

**Russo Tumulty Nester  
Thompson & Kelly, LLP  
1099 Mt. Kemble Avenue, Suite B  
Morristown, NJ 07960  
Tel.: (973) 915-3500  
Email: hthompson@russotumulty.com  
Attorneys for Petitioner Citrine Power LLC**

	:	<b>Docket No. QO19091124</b>
<b>In the Matter of the Verified Petition of</b>	:	<b>and</b>
<b>CITRINE POWER LLC</b>	:	<b>Docket No. QO18060646 et al.</b>
	:	
<b>Seeking Board Authorization to Increase</b>	:	<b>PETITION FOR RELIEF</b>
<b>Solar Energy Project Size for a Board-</b>	:	<b>APPROVING AN INCREASE</b>
<b>Approved Solar Energy Project in the</b>	:	<b>IN SYSTEM SIZE FOR COMMUNITY</b>
<b>Community Solar Energy Pilot Program</b>	:	<b>SOLAR ENERGY PROJECT</b>

Citrine Power LLC, hereinafter sometimes “Petitioner” or “Citrine,” says in support of the within petition:

1. On September 6, 2019, Citrine submitted its application (the “Application”) to have its 1.159 MWDC solar canopy project on the grounds of the Blue Army Shrine in Franklin, New Jersey (the “Project”) approved under New Jersey’s Community Solar Energy Pilot Program.<sup>1</sup>
2. The Project is located in the service territory of Jersey Central Power & Light Company (“JCP&L”).
3. The Petitioner is committed to bringing the benefits of a community solar project to low and medium income communities in Warren County and adjacent counties, and to that end has the full support of its landlord, the Blue Army Shrine which has diligently co-developed the Project with Citrine and is looking forward to the Project’s completion.
4. As set forth in the Application, the Project will be built as a canopy project over existing parking lots, which will also provide a pavilion for visitors to the Blue Army Shrine. At least 51% of the Project load will serve low and moderate income electricity customers in Warren County and surrounding counties served by JCP&L.
5. On December 19, 2020, the New Jersey Board of Public Utilities (the “Board”) granted conditional approval to 45 proposed solar energy projects including the Project. (See Board Order for Item 8.D. – Docket No. QO18060646 et al.).

<sup>1</sup> Inasmuch as the Application is in the Board’s records and includes confidential materials, the Application is not submitted with the Petition as an exhibit, but can be readily supplied.

6. While the parking lots at the Blue Army Shrine had and have significantly more square footage available for erecting larger canopies, the Project was sized at 1.159 MW DC/850 kW AC due to the fact that the host capacity maps of JCP&L that the BPU suggested to refer to as part of the pilot application process reflected that a local distribution line could accommodate the Project at that size. (Page 8 of Citrine's Application confirms the Project canopies will be over less than 1.8 acres of a 23.1 acre site).
7. Specifically, JCP&L's map showed a 4.8 kV feeder with 862 kW AC capacity.
8. The interconnection costs for the Project were viewed to be for new service in the order of \$0.10 cents/watt as a maximum cost, as Citrine estimated in its application at +/- \$116,450. (See Attachment 6 to the Application).
9. Having received conditional approval from the Board, Citrine submitted a Level 2 Interconnection Application to JCP&L with a payment of \$900.00 on January 17, 2020.
10. On February 12, 2020, Petitioner submitted permit packages to Franklin Township, Warren County and the Warren County Soil Conservation District for the Project. As of the date of the Petition, Petitioner has already received conditional approval from Warren County and soil erosion permits and is awaiting the Township permits that are on hold due to the coronavirus-19 pandemic.
11. In late February 2020, JCP&L issued its Solar Generation Interconnection Combined Feasibility/System Impact Study which advised that its 4.8 kV feeder (the Washington 24571 circuit) could not handle the Project as proposed and that, for \$25,000 in costs, the maximum size on the circuit was 450 kW AC – essentially half of what had been proposed by Citrine based on JCP&L's hosting capacity map and approved by the Board. (JCP&L's February 2020 Study is provided with this Petition as Exhibit A).
12. JCP&L's February 2020 Study noted an alternative whereby the Project could interconnect to the "nearby 12.5kV circuit Broadway 27635" with significant modifications required to the JCP&L system costing \$590,000 for 12.5 kV conversion plus an additional \$25,000 for primary metering, with Citrine responsible for the cost. JCP&L stated that circuit can host a much larger Project if Citrine wanted to expand the Project size.
13. Citrine asked JCP&L for further and in depth analysis on the original circuit to see if JCP&L can accommodate the original Project size on the 4.8 kV feeder by taking smart inverter settings into account, which typically solves for the issues brought up by JCP&L in these types of projects, as evidenced by e-mails exchanged with JCP&L in late February and early March 2020. (See e-mails attached as Exhibit B).
14. Further analysis by JCP&L as a result of Citrine's request above resulted in JCP&L issuing a revised Solar Generation Interconnection Combined Feasibility/System Impact Study on April 10, 2020 for an 850 kW AC system. (JCP&L's April 2020 Study and the e-mail communications are provided with Petition as Exhibit C). This revised study advised Citrine that upon further analysis JCP&L concluded that there was in fact NO capacity in



the 4.8 kV feeder and in order to accommodate even half of the original size, the cost of interconnection cost would now have to jump from an estimate \$25,000 to an estimate of \$149,000 with a system size half as originally planned.

15. In the same revised April study, JCP&L maintained its position to Citrine that on the 12.5 kV circuit JCP&L can easily accommodate a much larger system, with an estimated cost of \$590,000 which needed to be detailed with an onsite analysis. A larger sized Project is needed to carry such a level of interconnection costs.
16. While JCP&L and Citrine continue to interact about refining the \$590,000 in costs – with Citrine having been advised that the cost could be +/- 25% from said amount, the higher costs (on a magnitude of 4x) are not feasible without a larger sized Project. Carports are more expensive to build due to the steel content and they need scale to be feasible by spreading the fixed costs of development.
17. As noted above, the Blue Army Shrine has existing parking lot space that can be used for more canopies if the Project size is increased. The existing size was selected to fit on JCP&L's smaller feeder adjacent to the canopies and parking lot.
18. Petitioner respectfully submits that if the Board permits the Project to be increased in size to 2 MW DC/1.5 MC AC, the Project is economically feasible and will be able to serve a larger low and medium income customer base.
19. Citrine respectfully requests to increase the approved community solar size from 1.159 MW DC/850 kW AC to 2.00 MW DC/1.47 kW AC. Petitioner, recognizing a size increase will be considered a material change in the context of the program, requests the Board's approval for said increase in the Project's size under the Community Solar Energy Pilot Program.
20. Petitioner respectfully notes that, when submitting to the Pilot, it sized the Project based on the utility capacity maps that the applicants were directed to use, which were inaccurate and misleading. Petitioner selected the most convenient and what was perceived to be the most economical point of interconnection based on utility capacity maps; i.e. the 4.8 kV feeder. Post-approval by the Board of the Project for the community solar program, JCP&L determined that the feeder is not available for interconnection by the Project.
21. Continuing dialogue with the utility from February through May 2020 has resulted in the utility providing a more detailed (but still incomplete) analysis regarding the 12.5 kV circuit's upgrade costs. The utility's analysis confirms that larger capacity is available on this circuit and, therefore, Petitioner now has been able to confirm that a larger solar generating system would be feasible.
22. Petitioner respectfully submits that the 5-month timeline (i.e. December 2019 to May 2020) in determining what interconnection is feasible would be a sufficient reason, in itself, for an extension of construction start and completion deadlines noted in the Community Solar Energy Pilot Program.

