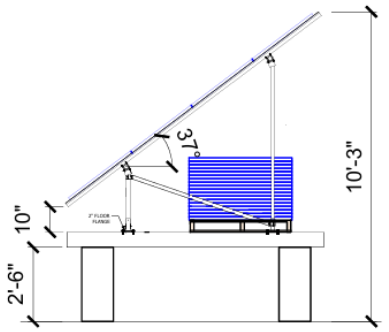
CERTIFICATION
DRAWN BY
JZ
REVIEWED BY
OM
APPROVED BY
OM
POWER PEAK IN MODULES:
43.0 kWp
POWER NOMINAL IN INVERTERS:
20.4 kWn
No. Description Date
1 INITIAL SET 12/03/2024
2 BATTERY MANUFACTURE 01/03/2025
3 LAYOUT CHANGE 01/24/2025
4 EQUIP. CHANGE 02/18/2025
5 EQUIP CALCS & LAYOUT 02/26/2025
6 QA/QC 02/28/2025
7 TRAILER OPTION 05/30/2025
8 QA/QC 06/16/2025
PROJECT:
BEEHIVE
PROJECT ADDRESS:
6601 FRANKLIN AVENUE, NEW
ORLEANS, LA 70122
CLIENT NAME:
GROUNDWORK NOLA
SHEET NAME :
EQUIPMENT ELEVATION - TRAILER
DETAILS
DATE:
JULY 23, 2025
SCALE
THE INDICATED
S-100

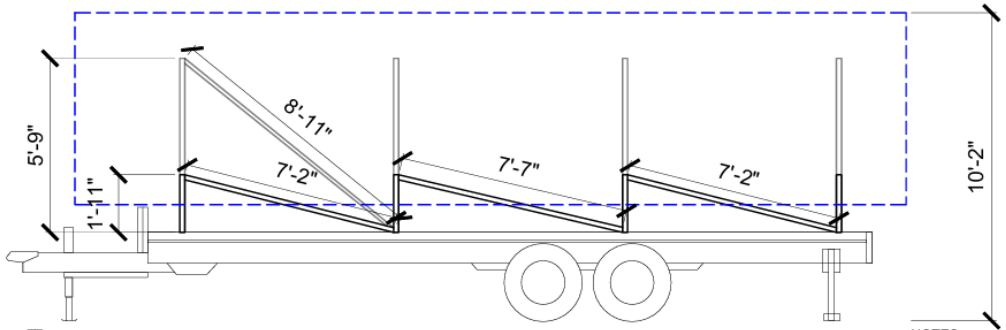
FLATBED LAYOUT



1 S-101 FLATBED TOP VIEW



2 S-102 FLATBED SIDE VIEW



3 S-101 FLATBED FRONT SIDE VIEW

NOTES:

1. INSTALL A STRUCTURAL ATTACHMENT FLANGE AT THE DECK TO SECURE THE PIPE. THE PIPE SHALL BE THREADED AT THE BOTTOM END AND AT ALL POINTS OF INTERSECTION WITH HORIZONTAL STRUCTURAL MEMBERS.

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JZ	OM	OM

POWER PEAK IN MODULES:
43.0 kWp

POWER NOMINAL IN INVERTERS:
20.4 kWn

No.	Description	Date
1	INITIAL SET	12/03/2024
2	BATTERY MANUFACTURE	01/03/2025
3	LAYOUT CHANGE	01/24/2025
4	EQUIP. CHANGE	02/18/2025
5	EQUIP CALCS & LAYOUT	02/26/2025
6	QA/QC	02/28/2025
7	TRAILER OPTION	05/30/2025
8	QA/QC	06/16/2025

