

STATE OF NEW HAMPSHIRE

DEPARTMENT OF ENERGY

Docket Number: 2024 - _____

GNM Solar, 17, LLC

and

Bright Spot Solar, LLC

Complaint against

Public Service Company of New Hampshire, d/b/a/ Eversource Energy

NOW comes **GNM Solar 17, LLC** (hereafter "GNM"), a New Hampshire limited liability company with a business address of PO Box 77, Farmington, New Hampshire 03835-0077 and **Bright Spot Solar, LLC** (hereafter "Bright Spot"), a New Hampshire limited liability company with a business address of PO Box 77, Farmington, New Hampshire 0383-0077, collectively the "Complainants¹," and COMPLAINS against the **Public Service Company of New Hampshire, d/b/a/ Eversource Energy**, hereafter the "Respondent."

Synopsis: Complainant avers that the Respondent has an unreasonable and cavalier process of processing interconnection of alternative energy customer-generators of sites of up to 1 Megawatt (1MW) or less of AC power, which process does not conform to the express intent of either New Hampshire law or rules that seek to promote the development of Diversified Energy Resources in the State of New Hampshire. As a result of the unreasonable and illegal process imposed by the Respondent, and Respondents cavalier failure to timely process the application or address the myriad issues involved in the interconnection of the Complainants GNM's single 1MW project owned by GNM and being constructed by Bright Spot at 60 Shaw Drive in the City of Rochester (hereafter the "project" or "locus") has, after TWO YEARS and ELEVEN MONTHS since the interconnection application was submitted, yet to be connected to the grid, nor has the project been released for construction by the Respondent. With the increases in commercial interest rates, and with the Complainants having already commenced construction in reliance upon the Respondents signed Interconnection Agreement and its complying with NH law and rules to connect the project to the grid, the unreasonable incessant delays caused by the Respondent has prompted this Complaint and request for intervention and relief.

¹ GNM Solar 17, LLC and Bright Spot Solar, LLC are related or affiliated entities, with W. Packy Campbell the sole owner of Bright Spot Solar, LLC while simultaneously owning 85% of GNM Solar, LLC.

I: Timeline:

1. GNM submitted its "preliminary interconnection review" with the Respondent on or about January 2021_____;
2. GNM submitted its Interconnection Application (hereafter the "ICA") in the Respondent's on-line application portal on by uploading its application dated May 23, 2021 (hereafter the "initial application");
3. Having no response from the Respondent, GNM resubmitted in the portal a replacement ICA (the "replacement application" or "replacement ICA") on August 13, 2021 upon the request of the Respondent's.
4. Again, at the request of the Respondent who again said they did not have the application, GNM re-executed and re-dated the replacement ICA it filed in August and resubmitted the same replacement ICA into the Respondent's portal on January 25, 2022, some EIGHT MONTHS after its initial application was filed. This is the application that was processed by the Respondent.
5. In response to the application referred to applicant submitted a system impact study and submitted a check for 25,000 dollars for the same on or about 2-09-2022
6. The System Impact Study dated 6/24/2022 was duly issued by Respondent. It called for completion of a Facilities Impact Study (hereafter the "FIS"). We did not receive a copy of the Study until September 2022 even though apparently complete in JUNE of 2022. We tendered a check for 12,000.00 which on or about 10/04/2022 for the FIS.
7. The Facilities Impact Study (the "FIS") was finally issued I believe in the form of the Interconnection agreement on on March 8th, 2023, and signed by respondent on May 17th 2024
8. In June of 2023 a new POI was requested by Respondent as they were requiring significant changes to the prior POI location including railroad crossing wetland fills and drive-up access. Respondent routinely works on power lines with limited drive-up access or with needs to use poles to hit switched or to install turn off lower on poles in remote off-road locations.
9. To address the undersigned's objections to the ICA and discuss the Respondent's required change to the ICP, the parties held a site meeting on June 15, 2023 with about 10 employees of the Respondent and two members of GNM.

The focus of the meeting and site walk was to discuss Respondent's firm position to change the ICP from the location suggested by Complainant in the very first preliminary interconnection review in 2021, and as stated in the SIS, FIS and ICA, to a location on Shaw Drive, which required medications to Respondents power lines down Shaw Drive. Respondents' principal agent, Mr. Busby, stated that if we accepted the changes then the Respondent would timely issue a new cost estimate and revise the plan, and that they could then complete the work in a timely manner "when you are ready."

After less than 24 hours of consideration, and in reliance of the representations of Mr. Busby as to Respondent's timely completion of the project, Complainant agreed to the requested change. It was stated by Mr. Busby that his desire was to remove the lines were the original POI was proposed and approved by the respondent.

10. The DE Division emailed the new cost estimate on 7/20/23.

We are now more than six (6) months since the agreement, on new POI and the Respondent has yet to forward any payment plan, nor contract to undertake the upgrade work on the Shaw Drive power lines, nor has it given the Complainant any idea whatsoever as to when the work will commence or it will be completed.

II: Unreasonable Actions and Delays by Respondent:

1. From the initial filing of the ICA to the execution of the approved Interconnection Agreement, it took the Respondent literally TWO (2) YEARS to execute the Interconnection Agreement for this project, which, as noted above, the Respondent then firmly requested a change to the ICP. After agreeing to the change some seven (7) months ago, the revised project has not been finalized or released for construction.

A. The proposed location of the interconnection point (hereafter "ICP"), to wit at or near a 1KvA transformer on property across railroad tracks from the locus, was established by the GNM after consultation with local engineering staff of the Respondent. The proposed ICP was situated on a main power line on property across a railroad track from the locus. The Respondent hinted, but did not declare to the Complainant, that the proposed ICP was not acceptable to Respondent. Nevertheless, the ICA was signed with the ICP located where Complainant suggested. Complainant procured, at its significant cost and expense, an easement from the railroad owner (North coast Railroads) to cross the track to reach the proposed ICP.

B. After the ICA was signed, Respondent advised Complainant that the ICP was not acceptable. Despite repeated objections, and assertions that the ICA was signed, Respondent requested a site meeting to discuss this issue. The parties held a meeting in July, 2023. Respondent expressed that the ICP has to come down Shaw Drive, not tie into the main power trunk line across the railroad tracks, unless Complainant completed extremely expensive upgrades to a railroad crossing, build over 1,000 feet of roadway on property not owned by Complainant or Respondent, and getting wetlands permits, all extremely difficult and expensive undertakings. Complainant attendees, led by a Mr. Busby, explained the benefit of accessing the

project and having the ICP located on Shaw Drive at the locus boundary line, and offered a compromise on cost structure to incentive a change to the ICP. After 24 hours of consideration, Complainant agreed to the new ICP, and requested the revised costs, therefore.

i. The respondent to provide the revised cost structure July 26th 2023. We immediately agreed to their proposed costs and advised that we wished to move forward with the new POI and construction of upgrades along Shaw drive.

ii. Respondent stated they need to have updated IA agreement shortly after estimate was provide. See email attached indicating JULY 15th as first target date.

ii. Here we are, seven (7) months later, and Respondent has still not provided a revised IA contract, nor released the project for line work to upgrade Respondents equipment on Shaw Drive to the new ICP. Attached are emails with promises for updated IA in October, November and December.

iii. Despite Complainants repeated emails and calls to Distributed Energy staff (hereafter "DE staff") seeking updates, schedules and performance of the work by Respondent, as of this date Complainant has no idea if or when this project will be released for construction. While DE staff is extremely pleasant and have patiently dealt with me as a demanding customer, they have been relatively unable to produce timely responses to the myriad issues we have been dealing with for almost three years now.

2. To demonstrate the Respondents history of delays caused by it, upon execution of the ICA Complainant tendered the required deposit of Fifty Thousand Dollar (\$50,000,00) on May 23, 2022. Respondent delayed processing the check for over ten 2.5 months, respondent has a long history of not processing checks on multiple jobs.

WE asked for and received wire instructions *July 26th, 2023, and sent a wire email attached.*

3. Respondent mandated that Complainant pay for an N-1 review of the proposed project. Complainant repeatedly object to Respondent's DE staff that there is no legal basis in NH law for requiring an N-1 review, especially for a project of less than 1 MW AC, as N-1 studies are for larger projects. Respondent ignored Complainant and mandated the N-1 study. Complainant hereby references and incorporates the undated Letter of the New Hampshire Senate, signed by Sen. Avard, to this Department that demonstrates that the N-1 standard is not an approved procedure in the State of New Hampshire.

Complainant complains that Respondent's requirement for Complainant paying for the N-1 review is illegal and prays that the DOE declares that mandating N-1 review is illegal and order the Respondent to refund or credit the payment for the N-1 review to the valid interconnection costs to be paid by the Complainant.

Further state law is clear that up to 1 MW is customer generation. Which means by law we should have a customer meter. The interconnection process is drawn out and

expanded by unapproved requirements. The interconnection journey is an incompetent process that prevents the conducting of reasonable solar business and customer generation solar interconnections. We should as a customer generator be able to order a new service, in this case 1800amp 3 phase 480 service. We should have the construction division quotes that work to provide that service. A process I have done many times over the last 25 years as a Real Estate Developer. Solar is nothing more than any other development, just another service on the grid. Desing that service etc...should be done by the construction division. Once I receive IA agreement after years of misdirection and ball dropping, then Utilities start the service upgrade process. We should be able to do that in tandem with solar approval. Any solar that goes on a service under that service size will not break the grid or blow-up transformers in the next town. The whole premise of the study and distributed energy is false and bad math. The service size is the service size. As the service is designed to work on the grid in that location. Electrons flow in both directions on the grid now in real time. Further the physics of the solar production is the power goes to closest users IE down the line to next house or commercial business, as a customer generator the reason you get under law a regular net meter is because that power is consumed locally behind meter and by local users an extension of behind the meter consumption in the local Grid NODE. You never get to a transmission line, and if you did as a CUSTOMER GENERATION the impact would be a drop in the bucket of the electrical flow on a transmission line. Why are we studying a bridge that we never travel over. IE. Respondents make you study section of grid that this power will never ever reach. The respondent fails to understand that if you do not see power from the grid solar inverters stop working. Along with typical fussed disconnections for a customer generation service. No power can go to the grid or be produced unless the grid is working and sending power to the customer generators solar inverters. Respondent fails to acknowledge this fact of the solar equipment functionality. No solar works without grid power. Solar inverters see the grid sign wave and convert the DC power to that AC sign wave.

The point of this is related to this complaint in the totality of the process undermines the state law and has effectively made making customer generation impossible. That the NI standard is a standard for project larger than customer generation. The utility fails to recognize the status of customer generation under law. The utility is treated customer generation and distributed power from behind customer meters as in front of the meter power generation facilities. Not only is this not authorized in law or rule it makes no sense to subject projects of 1MW or less this standard in the first place. Even if Eversource respected the process the NI standards and copies delays and studies associated with it are unreasonable and unnecessary. The information confirmed by those studies is available on Utility web site in the form of solar capacity map. It is not reasonable to do years of study to tell me data that is published on the utility web site. Even if the standard was deemed reasonable it cannot be applied as it has not been approved in the legislative process of the State of NH.

3. In the two years and 11 months of this pending application, Respondent's DE staff has cavalierly failed to process the application timely, to provide answers to questions, to provide written proposals, or to complete the ICA process to release the project for construction. To wit:

A. Attached are several email communications from DE staff promising some information, document or agreement with the Complainant; each of them DE staff acknowledged

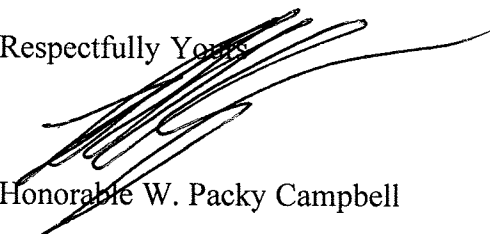
the delay and promised timely action. In each case they failed to fulfill the promise of timely action after they previously apologized for it.

Emails attached confirming promised completion of updated IA agreement in October, November and December.

4. Relief Sought:

1. Eversource to Issue updated IA agreement for T 3140 with updated payment plan based on work process with final payment due when work is complete.
2. Work to be released to line department from distributed energy and work to be scheduled as earliest timeline.
3. That said interconnection be via a customer meter not a primary meter.
4. That any future interconnection applications Solar project be treated the same as any other upgrade or new construction project. That applicants are allowed to create work order numbers and receive quotes for work through normal construction department process. Utilities cannot refuse to process work order requests if there is a solar component until interconnection is completed.
5. Commission to hold a hearing.
6. That commission collaborates with stakeholders for immediate amendments to SB 391 to address in law fair standards in the interconnection process.

Respectfully Yours



Honorable W. Packy Campbell

Attachments.

Signed IA agreement and study documents.

Estimate Emails, missed deadline emails.

From: [Packy Campbell](#)
To: [SHAUN YAP](#)
Cc: [Ralph Letner](#)
Subject: FW: Inverter info 60 Shaw drive
Date: Friday, May 26, 2023 9:20:00 AM
Attachments: [image008.png](#)
[NGrid_ICA_Island_Info_Revised_SMA_PEA3_v02.pdf](#)
[SMA_TN_NGrid_Transient_Overvoltage_SHP-US-20_04012021.pdf](#)

FYI more inverter information

From: Packy Campbell <packyc@rsarealty.com>
Sent: Friday, May 26, 2023 9:18 AM
To: Packy Campbell <packy@brightspot.solar>
Subject:

From: Gabriela Lopez <Gabriela.Lopez@sma-america.com>
Sent: Monday, February 7, 2022 5:07 PM
To: Tyson Schoelzel <Tyson.Schoelzel@sma-america.com>; Packy Campbell <packyc@rsarealty.com>; Jose Colom <Jose.Colom@sma-america.com>
Subject: RE: T3140 - Shaw Drive PV (1 MW) update - SISA

Hi Packy,

Please see attached documents.

Best,
Gabriela Lopez
Applications Engineer
SMA America
3925 Atherton Rd
Rocklin, CA 95765
www.SMA-America.com




This email and any attachments thereto may contain SMA America, LLC confidential, privileged and private material for the sole use of the intended recipient. Any review, copying, or distribution of this email (or any attachments thereto) by others is strictly prohibited. If you are not the intended recipient, please contact the sender immediately and permanently delete the original and any copies of this email and any attachments thereto. Thank you.

From: Tyson Schoelzel <Tyson.Schoelzel@sma-america.com>

Sent: Friday, February 4, 2022 1:03 PM

To: Packy Campbell <packyc@rsarealty.com>; Jose Colom <Jose.Colom@sma-america.com>; Gabriela Lopez <Gabriela.Lopez@sma-america.com>

Subject: FW: T3140 - Shaw Drive PV (1 MW) update - SISA

Adding another doc from another thread.

Hi Packy,

Thank you for connecting earlier today!

I am adding our Application Engineers to help support these utility info/doc requests.

- [@Jose Colom](#) and [@Gabriela Lopez](#), would you please assist in providing the Anti-islanding, TrOV, and any other info as requested below and in the attachment?

Cheers,

Tyson Schoelzel

[SMA YouTube Channel – Tech Tips](#)

Sign-up [here](#) for the SMA “Insider” Newsletter

Tyson Schoelzel

Territory Sales Manager, Northeast

Based in New Hampshire

USA Headquarters:

SMA America, LLC

3925 Atherton Rd

Rocklin, CA 95765

Mobile: 916-584-3975

Email: Tyson.Schoelzel@SMA-America.com

www.SMA-America.com

For Service Related Issues, please contact:

Service@SMA-America.com

Service: 1-877-697-6283

Service Hours: Monday-Friday, 9am-8pm ET

NEW! Online Service Center: https://www.my.sma-service.com/s/?language=en_US

SMA Solar Academy – Webinars and Trainings: <https://solaracademy.sma.de/en/courses.html>



Follow, Like, Share



This email and any attachments thereto may contain SMA America, LLC confidential, privileged and private material for the sole use of the intended recipient. Any review, copying, or distribution of this email (or any attachments thereto) by others is strictly prohibited. If you are not the intended recipient, please contact the sender immediately and permanently delete the original and any copies of this email and any attachments thereto. Thank You!

From: Packy Campbell <packyc@rsarealty.com>
Sent: Friday, February 4, 2022 1:35 PM
To: Tyson Schoelzel <Tyson.Schoelzel@sma-america.com>
Subject: FW: T3140 - Shaw Drive PV (1 MW) update - SISA

Tyson need that islanding letter ASAP

From: Eversource-NHDG <Eversource-NHDG@eversource.com>
Sent: Friday, February 4, 2022 1:21 PM
To: Packy Campbell <packyc@rsarealty.com>
Cc: Moawad, Mina <mina.moawad@eversource.com>; Labrecque, Richard C <richard.labrecque@eversource.com>
Subject: RE: T3140 - Shaw Drive PV (1 MW) update - SISA

Hi Packy,

Please find attached T3140 - Packy Campbell Shaw Drive PV – SIS Agreement. (\$25,000 & 65 Business Days)

The study will commence once the following is complete:

1. SISA is fully executed (must be met within 15 business days starting today to remain in queue).
2. Deposit is received.
3. Items 1 & 2 from the below email have been rectified (TOV Letter and Anti Islanding Documentation).

Let me know if you have any questions.

Regards,

Mina Moawad, P.Eng | Lead Engineer – Distributed Energy Resources (DER) Planning | Eversource Energy

780 N. Commercial Street | Manchester, NH | 03101

☎ : (603) 634-2920 | ✉ : mina.moawad@eversource.com

www.eversource.com

From: Labrecque, Richard C <richard.labrecque@eversource.com>
Sent: Wednesday, February 2, 2022 11:27 AM
To: Packy Campbell <packyc@rsarealty.com>
Cc: Moawad, Mina <mina.moawad@eversource.com>
Subject: T3140 - Shaw Drive PV (1 MW) update

Hi Packy – thank you for the updated documents. There are a few items outstanding:

1/ - please complete & return the attached form regarding Islanding Detection Information for the project inverters.