23. In the case of the Project's need for an extension and approval of an increased size, Petitioner notes that the revised feasibility report from JCP&L was only received on April 10, 2020 and that, since approval by the Board of the Project, the Petitioner has worked diligently to apply and obtain non-ministerial permits from Warren County and Franklin Township. But the upshot of the revised feasibility report is that the Project needs to be increased in size to shoulder increased interconnection costs.
24. After dialogue with the utility (which has just made it clear what the feasible path forward is), knowing what a permit and construction timeline will be, Petitioner is proactively making this Petition five (5) months after the Board's conditional approval of the Project.
25. In short, Petitioner has worked through the technical/administrative side with the utility to try to reach a workable solution for the Project to proceed. But the solution that works economically for the Project is to increase the system size. Such a solution needs Board approval.
26. Petitioner commits to promptly revising any necessary permit applications if the Board approves the increased size of the Project, but Petitioner needs approval now to lock in the benefits and financial certainty currently provided by federal investment tax credits and the Board's TREC program.
27. Petitioner has the support of the Blue Army Shrine for the expanded Project size. (See Exhibit D – Blue Army Shrine letter of support).
28. In support of the relief sought in this Petition, Petitioner respectfully notes that the Energy Master Plan, Section 4, calls for New Jersey to be served 100% by clean energy sources by 2050. Accordingly, authorizing the increase in size for the Project under the Community Solar Energy Pilot Program is in line with this public policy goal.
29. Further, Petitioner respectfully submits that it is unlikely that every project approved in Round 1 of Community Solar Energy Pilot Program will be completed and/or completed at the full approved MW. Hence, the requested increase in size for Citrine's Project should not have a material impact on the overall size of the Pilot Program.
30. In addition, permitting the Project's size to increase by 841 kW DC/ 620 kW AC from 1.159 MW DC/850 AC will have essentially no impact on the solar market inasmuch as the size increase is minimal in the New Jersey solar marketplace.
31. Finally, the alternative to relief is having the Project to either not go forward or go forward with a much reduced size with a substantially increased interconnection cost that will cannibalize the savings that can be passed on to end users, despite its commitment to serving low and moderate income customers via one of the first community solar pilot projects in NJ and being a solar generating project that uses a set of canopies/carports – a favored type of solar project (as seen under the solar project factors set out in the Board's December 6, 2019 order for the TREC program).



32. In sum, Petitioner submits that the unique scenario provides the basis for the Board to amend its Order and permit Petitioner to increase the Project size under the Community Solar Energy Pilot Program. This will allow Petitioner to proceed with an economically feasible solar generating facility that will serve low and moderate income customers, as intended when the Board originally approved the Project.

**WHEREFORE, for all the reasons set forth herein, Petitioner respectfully requests that the Board approve this Petition and issue an Order: (A) modifying its December 19, 2020 Order for the Project (Docket No. QO19091124), permitting Petitioner to increase the Project's size to 2 MW DC under the Community Solar Energy Pilot Program; and (B) given the 5-month delay on a clear and feasible interconnection path, granting a five month extension from the Board's issuance of an Order for the 6-month and 12-month deadlines noted in the application form for the Community Solar Energy Pilot Program for the Project to: (i) commence construction and (ii) become fully operational.**

**RUSSO TUMULTY NESTER  
THOMPSON & KELLY, LLP  
Attorneys for Petitioner**

BY: 

Howard O. Thompson, Esq.

Dated: May 18, 2020

**VERIFICATION**

CELA SINAY-BERNIE, of full age, being duly sworn according to law, upon her oath deposes and says in support of the within Petition:

1. I am the Managing Partner of CITRINE POWER, LLC, the Petitioner, and I am fully familiar with the facts set forth herein and the relief being sought.
2. The information and the Exhibits presented herein with respect to the Petitioner and the Project are true.
3. It is my belief that the relief sought is in the public interest.

I am aware if any statement herein is willfully false, I may be subject to punishment.



---

CELA SINAY-BERNIE



**EXHIBIT A**

**TO**

**CITRINE POWER, LLC**

**PETITION FOR RELIEF**

**Docket No. QO19091124**

# Jersey Central Power & Light

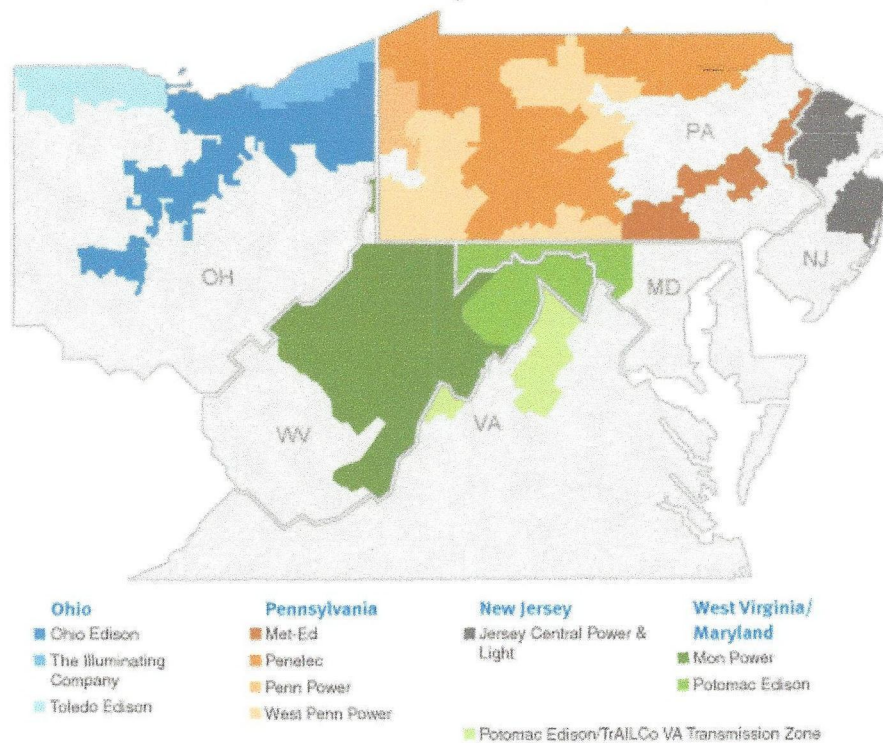
A FirstEnergy Company

## *Solar Generation Interconnection Combined Feasibility/System Impact Study Report*

Customer: CP Franklin Solar, LLC

Site Location: 674 Mountainview Road, Washington-NJ-07882

February 2020



Prepared by Vincent Scaramia, JCP&L Regional Engineering



## **Feasibility/Impact Study Report For CP Franklin Solar LLC.**

### **Introduction**

This study is for the proposed addition of 850 KW Inverter based solar generation near Blue Army Our Lady of Fatima 674 Mountain View Road- Washington-NJ. The site is on JCP&L 4.8kV delta circuit 24571, fed from Washington Substation.

### **Scope**

The study scope is to identify any facility modifications needed to accommodate the installation of 850 KW generation at the point of interconnection (POI) described above. JCP&L modeled the proposed 850KW generation's effect on the Washington 24571 circuit. The models were run using peak load with peak generation output and light load with peak generation output. The result of these scenarios was that the addition of an 850KW solar field would cause unacceptable voltage swing on the distribution circuit which would be objectionable to existing customers in the area. Voltage swings in excess of 13% were predicted by the circuit model. This voltage swing far exceeding the acceptable limits set forth by the Flicker Tolerance Curve. In addition, the mainline fusing changes required to coordinate with an 850kW generation load at the POI would cause a degradation of service reliability for some customers in the area. Therefore, the proposed 850 kW PV system connected to the JCP&L distribution circuit at this location is not acceptable.

