

Here Comes the Sun

July 2020

Here Comes the Sun

Community-First Solar

- GRU has reached an agreement with Origis Energy to add 50 megawatts of solar generation to our service area by December 2022.
- This will enable us to provide GRU customers with affordable solar power while taking the next steps toward meeting the City Commission's goal of 100 percent renewable by 2045.
- We will be able to add this solar generation without increasing rates.

Timeline

MAY 5, 2019

GRU issues an Invitation to Negotiate (ITN) for a turn-key solar plant.

JULY 25, 2019

GRU receives submissions.

NOV. 7, 2019

GRU presents to Utility Advisory Board.

NOV. 18, 2019

GRU solar workshop with City Commission.

July 25, 2019 - April 24, 2020

GRU evaluations and negotiation.

MAY and June 2020

GRU requests approval from UAB and CC.

Here Comes the Sun

GRU RENEWABLE CURRENT

- 26 MW of solar in current portfolio
- 103 MW biomass plant.
- Highest percentage of renewable energy in the state.

GRU RENEWABLE FUTURE

- GRU solar power purchase agreement (PPA) will be more affordable than rooftop solar.
- GRU solar will benefit all customers, including low-income.
- GRU on path toward 100% renewable by 2045.

Invitation to Negotiate (ITN) Process

- GRU's team consisted of technical professionals representing all parts of the electric utility, GRU procurement, and the utility attorney.
- Engaged outside attorney with extensive experience in solar and renewable energy power purchase agreements (PPAs).
- Specified the ITN to address GRU's technical and commercial goals.
- Crafted ITN to ensure competitive pricing from experienced and qualified solar firms.

ITN Results

- Broadcast to 390 potential vendors. Received proposals from 6 Vendors.
- Evaluated proposals and shortlisted three vendors based on applicable criteria (cost and qualifications).
- Issued request for improved offer with supplemental conditions.
- Hosted on-site interviews with three bidders.
- Conducted on-site and virtual negotiations; selected the preferred vendor based on price, commercial terms, and technical aspects.

Transition from ITN to Contract

- Successfully negotiated contract with Miami-based Origis Energy.
- Contract will be with Origis' subsidiary, *FL Solar 6, LLC*.
- Contract modeled after existing solar PPAs.
- Addresses GRU's technical and commercial goals.

Technical Goals & Results

GRU GOAL Solar intermittency and ramp rate control.

RESULT Battery system (12 MW/24 MWh) incorporated to limit ramp rate within specified limits. This will be among the largest batteries in Florida.

GRU GOAL Need to balance solar with other GRU assets.

RESULT Limited size to 50 MW to work with existing generation fleet capabilities.

GRU GOAL Need to curtail (limit) PV system output.

RESULT Ability to curtail for emergency and operational needs (e.g., mornings during times of low load).

Technical Goals & Results

GRU GOAL Connect system internally to GRU's transmission grid to minimize impact on power imports and avoid transmission costs.

RESULT Will tie internally to GRU's transmission system (Parker Road substation)

GRU GOAL Minimize GRU's exposure to project development risks such as land acquisition, permitting, and construction.

RESULT Seller assumes all of these development risks.

Commercial Goals & Results

GRU GOAL No upward rate pressure.

RESULT Cost is less than GRU's average cost of power with no escalation over the 20-year contract term.

GRU GOAL Minimum of 20-year term of agreement and ability to purchase facilities.

RESULT 20-year contract with option for two additional five-year terms at a price negotiated at those times. GRU may purchase the facility at years 8, 12, and 16, and at change in control.

Commercial Goals & Results

GRU GOAL Community commitment and environmental stewardship.

RESULT Environment and community requirements met (later slide).

GRU GOAL As large as possible without creating technical challenges.

RESULT 50 MW capacity.

Commercial Goals & Results

GRU GOAL GRU retains all green attributes.

RESULT GRU will own all green environmental attributes (renewable energy credits).

GRU GOAL Project completion as soon as practical.

RESULT Project completion goal of 12/31/2022, but no later than 12/31/2023.

Commercial Goals & Results

GRU GOAL Find vendor with a demonstrated history of developing, constructing, and operating solar facilities, and that also intends to own and operate this project over the long term.