2/ - please see Section 2.3.1 of the linked document. We need you to submit proof of compliance with the TOV requirements:

https://www.eversource.com/content/docs/default-source/builders-contractors/der-information-technical-requirements-2020.pdf?sfvrsn=714fd562_0

3/ - Your One-Line (Equipment Schedule) lists the inverters as SHP3-135-US, which must be a typo.

4/ - The One-Line also indicates an incorrect line-up of interconnection poles. I am OK with fixing this in the 'as-built' documents. But, FYI, we will need ~5 new poles on the south side of the railroad tracks. Tentative line-up below:

- Eversource Pole #1 - a tap/take-off pole (somewhere between pole 5 and 8, TBD by Eversource field technician)
- Eversource Pole #2 – Eversource recloser
- Eversource Pole #3 – 1-phase 25 kVA transformer for load-side voltage sensing to the recloser controller
- Eversource Pole #4 – Primary metering equipment
- Customer Pole #1 – Riser pole with GOAB

We need #1 and #2 before we can start of the System Impact Study.

We will prepare the SIS Agreement and forward to you.

Thanks

Richard C. Labrecque
Manager - Distributed Energy Resource Planning | Eversource Energy
780 N. Commercial Street | Manchester, NH 03101
☎ : 603-634-2931 | 📠 : 603-634-2924 | ✉ : richard.labrecque@eversource.com

From: Packy Campbell <packyc@rsarealty.com>
Sent: Tuesday, February 1, 2022 12:38 PM
To: Labrecque, Richard C <richard.labrecque@eversource.com>
Subject: follow up

EVERSOURCE IT NOTICE – EXTERNAL EMAIL SENDER ** Don't be quick to click! ******

Do not click on links or attachments if sender is unknown or if the email is unexpected from someone you know, and never provide a user ID or password. Report suspicious emails by selecting 'Report Phish' or forwarding to SPAMFEEDBACK@EVERSOURCE.COM for analysis by our cyber security team.

Rick,

I have sent you the final line diagram, an over view of tracker layout and new interconnection form.

Please let me know if you have any other data needs or clarifications. Just want to confirm you are processing the information.

Do you need another 500 dollar check, or any other check?

All is well

Packy

This email has been scanned by the Mailprotector Email Security System. For more information please visit <http://mailprotector.com/email>

This electronic message contains information from Eversource Energy or its affiliates that may be confidential, proprietary or otherwise protected from disclosure. The information is intended to be used solely by the recipient(s) named. Any views or opinions expressed in this message are not necessarily those of Eversource Energy or its affiliates. Any disclosure, copying or distribution of this message or the taking of any action based on its contents, other than by the intended recipient for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Email transmission cannot be guaranteed to be error-free or secure or free from viruses, and Eversource Energy disclaims all liability for any resulting damage, errors, or omissions.

This email has been scanned by the Mailprotector Email Security System. For more information please visit <http://mailprotector.com/email>

This email has been scanned by the Mailprotector Email Security System. For more information please visit <http://mailprotector.com/email>

From: [Berlandy, Toni R](#)
To: [Packy Campbell](#)
Cc: [Atkinson, Brian](#); [Nowiszewski, Carl S](#)
Subject: RE: Confirming our meeting
Date: Thursday, June 29, 2023 3:57:12 PM
Attachments: [image001.png](#)

You too Packy! BBQ time?

From: Packy Campbell <packy@brightspot.solar>
Sent: Thursday, June 29, 2023 3:53 PM
To: Berlandy, Toni R <toni.berlandy@eversource.com>
Cc: Atkinson, Brian <brian.atkinson@eversource.com>; Nowiszewski, Carl S <carl.nowiszewski@eversource.com>
Subject: RE: Confirming our meeting

EVERSOURCE IT NOTICE – EXTERNAL EMAIL SENDER ** Don't be quick to click! ******

Do not click on links or attachments if sender is unknown or if the email is unexpected from someone you know, and never provide a user ID or password. Report suspicious emails by selecting 'Report Phish' or forwarding to SPAMFEEDBACK@EVERSOURCE.COM for analysis by our cyber security team.

Have a happy fourth of JULY

From: Berlandy, Toni R <toni.berlandy@eversource.com>
Sent: Thursday, June 29, 2023 1:16 PM
To: Packy Campbell <packy@brightspot.solar>
Cc: Atkinson, Brian <brian.atkinson@eversource.com>; Nowiszewski, Carl S <carl.nowiszewski@eversource.com>
Subject: RE: Confirming our meeting

Hi Packy,

I spoke with our engineering group today. Specifically with the designer of the proposed plan to bring 3phase down Shaw drive. The design is in process and is expected to be completed on or before July 15. At that time we will be able to provide you with the cost estimate. I will check in with them after the holiday to see if they are on track for that date. I will keep you informed.

Thanks,
Toni

From: Berlandy, Toni R
Sent: Tuesday, June 27, 2023 10:58 AM
To: Packy Campbell <packy@brightspot.solar>
Cc: Atkinson, Brian <brian.atkinson@eversource.com>; Nowiszewski, Carl S <carl.nowiszewski@eversource.com>

Subject: RE: Confirming our meeting

Sounds great Packy.

From: Packy Campbell <packy@brightspot.solar>

Sent: Tuesday, June 27, 2023 9:50 AM

To: Berlandy, Toni R <toni.berlandy@eversource.com>

Cc: Atkinson, Brian <brian.atkinson@eversource.com>; Nowiszewski, Carl S <carl.nowiszewski@eversource.com>

Subject: RE: Confirming our meeting

EVERSOURCE IT NOTICE – EXTERNAL EMAIL SENDER ** Don't be quick to click! ******

Do not click on links or attachments if sender is unknown or if the email is unexpected from someone you know, and never provide a user ID or password. Report suspicious emails by selecting 'Report Phish' or forwarding to SPAMFEEDBACK@EVERSOURCE.COM for analysis by our cyber security team.

I am getting comfortable with Shaw drive just need to see the final price.

Packy

From: Berlandy, Toni R <toni.berlandy@eversource.com>

Sent: Tuesday, June 27, 2023 8:42 AM

To: Packy Campbell <packy@brightspot.solar>

Cc: Atkinson, Brian <brian.atkinson@eversource.com>; Nowiszewski, Carl S <carl.nowiszewski@eversource.com>

Subject: RE: Confirming our meeting

Hi Packy,

I appreciate that Packy. I've checked in with engineering this morning. I will give you an update as soon as they provide it to me.

With regards to the poles from the current plan, I believe those poles are in the plan regardless if your project comes down Shaw drive or interconnects on the other side of the railroad crossing. If you come down Shaw, additional poles will be needed. Having said that, I'll confirm with Mike about the poles and let you know.

Thanks again Packy.

Toni

From: Packy Campbell <packy@brightspot.solar>

Sent: Monday, June 26, 2023 7:38 AM

To: Berlandy, Toni R <toni.berlandy@eversource.com>

Cc: Atkinson, Brian <brian.atkinson@eversource.com>; Nowiszewski, Carl S <carl.nowiszewski@eversource.com>

Subject: RE: Confirming our meeting

EVERSOURCE IT NOTICE – EXTERNAL EMAIL SENDER ** Don't be quick to click! ******

Do not click on links or attachments if sender is unknown or if the email is unexpected from someone you know, and never provide a user ID or password. Report suspicious emails by selecting 'Report Phish' or forwarding to SPAMFEEDBACK@EVERSOURCE.COM for analysis by our cyber security team.

Thanks you, Sorry for your loss.

Packy

From: Berlandy, Toni R <toni.berlandy@eversource.com>
Sent: Monday, June 26, 2023 7:16 AM
To: Packy Campbell <packy@brightspot.solar>
Cc: Atkinson, Brian <brian.atkinson@eversource.com>; Nowiszewski, Carl S <carl.nowiszewski@eversource.com>
Subject: RE: Confirming our meeting

Hi Packy,
I am out of the office today for a funeral. I reached out to for the estimate on Friday. I will follow up with them tomorrow.
Thanks,
Toni

From: Packy Campbell <packy@brightspot.solar>
Sent: Monday, June 26, 2023 6:41 AM
To: Berlandy, Toni R <toni.berlandy@eversource.com>
Cc: Atkinson, Brian <brian.atkinson@eversource.com>; Nowiszewski, Carl S <carl.nowiszewski@eversource.com>
Subject: RE: Confirming our meeting

EVERSOURCE IT NOTICE – EXTERNAL EMAIL SENDER ** Don't be quick to click! ******

Do not click on links or attachments if sender is unknown or if the email is unexpected from someone you know, and never provide a user ID or password. Report suspicious emails by selecting 'Report Phish' or forwarding to SPAMFEEDBACK@EVERSOURCE.COM for analysis by our cyber security team.

Toni,

Can I get a price for Shaw drive and the contract information for Mike Buzy?

To be clear the prior point of interconnection was given to me by Eversource, and I was told to get the underground easement.

Very frustrating that MIKE indicated I could check and get advice, IT was that advice that put us in the conflict in the first place.

Water over the dam now... moving on based on Mike telling me they want to remove those lines that makes sense why you would want to avoid adding new services.

I will be better at this going forward, and understand your organization has to come to consensus.

I understand his statement of around 500k and look forward to seeing the price point. NEED to know so I can cut a check.

I want to make sure that the 5 poles we were doing are now at least 5 of the poles we will do on Shaw drive. IE that prior estimate is part of the Shaw drive estimate.

I am just wanting to get this project done. I will deal with process more in the future.

Please advise.

Packy Campbell

From: Berlandy, Toni R <toni.berlandy@eversource.com>

Sent: Wednesday, June 14, 2023 4:49 PM

To: Packy Campbell <packy@brightspot.solar>

Subject: Confirming our meeting

Hi Packy,

Confirming that we will be meeting on site at 60 Shaw Dr. at 11:30am.

Look forward to meeting you in person! We will meet on Shaw Dr at Daigle's Way.

Thank you!

Toni Berlandy
Senior Account Executive, Distributed Energy Resources
Phone: 860-670-4408

Eversource Energy
107 Selden Street, Berlin, CT 06037

toni.berlandy@eversource.com
www.eversource.com

EVERSOURCE

This electronic message contains information from Eversource Energy or its affiliates that may be confidential, proprietary or otherwise protected from disclosure. The information is intended to be used solely by the recipient(s) named. Any views or opinions expressed in this message are not necessarily those of Eversource Energy or its affiliates. Any disclosure, copying or distribution of this message or the taking of any action based on its contents, other than by the intended recipient for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Email transmission cannot be guaranteed to be error-free or secure or free from viruses, and Eversource Energy disclaims all liability for any resulting damage, errors, or omissions.

This electronic message contains information from Eversource Energy or its affiliates that may be confidential, proprietary or otherwise protected from disclosure. The information is intended to be used solely by the recipient(s) named. Any views or opinions expressed in this message are not necessarily those of Eversource Energy or its affiliates. Any disclosure, copying or distribution of this message or the taking of any action based on its contents, other than by the intended recipient for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Email transmission cannot be guaranteed to be error-free or secure or free from viruses, and Eversource Energy disclaims all liability for any resulting damage, errors, or omissions.

This electronic message contains information from Eversource Energy or its affiliates that may be confidential, proprietary or otherwise protected from disclosure. The information is intended to be used solely by the recipient(s) named. Any views or opinions expressed in this message are not necessarily those of Eversource Energy or its affiliates. Any disclosure, copying or distribution of this message or the taking of any action based on its contents, other than by the intended recipient for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Email transmission cannot be guaranteed to be error-free or secure or free from viruses, and Eversource Energy disclaims all liability for any resulting damage, errors, or omissions.

This electronic message contains information from Eversource Energy or its affiliates that may be confidential, proprietary or otherwise protected from disclosure. The information is intended to be used solely by the recipient(s) named. Any views or opinions expressed in this message are not necessarily those of Eversource Energy or its affiliates. Any disclosure, copying or distribution of this message or the taking of any action based on its contents, other than by the intended recipient for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Email transmission cannot be guaranteed to be error-free or secure or free from viruses, and Eversource Energy disclaims all liability for any resulting damage, errors, or omissions.

This electronic message contains information from Eversource Energy or its affiliates that may be confidential, proprietary or otherwise protected from disclosure. The information is intended to be used solely by the recipient(s) named. Any views or opinions expressed in this message are not necessarily those of Eversource Energy or its affiliates. Any disclosure, copying or distribution of this message or the taking of any action based on its contents, other than by the intended recipient for its intended purpose, is strictly prohibited. If you have

received this e-mail in error, please notify the sender immediately and delete it from your system. Email transmission cannot be guaranteed to be error-free or secure or free from viruses, and Eversource Energy disclaims all liability for any resulting damage, errors, or omissions.

From: [Berlandy, Toni R](#)
To: [Packy Campbell](#)
Cc: [Nowiszewski, Carl S](#); [Kosko, Nikolai E](#)
Subject: 60 Shaw Drive Estimate
Date: Thursday, July 20, 2023 2:55:27 PM
Attachments: [image004.png](#)

Hi Packy,

Below is the estimated cost for conversion and the necessary work up to and including the primary metering.

Conversion.

2/3 of the cost of the work order for Packy to pay is \$184,750.58

Metering and Work Order

DG equipment including NOVA Primary metering and sensing can. \$26161.18

Primary metering and the work order. \$87123.62

	Packy	Eversource
Conversion		
	\$184,750.58	\$92,375.24
Metering & Work Order		
	\$26,161.18	
	\$87,123.62	
Total	\$298,035.38	\$92,375.24

Eversource will be covering \$92375.24 of the conversion.

Total cost to Packy not including his switch and underground and transformer. **\$301035.38**

Please let me know if you have any questions.

Thanks,

Toni

Toni Berlandy
Senior Account Executive, Distributed Energy Resources
Phone: 860-670-4408

Eversource Energy
107 Selden Street, Berlin, CT 06037

toni.berlandy@eversource.com
www.eversource.com

EVERSOURCE

This electronic message contains information from Eversource Energy or its affiliates that may be confidential, proprietary or otherwise protected from disclosure. The information is

intended to be used solely by the recipient(s) named. Any views or opinions expressed in this message are not necessarily those of Eversource Energy or its affiliates. Any disclosure, copying or distribution of this message or the taking of any action based on its contents, other than by the intended recipient for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Email transmission cannot be guaranteed to be error-free or secure or free from viruses, and Eversource Energy disclaims all liability for any resulting damage, errors, or omissions.

From: [Berlandy, Toni R](#)
To: [Packy Campbell](#)
Subject: RE: Follow up
Date: Tuesday, November 14, 2023 7:40:15 AM

Hi,
I'm sorry I missed talking with you yesterday. Please let me know when you are available to talk this morning?
Thanks,
Toni

From: Packy Campbell <packy@brightspot.solar>
Sent: Monday, November 13, 2023 8:13 AM
To: Berlandy, Toni R <toni.berlandy@eversource.com>
Cc: Nowiszewski, Carl S <carl.nowiszewski@eversource.com>; jim@jimshannonlaw.com; Robert Comeau <bob@brightspot.solar>; Atkinson, Brian <brian.atkinson@eversource.com>
Subject: RE: Follow up

EVERSOURCE IT NOTICE – EXTERNAL EMAIL SENDER *** Don't be quick to click! *******

Do not click on links or attachments if sender is unknown or if the email is unexpected from someone you know, and never provide a user ID or password. Report suspicious emails by selecting 'Report Phish' or forwarding to SPAMFEEDBACK@EVERSOURCE.COM for analysis by our cyber security team.

Thanks for update look forward to chatting with you today.

Packy

From: Berlandy, Toni R <toni.berlandy@eversource.com>
Sent: Friday, November 10, 2023 4:49 PM
To: Packy Campbell <packy@brightspot.solar>
Cc: Nowiszewski, Carl S <carl.nowiszewski@eversource.com>; jim@jimshannonlaw.com; Robert Comeau <bob@brightspot.solar>; Atkinson, Brian <brian.atkinson@eversource.com>
Subject: RE: Follow up

Hi Packy,
Thanks for your patience as we work through the final stages. Brian and I have the amended IA almost completed. I will call you on Monday to discuss the payment process and we can determine how the payment plan will look.
The GroWatt inverter that you are using for this project has been approved by DER Engineering for this project. However, this inverter does not appear in PowerClerk, because it is not on California Energy Commission (CEC) list. The CEC list is the national standard list of accepted inverters. It is source for the list of accepted inverters used in PowerClerk. Please have the manufacture go to the CEC site to have this inverter added to the list, so in the future you will be able to select it in PowerClerk. Here is the link solarequipment@energy.ca.gov.
Thank you and we will talk on Monday.

Toni

From: Packy Campbell <packy@brightspot.solar>
Sent: Friday, November 10, 2023 6:04 AM
To: Berlandy, Toni R <toni.berlandy@eversource.com>
Cc: Nowiszewski, Carl S <carl.nowiszewski@eversource.com>; jim@jimshannonlaw.com; Robert Comeau <bob@brightspot.solar>
Subject: Follow up

EVERSOURCE IT NOTICE – EXTERNAL EMAIL SENDER ** Don't be quick to click! ******

Do not click on links or attachments if sender is unknown or if the email is unexpected from someone you know, and never provide a user ID or password. Report suspicious emails by selecting 'Report Phish' or forwarding to SPAMFEEDBACK@EVERSOURCE.COM for analysis by our cyber security team.

Toni I emailed last week asking for update on the upgrade work. Let me know how we can process payments, as you know the 50k check I sent was never cashed after months and then finally I had to wire to get payment processed.