### **Option 1: Reduce system size to 450kWAC and remain on the Washington 24571**

Iterative models were run to determine the maximum system size that could exist at the POI desired without causing serious impacts to customer service quality and reliability. Modeling was completed by varying parameters such as load, temperature, time of year, etc. to simulate the effects the generation site could have on the circuit. Due to the location of the proposed site, and the existing circuit configuration the largest solar site that could be accommodated at this location on the Washington 24571 circuit is a 450kW AC system. Voltage variations as predicted by the system model were within acceptable ranges, and connection at this system size can be made with the required work scope shown below.

#### **Work requirements:**

Replace capacitor controls at NJ1248WA. Estimated cost of \$6,000. Plus \$25,000 for the required primary metering costs, SCADA tie-in, and commissioning.

### **Option 2: Interconnect with nearby 12.5kV circuit Broadway 27635**

In order to maintain the desired system size, the customer could choose to interconnect with the nearby 12.5kV circuit out of the Broadway substation. This circuit can support connection of an 850 kW PV system, however there will be significant modifications required to the JCP&L system.

#### **Work Requirements:**

JCP&L would need to relocate a 500 kVA overhead step-transformer installation from pole NJ109WA to NJ101WA, convert 8200 feet of circuit from 4.8 kV to 12.47 kV operation, and

extend 3-phase primary 1200 feet to the proposed interconnection site. The customer would be responsible for obtaining all necessary easements associated with the conversion. The estimated cost is \$590,000 for 12.5kV conversion plus an additional \$25,000 in primary metering costs, SCADA tie-in, and commissioning.

### **Option 3: Interconnect with nearby 34.5kV sub transmission circuit**

In order to maintain the desired system size, the customer could choose to interconnect with the nearby 34.5kV circuit out of the Broadway substation. This circuit has DG capacity and can handle the generation load, however there will be significant modifications required to make the connection.

#### **Work Requirements:**

Install (3) switches (load-break air switches with SCADA control) to interconnect CP Franklin Solar, LLC project on the JCP&L U723 or W23 34.5 kV line. Direct connection costs also include approximately 8500' of 34.5 kV line extension, pole mounted transmission metering, SCADA tie-in and site commissioning. Estimated cost of \$2,078,000.

Should this option be chosen a more in-depth voltage study would need to be performed by the transmission planning group to determine any effects to reliability.

#### **At Solar Facility:**

Distributed Solar Generation must not interfere with the proper detection and clearing of faults on the JCP&L/FE distribution or transmission system.

Distributed generation must not interfere or degrade the quality of service to any other JCP&L/FE customers (service voltage, voltage flicker, harmonics, service reliability etc.)

The connected facility shall comply with harmonic voltage and current limits specified in IEEE Standard 519-1992, "IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems".

#### **Anti-Island Protection**

The proposed generation facility must be equipped with adequate relay protection to detect an island condition and disconnect from the JCP&L/FE distribution system within two seconds of the formation of an island (per IEEE 1547).

#### **Power Factor**

The Generation Interconnection Customer shall design its Customer Facility to maintain a composite power delivery at continuous rated power output at a power factor of at least 0.95 leading to 0.90 lagging measured at the Point of Interconnection.

#### **Metering and Communications**



The existing JCP&L/FE billing meter will be replaced by JCP&L/FE with a bi-directional revenue meter and the metering current transformers will be replaced with different capacity units if needed. The bi-directional meter will record billing data in intervals of 15 or 30 minutes as required. JCP&L/FE will provide the customer with revenue meter KWH and KVARH pulse outputs if requested. JCP&L/FE shall provide the communication link required by the FE billing data collection system for access to the meter. All costs incurred by JCP&L/FE associated with the meter upgrades shall be the responsibility of the IC. Please see Attachment 3 for meter requirements.

**Additional requirements:**

- IC must meet all applicable JCP&L/FE standards and requirements which are included in the current JCP&L Tariff for Electric Service.
- IC's main breaker shall have a SEL 351 Multi-function relay (or equivalent) which is required for interconnection protection. This relay must have the capability to measure Reverse Power.
- All breakers, lightning protection etc. should meet JCP&L/FE's minimum BIL Ratings.
- IC must meet applicable "Technical Requirements for the Interconnection of Parallel Operated Generation to the JCP&L/FE Distribution System".  
<https://www.firstenergycorp.com/content/dam/feconnect/files/wholesale/DG-Tech-Requirements.pdf>
- IC is required to execute a retail service agreement to account for the generation and for times, on an hourly basis, when power is supplied by JCP&L/FE.  
A Federal Income Tax Gross Up charge of 16% has not been included in the amount above. This tax may or may not be charged based on whether or not this project meets the eligibility requirements of IRS Notice 88-129. The cost estimate includes the following:
  - All JCP&L costs are not subject to refundable provisions of the NJ-BPU approved JCP&L Tariff for Service
  - Note - This is an estimate based on similar work orders previously worked by JCP&L for the types of work described in the analysis above. It is accurate to within plus or minus 25 percent. Should the customer want to proceed with the connection of this facility, a contract with JCP&L will be developed based on these costs and a true-up of actual charges will be made at the completion of the project.

**EXHIBIT B**

**TO**

**CITRINE POWER, LLC**

**PETITION FOR RELIEF**

**Docket No. QO19091124**



**Subject:** Re: Franklin NJ - Community Interconnection  
**Date:** Monday, March 30, 2020 at 1:43:38 PM Eastern Daylight Time  
**From:** Cela Sinay-Bernie  
**To:** Scaramia, Vincent J  
**CC:** Faisal Sadrulah, Douglas Bagwill, Tobia, James S, Richards, Don  
**Attachments:** image001.png, image002.jpg, image003.png, image004.jpg, image005.png

Thanks Vincent – we appreciate JCPL's commitment to work on this. When would you expect us to submit this payment ? Now or should we wait until after the Thursday meeting?

Cela

---

**From:** "Scaramia, Vincent J" <vscaramia@firstenergycorp.com>  
**Date:** Monday, March 30, 2020 at 1:24 PM  
**To:** Cela Sinay-Bernie <cela@citrinepower.com>  
**Cc:** Faisal Sadrulah <fsadrulah@PfisterEnergy.com>, Douglas Bagwill <dbagwill@PfisterEnergy.com>, "Tobia, James S" <jtobia@firstenergycorp.com>, "Richards, Don" <drichards@firstenergycorp.com>  
**Subject:** RE: Franklin NJ - Community Interconnection

Cela,

I wanted to provide you an update on our progress. We are meeting this Thursday afternoon to discuss the updated functioning models and determine what system size can be accommodated on our circuit at your proposed location. Due to the extra work involved in analyzing this project JCP&L will need to collect an additional \$10,000 design fee to cover engineering costs.

I will continue to keep you updated as our analysis progresses.