RESULT Selected vendor has an established history and intends to be the long-term owner and operator.

GRU GOAL Minimum cost associated with GRU's point of interconnection (POI) to solar integration.

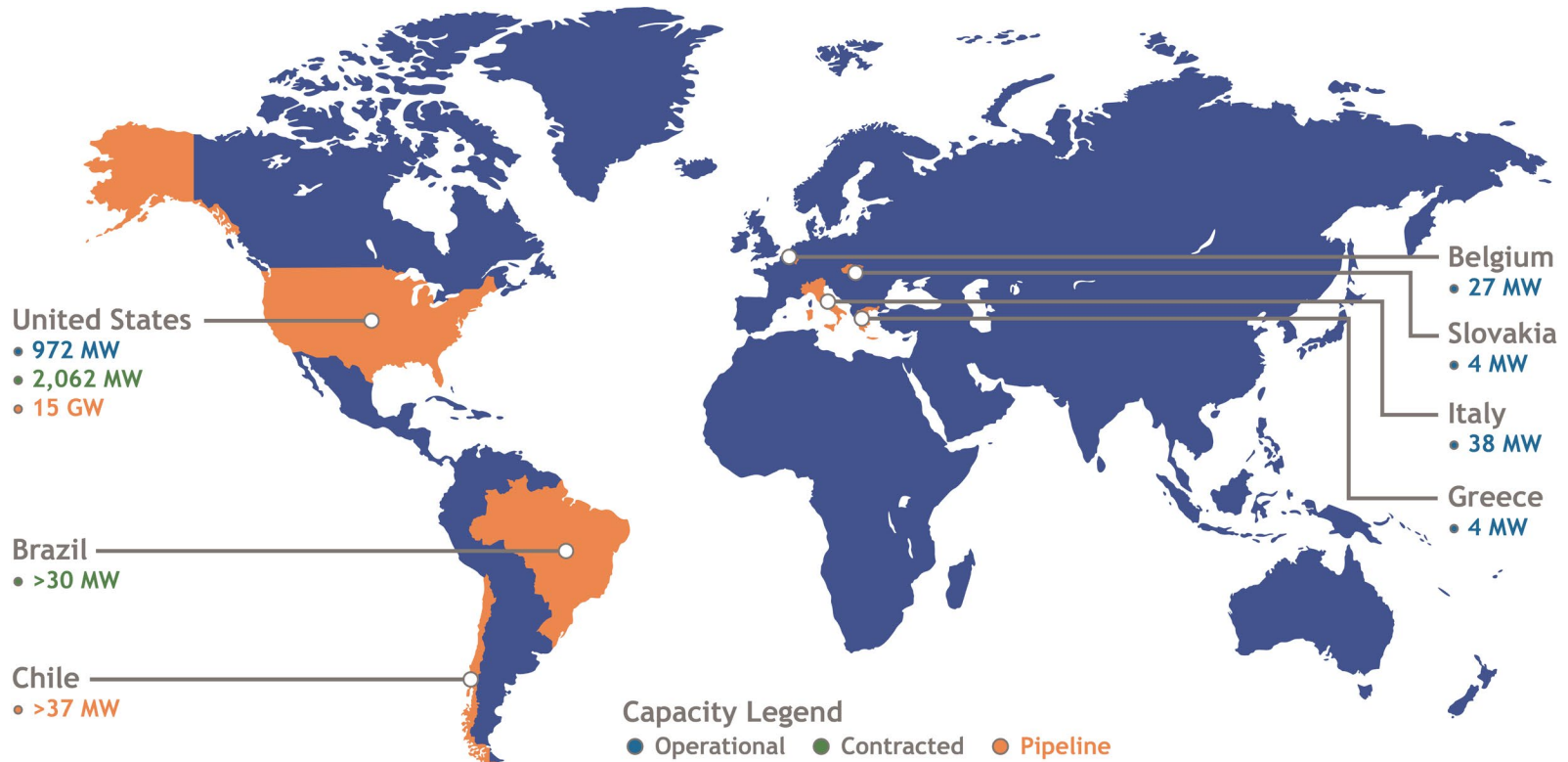
RESULT GRU estimated cost for POI would be \$1M with a project duration of 60 weeks.