Would like to get terms and methods to pay remainder of estimate. About 251K total based on Shaw drive cost estimate email. Please respond last email I did not see response.

We will be done building the solar in 9 weeks. Will need to pole wire done by then. WE have the 1500 KVA inverter and PAD going in NEXT week. IC Reed will do work from PRIMARY meter to the Transformer.

Also want to get paperwork set up for Quarterly payments as the other accounts we did took long to get set up. I would like Eversource to follow state law that I passed on this matter.

Thanks

Packy

CC Partners

This electronic message contains information from Eversource Energy or its affiliates that may be confidential, proprietary or otherwise protected from disclosure. The information is intended to be used solely by the recipient(s) named. Any views or opinions expressed in this message are not necessarily those of Eversource Energy or its affiliates. Any disclosure, copying or distribution of this message or the taking of any action based on its contents, other than by the intended recipient for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Email transmission cannot be guaranteed to be

error-free or secure or free from viruses, and Eversource Energy disclaims all liability for any resulting damage, errors, or omissions.

This electronic message contains information from Eversource Energy or its affiliates that may be confidential, proprietary or otherwise protected from disclosure. The information is intended to be used solely by the recipient(s) named. Any views or opinions expressed in this message are not necessarily those of Eversource Energy or its affiliates. Any disclosure, copying or distribution of this message or the taking of any action based on its contents, other than by the intended recipient for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Email transmission cannot be guaranteed to be error-free or secure or free from viruses, and Eversource Energy disclaims all liability for any resulting damage, errors, or omissions.

From: [Berlandy, Toni R](#)
To: [Packy Campbell](#)
Cc: [Nowiszewski, Carl S](#); jim@jimshannonlaw.com; [Robert Comeau](#)
Subject: RE: Follow up
Date: Friday, November 10, 2023 7:59:29 AM

Hi Packy,
I apologize for the delay in response. There were some final decisions that had to be made. Brian and I are meeting today to update your original interconnection agreement. Once that is complete, we will get it to you for review and approval.
Thanks,
Toni

From: Packy Campbell <packy@brightspot.solar>
Sent: Friday, November 10, 2023 6:04 AM
To: Berlandy, Toni R <toni.berlandy@eversource.com>
Cc: Nowiszewski, Carl S <carl.nowiszewski@eversource.com>; jim@jimshannonlaw.com; Robert Comeau <bob@brightspot.solar>
Subject: Follow up

EVERSOURCE IT NOTICE – EXTERNAL EMAIL SENDER ** Don't be quick to click! ******

Do not click on links or attachments if sender is unknown or if the email is unexpected from someone you know, and never provide a user ID or password. Report suspicious emails by selecting 'Report Phish' or forwarding to SPAMFEEDBACK@EVERSOURCE.COM for analysis by our cyber security team.

Toni I emailed last week asking for update on the upgrade work. Let me know how we can process payments, as you know the 50k check I sent was never cashed after months and then finally I had to wire to get payment processed.

Would like to get terms and methods to pay remainder of estimate. About 251K total based on Shaw drive cost estimate email. Please respond last email I did not see response.

We will be done building the solar in 9 weeks. Will need to pole wire done by then. WE have the 1500 KVA inverter and PAD going in NEXT week. IC Reed will do work from PRIMARY meter to the Transformer.

Also want to get paperwork set up for Quarterly payments as the other accounts we did took long to get set up. I would like Eversource to follow state law that I passed on this matter.

Thanks

Packy

CC Partners

This electronic message contains information from Eversource Energy or its affiliates that may be confidential, proprietary or otherwise protected from disclosure. The information is intended to be used solely by the recipient(s) named. Any views or opinions expressed in this message are not necessarily those of Eversource Energy or its affiliates. Any disclosure, copying or distribution of this message or the taking of any action based on its contents, other than by the intended recipient for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Email transmission cannot be guaranteed to be error-free or secure or free from viruses, and Eversource Energy disclaims all liability for any resulting damage, errors, or omissions.

From: [Berlandy, Toni R](#)
To: [Packy Campbell](#)
Cc: [Atkinson, Brian](#)
Subject: RE: Question
Date: Wednesday, December 6, 2023 8:48:41 AM
Attachments: [image001.png](#)

Hi Packy,

Yes, the existing IA is being amended to meet the current project. Brian and I are reviewing and ensuring that all is in order. I have the pictures you sent me and those are being reviewed in tandem. The amended IA should be completed by close of business Friday, if not sooner.

Thanks,
Toni

From: Packy Campbell <packy@brightspot.solar>
Sent: Wednesday, December 6, 2023 2:41 AM
To: Berlandy, Toni R <toni.berlandy@eversource.com>
Subject: Re: Question

EVERSOURCE IT NOTICE – EXTERNAL EMAIL SENDER ** Don't be quick to click! ******

Do not click on links or attachments if sender is unknown or if the email is unexpected from someone you know, and never provide a user ID or password. Report suspicious emails by selecting 'Report Phish' or forwarding to SPAMFEEDBACK@EVERSOURCE.COM for analysis by our cyber security team.

Toni

Are you doing updated interconnection agreement as mentioned a few weeks ago?

Are we just going with what we have?

You mentioned additional fees for "solar stuff" did my photos alleviate that concern

Packy

Sent from my Verizon, Samsung Galaxy smartphone
Get [Outlook for Android](#)

From: Berlandy, Toni R <toni.berlandy@eversource.com>
Sent: Tuesday, December 5, 2023 3:43:38 PM
To: Packy Campbell <packy@brightspot.solar>
Cc: jim@jimshannonlaw.com <jim@jimshannonlaw.com>; brendac@rsarealty.com <brendac@rsarealty.com>
Subject: RE: Question

Hi Packy,

You are understanding this correctly.

The project must be >5MW to connect directly to our distribution line. We do this to protect the integrity of our infrastructure. So you will not be able to tap the distribution lines for this project.

The size limit of 1MW was changed in the last few years. There are currently multiple projects in queue that are 5MW, 11MW and 20MW.

I will check with operations on the status of the upgrade.

Thanks,
Toni

From: Packy Campbell <packy@brightspot.solar>
Sent: Tuesday, December 5, 2023 2:38 PM
To: Berlandy, Toni R <toni.berlandy@eversource.com>
Cc: jim@jimshannonlaw.com; brendac@rsarealty.com
Subject: Question

EVERSOURCE IT NOTICE – EXTERNAL EMAIL SENDER ** Don't be quick to click! ******

Do not click on links or attachments if sender is unknown or if the email is unexpected from someone you know, and never provide a user ID or password. Report suspicious emails by selecting 'Report Phish' or forwarding to SPAMFEEDBACK@EVERSOURCE.COM for analysis by our cyber security team.

Toni,

Can you please ask the powers that be if we can tap the grid at the wires on Shaw drive.

My understanding is that the policy is only if 5 mw or over can you tap transmission lines.

However, in NH your largest project is to 1 mw, Can we please tap these lines as this is the largest customer generation allowed under state law.

Either the tap works or it does not work? I am concerned that Eversource has not started any of the upgrade work and will be able to produce power shortly and would like to get it on the grid.

Packy Campbell

Founder

Brigth Spot Solar LLC

603 765 9101 cell

6038338870 office

www.brightspot.solar



This electronic message contains information from Eversource Energy or its affiliates that may be confidential, proprietary or otherwise protected from disclosure. The information is intended to be used solely by the recipient(s) named. Any views or opinions expressed in this message are not necessarily those of Eversource Energy or its affiliates. Any disclosure, copying or distribution of this message or the taking of any action based on its contents, other than by the intended recipient for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Email transmission cannot be guaranteed to be error-free or secure or free from viruses, and Eversource Energy disclaims all liability for any resulting damage, errors, or omissions.

This electronic message contains information from Eversource Energy or its affiliates that may be confidential, proprietary or otherwise protected from disclosure. The information is intended to be used solely by the recipient(s) named. Any views or opinions expressed in this message are not necessarily those of Eversource Energy or its affiliates. Any disclosure, copying or distribution of this message or the taking of any action based on its contents, other than by the intended recipient for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Email transmission cannot be guaranteed to be error-free or secure or free from viruses, and Eversource Energy disclaims all liability for any resulting damage, errors, or omissions.

From: [Berlandy, Toni R](#)
To: [Packy Campbell](#)
Cc: [Nowiszewski, Carl S](#); [Kosko, Nikolai E](#)
Subject: RE: 60 Shaw Drive Estimate
Date: Wednesday, July 26, 2023 5:02:50 PM
Attachments: [image002.png](#)
[Wire Transfer Instructions- PSNH - Distribution.pdf](#)

Hi Packy,

The check made its way to me. so I can return it to you at the address on the check. When you complete the wire transfer, please send me a copy of it. That way I can track it. I attached are the instructions for the transfer.

Thank you,
Toni

From: Packy Campbell <packy@brightspot.solar>
Sent: Wednesday, July 26, 2023 10:47 AM
To: Berlandy, Toni R <toni.berlandy@eversource.com>
Cc: Nowiszewski, Carl S <carl.nowiszewski@eversource.com>; Kosko, Nikolai E <nikolai.kosko@eversource.com>
Subject: RE: 60 Shaw Drive Estimate

EVERSOURCE IT NOTICE – EXTERNAL EMAIL SENDER ** Don't be quick to click! ******

Do not click on links or attachments if sender is unknown or if the email is unexpected from someone you know, and never provide a user ID or password. Report suspicious emails by selecting 'Report Phish' or forwarding to SPAMFEEDBACK@EVERSOURCE.COM for analysis by our cyber security team.

Toni, and Nick,

Here is the updated site plan showing the poles from Shaw drive end showing proposed service and inverter locations. Want to blend that with new design coming down Shaw drive, IE we use the poles we need anyway for the equipment.

Please confirm if 50k check has been cashed, it may not clear as is 2 months old, If you want to mail back and send wire instructions I can get that fee paid by wire.

Looks like pricing is similar to first estimate I propose we send August payment same amount as in the current signed agreement and then reconcile at end? Is that okay, I want to get the payment issue done.

Difficult for me that check has not been cashed, I need to show my lender check has cleared to close my construction loan.

We are working on site work now and ordering material and this is holding up my construction loan closing.

Please advise if you have the 50k and can deposit today? Or if we need to wire you funds.

Packy

From: Berlandy, Toni R <toni.berlandy@eversource.com>
Sent: Thursday, July 20, 2023 2:55 PM
To: Packy Campbell <packy@brightspot.solar>
Cc: Nowiszewski, Carl S <carl.nowiszewski@eversource.com>; Kosko, Nickolai E <nickolai.kosko@eversource.com>
Subject: 60 Shaw Drive Estimate

Hi Packy,

Below is the estimated cost for conversion and the necessary work up to and including the primary metering.

Conversion.

2/3 of the cost of the work order for Packy to pay is \$184,750.58

Metering and Work Order

DG equipment including NOVA Primary metering and sensing can. \$26161.18

Primary metering and the work order. \$87123.62

	Packy	Eversource
Conversion		
	\$184,750.58	\$92,375.24
Metering & Work Order		
	\$26,161.18	
	\$87,123.62	
Total	\$298,035.38	\$92,375.24

Eversource will be covering \$92375.24 of the conversion.

Total cost to Packy not including his switch and underground and transformer. **\$301035.38**

Please let me know if you have any questions.

Thanks,
Toni

Toni Berlandy
Senior Account Executive, Distributed Energy Resources

Phone: 860-670-4408
Eversource Energy
107 Selden Street, Berlin, CT 06037
toni.berlandy@eversource.com
www.eversource.com

EVERSOURCE

This electronic message contains information from Eversource Energy or its affiliates that may be confidential, proprietary or otherwise protected from disclosure. The information is intended to be used solely by the recipient(s) named. Any views or opinions expressed in this message are not necessarily those of Eversource Energy or its affiliates. Any disclosure, copying or distribution of this message or the taking of any action based on its contents, other than by the intended recipient for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Email transmission cannot be guaranteed to be error-free or secure or free from viruses, and Eversource Energy disclaims all liability for any resulting damage, errors, or omissions.

This electronic message contains information from Eversource Energy or its affiliates that may be confidential, proprietary or otherwise protected from disclosure. The information is intended to be used solely by the recipient(s) named. Any views or opinions expressed in this message are not necessarily those of Eversource Energy or its affiliates. Any disclosure, copying or distribution of this message or the taking of any action based on its contents, other than by the intended recipient for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Email transmission cannot be guaranteed to be error-free or secure or free from viruses, and Eversource Energy disclaims all liability for any resulting damage, errors, or omissions.

From: [Berlandy, Toni R](#)
To: [Packy Campbell](#)
Cc: jim@jimshannonlaw.com; brendac@rsarealty.com
Subject: RE: Question
Date: Tuesday, December 5, 2023 3:43:49 PM
Attachments: [image001.png](#)

Hi Packy,

You are understanding this correctly.

The project must be >5MW to connect directly to our distribution line. We do this to protect the integrity of our infrastructure. So you will not be able to tap the distribution lines for this project.

The size limit of 1MW was changed in the last few years. There are currently multiple projects in queue that are 5MW, 11MW and 20MW.

I will check with operations on the status of the upgrade.

Thanks,

Toni

From: Packy Campbell <packy@brightspot.solar>
Sent: Tuesday, December 5, 2023 2:38 PM
To: Berlandy, Toni R <toni.berlandy@eversource.com>
Cc: jim@jimshannonlaw.com; brendac@rsarealty.com
Subject: Question

EVERSOURCE IT NOTICE – EXTERNAL EMAIL SENDER ** Don't be quick to click! ******

Do not click on links or attachments if sender is unknown or if the email is unexpected from someone you know, and never provide a user ID or password. Report suspicious emails by selecting 'Report Phish' or forwarding to SPAMFEEDBACK@EVERSOURCE.COM for analysis by our cyber security team.

Toni,

Can you please ask the powers that be if we can tap the grid at the wires on Shaw drive.

My understanding is that the policy is only if 5 mw or over can you tap transmission lines.

However, in NH your largest project is to 1 mw, Can we please tap these lines as this is the largest customer generation allowed under state law.

Either the tap works or it does not work? I am concerned that Eversource has not started any of the upgrade work and will be able to produce power shortly and would like to get it on the grid.

Packy Campbell

Founder

Brighth Spot Solar LLC

603 765 9101 cell



This electronic message contains information from Eversource Energy or its affiliates that may be confidential, proprietary or otherwise protected from disclosure. The information is intended to be used solely by the recipient(s) named. Any views or opinions expressed in this message are not necessarily those of Eversource Energy or its affiliates. Any disclosure, copying or distribution of this message or the taking of any action based on its contents, other than by the intended recipient for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Email transmission cannot be guaranteed to be error-free or secure or free from viruses, and Eversource Energy disclaims all liability for any resulting damage, errors, or omissions.

From: [Berlandy, Toni R](#)
To: [Packy Campbell](#)
Cc: [Atkinson, Brian](#); [Nowiszewski, Carl S](#)
Subject: RE: Confirming our meeting
Date: Monday, June 26, 2023 7:15:53 AM
Attachments: [image002.png](#)

Hi Packy,

I am out of the office today for a funeral. I reached out to for the estimate on Friday. I will follow up with them tomorrow.

Thanks,

Toni

From: Packy Campbell <packy@brightspot.solar>
Sent: Monday, June 26, 2023 6:41 AM
To: Berlandy, Toni R <toni.berlandy@eversource.com>
Cc: Atkinson, Brian <brian.atkinson@eversource.com>; Nowiszewski, Carl S <carl.nowiszewski@eversource.com>
Subject: RE: Confirming our meeting

EVERSOURCE IT NOTICE – EXTERNAL EMAIL SENDER ** Don't be quick to click! ******

Do not click on links or attachments if sender is unknown or if the email is unexpected from someone you know, and never provide a user ID or password. Report suspicious emails by selecting 'Report Phish' or forwarding to SPAMFEEDBACK@EVERSOURCE.COM for analysis by our cyber security team.

Toni,

Can I get a price for Shaw drive and the contract information for Mike Buzy?

To be clear the prior point of interconnection was given to me by Eversource, and I was told to get the underground easement.

Very frustrating that MIKE indicated I could check and get advice, IT was that advice that put us in the conflict in the first place.

Water over the dam now... moving on based on Mike telling me they want to remove those lines that makes sense why you would want to avoid adding new services.

I will be better at this going forward, and understand your organization has to come to consensus.

I understand his statement of around 500k and look forward to seeing the price point. NEED to know so I can cut a check.

I want to make sure that the 5 poles we were doing are now at least 5 of the poles we will do on Shaw drive. IE that prior estimate is part of the Shaw drive estimate.

I am just wanting to get this project done. I will deal with process more in the future.

Please advise.

Packy Campbell

From: Berlandy, Toni R <toni.berlandy@eversource.com>

Sent: Wednesday, June 14, 2023 4:49 PM

To: Packy Campbell <packy@brightspot.solar>

Subject: Confirming our meeting

Hi Packy,

Confirming that we will be meeting on site at 60 Shaw Dr. at 11:30am.

Look forward to meeting you in person! We will meet on Shaw Dr at Daigle's Way.

Thank you!

Toni Berlandy
Senior Account Executive, Distributed Energy Resources
Phone: 860-670-4408

Eversource Energy
107 Selden Street, Berlin, CT 06037

toni.berlandy@eversource.com
www.eversource.com

EVERSOURCE

This electronic message contains information from Eversource Energy or its affiliates that may be confidential, proprietary or otherwise protected from disclosure. The information is intended to be used solely by the recipient(s) named. Any views or opinions expressed in this message are not necessarily those of Eversource Energy or its affiliates. Any disclosure, copying or distribution of this message or the taking of any action based on its contents, other than by the intended recipient for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Email transmission cannot be guaranteed to be error-free or secure or free from viruses, and Eversource Energy disclaims all liability for any resulting damage, errors, or omissions.