Thank you,

Vincent

---

**From:** Cela Sinay-Bernie <cela@citrinepower.com>  
**Sent:** Thursday, March 26, 2020 2:16 PM  
**To:** Richards, Don <drichards@firstenergycorp.com>; Scaramia, Vincent J <vscaramia@firstenergycorp.com>  
**Cc:** Faisal Sadrulah <fsadrulah@PfisterEnergy.com>; Douglas Bagwill <dbagwill@PfisterEnergy.com>; Tobia, James S <jtobia@firstenergycorp.com>  
**Subject:** [EXTERNAL] Re: Franklin NJ - Community Interconnection

Dear JCPL Team:

Hope everyone is safe and healthy. We have been checking in with Vincent who has been diligently working on to see if the project can be adequately accommodated pending certain minimum upgrades. Given the circumstances we understand there are delays but we also as have deadlines with the BPU for these community solar projects. Pending on your study results we will have to petition with the BPU. Thanks again for working with us on this -we're hopeful we're going to have a solution on the original size with our smart inverters.

Thanks

Cela Sinay-Bernie

**Cela Sinay-Bernie**

Managing Partner

[cela@citrinepower.com](mailto:cela@citrinepower.com)

[203.557.5554](tel:203.557.5554) | [917.345.8371](tel:917.345.8371)

---

**From:** "Richards, Don" <[drichards@firstenergycorp.com](mailto:drichards@firstenergycorp.com)>

**Date:** Wednesday, March 4, 2020 at 11:56 AM

**To:** Cela Sinay-Bernie <[cela@citrinepower.com](mailto:cela@citrinepower.com)>, "Scaramia, Vincent J" <[vscaramia@firstenergycorp.com](mailto:vscaramia@firstenergycorp.com)>

**Cc:** Faisal Sadrulah <[fsadrulah@PfisterEnergy.com](mailto:fsadrulah@PfisterEnergy.com)>, Douglas Bagwill <[dbagwill@PfisterEnergy.com](mailto:dbagwill@PfisterEnergy.com)>, "Tobia, James S" <[jtobia@firstenergycorp.com](mailto:jtobia@firstenergycorp.com)>

**Subject:** RE: Franklin NJ - Community Interconnection

As Vincent continues to work on circuit modeling issues, let me be clear. JCP&L will not allow any DG connection onto our system that will degrade service reliability or power quality for existing customers. We are attempting to see if this can be adequately accommodated on this 4.8 kV circuit. Right now the answer is 'no' but we will continue to study and engage in communications. Regardless of the final outcome, we have already identified several system upgrades that would be needed- at a minimum- to accommodate this application. If the project is ultimately approved by JCP&L, these costs will be borne 100% by the applicant prior to any JCP&L construction.

Thank you.

Don

Donald A. Richards

JCP&L Regional Engineering

300 Madison Ave

Morristown NJ 07962-1911

973.401.8631- office

201.207.5675- mobile

---

**From:** Cela Sinay-Bernie <[cela@citrinepower.com](mailto:cela@citrinepower.com)>

**Sent:** Wednesday, March 4, 2020 11:49 AM

**To:** Scaramia, Vincent J <[vscaramia@firstenergycorp.com](mailto:vscaramia@firstenergycorp.com)>

**Cc:** Faisal Sadrulah <[fsadrulah@PfisterEnergy.com](mailto:fsadrulah@PfisterEnergy.com)>; Douglas Bagwill <[dbagwill@PfisterEnergy.com](mailto:dbagwill@PfisterEnergy.com)>; Richards, Don <[drichards@firstenergycorp.com](mailto:drichards@firstenergycorp.com)>

**Subject:** [EXTERNAL] Re: Franklin NJ - Community Interconnection

Thanks Vincent. We appreciate the support and communication.

As you know this is a community solar project for low and medium income households in the area and we're relying on it to be a certain size for it to have the right impact in the community.

Thanks

Cela

---

**From:** "Scaramia, Vincent J" <[vscaramia@firstenergycorp.com](mailto:vscaramia@firstenergycorp.com)>  
**Date:** Wednesday, March 4, 2020 at 11:46 AM  
**To:** Cela Sinay-Bernie <[cela@citrinepower.com](mailto:cela@citrinepower.com)>  
**Cc:** Faisal Sadrulah <[fsadrulah@PfisterEnergy.com](mailto:fsadrulah@PfisterEnergy.com)>, Douglas Bagwill <[dbagwill@PfisterEnergy.com](mailto:dbagwill@PfisterEnergy.com)>, "Richards, Don" <[drichards@firstenergycorp.com](mailto:drichards@firstenergycorp.com)>  
**Subject:** RE: Franklin NJ - Community Interconnection

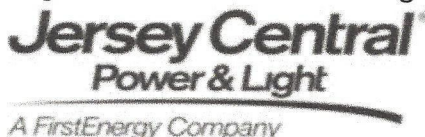
Cela,

I wanted to reach out and let you know that we have received the information and are doing additional modelling and involving First Energy Corporate for further study. Once we further develop the models we will have an internal meeting. When I have more information I will let you know.

Regards,

**Vincent Scaramia**

Engineer – Distribution Planning



300 Madison Ave, Morristown, NJ 07960

---

**From:** Cela Sinay-Bernie <[cela@citrinepower.com](mailto:cela@citrinepower.com)>  
**Sent:** Monday, March 2, 2020 11:28 AM  
**To:** Scaramia, Vincent J <[vscaramia@firstenergycorp.com](mailto:vscaramia@firstenergycorp.com)>  
**Cc:** Faisal Sadrulah <[fsadrulah@PfisterEnergy.com](mailto:fsadrulah@PfisterEnergy.com)>; Douglas Bagwill <[dbagwill@PfisterEnergy.com](mailto:dbagwill@PfisterEnergy.com)>; Richards, Don <[drichards@firstenergycorp.com](mailto:drichards@firstenergycorp.com)>  
**Subject:** [EXTERNAL] RE: Franklin NJ - Community Interconnection

Hi Vincent – Hope all is well. Per our conversation last week, below please find the questions from Faisal and attached supporting documents. We'd love to see and discuss the Impact study report output from Cyme software so that we could verify their justification on the voltage swing and flicker tolerance limits. In a nutshell, if we need to do a more detailed study taking the voltage support and grid protection capabilities of our inverters, we'd like to do that in collaboration with JCPL.

Please review and let us know when we might want to get on a call with you and your team.

Thank you for working with us on this.



Cela

**Cela Sinay-Bernie**

Managing Partner

[cela@citrinepower.com](mailto:cela@citrinepower.com)

[203.557.5554](tel:203.557.5554) | [917.345.8371](tel:917.345.8371)

---

**From:** Faisal Sadrulah <[fsadrulah@PfisterEnergy.com](mailto:fsadrulah@PfisterEnergy.com)>

**Date:** Thursday, February 27, 2020 at 12:10 PM

**To:** Cela Sinay-Bernie <[cela@citrinepower.com](mailto:cela@citrinepower.com)>, Douglas Bagwill <[dbagwill@PfisterEnergy.com](mailto:dbagwill@PfisterEnergy.com)>

**Subject:** RE; Franklin NJ - Community Interconnection

**Resent-From:** Proofpoint Essentials <[do-not-reply@proofpointessentials.com](mailto:do-not-reply@proofpointessentials.com)>

**Resent-To:** Cela Sinay-Bernie <[cela@citrinepower.com](mailto:cela@citrinepower.com)>

**Resent-Date:** Thursday, February 27, 2020 at 12:02 PM

Doug/Cela,

The PV Inverters in general (central or string) are dynamic machines which are able to provide Reactive power support using dynamic voltage support (DVS) capability. They can provide immediate Reactive power and power factor control to the grid for voltage regulation by consuming or generating reactive power provided that their current and terminal voltage ratings are not exceeded.

Solar generating facilities are typically designed to operate within a voltage schedule or set limit by the utility. This voltage limit allows the solar facility to operate within its reactive capability range during normal operating conditions. All available PV inverters are capable of generating (lagging power factor) or consuming (leading power factor) approximately 1/3 of its real power (kW) rating in total reactive power (kVAR) depending on the make and models.