PROJECT:
BEEHIVE

PROJECT ADDRESS:
6601 FRANKLIN AVENUE, NEW ORLEANS, LA 70122

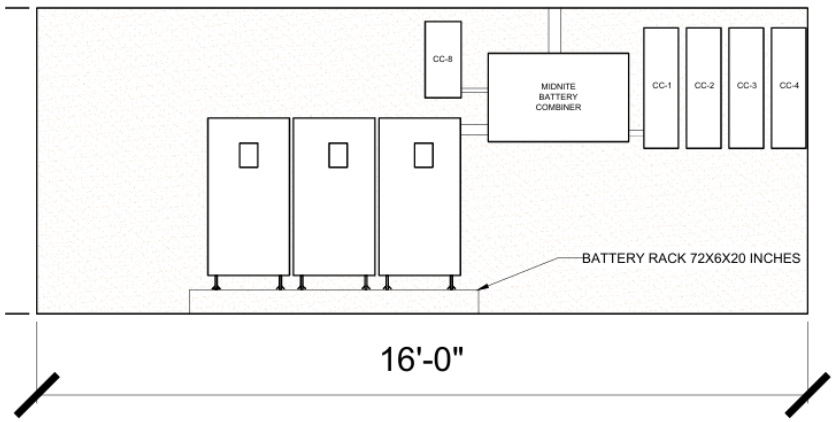
CLIENT NAME:
GROUNDWORK NOLA

SHEET NAME :
EQUIPMENT ELEVATION - FLATBED DETAILS

DATE:
JULY 23, 2025

SCALE
THE INDICATED

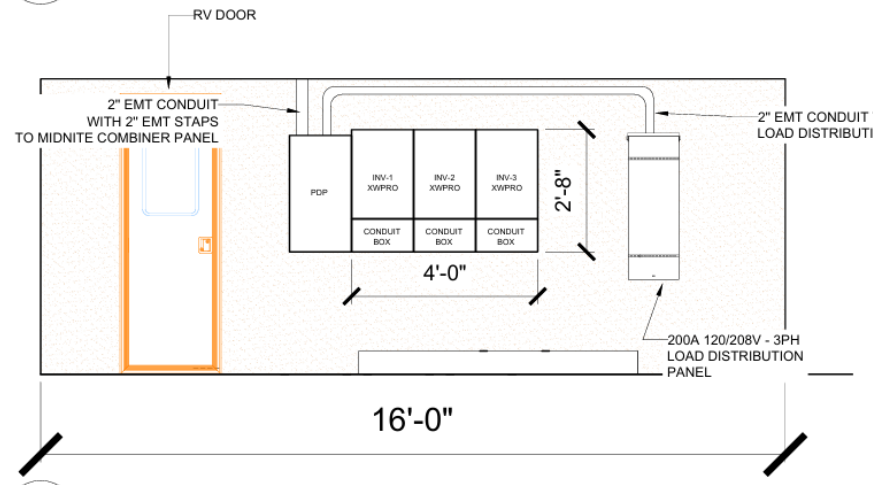
S-701



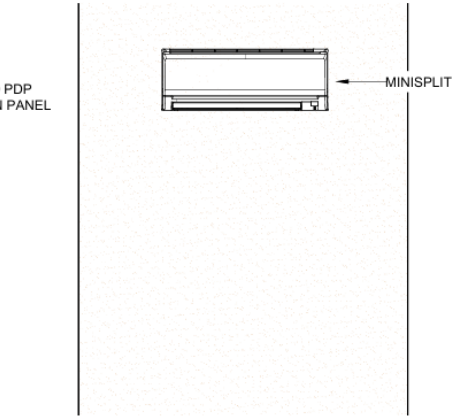
1 / S-200 EQUIPMENT TRAILER - LEFT SIDE VIEW

NOTES:

1. ALL EQUIPMENT SHALL BE MOUNTED USING UNISTRUT CHANNEL ATTACHED TO THE TRAILER METAL FRAME WITH THROUGH-BOLTS. BOLTS SHALL PENETRATE TO THE OUTSIDE, BE CUT FLUSH, AND SECURED WITH LOCK WASHERS. THIS DRAWING IS FOR REFERENCE ONLY — THIS MOUNTING METHOD IS REQUIRED FOR ALL EQUIPMENT.