This electronic message contains information from Eversource Energy or its affiliates that may be confidential, proprietary or otherwise protected from disclosure. The information is

intended to be used solely by the recipient(s) named. Any views or opinions expressed in this message are not necessarily those of Eversource Energy or its affiliates. Any disclosure, copying or distribution of this message or the taking of any action based on its contents, other than by the intended recipient for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Email transmission cannot be guaranteed to be error-free or secure or free from viruses, and Eversource Energy disclaims all liability for any resulting damage, errors, or omissions.

From: [Jim Shannon](#)
To: [Packy Campbell](#)
Subject: Fwd: RE: #T3140 Shaw Drive Facility Study Agreement
Date: Tuesday, January 30, 2024 4:57:55 PM

----- Original Message -----

Subject: RE: #T3140 Shaw Drive Facility Study Agreement
Date: 2022-10-03 2:44 pm
From: "Atkinson, Brian" <brian.atkinson@eversource.com>
To: Packy Campbell <packyc@rsarealty.com>, EversourceNHDER
<Eversource-NHDER@eversource.com>, "brendac@rsarealty.com"
<brendac@rsarealty.com>
Cc: "Nowiszewski, Carl S" <carl.nowiszewski@eversource.com>, "Berlandy,
Toni R" <toni.berlandy@eversource.com>, "jim@jimshannonlaw.com"
<jim@jimshannonlaw.com>, "bob@brightspot.solar" <bob@brightspot.solar>

Hi Packy

The address is:

Eversource Energy

780 North Commercial St

Manchester, NH 03105-0330

Attn: Toni Berlandi

Brian

From: Packy Campbell <packyc@rsarealty.com>
Sent: Wednesday, September 28, 2022 4:30 PM
To: EversourceNHDER <Eversource-NHDER@eversource.com>;
brendac@rsarealty.com
Cc: Atkinson, Brian <brian.atkinson@eversource.com>; Nowiszewski, Carl S
<carl.nowiszewski@eversource.com>; Berlandy, Toni R
<toni.berlandy@eversource.com>; jim@jimshannonlaw.com;
bob@brightspot.solar
Subject: RE: #T3140 Shaw Drive Facility Study Agreement

EVERSOURCE IT NOTICE - EXTERNAL EMAIL SENDER ***** Don't be quick to
click! *****

Do not click on links or attachments if sender is unknown or if the
email is unexpected from someone you know, and never provide a user ID
or password. Report suspicious emails by selecting 'Report Phish' or
forwarding to SPAMFEEDBACK@EVERSOURCE.COM for analysis by our cyber
security team.

Toni,

Thanks for sending over the agreement, look forward to getting this
project built.

Here is the signed facilities study agreement. The agreement does not
provide a mailing address other than Manchester NH?

Can you confirm an address to mail a hard copy and the check for
\$12,000.00

Thanks

Packy

From: EversourceNHDER <Eversource-NHDER@eversource.com>
Sent: Tuesday, September 27, 2022 10:10 AM
To: Packy Campbell <packyc@rsarealty.com>; EversourceNHDER <Eversource-NHDER@eversource.com>
Cc: Atkinson, Brian <brian.atkinson@eversource.com>; Nowiszewski, Carl S <carl.nowiszewski@eversource.com>
Subject: #T3140 Shaw Drive Facility Study Agreement

Hi Packy,

I hope this finds you well.

As we discussed last week, attached please find the Facility Study Agreement for Shaw Dr. Please let me know if you have any questions.

Thank you!

Toni

Toni Berlandy

Senior Account Executive, Distributed Generation

_Phone: 860-670-4408__ _

--

Eversource Energy

107 Selden Street, Berlin, CT 06037

--

_toni.berlandy@eversource.com__ _

www.eversource.com [1]

This electronic message contains information from Eversource Energy or its affiliates that may be confidential, proprietary or otherwise protected from disclosure. The information is intended to be used solely by the recipient(s) named. Any views or opinions expressed in this message are not necessarily those of Eversource Energy or its affiliates. Any disclosure, copying or distribution of this message or the taking of any action based on its contents, other than by the intended recipient for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Email transmission cannot be guaranteed to be error-free or secure or free from viruses, and Eversource Energy disclaims all liability for any resulting damage, errors, or omissions.

This email has been scanned by the Mailprotector Email Security System. For more information please visit <http://mailprotector.com/email> [2]

This electronic message contains information from Eversource Energy or its affiliates that may be confidential, proprietary or otherwise protected from disclosure. The information is intended to be used solely by the recipient(s) named. Any views or opinions expressed in this message are not necessarily those of Eversource Energy or its affiliates. Any disclosure, copying or distribution of this message or the taking of any action based on its contents, other than by the

intended recipient for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Email transmission cannot be guaranteed to be error-free or secure or free from viruses, and Eversource Energy disclaims all liability for any resulting damage, errors, or omissions.

Links:

[1] <http://www.eversource.com/>

[2]

[https://urldefense.com/v3/___http://mailprotector.com/email___:!!A_2VBGNDm7Y!tFoqyHHjpe3AGz_4G3DZjlkfh7YvU1RRKsPPtit68chO-pgzyK7kgS1KN7s3ec8ZBUz1elyDohdyj-iOYogDuuQ\\$](https://urldefense.com/v3/___http://mailprotector.com/email___:!!A_2VBGNDm7Y!tFoqyHHjpe3AGz_4G3DZjlkfh7YvU1RRKsPPtit68chO-pgzyK7kgS1KN7s3ec8ZBUz1elyDohdyj-iOYogDuuQ$)

From: [Jim Shannon](#)
To: [Packy Campbell](#)
Subject: Fwd: RE: 60 Shaw Drive Rochester NH
Date: Tuesday, January 30, 2024 4:57:11 PM

----- Original Message -----

Subject: RE: 60 Shaw Drive Rochester NH
Date: 2022-08-31 5:05 pm
From: "Nowiszewski, Carl S" <carl.nowiszewski@eversource.com>
To: Packy Campbell <packyc@rsarealty.com>
Cc: "jim@jimshannonlaw.com" <jim@jimshannonlaw.com>, "Berlandy, Toni R" <toni.berlandy@eversource.com>

Hi Packy,

Nice to reconnect with you. As you know I am your customer advocate within Eversource and want to introduce you to an additional member of our team, Toni Berlandy, if you have not met her yet. I know she was trying to reach you by phone. We met today with DER Planning today on your project and need to confer with some other engineers and management to further get your questions resolved. Sorry this is taking so long, but this particular site, looking at this as a former private developer and now from the Eversource perspective- it is not an easy site to interconnect, with a feed from one side and access from the other, railroad on one side and three phase extension and transmission lines to cross on the other. We are trying to be creative and accommodating but this takes some time. Thanks for your patience.

Carl Nowiszewski

Manager, Customer Care

Distributed Energy Resources

Connecticut and New Hampshire

Eversource Energy

107 Selden Street

Berlin, CT 06037

Office: 860-665-5205

From: Packy Campbell <packyc@rsarealty.com>
Sent: Wednesday, August 31, 2022 12:45 PM
To: Nowiszewski, Carl S <carl.nowiszewski@eversource.com>
Cc: jim@jimshannonlaw.com
Subject: 60 Shaw Drive Rochester NH

EVERSOURCE IT NOTICE - EXTERNAL EMAIL SENDER ***** Don't be quick to click! *****

Do not click on links or attachments if sender is unknown or if the email is unexpected from someone you know, and never provide a user ID or password. Report suspicious emails by selecting 'Report Phish' or forwarding to SPAMFEEDBACK@EVERSOURCE.COM for analysis by our cyber security team.

Carl,

Can you please help me with getting 60 Shaw Drive interconnection design sent to me.

Attached is the various applications we have done and the study agreement now 6 months old. Also the tie in point in publisher of the spot where we agreed the study would be completed. And would be the tie in point.

I have secured an easement to go under the rail road, it is also at a point were a prior overhead crossing of the rail road existed. I am fine with a design for overhead or underground.

The line has 35000 volts and a user with 2 1000KVA transformer just a few poles down the line. IE the power will be consumed and used in close proximity to the solar.

I would like to see a response and at lease a plan for a path forward and a copy of the completed Study. I believe the work was completed on the study some time ago.

I do not want to push the panic button here and hope you can understand if I need to reach out to government regulators and file a formal customer complaint that is not my first choice. Please advise I have been told next week one too many times.

I have several more of up to 1 mw projects in the works and want to understand the process and work smoothly with all the utilities.

Packy Campbell

Bright Spot Solar

www.brightspot.solar [1]

info@brightspot.solar

6038338870

This email has been scanned by the Mailprotector Email Security System.
For more information please visit <http://mailprotector.com/email> [2]

This electronic message contains information from Eversource Energy or its affiliates that may be confidential, proprietary or otherwise protected from disclosure. The information is intended to be used solely by the recipient(s) named. Any views or opinions expressed in this message are not necessarily those of Eversource Energy or its affiliates. Any disclosure, copying or distribution of this message or the taking of any action based on its contents, other than by the intended recipient for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Email transmission cannot be guaranteed to be error-free or secure or free from viruses, and Eversource Energy disclaims all liability for any resulting damage, errors, or omissions.

Links:

[1]

https://urldefense.com/v3/_http://www.brightspot.solar/_:!!A_2VBGNDm7Y!siOD8itACCqAK7aPAdGOpZSjWWxEQrU6vSfjV_4OOUh8YcESerVOZSxYU1SXN79J7mhUXWN3Ege92WX_3vFYOXtESAS

[2]

https://urldefense.com/v3/_http://mailprotector.com/email_:!!A_2VBGNDm7Y!siOD8itACCqAK7aPAdGOpZSjWWxEQrU6vSfjV_4OOUh8YcESerVOZSxYU1SXN79J7mhUXWN3Ege92WX_3vGGwbPyZAS

From: [Jim Shannon](#)
To: [Packy Campbell](#)
Subject: Fwd: RE: 60 Shaw Drive 2 years no interconnection?
Date: Tuesday, January 30, 2024 4:56:49 PM

----- Original Message -----

Subject: RE: 60 Shaw Drive 2 years no interconnection?
Date: 2022-08-31 4:09 pm
From: "Atkinson, Brian" <brian.atkinson@eversource.com>
To: Packy Campbell <packyc@rsarealty.com>, "Moawad, Mina" <mina.moawad@eversource.com>
Cc: "Nowiszewski, Carl S" <carl.nowiszewski@eversource.com>, "jim@jimshannonlaw.com" <jim@jimshannonlaw.com>, Sam Evans-Brown <sam@cleanenergynh.org>, "Wiesner, David K" <David.K.Wiesner@energy.nh.gov>, Michael Harrington <harringt@metrocast.net>, sgeiger <sgeiger@orr-reno.com>, "Berlandy, Toni R" <toni.berlandy@eversource.com>

Hi Packy - acknowledging receipt of your emails.

It's taken longer than expected to get a decision but we're close.

Thank you for your patience - if you can hang in there a few more days I anticipate we'll be able to come back to you with an answer.

Brian

From: Packy Campbell <packyc@rsarealty.com>
Sent: Wednesday, August 31, 2022 9:06 AM
To: Atkinson, Brian <brian.atkinson@eversource.com>; Moawad, Mina <mina.moawad@eversource.com>
Cc: Nowiszewski, Carl S <carl.nowiszewski@eversource.com>; jim@jimshannonlaw.com; Sam Evans-Brown <sam@cleanenergynh.org>; Wiesner, David K <David.K.Wiesner@energy.nh.gov>; Michael Harrington <harringt@metrocast.net>; sgeiger <sgeiger@orr-reno.com>
Subject: 60 Shaw Drive 2 years no interconnection?

EVERSOURCE IT NOTICE - EXTERNAL EMAIL SENDER **** Don't be quick to click! ****

Do not click on links or attachments if sender is unknown or if the email is unexpected from someone you know, and never provide a user ID or password. Report suspicious emails by selecting 'Report Phish' or forwarding to SPAMFEEDBACK@EVERSOURCE.COM for analysis by our cyber security team.

Brian,

I have sent a few emails requesting a status update on the

interconnection approval and or a copy of the interconnection study.?

Have I missed responses. ? Can you let me know if Eversource intends to issue my interconnection ?

Would appreciate an acknowledgement of my emails. And would like a phone number to call to discuss with the appropriate person to get this approved.

Packy Campbell

Bright Spot Solar

www.brightspot.solar [1]

info@brightspot.solar

6038338870

This email has been scanned by the Mailprotector Email Security System. For more information please visit <http://mailprotector.com/email> [2]

This electronic message contains information from Eversource Energy or its affiliates that may be confidential, proprietary or otherwise protected from disclosure. The information is intended to be used solely by the recipient(s) named. Any views or opinions expressed in this message are not necessarily those of Eversource Energy or its affiliates. Any disclosure, copying or distribution of this message or the taking of any action based on its contents, other than by the intended recipient for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Email transmission cannot be guaranteed to be error-free or secure or free from viruses, and Eversource Energy disclaims all liability for any resulting damage, errors, or omissions.

Links:

[1]

[https://urldefense.com/v3/_http://www.brightspot.solar/_:!!A_2VBGNDm7Y!u-JO58iJ2F0jm-zeS4H7HVabjhEaCgwiO5oikR1J1bTWgCZhGfS1hCK_zdtRsjYRn828kLfGS7po38j6-cM8YF0\\$](https://urldefense.com/v3/_http://www.brightspot.solar/_:!!A_2VBGNDm7Y!u-JO58iJ2F0jm-zeS4H7HVabjhEaCgwiO5oikR1J1bTWgCZhGfS1hCK_zdtRsjYRn828kLfGS7po38j6-cM8YF0$)

[2]

[https://urldefense.com/v3/_http://mailprotector.com/email/_:!!A_2VBGNDm7Y!u-JO58iJ2F0jm-zeS4H7HVabjhEaCgwiO5oikR1J1bTWgCZhGfS1hCK_zdtRsjYRn828kLfGS7po38j6ooBwSC4\\$](https://urldefense.com/v3/_http://mailprotector.com/email/_:!!A_2VBGNDm7Y!u-JO58iJ2F0jm-zeS4H7HVabjhEaCgwiO5oikR1J1bTWgCZhGfS1hCK_zdtRsjYRn828kLfGS7po38j6ooBwSC4$)

From: [Jim Shannon](#)
To: [Packy Campbell](#)
Subject: Fwd: RE: #T3140 Packy Campbell - Shaw Drive PV, Pre-Application Report
Date: Tuesday, January 30, 2024 4:49:34 PM

----- Original Message -----

Subject: RE: #T3140 Packy Campbell - Shaw Drive PV, Pre-Application Report

Date: 2021-11-08 8:56 am

From: Packy Campbell <packyc@rsarealty.com>

To: "russ@rdpe.biz" <russ@rdpe.biz>, 'Brenda Campbell' <brendac@rsarealty.com>

Cc: 'Jim Shannon' <jim@jimshannonlaw.com>, 'Robert Comeau' <comeauelectricllc@gmail.com>

Russ,

We had talked about getting an estimate from some companies,

Can you give me some names and I will reach out and send them the questions and final issues from eversource to see if they can help with that along with an estimate for the installations of the utility side of things,

Bob would we want a quote for any work on our side of the meter?

Packy

From: russ@rdpe.biz <russ@rdpe.biz>

Sent: Wednesday, July 7, 2021 9:12 AM

To: Packy Campbell <packyc@rsarealty.com>; 'Brenda Campbell' <brendac@rsarealty.com>

Cc: 'Jim Shannon' <jim@jimshannonlaw.com>; 'Robert Comeau' <comeauelectricllc@gmail.com>

Subject: RE: #T3140 Packy Campbell - Shaw Drive PV, Pre-Application Report

Hi Packy,

I will try to get my end of the design completed by end of next week.

Russ

From: Packy Campbell <packyc@rsarealty.com>

Sent: Wednesday, July 7, 2021 8:07 AM

To: Russell Downing <russ@rdpe.biz>; Brenda Campbell <brendac@rsarealty.com>

Cc: Jim Shannon <jim@jimshannonlaw.com>; Robert Comeau <comeauelectricllc@gmail.com>

Subject: Fw: #T3140 Packy Campbell - Shaw Drive PV, Pre-Application Report

Russ,

this was the last communication from eversource. I am not sure what my next move is?

You had mentioned needing to do some modifications to the desing?

Jim can you read this data below and figure out what we need to send for an additional application.

I am going to close on the land end of month and get this approval going with town and eversource.

Packy

Packy Campbell
Broker Owner Realtor

123 Washington St
Rochester NH 03839

603-332-1100 office
603-332-1900 fax

603-765-9101 cell

From: russ@rdpe.biz <russ@rdpe.biz>
Sent: Friday, May 28, 2021 8:05 AM
To: Packy Campbell <packyc@rsarealty.com>; jim@jimshannonlaw.com <jim@jimshannonlaw.com>
Subject: RE: #T3140 Packy Campbell - Shaw Drive PV, Pre-Application Report

Yes.

From: Packy Campbell <packyc@rsarealty.com>
Sent: Thursday, May 27, 2021 5:23 PM
To: Russell Downing <russ@rdpe.biz>; jim@jimshannonlaw.com
Subject: FW: #T3140 Packy Campbell - Shaw Drive PV, Pre-Application Report

Russ,

Can we set a goal to respond to this by next Thursday.

I want to get him what he needs and keep project moving forward.