We strongly believe that addition of 850 KW Inverter based solar generation near Blue Army in Washington NJ, tapping into 4.8kV delta circuit 24571 will be a new reactive power resource to existing system and it will enable power factor stability as well as voltage stability for the residential customers that the system is currently serving. We will be able to use existing control technology from these inverters which will promote renewable integration and grid stability to the existing circuit.

Below are a few list of items that we would like to review regarding the impact study report;

- Reactive power requirements at POI. (DG Tech Requirement 4.4.4.11 – between 0.95 leading and 0.95 lagging power factor)
- Tolerance of voltage fluctuations on the existing 4.8kV circuit (voltage set points)
- % of large induction loads on this system
- Current capacity of the 4.8kV delta circuit 24571 (P + jQ)
- Available capacity of circuit 24571
- Will JCPL be able to furnish the impact study report done with Cyme software?

Attached is Generic solar PV system dynamic simulation model specification which explains dynamic reactive support of the large scale (>10MW) PV systems as well as smaller distribution connected PV systems. Also attached are the two different types of PV inverters that we are planning to use for this project.

- Chint 125KTL – 125kW, 132 kVA @ 0.8 pf (lag – lead) – Able to provide 79.2kVAR each and total 554.4 kVAR from (7) inverters.
- Solis 125k EHV – 125kW, 125kVA @ 0.8 pf (lag – lead) – Able to provide 75 kVAR each and total 525 kVAR from (7) inverters

The SCH125KTL inverter is capable of providing Reactive power from 0.8 leading to 0.8 lagging PF. The 125kW inverters include a "selectable maximum Apparent power limit" of either 125kVA or 132kVA. The factory default setting is 125kVA. When set to 132kVA, the inverter is capable of providing Reactive power up to 0.95 leading or 0.95 lagging PF without a decrease or derating of the maximum 125kW Active power. Beyond 0.95 to 0.8, the inverter is still capable of providing Reactive power, yet with a derated Active power output.

Below are links to the owner's manual which you can find LVRT (low voltage ride through) and HVRT (high voltage ride through) parameters as well as information on Reactive capability supports.

[https://www.chintpowersystems.com/pdf/CPS%20SCH100-125KTL-DO-US-600\\_Manual.pdf](https://www.chintpowersystems.com/pdf/CPS%20SCH100-125KTL-DO-US-600_Manual.pdf)

<https://www.ginlong.com/Uploads/file/77a29ee98123da3a8904f731d73e2fd0.pdf>

All current available PV inverters (central or string) can be configured to support Voltage fluctuation and voltage swing at the PCC.

Thanks

Faisal

---

**From:** Scaramia, Vincent J <[vscaramia@firstenergycorp.com](mailto:vscaramia@firstenergycorp.com)>

**Sent:** Wednesday, February 26, 2020 11:20 AM

**To:** Cela Sinay-Bernie <[cela@citrinepower.com](mailto:cela@citrinepower.com)>; Faisal Sadrulah <[fsadrulah@PfisterEnergy.com](mailto:fsadrulah@PfisterEnergy.com)>; Douglas Bagwill <[dbagwill@PfisterEnergy.com](mailto:dbagwill@PfisterEnergy.com)>

**Subject:** RE: Franklin NJ - Community Interconnection

Cela,

Could you also send a list of the questions/concerns/suggestions that your engineers have so I can be sure to address everything before our next phonecall?

Thank you,

**Vincent Scaramia**

Engineer – Distribution Planning

**Jersey Central**  
**Power & Light**

A FirstEnergy Company

300 Madison Ave, Morristown, NJ 07960

---

**From:** Cela Sinay-Bernie <[cela@citrinepower.com](mailto:cela@citrinepower.com)>

**Sent:** Wednesday, February 26, 2020 10:56 AM

**To:** Faisal Sadrulah <[fsadrulah@pfisterenergy.com](mailto:fsadrulah@pfisterenergy.com)>; Douglas Bagwill <[dbagwill@PfisterEnergy.com](mailto:dbagwill@PfisterEnergy.com)>;  
Scaramia, Vincent J <[vscaramia@firstenergycorp.com](mailto:vscaramia@firstenergycorp.com)>

**Subject:** [EXTERNAL] Franklin NJ - Community Interconnection

Vincent – Thanks for discussing the project with us today. We really appreciate it.

Copying Faisal and Doug too. We'll send you both Chintz and SMA inverter information so we can review it one more time.

Cela

**Cela Sinay-Bernie**

Managing Partner

[cela@citrinepower.com](mailto:cela@citrinepower.com)

[203.557.5554](tel:203.557.5554) | [917.345.8371](tel:917.345.8371)

---

The information contained in this message is intended only for the personal and confidential use of the recipient(s) named above. If the reader of this message is not the intended recipient or an agent responsible for delivering it to the intended recipient, you are hereby notified that you have received this document in error and that any review, dissemination, distribution, or copying of this message is strictly prohibited. If you have received this communication in error, please notify us immediately, and delete the original message.

---



**EXHIBIT C**

**TO**

**CITRINE POWER, LLC**

**PETITION FOR RELIEF**

**Docket No. QO19091124**

# **Jersey Central Power & Light**

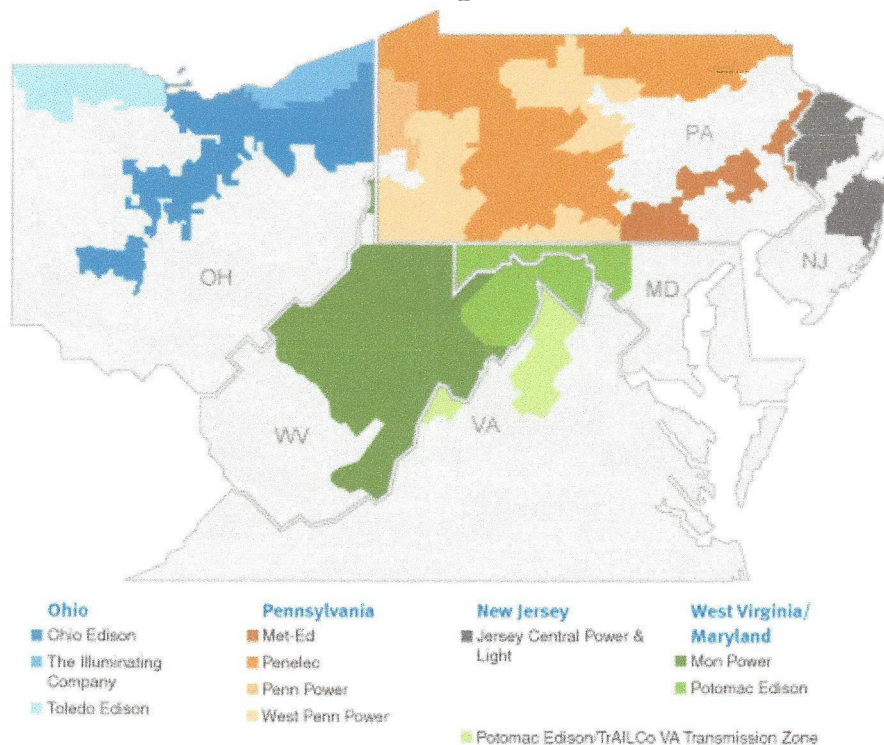
*A FirstEnergy Company*

## ***Solar Generation Interconnection Combined Feasibility/System Impact Study Report***

Customer: CP Franklin Solar, LLC

Site Location: 674 Mountainview Road, Washington-NJ-07882

Revised April 2020



Prepared by Vincent Scaramia, JCP&L Regional Engineering

## **Level 3 System Impact Study Report For CP Franklin Solar LLC.**

### **Introduction**

This study is for the proposed addition of 850 KW Inverter based solar generation near Blue Army Our Lady of Fatima 674 Mountain View Road- Washington-NJ. The site is on JCP&L 4.8kV delta circuit 24571, fed from Washington Substation. The point of common coupling (PCC) is proposed to be located at the new primary metering equipment to be installed at or near JCP&L pole # NJ1014FR.