3 / S-200 EQUIPMENT TRAILER - RIGHT SIDE VIEW



3 / S-200 EQUIPMENT TRAILER - FRONT SIDE VIEW

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8	QA/QC	06/16/2025

PROJECT:
BEEHIVE

PROJECT ADDRESS:
6601 FRANKLIN AVENUE, NEW ORLEANS, LA 70122

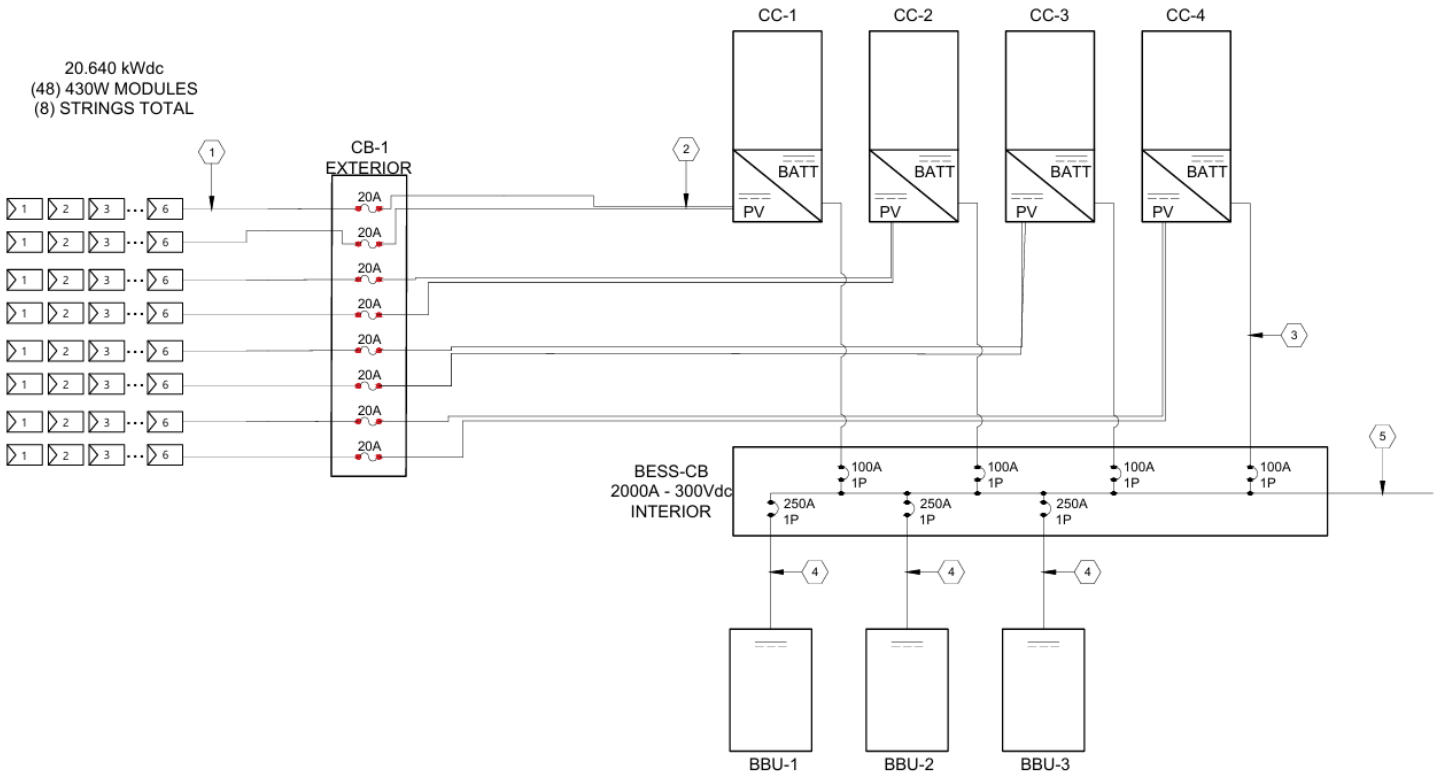
CLIENT NAME:
GROUNDWORK NOLA

SHEET NAME :
EQUIPMENT ELEVATION - CARGO TRAILER DETAILS

DATE:
JULY 23, 2025

SCALE
THE INDICATED

S-200



EQUIPMENT SCHEDULE		
LABEL	DESCRIPTION	SPECIFICATIONS
CC-1 TO CC-4	SCHNEIDER MPPT 80-600 CHARGE CONT.	4.8 kW 80A - 48V_{DC} - INDOOR RATED
BBU-1 TO BBU-3	FORTRESS POWER EVAULT 18.5	18.5 kWh - 48V_{DC} - INDOOR RATED
CB-1	CANTEX BOX OR INLET	
BESS-CB	MIDNITE BATTERY COMBINER	2000A - 300V_{DC} - INDOOR RATED