Thanks

Packy

From: Motta, Michael D <michael.motta@eversource.com>
Sent: Friday, May 14, 2021 10:32 AM
To: Packy Campbell <packyc@rsarealty.com>

Cc: Labrecque, Richard C <richard.labrecque@eversource.com>
Subject: #T3140 Packy Campbell - Shaw Drive PV, Pre-Application Report

Good Morning Packy,

Attached is the completed Pre-Application Report for your proposed 1.0 MW (AC) photovoltaic project #T3140 Packy Campbell - Shaw Drive PV to be located along Shaw Drive in Rochester, NH.

I have included some additional information relative to Eversource's Technical Guidelines for Generator Interconnections. All projects will be required to comply with the Eversource Technical Guidelines for Generator Interconnection [1]. Developers should carefully review these guidelines prior to designing, purchasing or installing any generation equipment, transformers or associated switchgear. Customers or developers that are in the early stages of considering a project and would like some basic information about the potential interconnection are encouraged to contact Eversource Distributed Generation (contact information below).

https://www.eversource.com/content/docs/default-source/builders-contractors/der-information-technical-requirements-2020.pdf?sfvrsn=714fd562_0

[2]

Lastly, please remember to include the following documents when submitting the Interconnection Application.

- * Documentation that the applicant has control of the property on which the proposed facility shall be located must be submitted with the Interconnection Request. The documentation shall include proof of ownership, a leasehold interest, a right to develop, or an option to acquire the site, and municipal tax maps indicating the parcel(s) on which the proposed facility shall be located.

- * Islanding detection information of inverter.

- * Transient over voltage (TOV) documentation to demonstrate the compliance of new inverter with IEEE1547-2018.

Please contact me should you have any questions or require additional information.

Regards,

Michael D. Motta
Lead Engineer, Eversource New Hampshire - Distributed Energy Resources
780 North Commercial Street
Manchester, NH 03105
Home Office: 603.634.2920

michael.motta@eversource.com

This electronic message contains information from Eversource Energy or its affiliates that may be confidential, proprietary or otherwise protected from disclosure. The information is intended to be used solely

by the recipient(s) named. Any views or opinions expressed in this message are not necessarily those of Eversource Energy or its affiliates. Any disclosure, copying or distribution of this message or the taking of any action based on its contents, other than by the intended recipient for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Email transmission cannot be guaranteed to be error-free or secure or free from viruses, and Eversource Energy disclaims all liability for any resulting damage, errors, or omissions.

This email has been scanned by the Mailprotector Email Security System.
For more information please visit <http://mailprotector.com/email>
This email has been scanned by the Mailprotector Email Security System.
For more information please visit <http://mailprotector.com/email>

Links:

[1]

<https://www.eversource.com/Content/docs/default-source/nh---pdfs/der-information-andtechnical-requirements-03242017.pdf?sfvrsn=0>

[2]

https://www.eversource.com/content/docs/default-source/builders-contractors/der-information-technical-requirements-2020.pdf?sfvrsn=714fd562_0

From: [Jim Shannon](#)
To: [Packy Campbell](#)
Subject: Fwd: RE: Shaw Drive Solar project [T3140]
Date: Tuesday, January 30, 2024 4:46:49 PM
Attachments: [E0.1 final line drawing.pdf](#)

----- Original Message -----

Subject: RE: Shaw Drive Solar project [T3140]
Date: 2022-01-13 3:32 pm
From: Packy Campbell <packyc@rsarealty.com>
To: "Labrecque, Richard C" <richard.labrecque@eversource.com>, "russ@rdpe.biz" <russ@rdpe.biz>, "Moawad, Mina" <mina.moawad@eversource.com>, Robert Comeau <comeauelectricllc@gmail.com>, "jim@jimshannonlaw.com" <jim@jimshannonlaw.com>
Cc: "Amber, Jeannie M" <jeannie.amber@eversource.com>

Amber and Richard,

Here is the updated what I hope is the final drawing for Shaw drive. We found some off this about as easy as putting toothpaste back in the tube...

I think we got it please advise if you have any questions.

We would like to keep moving forward on the project please advise our next steps in the process.

We did record the utility easement to bring power connection under the rail lines.

Packy

6037659101

From: Amber, Jeannie M <jeannie.amber@eversource.com>
Sent: Friday, August 13, 2021 2:33 PM
To: Packy Campbell <packyc@rsarealty.com>; Labrecque, Richard C <richard.labrecque@eversource.com>; russ@rdpe.biz; Moawad, Mina <mina.moawad@eversource.com>
Cc: comeauelectricllc@gmail.com; jim@jimshannonlaw.com
Subject: RE: Shaw Drive Solar project [T3140]

Packy, Russ,

Please see below comments on the one line. The first 5 comments are required in order to complete the facility model, and are therefore required for the interconnection package to be deemed complete.

- The one line needs to use standard one line symbology (e.g. for the customer-owned GOAB, transformer, etc). See NFPA

70B or IEEE Standard 141 for symbols in typical electrical single-line diagram development.

- Indicate the inverter voltage and frequency trip settings per the ES interconnection technical requirements on the one line and whether the inverters are UL 1741 SA certified.
- Indicate the point of demarcation between utility and customer ownership on the one line.
- The intertie transformer is required to be shown with the impedance and expected X/R ratio. Thank you for indicating the configuration, size and voltages.
- A grounding transformer is required for this size project. It shall be shown with the size, impedance, and X/R ratio on the one line, and the final impedance is subject to utility acceptance as part of the impact study.
- The GOAB is customer-owned and installed. We do not build the GOAB or customer conduits. Please expect the GOAB/riser pole to be built by the customer, as all equipment past the utility meter is customer-owned.
- The utility lineup for this 1MW project will be a minimum of 3 poles depending on the physical location: Recloser, voltage transformer, meter.
- Show any customer-owned protective relaying and circuit breakers/reclosers used for site protection. Note that the facility cannot rely on utility-owned devices for site protection.
- Show any interlocks used to prevent the PV from operating when the grounding transformer is tripped or otherwise out of service as applicable.

Thanks,

Jeannie M. Amber, P.E.

Senior Engineer

Distributed Energy Resource Planning

780 N Commercial Street

Manchester, NH 03101

T: 603-634-2256 or

T: 802-489-4019.

Working Hours 8-4:30.

MA PE License #56234

Eversource NH DER Interconnection Website

Eversource NH DER Technical Interconnection Requirements

-----Original Message-----

From: Packy Campbell <packyc@rsarealty.com>
Sent: Friday, August 13, 2021 9:28 AM
To: Labrecque, Richard C <richard.labrecque@eversource.com>;
russ@rdpe.biz; Amber, Jeannie M <jeannie.amber@eversource.com>; Moawad,
Mina <mina.moawad@eversource.com>
Cc: comeauelectricllc@gmail.com; jim@jimshannonlaw.com
Subject: RE: Shaw Drive Solar project [T3140]

EVERSOURCE IT NOTICE – EXTERNAL EMAIL SENDER ***** Don't be quick to click! ***** Do not click on links or attachments if sender is unknown or if the email is unexpected from someone you know, and never provide a user ID or password. Report suspicious emails by selecting 'Report Phish' or forwarding to SPAMFEEDBACK@EVERSOURCE.COM for analysis by our cyber security team.

Rick,

Thanks for info we will comply with effective Grounding standard.

I am sure Russ will update the one line as needed now or in future should we need any other design standards.

I understand I will be paying for infrastructure costs and that we will get a price and design as part of the journey.

Jim Shannon is organizing the application paper work, we will resend all the prior information in the interconnection agreement for 1 MWH project.

I am sure we will have some reasonable back and forth on that process we are open to any guidance as this is our first time on this size application.

Packy

-----Original Message-----

From: Labrecque, Richard C <richard.labrecque@eversource.com>
Sent: Friday, August 13, 2021 7:58 AM
To: russ@rdpe.biz; Packy Campbell <packyc@rsarealty.com>; Amber, Jeannie M <jeannie.amber@eversource.com>; Moawad, Mina <mina.moawad@eversource.com>
Subject: FW: Shaw Drive Solar project [T3140]

Russ -

Thanks for the updated one-line. A few comments from me:

1/ - as this is a stand-alone solar project, the developer will own and install all equipment beyond the primary metering. This includes the riser pole, disconnect, pad-mounted transformer, etc.

2/ - we need to know the specs on the transformer you plan to install.

3/ - as a 1000 KW project, you will need to comply with Eversource standards for Effective Grounding. See section 2.8 of the attached.

Please update the one-line to address these issues.

Jeannie - can you take a look at the one-line and screen for any other deficiencies?

Thanks

Richard C. Labrecque

Manager - Distributed Energy Resource Planning | Eversource Energy

780 N. Commercial Street | Manchester, NH 03101

: 603-634-2931 | : 603-634-2924 | :
richard.labrecque@eversource.com

-----Original Message-----

From: russ@rdpe.biz <russ@rdpe.biz>

Sent: Wednesday, August 4, 2021 9:15 AM

To: Labrecque, Richard C <richard.labrecque@eversource.com>

Cc: 'Packy Campbell' <packyc@rsarealty.com>

Subject: Shaw Drive Solar project

EVERSOURCE IT NOTICE – EXTERNAL EMAIL SENDER ***** Don't be quick to click! ***** Do not click on links or attachments if sender is unknown or if the email is unexpected from someone you know, and never provide a user ID or password. Report suspicious emails by selecting 'Report Phish' or forwarding to SPAMFEEDBACK@EVERSOURCE.COM for analysis by our cyber security team.

Good Morning Rick.

Please find attached a copy of the electrical drawing, sheet E0.1 dated 8/3/2021.

Please review and advise of any concerns, or recommendations for changes or corrections.

Packy can, and will, update you with documentation on the inverters.

Thanks for your help on this project.

Russ

Russell Downing P.E.

Consulting Electrical Engineer

48 Cabot Road

Harrisville, NH 03450-0276

603-209-3204

This electronic message contains information from Eversource Energy or its affiliates that may be confidential, proprietary or otherwise protected from disclosure. The information is intended to be used solely by the recipient(s) named. Any views or opinions expressed in this message are not necessarily those of Eversource Energy or its affiliates. Any disclosure, copying or distribution of this message or the taking of any action based on its contents, other than by the intended recipient for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Email transmission cannot be guaranteed to be error-free or secure or free from viruses, and Eversource Energy disclaims all liability for any resulting damage, errors, or omissions.

This email has been scanned by the Mailprotector Email Security System. For more information please visit [https://urldefense.com/v3/_http://mailprotector.com/email_!!A_2VBGNDm7Y!5x0lwmx8D5-JjoGgSPdfB4sPILPJ527lx13xaWMdTbPKehqDtsahcIWn7HoT0_bClI2mcw\\$](https://urldefense.com/v3/_http://mailprotector.com/email_!!A_2VBGNDm7Y!5x0lwmx8D5-JjoGgSPdfB4sPILPJ527lx13xaWMdTbPKehqDtsahcIWn7HoT0_bClI2mcw$)

[1]

This electronic message contains information from Eversource Energy or its affiliates that may be confidential, proprietary or otherwise protected from disclosure. The information is intended to be used solely by the recipient(s) named. Any views or opinions expressed in this message are not necessarily those of Eversource Energy or its affiliates. Any disclosure, copying or distribution of this message or the taking of any action based on its contents, other than by the intended recipient for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Email transmission cannot be guaranteed to be error-free or secure or free from viruses, and Eversource Energy disclaims all liability for any resulting damage, errors, or omissions.

This email has been scanned by the Mailprotector Email Security System. For more information please visit <http://mailprotector.com/email>

Links:

[1] https://urldefense.com/v3/_http://mailprotector.com/email_!!A_2VBGNDm7Y!5x0lwmx8D5-

[JjoGgSPdfB4sP1LPJ527lx13xaWMdTbPKehqDtsahcIWn7HoT0_bCl12mcw\\$](#)

From: [Jim Shannon](#)
To: [Packy Campbell](#)
Subject: Fwd: RE: Shaw Drive Solar project [T3140]
Date: Tuesday, January 30, 2024 4:46:12 PM
Attachments: [lot lines with aerial.pdf](#)

----- Original Message -----

Subject: RE: Shaw Drive Solar project [T3140]
Date: 2022-01-19 8:44 am
From: Packy Campbell <packyc@rsarealty.com>
To: "Labrecque, Richard C" <richard.labrecque@eversource.com>, "russ@rdpe.biz" <russ@rdpe.biz>, "Moawad, Mina" <mina.moawad@eversource.com>, Robert Comeau <comeauelectricllc@gmail.com>, "jim@jimshannonlaw.com" <jim@jimshannonlaw.com>
Cc: "Amber, Jeannie M" <jeannie.amber@eversource.com>, "shawn@icreed.com" <shawn@icreed.com>, Scott Lawler <slawler@norwayplains.com>

Rick,

Thanks for the prompt feedback, Russ is getting the calculation together on the Expected X/R ration

Russ mistakenly put the DC size on project on the summary rating for the drawing, he will update that to the 8 125 kw inverters for the total of 1mw ac rating.

Russ will add the Grounding Transformer to the line diagram.

I meet with Surveyors yesterday to add the solar project layout we are going to show the 8 inverter location the tracker location (final number based on layout)

The utility shed location and then line diagram with all our equipment before we come across tracks to Eversource pole.

My hope is to have this done in a few days.

Packy

From: Labrecque, Richard C <richard.labrecque@eversource.com>
Sent: Saturday, January 15, 2022 4:07 PM
To: Packy Campbell <packyc@rsarealty.com>; russ@rdpe.biz; Moawad, Mina <mina.moawad@eversource.com>; Robert Comeau <comeauelectricllc@gmail.com>; jim@jimshannonlaw.com
Cc: Amber, Jeannie M <jeannie.amber@eversource.com>
Subject: RE: Shaw Drive Solar project [T3140]

Hi Packy – I do not see these items addressed....

- The intertie transformer is required to be shown with the impedance and expected X/R ratio. Thank you for indicating the configuration, size and voltages.

- A grounding transformer is required for this size project. It shall be shown with the size, impedance, and X/R ratio on the one line, and the final impedance is subject to utility acceptance as part of the impact study.

The system rating per this drawing is 1025 KW, which exceeded the net metering limit.

Do you have a site plan that shows the layout of the all equipment?

We will also need an updated Interconnection Request that has all the latest information for the redesign. Thanks

Richard C. Labrecque
Manager - Distributed Energy Resource Planning | Eversource Energy
780 N. Commercial Street | Manchester, NH 03101

(: 603-634-2931 | 7 : 603-634-2924 | * :
richard.labrecque@eversource.com

From: Packy Campbell <packyc@rsarealty.com>
Sent: Thursday, January 13, 2022 3:33 PM
To: Labrecque, Richard C <richard.labrecque@eversource.com>;
russ@rdpe.biz; Moawad, Mina <mina.moawad@eversource.com>; Robert Comeau
<comeauelectricllc@gmail.com>; jim@jimshannonlaw.com
Cc: Amber, Jeannie M <jeannie.amber@eversource.com>
Subject: RE: Shaw Drive Solar project [T3140]

EVERSOURCE IT NOTICE – EXTERNAL EMAIL SENDER ***** Don't be quick to click! *****

Do not click on links or attachments if sender is unknown or if the email is unexpected from someone you know, and never provide a user ID or password. Report suspicious emails by selecting 'Report Phish' or forwarding to SPAMFEEDBACK@EVERSOURCE.COM for analysis by our cyber security team.

Amber and Richard,

Here is the updated what I hope is the final drawing for Shaw drive. We found some off this about as easy as putting toothpaste back in the tube...

I think we got it please advise if you have any questions.

We would like to keep moving forward on the project please advise our next steps in the process.

We did record the utility easement to bring power connection under the rail lines.

Packy

6037659101

From: Amber, Jeannie M <jeannie.amber@eversource.com>
Sent: Friday, August 13, 2021 2:33 PM
To: Packy Campbell <packyc@rsarealty.com>; Labrecque, Richard C <richard.labrecque@eversource.com>; russ@rdpe.biz; Moawad, Mina <mina.moawad@eversource.com>
Cc: comeauelectricllc@gmail.com; jim@jimshannonlaw.com
Subject: RE: Shaw Drive Solar project [T3140]

Packy, Russ,

Please see below comments on the one line. The first 5 comments are required in order to complete the facility model, and are therefore required for the interconnection package to be deemed complete.

- The one line needs to use standard one line symbology (e.g. for the customer-owned GOAB, transformer, etc). See NFPA 70B or IEEE Standard 141 for symbols in typical electrical single-line diagram development.
- Indicate the inverter voltage and frequency trip settings per the ES interconnection technical requirements on the one line and whether the inverters are UL 1741 SA certified.
- Indicate the point of demarcation between utility and customer ownership on the one line.
- The intertie transformer is required to be shown with the impedance and expected X/R ratio. Thank you for indicating the configuration, size and voltages.
- A grounding transformer is required for this size project. It shall be shown with the size, impedance, and X/R ratio on the one line, and the final impedance is subject to utility acceptance as part of the impact study.
- The GOAB is customer-owned and installed. We do not build the GOAB or customer conduits. Please expect the GOAB/riser pole to be built by the customer, as all equipment past the utility meter is customer-owned.
- The utility lineup for this 1MW project will be a minimum of 3 poles depending on the physical location: Recloser, voltage transformer, meter.
- Show any customer-owned protective relaying and circuit breakers/reclosers used for site protection. Note that the facility cannot rely on utility-owned devices for site protection.
- Show any interlocks used to prevent the PV from operating when the grounding transformer is tripped or otherwise out of service as applicable.

Thanks,

Jeannie M. Amber, P.E.

Senior Engineer

Distributed Energy Resource Planning

780 N Commercial Street

Manchester, NH 03101

T: 603-634-2256 or

T: 802-489-4019.

Working Hours 8-4:30.