### **Objective:**

The objective of this impact study was to:

- 1) Detail the impacts to the electric distribution system that would result if the DER was interconnected without modifications.
- 2) Identify any modifications to the electric distribution system that would be necessary to accommodate the proposed interconnection.
- 3) Identify any modifications to the applicant's interconnection design that would be necessary to accommodate the proposed interconnection.
- 4) Provide a good faith estimate of the costs associated with performing the modifications identified in #2 above.

### **Evaluation Criteria:**

Table 1 shows the criteria and pass/fail thresholds used in determining if the proposed DER will have a negative impact on distribution circuit equipment, or if negative impacts to power quality and reliability are expected.

Table 1, Evaluation Criteria

Category	Criteria	Threshold
Voltage	Primary Over-voltage	Feeder voltage at any location not to exceed 1.05 pu (126 V)
	Primary Voltage Deviation	Feeder voltage at any location not to change by more than 2% with taps & caps locked
	Regulator Voltage Deviation	Feeder voltage at any regulating device not to change by more than 1.25%
Load	Line and Device Thermal Rating	Power flow toward the feeder head not to exceed 100% of normal rating
	Sub Transformer Thermal Rating	Power flow toward the transmission system not to exceed 100% OANA rating
	Regulator Thermal Rating	Power flow not to exceed 100% of summer rating, no load bonus
	Step Transformer Thermal Rating	Power flow toward the feeder head not to exceed 100% of nameplate rating
Protection	Breaker Relay Reduction of Reach	Breaker fault current not to decrease by more than 10% at any location
	Additional Element Fault Current	Feeder fault current not to increase by more than 10% at any location
Power Flow	Directional Real Power Flow - TX	Reverse real power flow onto the transmission system is not permitted
	Directional Real Power Flow - Reg	Reverse real power flow is not permitted at line regulators



### **Methodology:**

- 1) The study was performed using JCP&L in-house engineering staff.
- 2) The study was performed utilizing Cyme circuit modeling software and circuit data collected from JCP&L's GIS records database.
- 3) A load allocation was performed in the Cyme model using actual field measured load data. The model was verified with field measured voltage data at the corresponding load level and was, therefore, accepted as an accurate base-case electrical model of the circuit.
- 4) The existing and proposed DER was then added to the model and static simulations were run at various load levels, DER power output levels, and DER power factor levels to determine if the criteria in Table 1 is achieved.

### **Results:**

At all power factor levels (80-100% absorbing) of the proposed 850 kW DER, the 3 voltage category criteria failed. In addition, the directional real power flow criteria failed at regulators located about 1 mile toward the feeder head from the proposed DER site. Despite the DER adjusting the power factor and absorbing VARS, we continued to see a voltage deviation greater than 2% at all power factor levels between (80-100%); as well as, voltage greater than 126V with capacitors switching and regulator taps unlocked to help mitigate the voltage issues. Allowing the proposed 850 kW system to interconnect with this circuit would cause overvoltage and voltage deviation issues for 248 customers.

### **Mitigation Options**

JCP&L used the electrical model created to evaluate the proposed system to determine hypothetical options that the project developer may want to consider. Three options were identified and are described below for consideration by the developer. These options are presented for discussion purposes and describe high level system improvements and facility cost estimates. If the developer desires to pursue a specific option, a detailed facilities design and cost study will be required.

#### **Option 1: Reduce system size to 450kWAC and remain on the Washington 24571**

Iterative models were run to determine the maximum system size that could exist at the POI desired without causing serious impacts to customer reliability. Due to the location of the proposed site, and the existing circuit configuration the largest solar site that could be accommodated on the Washington 24571 is a 450kW AC system. Voltage variations as predicted by the system model were within acceptable ranges with a 95% absorbing Power Factor, and connection at this system size can be made with the required work scope shown below.

#### **Work requirements:**

Replacement of controls on two switched capacitor banks and replacement of three fixed capacitor banks with Var controlled switched capacitors, estimated at \$49,000. Replacement and upgrade of existing voltage regulators to include reverse power controls, SCADA control and monitoring, estimated at \$90,000. SCADA monitoring at the circuit breaker. Estimated at \$15,000. Plus \$25,000 for the required primary metering costs, SCADA tie-in, and commissioning. Total cost estimated at \$179,000.

### **Option 2: Interconnect with nearby 12.5kV circuit Broadway 27635**

In order to maintain the desired system size, the customer could choose to interconnect with the nearby 12.5kV circuit out of the Broadway substation. This circuit can support connection of an 850 kW PV system, however there will be significant modifications required to the JCP&L system.

#### **Work Requirements:**

JCP&L would relocate a 167kVA step-bank from pole NJ109WA to NJ101WA, convert 8200 feet of primary cable, and extend 3-phase primary 1200 feet to the proposed interconnection site. The customer would be responsible for obtaining all necessary easements associated with the conversion. The estimated cost is \$590,000 for 12.5kV conversion plus an additional \$25,000 in primary metering costs, SCADA tie-in, and commissioning.

### **Option 3: Interconnect with nearby 34.5kV sub transmission circuit**

In order to maintain the desired system size, the customer could choose to interconnect with the nearby 34.5kV circuit out of the Broadway substation. This circuit has DG capacity and can handle the generation load, however there will be significant modifications required to make the connection.

#### **Work Requirements:**

Install (3) switches (load-break air switches with SCADA control) to interconnect CP Franklin Solar, LLC project on the JCP&L U723 or W23 34.5 kV line. Direct connection costs also include approximately 8500' of 34.5 kV line extension, pole mounted transmission metering, SCADA tie-in and site commissioning. Estimated cost of \$2,078,000.

Should this option be chosen a more in-depth voltage study would need to be performed by the transmission planning group to determine any effects to reliability.

#### **At Solar Facility:**

Distributed Solar Generation must not interfere with the proper detection and clearing of faults on the JCP&L/FE distribution or transmission system.

Distributed generation must not interfere or degrade the quality of service to any other JCP&L/FE customers (service voltage, voltage flicker, harmonics, service reliability etc.)

The connected facility shall comply with harmonic voltage and current limits specified in IEEE Standard 519-1992, "IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems".

#### **Anti-Island Protection**

The proposed generation facility must be equipped with adequate relay protection to detect an island condition and disconnect from the JCP&L/FE distribution system within two seconds of the formation of an island (per IEEE 1547).



## **Power Factor**

The Generation Interconnection Customer shall design its Customer Facility to maintain a power factor as defined and specified by JCP&L for all real power export levels as measured at the PCC.

## **Metering and Communications**

The existing JCP&L/FE billing meter will be replaced by JCP&L/FE with a bi-directional revenue meter and the metering current transformers will be replaced with different capacity units if needed. The bi-directional meter will record billing data in intervals of 15 or 30 minutes as required. JCP&L/FE will provide the customer with revenue meter KWH and KVARH pulse outputs if requested. JCP&L/FE shall provide the communication link required by the FE billing data collection system for access to the meter. All costs incurred by JCP&L/FE associated with the meter upgrades shall be the responsibility of the IC. Please see Attachment 3 for meter requirements.