About Origis Energy



Origis Energy

- **Headquartered in Miami.**
- **1 GW of capacity in operation worldwide.**



Origis

Project will connect to GRUs Parker Road Substation.



50 MW_{AC}

Photovoltaic Solar Facility



12 MW

Energy Storage Facility

Site Location:

13-miles southwest of
Gainesville, in Alachua County

Components

150,000+

Tier 1 First Solar Series
6 Thin Film Panels

Single-axis

Tracking systems

18

2.5 MW_{AC} Inverters

34.5 / 138kV

Generator Step-up
Transformer

Origis



~124,000 MWh

Yearly Energy Yield

~63,000

Tons of Avoided Carbon Emissions

~10,000

Homes Powered

Construction

May 2021

Start of
Construction

December 2022

Commercial Operation

Origis Technics

Prime Contractor

223 Estimated

Peak Construction
Crew

Environmental and Community Attributes

- Web interface for display of facility production.
- Ongoing collaboration with GRU to explore and participate in community outreach.
- Commitment to donation to GRU Brighter Tomorrow scholarship program.
- Use of natural flowering groundcover to encourage pollinators, and use of sheep to reduce use of mowing and herbicides.
- Construction of an access road, elevated viewing area, and educational placards at the site for use of educators, families, and the general public to learn about solar photovoltaic energy and battery energy storage systems.

Renewable Energy In Gainesville, 2023

79.1 MW of Solar

- 50 MW Solar PPA
- 18.5 MW Solar Feed-in-Tariff projects
- 11 MW (projected) from 677 net-metered customers *

106.6 MW Other Generation

- 103 MW of biomass-fueled power
- 3.6 MW of landfill gas-fueled power

Total of 185.7 MW of Renewable Generation

* GRU Ten-Year Site Plan projection

Sun, Sun, Sun ... Here it Comes

LEADERSHIP IN RENEWABLES

GRU is furthering its leadership as having the highest percentage of renewable energy in Florida.

SOLAR FOR ALL

With a 50 MW turn-key solar plant, GRU can provide solar to *all* customers without upward rate pressure.

LONG-RANGE GOALS

This is the next step in a long journey toward 100% renewable by 2045.



Frequently Asked Questions

Solar PPA FAQs

Would a solar facility increase electric rates?

- No. The cost of the solar power is less than GRU's average cost of power.

How is this PPA different than the biomass contract?

- GRU will not have fixed payments
- GRU will have the ability to curtail output year-round
- GRU will have options to purchase the solar facilities at years 8, 12 and 16
- Very competitive price

Solar PPA FAQs

Why doesn't GRU just build the facility itself?

- Significant tax credits are available to income tax-paying developers which are not available to GRU. However, these tax credits reduce the cost of the facility, which in turn reduces the solar energy cost to GRU.

We're adding solar, but down the road why will we also need to add fast-response generation?

- GRU must match generation with demand at all times.
- Solar is extremely variable based on the weather.
- Fast-response generation such as natural gas-powered engines will maintain reliability and fill in solar gaps.

Solar PPA FAQs

What happens next?

- Origis Energy has secured the land rights for the project site and will begin preliminary site layout
- Origis Energy will apply for all required permits and approvals from Alachua County, FAA, etc. (approximate one-year approval process anticipated)
- Origis Energy will apply for an interconnection agreement with GRU

Solar PPA FAQs

What happens next?

- GRU will conduct interconnection studies, minor construction at the Parker Rd. Substation to facilitate the receipt of power on its side of the point of interconnection, and for conveyance of land rights for associated equipment.
- Origis will be responsible for design and construction of the grid tie up to the point of interconnection at GRU's Parker Rd Substation.



Questions?

Recommendation

1. The City Commission authorize the General Manager or his designee to execute a Power Purchase Agreement and other agreements as required for 50 MW of solar power for a term of 20 years with FL Solar 6, LLC, in general agreement with the draft contract dated April 27, 2020 subject to approval by the City Attorney as to form and legality.

The End