MA PE License #56234

Eversource NH DER Interconnection Website

Eversource NH DER Technical Interconnection Requirements

-----Original Message-----

From: Packy Campbell <packyc@rsarealty.com>

Sent: Friday, August 13, 2021 9:28 AM

To: Labrecque, Richard C <richard.labrecque@eversource.com>;

russ@rdpe.biz; Amber, Jeannie M <jeannie.amber@eversource.com>; Moawad,

Mina <mina.moawad@eversource.com>

Cc: comeauelectricllc@gmail.com; jim@jimshannonlaw.com

Subject: RE: Shaw Drive Solar project [T3140]

EVERSOURCE IT NOTICE – EXTERNAL EMAIL SENDER ***** Don't be quick to click! ***** Do not click on links or attachments if sender is unknown or if the email is unexpected from someone you know, and never provide a user ID or password. Report suspicious emails by selecting 'Report Phish' or forwarding to SPAMFEEDBACK@EVERSOURCE.COM for analysis by our cyber security team.

Rick,

Thanks for info we will comply with effective Grounding standard.

I am sure Russ will update the one line as needed now or in future should we need any other design standards.

I understand I will be paying for infrastructure costs and that we will get a price and design as part of the journey.

Jim Shannon is organizing the application paper work, we will resend all the prior information in the interconnection agreement for 1 MWH project.

I am sure we will have some reasonable back and forth on that process we are open to any guidance as this is our first time on this size

application.

Packy

-----Original Message-----

From: Labrecque, Richard C <richard.labrecque@eversource.com>

Sent: Friday, August 13, 2021 7:58 AM

To: russ@rdpe.biz; Packy Campbell <packyc@rsarealty.com>; Amber, Jeannie M <jeannie.amber@eversource.com>; Moawad, Mina <mina.moawad@eversource.com>

Subject: FW: Shaw Drive Solar project [T3140]

Russ -

Thanks for the updated one-line. A few comments from me:

1/ - as this is a stand-alone solar project, the developer will own and install all equipment beyond the primary metering. This includes the riser pole, disconnect, pad-mounted transformer, etc.

2/ - we need to know the specs on the transformer you plan to install.

3/ - as a 1000 KW project, you will need to comply with Eversource standards for Effective Grounding. See section 2.8 of the attached.

Please update the one-line to address these issues.

Jeannie - can you take a look at the one-line and screen for any other deficiencies?

Thanks

Richard C. Labrecque

Manager - Distributed Energy Resource Planning | Eversource Energy

780 N. Commercial Street | Manchester, NH 03101

: 603-634-2931 | : 603-634-2924 | :
richard.labrecque@eversource.com

-----Original Message-----

From: russ@rdpe.biz <russ@rdpe.biz>

Sent: Wednesday, August 4, 2021 9:15 AM

To: Labrecque, Richard C <richard.labrecque@eversource.com>

Cc: 'Packy Campbell' <packyc@rsarealty.com>

Subject: Shaw Drive Solar project

EVERSOURCE IT NOTICE – EXTERNAL EMAIL SENDER ***** Don't be quick to click! ***** Do not click on links or attachments if sender is unknown or if the email is unexpected from someone you know, and never provide a user ID or password. Report suspicious emails by selecting 'Report Phish' or forwarding to SPAMFEEDBACK@EVERSOURCE.COM for analysis by our cyber security team.

Good Morning Rick.

Please find attached a copy of the electrical drawing, sheet E0.1 dated 8/3/2021.

Please review and advise of any concerns, or recommendations for changes or corrections.

Packy can, and will, update you with documentation on the inverters.

Thanks for your help on this project.

Russ

Russell Downing P.E.

Consulting Electrical Engineer

48 Cabot Road

Harrisville, NH 03450-0276

603-209-3204

This electronic message contains information from Eversource Energy or its affiliates that may be confidential, proprietary or otherwise protected from disclosure. The information is intended to be used solely by the recipient(s) named. Any views or opinions expressed in this message are not necessarily those of Eversource Energy or its affiliates. Any disclosure, copying or distribution of this message or the taking of any action based on its contents, other than by the intended recipient for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Email transmission cannot be guaranteed to be error-free or secure or free from viruses, and Eversource Energy disclaims all liability for any resulting damage, errors, or omissions.

This email has been scanned by the Mailprotector Email Security System.

For more information please visit

[https://urldefense.com/v3/_http://mailprotector.com/email_!!A_2VBGNDm7Y!5x0lwmx8D5-JjoGgSPdfB4sPILPJ527lx13xaWMdTbPKehqDtsahcIWn7HoT0_bCl12mcw\\$](https://urldefense.com/v3/_http://mailprotector.com/email_!!A_2VBGNDm7Y!5x0lwmx8D5-JjoGgSPdfB4sPILPJ527lx13xaWMdTbPKehqDtsahcIWn7HoT0_bCl12mcw$)

[1]

This electronic message contains information from Eversource Energy or its affiliates that may be confidential, proprietary or otherwise protected from disclosure. The information is intended to be used solely by the recipient(s) named. Any views or opinions expressed in this message are not necessarily those of Eversource Energy or its affiliates. Any disclosure, copying or distribution of this message or the taking of any action based on its contents, other than by the intended recipient for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Email transmission cannot be guaranteed to be error-free or secure or free from viruses, and Eversource Energy disclaims all liability for any resulting damage, errors, or omissions.

This email has been scanned by the Mailprotector Email Security System. For more information please visit <http://mailprotector.com/email> [2]

This electronic message contains information from Eversource Energy or its affiliates that may be confidential, proprietary or otherwise protected from disclosure. The information is intended to be used solely by the recipient(s) named. Any views or opinions expressed in this message are not necessarily those of Eversource Energy or its affiliates. Any disclosure, copying or distribution of this message or the taking of any action based on its contents, other than by the intended recipient for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Email transmission cannot be guaranteed to be error-free or secure or free from viruses, and Eversource Energy disclaims all liability for any resulting damage, errors, or omissions.

This email has been scanned by the Mailprotector Email Security System. For more information please visit <http://mailprotector.com/email>

Links:

[1]

[https://urldefense.com/v3/_http://mailprotector.com/email_!!A_2VBGNDm7Y!5x0lwmx8D5-JjoGgSPdfB4sPILPJ527lx13xaWMdTbPKehqDtsahcIWn7HoT0_bClI2mcw\\$](https://urldefense.com/v3/_http://mailprotector.com/email_!!A_2VBGNDm7Y!5x0lwmx8D5-JjoGgSPdfB4sPILPJ527lx13xaWMdTbPKehqDtsahcIWn7HoT0_bClI2mcw$)

[2]

[https://urldefense.com/v3/_http://mailprotector.com/email_!!A_2VBGNDm7Y!6C-NmkumITnOSejvvVw7Hr-zHVVITY44gZipXtwxGwFJEDv7Ksy9d3k7YOaXZAUOjOINPvbe5Q\\$](https://urldefense.com/v3/_http://mailprotector.com/email_!!A_2VBGNDm7Y!6C-NmkumITnOSejvvVw7Hr-zHVVITY44gZipXtwxGwFJEDv7Ksy9d3k7YOaXZAUOjOINPvbe5Q$)

From: [Jim Shannon](#)
To: [Packy Campbell](#)
Subject: Fwd: RE: 60 Shaw Drive 2 years no interconnection?
Date: Tuesday, January 30, 2024 5:04:15 PM
Attachments: [T3140 - 1MW Distribution System Impact Study - 6-24-22 Final.pdf](#)

----- Original Message -----

Subject: RE: 60 Shaw Drive 2 years no interconnection?
Date: 2022-09-08 8:43 am
From: "Atkinson, Brian" <brian.atkinson@eversource.com>
To: Packy Campbell <packyc@rsarealty.com>, "Moawad, Mina" <mina.moawad@eversource.com>
Cc: "Nowiszewski, Carl S" <carl.nowiszewski@eversource.com>, "jim@jimshannonlaw.com" <jim@jimshannonlaw.com>, Sam Evans-Brown <sam@cleanenergynh.org>, "Wiesner, David K" <David.K.Wiesner@energy.nh.gov>, Michael Harrington <harringt@metrocast.net>, sgeiger <sgeiger@orr-reno.com>, "Berlandy, Toni R" <toni.berlandy@eversource.com>

Good Morning Packy,

Attached is the SIS report.

Per the SISA the \$25k is not a flat fee. It's an estimate of the cost. I've requested a final accounting of charges related to performing the study. Once reviewed and approved we can release. Per the agreement if Eversource didn't not utilize all \$25k to produce the study a refund is due, if more than \$25k was required an invoice would be issued. Since the study is complete I do not expect that we'll add any additional cost to this.

The SIS identifies the upgrades. The details identified in the SIS for the upgrade are designed by distribution engineering and has been released to the designer.

This is designated as project T3140.

Access to Eversource Equipment

- * ROW - refers to the 3phase line parallel to the railway
- * From our rights department - _ Where the line is located is within a 30ft wide utility easement, not specific to Eversource, which by today's standards, would not be enough rights to place facilities on. To make the utility easement area workable for this project, the park's lot owners would need to vote to modify their declaration document (which is where the utility easement is granted) to include language granting PSNH rights to use the utility easement area & access rights and also language to allow that easement area to service property outside the park's boundaries. _
- * Upgraded road refers to the road you're planning to improve as part of your project on the North side of the railway.

I'll engage the CC/DER team regarding a permission to interconnect letter and design of the identified upgrades.

I'll get clarification from engineering about installing wire across the railroad OH (preferred) vs UG (you have rights for) & reusing or installing new poles for recloser/meter and transformer.

Brian

From: Packy Campbell <packyc@rsarealty.com>
Sent: Monday, September 5, 2022 9:08 AM
To: Atkinson, Brian <brian.atkinson@eversource.com>; Moawad, Mina <mina.moawad@eversource.com>
Cc: Nowiszewski, Carl S <carl.nowiszewski@eversource.com>; jim@jimshannonlaw.com; Sam Evans-Brown <sam@cleanenergynh.org>; Wiesner, David K <David.K.Wiesner@energy.nh.gov>; Michael Harrington <harringt@metrocast.net>; sgeiger <sgeiger@orr-reno.com>; Berlandy, Toni R <toni.berlandy@eversource.com>
Subject: RE: 60 Shaw Drive 2 years no interconnection?

EVERSOURCE IT NOTICE - EXTERNAL EMAIL SENDER **** Don't be quick to click! ****

Do not click on links or attachments if sender is unknown or if the email is unexpected from someone you know, and never provide a user ID or password. Report suspicious emails by selecting 'Report Phish' or forwarding to SPAMFEEDBACK@EVERSOURCE.COM for analysis by our cyber security team.

Brian,

Thanks for the update I am pleased to see communication and forward progress.

Can we address process? I paid for a study six months ago and was told would have results and accounting within 60 days? Can I get results of that Study a more formal design than outline below (perhaps an electrical line drawing?) Can I get a detailed bill of how and if the whole \$25,000 dollar deposit was used and allocated? Are we still adding to those costs? IS that a flat fee for getting interconnection like the smaller fees on standard interconnection form. I want to know for expectations for several other projects I plan to bring forward for interconnection for large customer generation up too 1 MW> I need a detail on the upgrades Eversource will be installing to accomplish interconnection and the costs as the customer I am responsible to pay. Will any money left in the study funds be applied to upgrades or refunded to customer?

Can I get a permission to interconnect and a T number? I appreciate the email however that is not a form or letter I can show a town in the context or permitting or an approval I can show a lender for financing on the project. What do we need to accomplish. To get that letter.

It seems we have confirmed the point of interconnection in the outline below. I am glad to see that confirmed although I have had similar email

in the past from Eversource indicating that would be the tie in point and that the study would be based on that POI.

I have no issue with bringing up the class six road to a drivable and passable road, the details of which will be in the road profile as part of local site plan approval.

As discussed in site walk and in all prior communications on the rail road, I obtained an easement from North Coast Rail Road to cross rail road for underground conduit per those prior communications with Eversource. I am open to going over head as indicated in the site walk and it sounded like Eversource was indicating it has a previously approved overhead crossing? Please confirm. If Eversource can get a permit for overhead great. I just do not want any approval to interconnect to be predicated on overhead, as I obtained the underground crossing easement and was told by railroad they did not want an overhead crossing and that it would not be approved.

If you want to ask the rail road, fine I just believe that question is asked and answered as part of the negotiated and paid for easement I obtained. I view the overhead question as too much of a risk to stopping the project. I would need to see the approval letter state that underground or overhead is acceptable for interconnection.

As far as Eversource needing access to Eversource lines? Again a discussion point over the last year. To be clear I would like a copy of the current easement Eversource has for the tie in point and those lines? Can you please send the easement you believe covers that section of line. OR tell me you have a section of line with no easement? I am willing to clarify in State Law that utilities have access to utilities line for maintenance and upgrades, should that not already be law. As well as requiring easement before new lines can be installed. In the last legislative session there was legislation on interconnection cost etc.. it is already an issue and as experienced in this process one that needs to be addressed.

I expect Eversource has a right to access Eversource lines and that clearly access was part of the original line installation. The whole we do not know if we can access our own lines is embarrassing. Can you please provide a definitive answer.

Additionally, no letter approving the interconnection point should be predicated on a possible maybe I need for a variety of reasons for the approval to be definitive.

The easement really answer the access question. YOU ARE NOT GOING TO GET A CROSSING FROM RAILROAD> that is a hard no. I will put you in contact with David Campbell attorney for North Coast, that question has been asked and answered. Even if the rail road said yes, you would then need a state permit. A process that would also be a no based on the criteria for a rail road crossing. Why at this point is this still be discussed?

I do not expect Eversource access issue to be a condition of or potential show stopper to POI customers should have a reasonable expectation of competence that existing lines are accessible and can be upgraded by the company that installed the line.

When you say existing easement for ROW line, are you referring to the class six public road? That is a plated public road, just not build up too public road standards, the ROW easement and rights are no different than those on any other section of Shaw Drive or any other town road. Are you referring to Shaw drive ROW or the one across the rail road at POI in bullet number 4 below?

It is my hope we can come to consensus on the few remaining issue. I will put you in touch with North Coast via a separate email.

Please confirm we are going to use the existing poles on Shaw drive right away to address the pole shortage issue.

If you want to call me to discuss I would be appreciative. 603 765 9101

As we are well into our second year of work on this interconnection can we set a goal of 10 business days to get the information I am requesting?

Respectfully

Packy Campbell

From: Atkinson, Brian <brian.atkinson@eversource.com>
Sent: Thursday, September 1, 2022 3:30 PM
To: Packy Campbell <packyc@rsarealty.com>; Moawad, Mina <mina.moawad@eversource.com>
Cc: Nowiszewski, Carl S <carl.nowiszewski@eversource.com>; jim@jimshannonlaw.com; Sam Evans-Brown <sam@cleanenergynh.org>; Wiesner, David K <David.K.Wiesner@energy.nh.gov>; Michael Harrington <harringt@metrocast.net>; sgeiger <sgeiger@orr-reno.com>; Berlandy, Toni R <toni.berlandy@eversource.com>
Subject: RE: 60 Shaw Drive 2 years no interconnection?

Packy

The plan will be to connect this site from the ROW line where we met back on July 6th.

The railroad tracks present a couple challenges and to make this POI work there are several requirements that need to be met.

In order for this interconnection location to work all of the below need to be satisfied:

- * Eversource will need access to all equipment on the customers side of the railroad (this is the access road you're building)
- * Eversource will need to have access to the location where we connect this customer on the opposite side of the railroad (Eversource will be approaching railroad to obtain a crossing or will need to work with neighboring customer for access)
- * Rights/permit for overhead railway crossing
- * The existing easement for the ROW line will need to be updated so there is no issue with connecting the new solar site.

Below is a concept that depicts the interconnection location with proposed device locations on the solar site.

If any questions, please feel free to reach out.

From: Atkinson, Brian
Sent: Wednesday, August 31, 2022 4:09 PM
To: Packy Campbell <packyc@rsarealty.com>; Moawad, Mina <mina.moawad@eversource.com>
Cc: Nowiszewski, Carl S <carl.nowiszewski@eversource.com>; jim@jimshannonlaw.com; Sam Evans-Brown <sam@cleanenergynh.org>; Wiesner, David K <David.K.Wiesner@energy.nh.gov>; Michael Harrington <harringt@metrocast.net>; sgeiger <sgeiger@orr-reno.com>; Berlandy, Toni R <toni.berlandy@eversource.com>
Subject: RE: 60 Shaw Drive 2 years no interconnection?

Hi Packy - acknowledging receipt of your emails.

It's taken longer than expected to get a decision but we're close.

Thank you for your patience - if you can hang in there a few more days I anticipate we'll be able to come back to you with an answer.

Brian

From: Packy Campbell <packyc@rsarealty.com>
Sent: Wednesday, August 31, 2022 9:06 AM
To: Atkinson, Brian <brian.atkinson@eversource.com>; Moawad, Mina <mina.moawad@eversource.com>
Cc: Nowiszewski, Carl S <carl.nowiszewski@eversource.com>; jim@jimshannonlaw.com; Sam Evans-Brown <sam@cleanenergynh.org>; Wiesner, David K <David.K.Wiesner@energy.nh.gov>; Michael Harrington <harringt@metrocast.net>; sgeiger <sgeiger@orr-reno.com>
Subject: 60 Shaw Drive 2 years no interconnection?

EVERSOURCE IT NOTICE - EXTERNAL EMAIL SENDER **** Don't be quick to click! ****

Do not click on links or attachments if sender is unknown or if the email is unexpected from someone you know, and never provide a user ID or password. Report suspicious emails by selecting 'Report Phish' or forwarding to SPAMFEEDBACK@EVERSOURCE.COM for analysis by our cyber security team.

Brian,

I have sent a few emails requesting a status update on the interconnection approval and or a copy of the interconnection study.?

Have I missed responses. ? Can you let me know if Eversource intends to issue my interconnection ?