## **Additional requirements:**

- IC must meet all applicable JCP&L/FE standards and requirements which are included in the current JCP&L Tariff for Electric Service.
- IC's main breaker shall have a SEL 351 Multi-function relay (or equivalent) which is required for interconnection protection. This relay must have the capability to measure Reverse Power.
- All breakers, lightning protection etc. should meet JCP&L/FE's minimum BIL Ratings.
- IC must meet applicable "Technical Requirements for the Interconnection of Parallel Operated Generation to the JCP&L/FE Distribution System".  
<https://www.firstenergycorp.com/content/dam/feconnect/files/wholesale/DG-Tech-Requirements.pdf>
- IC is required to execute a retail service agreement to account for the generation and for times, on an hourly basis, when power is supplied by JCP&L/FE.  
A Federal Income Tax Gross Up charge of 16% has not been included in the amount above. This tax may or may not be charged based on whether or not this project meets the eligibility requirements of IRS Notice 88-129. The cost estimate includes the following:
  - All JCP&L costs are not subject to refundable provisions of the NJ-BPU approved JCP&L Tariff for Service
  - Note - This is an estimate based on similar work orders previously worked by JCP&L for the types of work described in the analysis above. It is accurate to within plus or minus 25 percent. Should the customer want to proceed with the connection of this facility, a contract with JCP&L will be developed based on these costs and a true-up of actual charges will be made at the completion of the project.



**Subject:** RE: information for the estimate  
**Date:** Wednesday, May 6, 2020 at 8:10:40 PM Eastern Daylight Time  
**From:** Scaramia, Vincent J  
**To:** Cela Sinay-Bernie  
**CC:** Richards, Don, Pawlo, John R  
**Attachments:** image001.jpg

Cela,

Unfortunately, we are in the same place we were on Monday. The WR has been created and I am waiting to hear on the status of your invoice. The study's findings remains the same. I have informed our layout tech supervisors that I need to be notified prior to any site visits regarding the estimate. Once the invoice is finalized the estimate will be completed. As soon as I get some more information I will update you.  
Thank you,

Vincent

---

**From:** Cela Sinay-Bernie <cela@citrinepower.com>  
**Sent:** Wednesday, May 6, 2020 6:29 PM  
**To:** Scaramia, Vincent J <vscaramia@firstenergycorp.com>  
**Cc:** Richards, Don <drichards@firstenergycorp.com>; Pawlo, John R <jpawlo@firstenergycorp.com>  
**Subject:** [EXTERNAL] Re: information for the estimate

Vincent – Where do we stand on our invoice and the analysis ?

Cela

---

**From:** Cela Sinay-Bernie <[cela@citrinepower.com](mailto:cela@citrinepower.com)>  
**Date:** Wednesday, April 29, 2020 at 1:20 PM  
**To:** "Scaramia, Vincent J" <[vscaramia@firstenergycorp.com](mailto:vscaramia@firstenergycorp.com)>  
**Cc:** "Richards, Don" <[drichards@firstenergycorp.com](mailto:drichards@firstenergycorp.com)>, "Pawlo, John R" <[jpawlo@firstenergycorp.com](mailto:jpawlo@firstenergycorp.com)>  
**Subject:** Re: information for the estimate

Vincent –

Please use the below information:

1. Tax ID (EIN NUMBER) for CP Franklin Solar, LLC → 84-4439485
2. Lot & Block Number: Block 47, Lot 9 in Franklin NJ

Please let me know what else we can provide.

Cela

---

**From:** "Scaramia, Vincent J" <[vscaramia@firstenergycorp.com](mailto:vscaramia@firstenergycorp.com)>  
**Date:** Tuesday, April 21, 2020 at 1:09 PM

**To:** Cela Sinay-Bernie <[cela@citrinepower.com](mailto:cela@citrinepower.com)>  
**Cc:** "Richards, Don" <[drichards@firstenergycorp.com](mailto:drichards@firstenergycorp.com)>, "Pawlo, John R" <[jpawlo@firstenergycorp.com](mailto:jpawlo@firstenergycorp.com)>  
**Subject:** information for the estimate

Cela,

I'm moving forward with sending you the fixed cost agreement for the estimate and I need the following information in order to do so. Do you have your company's tax ID number and the lot and block number for the site where the solar field will be installed?

Thank you,

***Vincent Scaramia***

Engineer – Distribution Planning

**Jersey Central**  
**Power & Light**

*A FirstEnergy Company*

300 Madison Ave, Morristown, NJ 07960  
Cell: 862-345-4954

---

The information contained in this message is intended only for the personal and confidential use of the recipient(s) named above. If the reader of this message is not the intended recipient or an agent responsible for delivering it to the intended recipient, you are hereby notified that you have received this document in error and that any review, dissemination, distribution, or copying of this message is strictly prohibited. If you have received this communication in error, please notify us immediately, and delete the original message.

---

The information contained in this message is intended only for the personal and confidential use of the recipient(s) named above. If the reader of this message is not the intended recipient or an agent responsible for delivering it to the intended recipient, you are hereby notified that you have received this document in error and that any review, dissemination, distribution, or copying of this message is strictly prohibited. If you have received this communication in error, please notify us immediately, and delete the original message.

**Subject:** Re: Revised Solar Feasibility/Impact Study for the Community Solar Project at 674 Mountainview Rd  
**Date:** Thursday, April 16, 2020 at 4:38:02 PM Eastern Daylight Time  
**From:** Cela Sinay-Bernie  
**To:** Scaramia, Vincent J  
**CC:** Richards, Don, Tobia, James S, JC\_Interconnection  
**Attachments:** image001.jpg

Vincent – thanks for this. Apologies it took us a few days to think and get back to you. We needed to digest the information and the path we want to pursue.

Our team had some additional questions:

1. Based on your analysis below, if we decide to go forward with the 12.5 kV estimate, is there a chance that portions of the 8200 ft of primary cable upgrade from and the 1200 ft three phase upgrade would also be viewed as an incremental benefit to JCPL that might bring some of the costs down?
2. The document mentions easements: Can you give us an idea of where the 8200 cable and 1200 three phase upgrade is envisioned? The three phase is on site on 674 Mountainview Road.
3. We're happy to pay the fixed amount. We want to pursue both options to get a final and more accurate estimate on both options unless the 147K on Option 1 is the final amount. I wasn't clear from the email. Can you please send the fixed amount bill?

Thanks

Cela

---

**From:** "Scaramia, Vincent J" <vscaramia@firstenergycorp.com>  
**Date:** Friday, April 10, 2020 at 3:41 PM  
**To:** Cela Sinay-Bernie <cela@citrinepower.com>  
**Cc:** "Richards, Don" <drichards@firstenergycorp.com>, "Tobia, James S" <jtobia@firstenergycorp.com>, JC\_Interconnection <jc\_interconnection@firstenergycorp.com>  
**Subject:** RE: Revised Solar Feasibility/Impact Study for the Community Solar Project at 674 Mountainview Rd

Cela,

With the involvement of our corporate engineering group for this study we performed the analysis using evaluation criteria consistent with EPRI guidance and industry bench-marking of current utility practices. Additionally, we also obtained actual field readings as part of the upgraded analysis. The revised model showed that there was even less hosting capacity at your proposed location on the Washington 24571 circuit. In order to reconcile the different results in the models we identified the need for further upgrades to the system to ensure that any solar installation at the proposed location would not have a negative impact on our system and surrounding customers. The scope of the original estimate identified only one set of capacitor controls to be upgraded and SCADA at your site. The scope of the revised analysis identifies upgrades for two capacitors and replacement of three capacitors, replacement of two regulators with the addition of SCADA connectivity to monitor the circuit, and SCADA voltage monitoring at the substation. Upon further consideration, there would be some incremental benefit to JCP&L, irrespective of the solar application, to upgrading two of the existing capacitor banks and one of the existing capacitor controls, so the company can



reduce the overall cost by approximately \$32,000 to a budgetary total of \$147,000. Our priorities are to ensure that the system is reliable and stable for all customers and our revised analysis has revealed these upgrades are required to ensure our priorities are met.