WIRE SCHEDULE											
	PHASE CONDUCTOR				NEUTRAL CONDUCTOR			GROUND CONDUCTOR			CONDUIT
TAG	PARALLEL SETS	QTY	SIZE	TYPE	QTY	SIZE	TYPE	QTY	SIZE	TYPE	SIZE
1	1	2	10 AWG	PV WIRE - 600V	NOT APPLICABLE			1	6 AWG	BARE Cu	1" CONDUIT
2	1	2	10 AWG	THHN, Cu	NOT APPLICABLE			1	10 AWG	THHN Cu	1" CONDUIT
3	1	2	3 AWG	THHN, Cu	NOT APPLICABLE			1	8 AWG	THHN, Cu	1" CONDUIT
4	1	2	4/0 AWG	THHN, Cu	NOT APPLICABLE			1	4 AWG	THHN, Cu	2" CONDUIT
5	3	2	4/0 AWG	THHN, Cu	NOT APPLICABLE			1	4 AWG	THHN, Cu	2" CONDUIT

SOLAR ALTERNATIVES
5804 RIVER OAKS RD S,
ELMWOOD, LA 70123
PHONE: 504-267-1660
LICENSE #50148
www.solalt.com

ENGINEERING CERTIFICATION

DRAWN BY	REVIEWED BY	APPROVED BY
JZ	OM	OM

POWER PEAK IN MODULES:
43.0 kWp
POWER NOMINAL IN INVERTERS:
20.4 kWn

No.	Description	Date
1	INITIAL SET	12/03/2024
2	BATTERY MANUFACTURE	01/03/2025
3	LAYOUT CHANGE	01/24/2025
4	EQUIP. CHANGE	02/18/2025
5	EQUIP CALCS & LAYOUT	02/26/2025
6	QA/QC	02/28/2025
7	TRAILER OPTION	05/30/2025
8	QA/QC	06/16/2025