Would appreciate an acknowledgement of my emails. And would like a phone number to call to discuss with the appropriate person to get this approved.

Packy Campbell

Bright Spot Solar

www.brightspot.solar [1]

info@brightspot.solar

6038338870

This email has been scanned by the Mailprotector Email Security System.

For more information please visit <http://mailprotector.com/email> [2]

This electronic message contains information from Eversource Energy or its affiliates that may be confidential, proprietary or otherwise protected from disclosure. The information is intended to be used solely by the recipient(s) named. Any views or opinions expressed in this message are not necessarily those of Eversource Energy or its affiliates. Any disclosure, copying or distribution of this message or the taking of any action based on its contents, other than by the intended recipient for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Email transmission cannot be guaranteed to be error-free or secure or free from viruses, and Eversource Energy disclaims all liability for any resulting damage, errors, or omissions.

This email has been scanned by the Mailprotector Email Security System.

For more information please visit <http://mailprotector.com/email> [3]

This electronic message contains information from Eversource Energy or its affiliates that may be confidential, proprietary or otherwise protected from disclosure. The information is intended to be used solely by the recipient(s) named. Any views or opinions expressed in this message are not necessarily those of Eversource Energy or its affiliates. Any disclosure, copying or distribution of this message or the taking of any action based on its contents, other than by the intended recipient for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Email transmission cannot be guaranteed to be error-free or secure or free from viruses, and Eversource Energy disclaims all liability for any resulting damage, errors, or omissions.

Links:

[1]

[https://urldefense.com/v3/___http://www.brightspot.solar/___!!A_2VBGNDm7Y!u-JO58iJ2F0jm-zeS4H7HVabjhEaCgwiO5oikR1J1bTWgCZhGfS1hCK_zdtRsjYRn828kLfGS7po38j6-cM8YF0\\$](https://urldefense.com/v3/___http://www.brightspot.solar/___!!A_2VBGNDm7Y!u-JO58iJ2F0jm-zeS4H7HVabjhEaCgwiO5oikR1J1bTWgCZhGfS1hCK_zdtRsjYRn828kLfGS7po38j6-cM8YF0$)

[2]

[https://urldefense.com/v3/___http://mailprotector.com/email___!!A_2VBGNDm7Y!u-JO58iJ2F0jm-zeS4H7HVabjhEaCgwiO5oikR1J1bTWgCZhGfS1hCK_zdtRsjYRn828kLfGS7po38j6ooBwSC4\\$](https://urldefense.com/v3/___http://mailprotector.com/email___!!A_2VBGNDm7Y!u-JO58iJ2F0jm-zeS4H7HVabjhEaCgwiO5oikR1J1bTWgCZhGfS1hCK_zdtRsjYRn828kLfGS7po38j6ooBwSC4$)

[3]

[https://urldefense.com/v3/___http://mailprotector.com/email_!!A_2VBGNDm7Y!tsF-MmiBi5qpEWf6rYPjXe086etT4GMaCN7nSYSFcz5KGDF8ute9yX1Y3cWWdbfpSgGDnXc76Yg9WMQSc3Uv3k4\\$](https://urldefense.com/v3/___http://mailprotector.com/email_!!A_2VBGNDm7Y!tsF-MmiBi5qpEWf6rYPjXe086etT4GMaCN7nSYSFcz5KGDF8ute9yX1Y3cWWdbfpSgGDnXc76Yg9WMQSc3Uv3k4$)

From: [Jim Shannon](mailto:Jim.Shannon)
To: [Packy Campbell](mailto:Packy.Campbell)
Subject: Fwd: RE: 60 Shaw drive T 3140
Date: Tuesday, January 30, 2024 5:03:35 PM

----- Original Message -----

Subject: RE: 60 Shaw drive T 3140
Date: 2023-05-09 8:43 am
From: "Atkinson, Brian" <brian.atkinson@eversource.com>
To: Packy Campbell <packyc@rsarealty.com>, "Berlandy, Toni R" <toni.berlandy@eversource.com>, "Nowiszewski, Carl S" <carl.nowiszewski@eversource.com>
Cc: "Moawad, Mina" <mina.moawad@eversource.com>, "jim@jimshannonlaw.com" <jim@jimshannonlaw.com>

Morning Packy,

* After in-depth review of the proposed change to the interconnection location with engineering, Eversource does not find this to be an acceptable solution.

* ROW poles at the current fuse location have very limited access from the parking lot side only (example - crossarms for fuses mounted atypically because they are at the limit of bucket reach).

* Dist Eng /Operations

* Reclosers and primary metering should be located on/at public access points or just off a town road to ensure that they can be accessed for installation/ongoing maintenance

* Wetland impact with potential delays, additional cost, for additional mid-span pole in ROW

In addition, we have reached out to the railway. The estimate provided by the railway for a gravel crossing is \$300k-\$500k with appropriate material to prevent damage to tracks by crossing vehicles.

Ultimately in order to adhere to Eversource best safety practices the equipment needs to be located as close as possible to a public road. This is either at the POI identified in the IA with the railway crossing stipulation or by upgrading Shaw Dr.

For comparison approximate costs are as follows:

* Considering the cost of a railway crossing (\$300k-\$500k) + the interconnection cost of \$325k the total cost is roughly \$625k-\$825k for the upgrades as defined in the IA.

* Upgrade costs for Shaw Dr range \$330k - \$480k for the street upgrade (with no RR crossing or private road internal to the project)

* Plus the \$325k in the IA = total rough cost of \$655k - \$805k for the Shaw Dr Option.

Please keep in mind that actuals costs for the project are trued-up at the end of the project. These numbers are rough estimates. With some additional detailed design it's possible to narrow down the Shaw Drive pole and wires upgrade estimate which may be the most straightforward approach to interconnection. .

Let's discuss how you wish to proceed.

Brian

From: Packy Campbell <packyc@rsarealty.com>
Sent: Tuesday, May 2, 2023 3:02 PM
To: Atkinson, Brian <brian.atkinson@eversource.com>; Berlandy, Toni R <toni.berlandy@eversource.com>; Nowiszewski, Carl S

<carl.nowiszewski@eversource.com>
Cc: Moawad, Mina <mina.moawad@eversource.com>; jim@jimshannonlaw.com
Subject: RE: 60 Shaw drive T 3140

EVERSOURCE IT NOTICE - EXTERNAL EMAIL SENDER **** Don't be quick to click! ****

Do not click on links or attachments if sender is unknown or if the email is unexpected from someone you know, and never provide a user ID or password. Report suspicious emails by selecting 'Report Phish' or forwarding to SPAMFEEDBACK@EVERSOURCE.COM for analysis by our cyber security team.

Brian,

Did you have any opportunity to talk about moving the POI to a different Pole to allow the fuses to remain in the current pole location.

I can put the privately owned infrastructure on my side of tracks and the utility owned on the other side of tracks in the current utility right of way.

Packy

From: Atkinson, Brian <brian.atkinson@eversource.com>
Sent: Monday, May 1, 2023 3:44 PM
To: Packy Campbell <packyc@rsarealty.com>; Berlandy, Toni R <toni.berlandy@eversource.com>; Nowiszewski, Carl S <carl.nowiszewski@eversource.com>
Cc: Moawad, Mina <mina.moawad@eversource.com>; jim@jimshannonlaw.com
Subject: RE: 60 Shaw drive T 3140

Hi Packy

Rec'd.

I have some meetings tomorrow. I'll bring the option you outlined up for discussion.

Brian

From: Packy Campbell <packyc@rsarealty.com>
Sent: Saturday, April 29, 2023 9:28 AM
To: Berlandy, Toni R <toni.berlandy@eversource.com>; Nowiszewski, Carl S <carl.nowiszewski@eversource.com>
Cc: Atkinson, Brian <brian.atkinson@eversource.com>; Moawad, Mina <mina.moawad@eversource.com>; jim@jimshannonlaw.com
Subject: FW: 60 Shaw drive T 3140

EVERSOURCE IT NOTICE - EXTERNAL EMAIL SENDER **** Don't be quick to click! ****

Do not click on links or attachments if sender is unknown or if the email is unexpected from someone you know, and never provide a user ID or password. Report suspicious emails by selecting 'Report Phish' or forwarding to SPAMFEEDBACK@EVERSOURCE.COM for analysis by our cyber security team.

Brian,

I set this to Toni and Carl on Wednesday and did not get a response was received. Can someone please acknowledge you will look into this option and get back to me

I would like engineering to look into moving the POI spot to a pole further down the tracks.

The goal is to leave the current fuses in the current location and put as much of the infrastructure as possible so trucks can access for the current location.

We own the land across from these poles as outlined below and can have out customer owned poles on our side of tracks and utility owned pole and meter on the far side of tracks at the existing truck accessible location.

This will avoid the need to get a rail crossing (something I believe not obtainable) This alternative location will significantly limit the impacts to wetlands as this new location can be accessed from uplands right up to tracks and accessible from current truck access point.

I apologize for the need to consider this new POI location on either of the pole outlined in drawing attached. I did not expect after much communication and copy of my railroad easement for that fact to be not considered or followed by Eversource.

My hope is this will be an alternative that will resolve the truck access issue to the fuses etc.

Thanks

Packy

From: Packy Campbell
Sent: Wednesday, April 26, 2023 4:00 PM
To: Berlandy, Toni R <toni.berlandy@eversource.com>
Cc: Nowiszewski, Carl S <carl.nowiszewski@eversource.com>; jim@jimshannonlaw.com
Subject: RE:

Toni, and Carl,

If we get to a meeting with town and rail road the limited subject matter may make sense, unless they want to know about other options.

My hope and continued request is that a meeting with Eversource engineers/ decision makers, you and I on site first. That is the meeting I think more relevant. If the objective is to get this project on an approval and construction path, there are many options that I believe can resolve the remaining issues. A site walk will also show your engineers why a railroad crossing is so problematic due to the Class VI road being at the end of a sharp corner of the RR. A site walk is best way to explore them with some back and forth. I would hope your position is not to be so narrow as to not even look at options?

For example you may not be aware that we own significant frontage along the rail road and can come across the railroad line - overhead - from a pole on our land directly to a pole south of the current POI spot, such as a POI on pole 159a 10 south of the current fuses or even at the pole 159 10 a with current fuses on the pole. From what I can tell that pole may actually be the connection point to Albany Composite's two main panels. This would eliminate a lot of upgrade requirements for this project.

This could avoid having to change the access to the switch gear from pole accessed from parking lot at Albany - see photo.

This is just one possible solution to avoid the need for a crossing on the railroad that North coast has made clear for over a year is a strong no.

It would also eliminate significant wetlands fills on current town Class VI right of way, as I can build a solid road across my lot to this southerly spot and have a direct access to the POI on my land and then the existing on on Albany's POI. That way we don't have to do anything with the wetlands and city road. As the DES always asks for other options to avoid wetlands impacts, this alternative interconnection point 6 poles down the line may be such a viable option.

Please can you schedule the site walk as discussed and previously requested with just Eversource and relevant decision makers with me and my engineers.

If you are truly working with me to get this project build and moving forward that seems very reasonable request.

Packy

From: Berlandy, Toni R <toni.berlandy@eversource.com>
Sent: Wednesday, April 26, 2023 12:49 PM
To: Packy Campbell <packyc@rsarealty.com>
Cc: jim@jimshannonlaw.com; Nowiszewski, Carl S <carl.nowiszewski@eversource.com>; jim@jimshannonlaw.com
Subject: RE:

Hi Packy,

As a reminder the purpose of our meeting is to meet with the railroad and the town discuss the railroad easement for the aerial cross, as well as the road specifications. We won't be discussing other access options.

Thanks,

Toni

From: Packy Campbell <packyc@rsarealty.com>
Sent: Tuesday, April 25, 2023 11:36 AM
To: Berlandy, Toni R <toni.berlandy@eversource.com>
Cc: jim@jimshannonlaw.com; Nowiszewski, Carl S <carl.nowiszewski@eversource.com>; jim@jimshannonlaw.com
Subject: RE:

EVERSOURCE IT NOTICE - EXTERNAL EMAIL SENDER **** Don't be quick to click! ****

Do not click on links or attachments if sender is unknown or if the email is unexpected from someone you know, and never provide a user ID or password. Report suspicious emails by selecting 'Report Phish' or forwarding to SPAMFEEDBACK@EVERSOURCE.COM for analysis by our cyber security team.

Toni,

Here is the overview showing access form Airport road, where you can drive along the rail road to the POI. You latterly have a road all the way along the tracks. The photo of the road along the tack also attached.

It makes no sense for a truck to drive over the rail road when you have access from the far side of tracks.

I have no idea why someone is requesting permission to cross the tracks, this is not something I believe needed or reasonable. I would like that condition removed from the interconnection.

Again my hope if that with a site walk we can show Eversource has the access they need for any work that may be needed on the far side of tracks.

Please can we keep the discussion on the table for not needing to have vehicular traffic across the tracks.

Packy

From: Berlandy, Toni R <toni.berlandy@eversource.com>
Sent: Tuesday, April 25, 2023 10:01 AM
To: Packy Campbell <packyc@rsarealty.com>

Cc: jim@jimshannonlaw.com; Scott Lawler <slawler@norwayplains.com>;
Damon Burt <frenvironmental@gmail.com>; Nowiszewski, Carl S
<carl.nowiszewski@eversource.com>
Subject: RE:

Hi Packy,

I spoke with Distribution Engineering manager, Mike Busby and Field
Engineering Supervisor Nick Kosko.

With regards to the railroad, as stated before, Eversource needs to
obtain its own easement for the aerial crossing of the railroad. The
talks with the railroad will begin shortly, if they haven't already. (It
couldn't be confirmed at the time of the conversation.) Eversource will
also discuss the easement for the road with the railroad and the town.
Nick is going to arrange an onsite meeting with the town, the railroad,
you and myself to discuss the road requirements. You'll be receiving an
invitation from Nick.

Thanks,

Toni

From: Packy Campbell <packyc@rsarealty.com>
Sent: Friday, April 21, 2023 5:06 PM
To: Berlandy, Toni R <toni.berlandy@eversource.com>
Cc: jim@jimshannonlaw.com; Scott Lawler <slawler@norwayplains.com>;
Damon Burt <frenvironmental@gmail.com>; Nowiszewski, Carl S
<carl.nowiszewski@eversource.com>
Subject: RE:

EVERSOURCE IT NOTICE - EXTERNAL EMAIL SENDER **** Don't be quick to
click! ****

Do not click on links or attachments if sender is unknown or if the
email is unexpected from someone you know, and never provide a user ID
or password. Report suspicious emails by selecting 'Report Phish' or
forwarding to SPAMFEEDBACK@EVERSOURCE.COM for analysis by our cyber
security team.

Toni,

I am willing to sign interconnection subject to satisfactory resolution
of overhead and crossing issue with RR. This is a private rail
road, they gave us an underground easement which I shared with
Eversource early on. To deny using that seems unreasonable.

This project moving forward should not be subject to a third party
giving us another easement.

We have access to the POI and you currently have the right to maintain
those lines the way they are being maintained.

I am more than happy to work with you just not willing to accept and all
or nothing outcome on these 2 issues. Can I sign and send back the
interconnection without sending check for 325K? Can I sign while
reserving my rights on the 2 issues I have made know from day one were a
challenge. I addressed with underground easement.

Can I please get a meeting with the decision maker preferably on site.

Packy

From: Berlandy, Toni R <toni.berlandy@eversource.com>
Sent: Friday, April 21, 2023 10:34 AM
To: Packy Campbell <packyc@rsarealty.com>
Cc: jim@jimshannonlaw.com; Scott Lawler <slawler@norwayplains.com>;
Damon Burt <frenvironmental@gmail.com>; Nowiszewski, Carl S

<carl.nowiszewski@eversource.com>

Subject: RE:

Hi Packy,

I am working on a site walk to discuss the road. I am identifying the correct person for you. As for the overhead wires, we still need to work with the railroad for the overhead easement. We have not begun discussions with the railroad as we have not received the executed interconnection agreement.

I'll let you know who can meet you about the road. As I recall, you said your schedule is pretty flexible, correct?

Thanks,
Toni

From: Packy Campbell <packyc@rsarealty.com>
Sent: Wednesday, April 19, 2023 8:19 AM
To: Berlandy, Toni R <toni.berlandy@eversource.com>
Cc: jim@jimshannonlaw.com; Scott Lawler <slawler@norwayplains.com>; Damon Burt <frenvironmental@gmail.com>
Subject:

EVERSOURCE IT NOTICE - EXTERNAL EMAIL SENDER **** Don't be quick to click! ****

Do not click on links or attachments if sender is unknown or if the email is unexpected from someone you know, and never provide a user ID or password. Report suspicious emails by selecting 'Report Phish' or forwarding to SPAMFEEDBACK@EVERSOURCE.COM for analysis by our cyber security team.

Toni,

When can we do a site walk, I see a path forward,

Will need a culvert just on other side of the RR.

Verified the right of way goes across tracks and looks like is actively crossed,

The process for overhead looks like an application to PUC and 30 day approval, seems pretty standard.

I am confident I can meet your requirements on the overhead and the crossing.

Want to do site walk to show you turn around approved road on my side of tracks and get my engineer to design something on opposite side of tracks,

The current design is 12 foot wide gravel road through wet lands closest to the tracks, town did not want it any wider as to not impact more of the wetlands,

I would propose we continue that 12 foot wide road over tracks in the current city right of way, and install culvert on far side of tracks

Toni I will need to make modifications to the current wetlands plan and get town to sign off on additional road improvements,

I am coping my wetlands guy my attorney and my site surveyors. Please confirm 12 feet wide works for you and yours.