Additionally, please understand that this is a budgetary cost estimate only, when the applicant decides which option (if any) they wish to pursue, an additional Engineering fee will be required and an actual design package and fixed cost bill will be produced.

If you would like to proceed with the 12.5kV estimate, please let me know, and I will have a designer assigned and a fixed cost bill sent to you so that we can continue with the detailed estimate.

Thank you,

Vincent

---

**From:** Cela Sinay-Bernie <cela@citrinepower.com>  
**Sent:** Friday, April 10, 2020 9:28 AM  
**To:** Scaramia, Vincent J <vscaramia@firstenergycorp.com>  
**Cc:** Richards, Don <drichards@firstenergycorp.com>; Tobia, James S <jtobia@firstenergycorp.com>; JC\_Interconnection <jc\_interconnection@firstenergycorp.com>  
**Subject:** [EXTERNAL] Re: Revised Solar Feasibility/Impact Study for the Community Solar Project at 674 Mountainview Rd  
**Importance:** High

Thanks Vincent. I do have one question:

The initial study we received was only \$25,000 for the same exact upgrades on Option 1.

If we'd accepted that finding and moved forward with it without asking for further detail, we would be paying \$25,000 and now we're up to \$179,000 even for a system that is half the size. It's confusing because the scope is the same.

I am attaching both and we'd like to understand how the same exact cost would be 7X within a one month frame. We're suspecting with the heavy workload maybe there was a confusion or typo. In February's response for the same scope it clearly says \$25,000 for SCADA, capacitors etc is included. So even at 25% addition from the footnote, first option would have been \$31,250. **Could you please explain the discrepancy ?**

Thanks

Cela

---

**From:** "Scaramia, Vincent J" <[vscaramia@firstenergycorp.com](mailto:vscaramia@firstenergycorp.com)>  
**Date:** Friday, April 10, 2020 at 9:11 AM  
**To:** Cela Sinay-Bernie <[cela@citrinepower.com](mailto:cela@citrinepower.com)>  
**Cc:** "Richards, Don" <[drichards@firstenergycorp.com](mailto:drichards@firstenergycorp.com)>, "Tobia, James S" <[jtobia@firstenergycorp.com](mailto:jtobia@firstenergycorp.com)>, JC\_Interconnection <[jc\\_interconnection@firstenergycorp.com](mailto:jc_interconnection@firstenergycorp.com)>  
**Subject:** Revised Solar Feasibility/Impact Study for the Community Solar Project at 674 Mountainview Rd

**Resent-From:** Proofpoint Essentials <[do-not-reply@proofpointessentials.com](mailto:do-not-reply@proofpointessentials.com)>

**Resent-To:** Cela Sinay-Bernie <[cela@citrinepower.com](mailto:cela@citrinepower.com)>

**Resent-Date:** Friday, April 10, 2020 at 9:07 AM

Cela,

Please see the attached revised Solar Feasibility/Impact Study for your proposed 850kWAC solar project in Washington NJ.

Feel free to contact me with any questions.

Thank you,

***Vincent Scaramia***

Engineer – Distribution Planning

**Jersey Central**  
**Power & Light**

*A FirstEnergy Company*

300 Madison Ave, Morristown, NJ 07960

Cell: 862-345-4954

---

The information contained in this message is intended only for the personal and confidential use of the recipient(s) named above. If the reader of this message is not the intended recipient or an agent responsible for delivering it to the intended recipient, you are hereby notified that you have received this document in error and that any review, dissemination, distribution, or copying of this message is strictly prohibited. If you have received this communication in error, please notify us immediately, and delete the original message.

---

The information contained in this message is intended only for the personal and confidential use of the recipient(s) named above. If the reader of this message is not the intended recipient or an agent responsible for delivering it to the intended recipient, you are hereby notified that you have received this document in error and that any review, dissemination, distribution, or copying of this message is strictly prohibited. If you have received this communication in error, please notify us immediately, and delete the original message.

**EXHIBIT D**

**TO**

**CITRINE POWER, LLC**

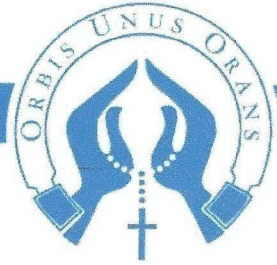
**PETITION FOR RELIEF**

**Docket No. QO19091124**



# WORLD APOSTOLATE OF FATIMA, USA

*Our Lady's Blue Army*



## **New Jersey Board of Public Utilities**

44 South Clinton Ave Post Office Box 350

Trenton, New Jersey 08625-0350

Attn: Office of Clean Energy

Community Solar Energy Pilot Program Application Package

May 12, 2020

Dear Office of Clean Energy in NJ BPU & Community Solar PILOT Program Administrators:

We are writing this support letter for the solar canopy community solar project that we have developed in collaboration with Citrine Power LLC ("Citrine Power") on the grounds of World Apostolate of Fatima, USA, Inc. in Franklin, NJ that will be built, financed and operated by Citrine Power.

The World Apostolate of Fatima, USA, Inc., was founded in 1947 as The Blue Army. The name was changed when the Vatican raised our organization to the status of Public International Association of the Faithful, which was permanently decreed in October 2010. The tagline, "Our Lady's Blue Army" appears with our name for the sake of continuity. The apostolate is the only Fatima organization in the world which speaks "in the name of the Church" and "with the authority of the Church" on Fatima. We are located at The National Blue Army Shrine of Our Lady of Fatima in Washington Township, New Jersey.

As we started in our support letter that was part of Citrine Power's application in September, we have been working with Citrine Power since December 2018 to develop a community solar project on our property in Franklin. We collectively chose to develop a solar canopy project and we think the proposed design provides a variety of benefits. Citrine Power has been diligently pursuing the engineering, design and permitting of the project at the Township and County level since BPU's selection in December of 2019 of the project under the Community Solar Pilot Program in NJ.

Our property can most certainly support and welcome a larger canopy structure than originally approved by the BPU. We had collectively selected it to be at the 1.159 MW DC size during our initial application due to the hosting capacity availability on the circuit the closest three phase line. That being said, the current hosting capacity availability and upgrade costs estimated by JCP&L are suggesting we either build a very small system that is not economical and will not provide as much benefit to the community or we expand the system size to have a feasible project with a larger positive impact on our State renewable energy goals, our Shrine, and the local low and medium income communities.

To that end, we encourage the NJ BPU to give the Blue Army / Citrine Power's request for a larger carport solar project in light of the interconnection costs assessed by JCPL to be part of the first round of the Community Solar Energy Pilot Program. Should you have any concerns or questions, please feel free to contact us.

David M. Carollo

Executive Director

CC: Citrine Power LLC (Mrs. Cela Sinay-Bernie – Managing Partner)