PROJECT:
BEEHIVE

PROJECT ADDRESS:
6601 FRANKLIN AVENUE, NEW ORLEANS, LA 70122

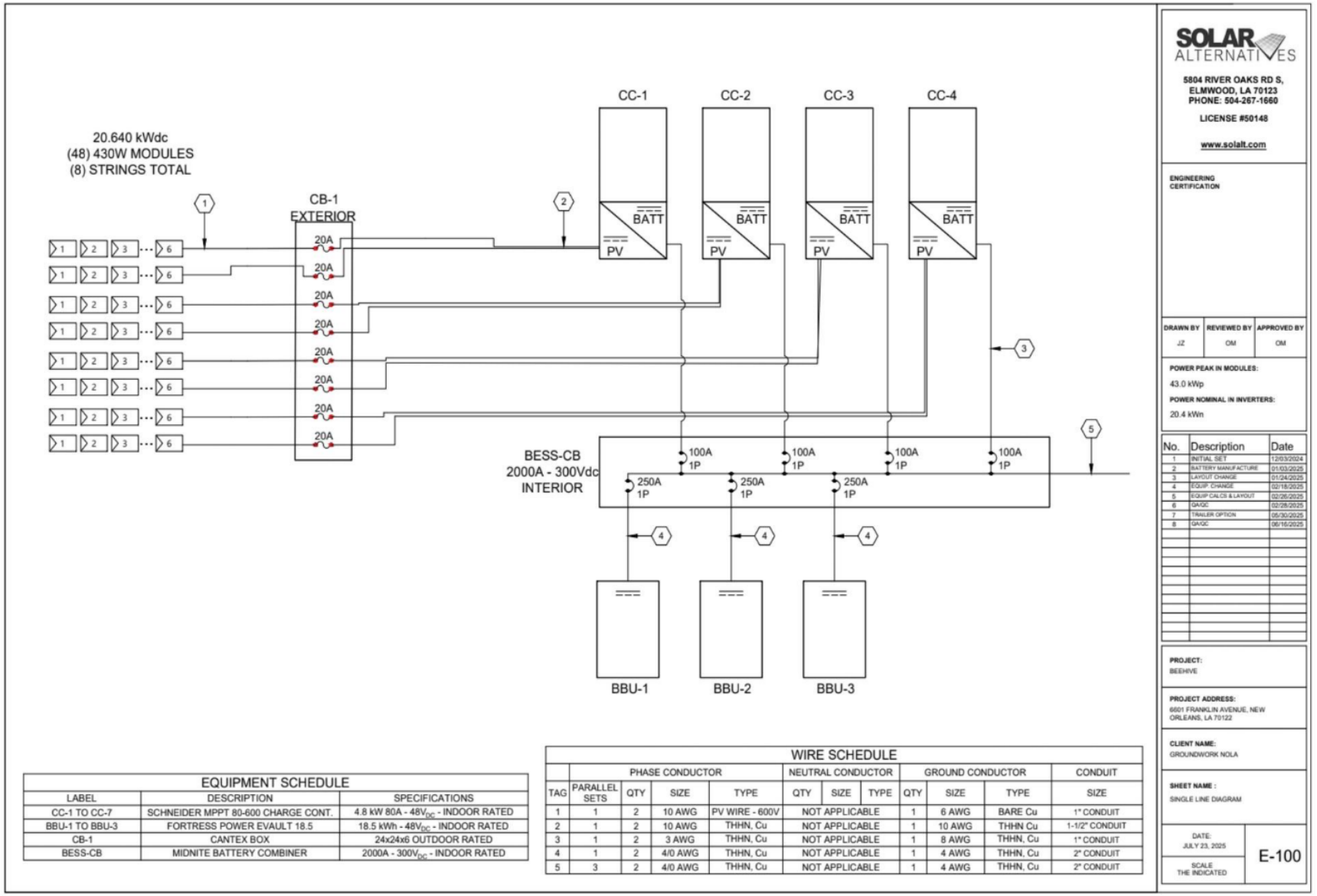
CLIENT NAME:
GROUNDWORK NOLA

SHEET NAME :
SINGLE LINE DIAGRAM

DATE:
JULY 23, 2025

SCALE
THE INDICATED

E-100



EQUIPMENT SCHEDULE		
LABEL	DESCRIPTION	SPECIFICATIONS
CC-1 TO CC-7	SCHNEIDER MPPT 80-600 CHARGE CONT.	4.8 kW 80A - 48V_{DC} - INDOOR RATED
BBU-1 TO BBU-3	FORTRESS POWER EVAULT 18.5	18.5 kWh - 48V_{DC} - INDOOR RATED
CB-1	CANTEX BOX	24x24x6 OUTDOOR RATED
BESS-CB	MIDNITE BATTERY COMBINER	2000A - 300V_{DC} - INDOOR RATED

WIRE SCHEDULE											
	PHASE CONDUCTOR				NEUTRAL CONDUCTOR			GROUND CONDUCTOR			CONDUIT
TAG	PARALLEL SETS	QTY	SIZE	TYPE	QTY	SIZE	TYPE	QTY	SIZE	TYPE	SIZE
1	1	2	10 AWG	PV WIRE - 600V	NOT APPLICABLE			1	6 AWG	BARE Cu	1" CONDUIT
2	1	2	10 AWG	THHN, Cu	NOT APPLICABLE			1	10 AWG	THHN Cu	1-1/2" CONDUIT
3	1	2	3 AWG	THHN, Cu	NOT APPLICABLE			1	8 AWG	THHN, Cu	1" CONDUIT
4	1	2	4/0 AWG	THHN, Cu	NOT APPLICABLE			1	4 AWG	THHN, Cu	2" CONDUIT
5	3	2	4/0 AWG	THHN, Cu	NOT APPLICABLE			1	4 AWG	THHN, Cu	2" CONDUIT

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