Packy

?_Packy Campbell_
Broker Owner Realtor

123 Washington St
Rochester NH 03839

603-332-1100 office
603-332-1900 fax

603-765-9101 cell

This email has been scanned by the Mailprotector Email Security System.
For more information please visit <http://mailprotector.com/email> [1]

This electronic message contains information from Eversource Energy or its affiliates that may be confidential, proprietary or otherwise protected from disclosure. The information is intended to be used solely by the recipient(s) named. Any views or opinions expressed in this message are not necessarily those of Eversource Energy or its affiliates. Any disclosure, copying or distribution of this message or the taking of any action based on its contents, other than by the intended recipient for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Email transmission cannot be guaranteed to be error-free or secure or free from viruses, and Eversource Energy disclaims all liability for any resulting damage, errors, or omissions.

This email has been scanned by the Mailprotector Email Security System.
For more information please visit <http://mailprotector.com/email> [2]

This electronic message contains information from Eversource Energy or its affiliates that may be confidential, proprietary or otherwise protected from disclosure. The information is intended to be used solely by the recipient(s) named. Any views or opinions expressed in this message are not necessarily those of Eversource Energy or its affiliates. Any disclosure, copying or distribution of this message or the taking of any action based on its contents, other than by the intended recipient for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Email transmission cannot be guaranteed to be error-free or secure or free from viruses, and Eversource Energy disclaims all liability for any resulting damage, errors, or omissions.

This email has been scanned by the Mailprotector Email Security System.
For more information please visit <http://mailprotector.com/email> [3]

This electronic message contains information from Eversource Energy or its affiliates that may be confidential, proprietary or otherwise protected from disclosure. The information is intended to be used solely by the recipient(s) named. Any views or opinions expressed in this message are not necessarily those of Eversource Energy or its affiliates. Any disclosure, copying or distribution of this message or the taking of any action based on its contents, other than by the intended recipient for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Email transmission cannot be guaranteed to be error-free or secure or free from viruses, and Eversource Energy disclaims all liability for any resulting damage, errors, or omissions.

This email has been scanned by the Mailprotector Email Security System.
For more information please visit <http://mailprotector.com/email> [4]

This electronic message contains information from Eversource Energy or

its affiliates that may be confidential, proprietary or otherwise protected from disclosure. The information is intended to be used solely by the recipient(s) named. Any views or opinions expressed in this message are not necessarily those of Eversource Energy or its affiliates. Any disclosure, copying or distribution of this message or the taking of any action based on its contents, other than by the intended recipient for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Email transmission cannot be guaranteed to be error-free or secure or free from viruses, and Eversource Energy disclaims all liability for any resulting damage, errors, or omissions.

This email has been scanned by the Mailprotector Email Security System. For more information please visit <http://mailprotector.com/email> [5]

This electronic message contains information from Eversource Energy or its affiliates that may be confidential, proprietary or otherwise protected from disclosure. The information is intended to be used solely by the recipient(s) named. Any views or opinions expressed in this message are not necessarily those of Eversource Energy or its affiliates. Any disclosure, copying or distribution of this message or the taking of any action based on its contents, other than by the intended recipient for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Email transmission cannot be guaranteed to be error-free or secure or free from viruses, and Eversource Energy disclaims all liability for any resulting damage, errors, or omissions.

Links:

[1]

[https://urldefense.com/v3/_http://mailprotector.com/email_!!A_2VBGNDm7Y!sh-gMhcjm5y6dgYRrwVvo2vs20jXpAfsaGbyEULjblePjeg2OYWk5NG-3jSq3JA6N_-Wdw2tFUTNmMwtnYvVy34\\$](https://urldefense.com/v3/_http://mailprotector.com/email_!!A_2VBGNDm7Y!sh-gMhcjm5y6dgYRrwVvo2vs20jXpAfsaGbyEULjblePjeg2OYWk5NG-3jSq3JA6N_-Wdw2tFUTNmMwtnYvVy34$)

[2]

[https://urldefense.com/v3/_http://mailprotector.com/email_!!A_2VBGNDm7Y!s0qGw-EpZXyMm6WGnvc0_xM61s_Kf_ESYAbz1qGGOWCGkVXwAY0099oAUdO_TOTsVJQts8IOD1xriLx0AGGJgiQ\\$](https://urldefense.com/v3/_http://mailprotector.com/email_!!A_2VBGNDm7Y!s0qGw-EpZXyMm6WGnvc0_xM61s_Kf_ESYAbz1qGGOWCGkVXwAY0099oAUdO_TOTsVJQts8IOD1xriLx0AGGJgiQ$)

[3]

[https://urldefense.com/v3/_http://mailprotector.com/email_!!A_2VBGNDm7Y!rXMc-5Ku6QY0o7JzSjKblOZqJGFhPJotyWFWQ3sqlqzJKJC7Z1UHJNgVwZhM1GmTL-RfrTICAumRNnUllsZQRc\\$](https://urldefense.com/v3/_http://mailprotector.com/email_!!A_2VBGNDm7Y!rXMc-5Ku6QY0o7JzSjKblOZqJGFhPJotyWFWQ3sqlqzJKJC7Z1UHJNgVwZhM1GmTL-RfrTICAumRNnUllsZQRc$)

[4]

[https://urldefense.com/v3/_http://mailprotector.com/email_!!A_2VBGNDm7Y!vzw8U56OES08iwEsaLTNOkKeaUz5ejdOO1MyjoRzAdCcgxTd-nmIHuwplP7INe9O6Mn5jI39jovnXb7R4JjeUkU\\$](https://urldefense.com/v3/_http://mailprotector.com/email_!!A_2VBGNDm7Y!vzw8U56OES08iwEsaLTNOkKeaUz5ejdOO1MyjoRzAdCcgxTd-nmIHuwplP7INe9O6Mn5jI39jovnXb7R4JjeUkU$)

[5]

[https://urldefense.com/v3/_http://mailprotector.com/email_!!A_2VBGNDm7Y!v6qKWp_hTL8h30A-IC-eUVaDbmAa32mmUnanYB2z3Ca6gZMO0VBGmNCOaZRzIxY_VBdV52gwwBFETp4Zg5OLRc\\$](https://urldefense.com/v3/_http://mailprotector.com/email_!!A_2VBGNDm7Y!v6qKWp_hTL8h30A-IC-eUVaDbmAa32mmUnanYB2z3Ca6gZMO0VBGmNCOaZRzIxY_VBdV52gwwBFETp4Zg5OLRc$)



The Senate of the State of New Hampshire

107 North Main Street, Concord, N.H. 03301-4951

Jared S. Chicoine
Commissioner, Department of Energy
21 S. Fruit St., Suite 10 Concord, N.H. 03301-2429
Jared.S.Chicoine@energy.nh.gov

RE: Department of Energy IP 2022-XXX Investigative Proceedings Relative to Customer-Generator Interconnection SB262

Dear Commissioner Chicoine:

New Hampshire has been clear and consistent in stating that it has its own energy policy and does not want the policies of other states imposed upon New Hampshire. There are limited opportunities for New Hampshire to exercise its sovereignty due to federal policies and the structure of energy and electricity markets. The passage of Senate Bill 262 ("SB262") in 2022 is a demonstration of New Hampshire acting where it has the ability to set policies - the interconnection of Distributed Energy Resources ("DERs") on the distribution system.

We appreciate the Department of Energy ("DOE") commencing proceedings in its investigation of interconnection policies, as prescribed in SB262, per the Department's December 5th, 2022 Order of Notice. As sponsors of SB262, we look forward to the timely results of the proceeding.

However, it has come to our attention that Eversource has stated in its most recent Least Cost Integrated Resource Plan, filed in NH Public Utilities Commission ("PUC") Docket No. DE 20-161, that it has changed its interconnection standards in New Hampshire, specifically the application of the N-1 standard to certain DERs. Changes to the interconnection standards and to the procedures for DERs connecting to the distribution systems in New Hampshire must be reviewed and approved by the PUC to ensure consistency with New Hampshire's energy policies. The change referenced in DE20-161 did not go through such and approval process.

The clear intent of SB262 is to review the existing interconnection procedures, specifically including engineering standards, and make recommendations to the standing committees of the House of Representatives and Senate with jurisdiction over energy and utility matters. Eversource cannot change its interconnection standards for DERs on its New Hampshire distribution system without the review and approval of New Hampshire, and Eversource's change to the use of an N-1 standard on its distribution system has not been reviewed or approved.

We believe the interconnection changes referenced in DE20-161 did not undergo the required review or approval process and therefore should not be included in the Least Cost Integrated Resource Plan. The appropriate venue for the review of these standards was established by SB262, and fortunately, the DOE's investigation of interconnection procedures and standards has commenced.

Respectfully,

Handwritten signature of Kevin Avar in black ink.

Sen. Kevin Avar
Chairman, Senate Energy and Natural Resources

Handwritten signature of Senator David H. Watters in black ink.

Sen. David Watters
Member, Senate Energy and Natural Resources

Cc:

Chris Ellms (christopher.j.ellmsjr@energy.nh.gov)

Tom Frantz (Thomas.C.Frantz@energy.nh.gov)

Mary Schwarzer (mary.e.schwarzer@energy.nh.gov)

Jay Dudley (jay.e.dudley@energy.nh.gov)

Proceedings@energy.nh.gov

EVERSOURCE NH INTERCONNECTION REQUEST

Send the completed Interconnection Request and required attachments to:

Eversource
Attn: Michael Motta, Lead Engineer – Distributed Energy Resource Planning
P. O. Box 330
Manchester, NH 03105

Telephone Number: 603-634-2920
E-Mail Address: Michael.Motta@eversource.com

An Interconnection Request is considered complete when it provides all applicable and correct information required below.

- Documentation that the applicant has control of the property on which the proposed facility shall be located must be submitted with the Interconnection Request. The documentation shall include proof of ownership, a leasehold interest, a right to develop, or an option to acquire the site, and municipal tax maps indicating the parcel(s) on which the proposed facility shall be located.
- A site electrical one-line diagram showing the configuration of the Generating Facility equipment, current and potential circuits, and protection control schemes. The one-line diagram shall be signed and stamped by a licensed NH Professional Engineer. The diagram shall indicate compliance with ISO-NE Inverter Source Requirements Document (if applicable) and show protection and advanced function settings.
- Generator data sheet, complete with specifications.
- For inverter-based DER only: Islanding Detection Information Document

Interconnection Customer Information:

Date Prepared: _____

Legal Name of the Interconnection Customer (or, if an individual, individual's name)

Name: _____

Contact Person: Packy Campbell

Mailing Address: PO Box 77

City: Farmington State: NH Zip: 03835-0077

Facility Location (if different from above): 60 Shaw Drive, Rochester, NH

Telephone (Day): 603-765-9101 Telephone (Evening): Same

Fax: _____ E-Mail Address: packyc@rsarealty.com

Alternative Customer Information:

Alternative Contact Information (if different from the Interconnection Customer)

Name: _____

Contact Person: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Facility Location (if different from above): _____

Telephone (Day): _____ Telephone (Evening): _____

Fax: _____ E-Mail Address: _____

Proposed Location of Generating Facility:

Physical Address: 60 Shaw Drive, Rochester, NH 03867

Requested Point of Interconnection: At 1600 A Main Switchboard

(provide GPS coordinates and satellite map image with proposed POI indicated)

Generating Facility's Requested In-Service Date: ?

For installations at locations with existing electric service to which the proposed Generating Facility will interconnect, provide:

Account # _____

Energy Service Provider (if other than PSNH) _____

Meter # _____

Retail Customer Contact Name: _____

Title: _____

Address: _____

Telephone: _____ E-Mail Address: _____

Is the Interconnection Request for:

New Generating Facility?

Yes No

Capacity addition to or Material Modification of an existing Generating Facility:

Yes No

If capacity addition or Material Modification of an existing facility, please describe:

Commencement of participation in the wholesale markets by an existing Generating Facility:

Yes No

A retail customer interconnecting a New Generating Facility that will produce electric energy to be consumed only on the retail customer's site?

Yes No

If onsite use of power, describe the mode of operation: (Please Check all that Apply)

- Peak Shaving
- Demand Management
- Primary Power/Base Load
- Combined Heat and Power or Cogeneration
- Stand By/Emergency/Back-up
- Net Metering

If Net Metering, does the Generating Facility meet the requirements for eligibility as defined in Puc 902.01 for a "Combined Heat and Power System" and/or Puc 902.02 for a "Customer-Generator" of Chapter Puc 900 Net Metering for Customer Owned Renewable Energy Generation Resources of 1000 Kilowatts or Less.

Puc 902.01 "Combined heat and power system" means a "combined heat and power system" as defined on RSA 321-A:1-a, II-d, namely "a new system installed after July 1, 2011, that produces heat and electricity from one fuel input using an eligible fuel, without restriction to generating technology, has an electric generating capacity rating of at least one kilowatt and not more than 30 kilowatts and a fuel system efficiency of not less than 80 percent in the production of heat and electricity, or has an electric generating capacity greater than 30 kilowatts and not more than one megawatt and a fuel system efficiency of not less than 65 percent in the production of heat and electricity. Fuel system efficiency shall be measured as a usable thermal and electrical output in BTU's divided by fuel input in BTU's."

Puc 902.02 "Customer-generator" means "eligible customer-generator" as defined in RSA 362-A:1-a, II-b, namely "an electric utility customer who owns or operates an electrical generating facility either powered by renewable energy or which employs a heat led combined heat and power system, with a total peak generating capacity of not more than 100 kilowatts, or that first began operation after July 1, 2010 and has a total peak generating capacity of 100 kilowatts or more up to one megawatt, that is located behind a retail meter on the customer's premises, is interconnected and operates in parallel with the electric grid, and is used in the first instance to offset the customer's own electricity requirements".

Yes No

Interconnection Customer Signature _____ Date _____

A Qualifying Facility where 100% of the output will be sold to PSNH?

Yes No

A Qualifying Facility intending to sell power at wholesale to an entity other than PSNH?

Yes No

(evidence of FERC QF Certification will be required prior to commercial operation)

A Generator interconnecting a new Generating Facility that plans to participate in the wholesale markets?

Yes No

An existing Generating Facility commencing participation in the wholesale markets?

Yes No

Paralleling:

Will the Generating Facility operate in parallel with the PSNH system for any amount of time?

Yes No If "No," then Generator is operating as "Open" Transition.

If Yes: Will the Generating Facility operate in parallel with PSNH for longer than 100 milliseconds?

Yes No

If No: Then Generator is operating as "Closed" Transition.

If Yes: Then Generator is operating as "Parallel Operation."

Will the generator operation vary by season? (Please describe)

Generating Facility Information:

Energy Source:

Solar Wind Hydro Battery
Diesel Natural Gas Fuel Oil

Other (state type) _____

Prime Mover:

Fuel Cell Reciprocating Engine Gas Turbine
Steam Turbine Micro-turbine PV

Other (state type) _____

Type of Generator: Synchronous Induction Inverter

Generator Manufacturer: _____

Generator Model Name & Number: _____

Generator Version Number: _____

Generator Nameplate Rating: 8 @ 125 kW kW (Typical) For Inverter-based machines the kW rating of the inverter, and for all other interconnections the kW rating of the generation unit.

Generator Nameplate kVAR: _____

Generating Facility or Customer-Site Load: None kW (if none, so state)

Typical Reactive Load (if known): _____

Maximum Physical Export Capability Requested: 1000 kW

Generator Nameplate Output Power Rating in kW:

(Summer) 1000 (Winter) 1000

Generator Nameplate Output Power Rating in kVA:

(Summer) 1000 (Winter) 1000

Individual Generator Power Factor:

Rated Power Factor: Leading _____ Lagging _____

Generating Facility Characteristic Data (for inverter-based machines):

Inverter Manufacturer: SMA

Model Name & Number: SHP PEAK3 125-US-20

Is the Inverter UL 1741 certified? Yes No

Attach certification document indicating UL 1741 and IEEE 1547 versions.

Is the Inverter IEEE 1547 listed? Yes No

Is the Inverter IEEE 1547.1 listed? Yes No

Inverter complies with ISO-NE Inverter Source Requirements Document? Yes No

Islanding Detection Information Document attached? Yes No

Transient Overvoltage Compliance Documentation Attached? Yes No

(See Eversource DER Information and Technical Requirements Section 2.3.1), pages 10 & 11

Max design fault contribution current: _____ Instantaneous _____ or RMS? _____

Harmonics Characteristics: _____

Start-up requirements: _____

Available fault current: _____

Wind Farm Interconnection: NA

Total Number of Generators in wind farm to be interconnected pursuant to this Interconnection Request:

Quantity: _____ Elevation: _____ Single Phase Three Phase

Generating Facility Characteristic Data (for rotating machines): *NA*

Speed: _____ RPM
Neutral Grounding Impedance (If Applicable): _____

Synchronous Generators: *NA*

Direct Axis Synchronous Reactance, X_d : _____ Per Unit
Direct Axis Transient Reactance, X_d' : _____ Per Unit
Direct Axis Sub Transient Reactance, X_d'' : _____ Per Unit
Negative Sequence Reactance, X_2 : _____ Per Unit
Zero Sequence Reactance, X_0 : _____ Per Unit
KVA Base: _____
Field Volts: _____
Field Amperes: _____

Induction Generators: *NA*

Motoring Power (kW): _____
 I_2^2t or K (Heating Time Constant): _____
Rotor Resistance, R_r : _____ Per Unit
Stator Resistance, R_s : _____ Per Unit
Stator Reactance, X_s : _____ Per Unit
Rotor Reactance, X_r : _____ Per Unit
Magnetizing Reactance, X_m : _____ Per Unit
Short Circuit Reactance, X_d'' : _____ Per Unit
Exciting Current: _____ Amps
Temperature Rise: _____
Frame Size: _____
Design Letter: _____
Reactive Power Required (No Load): _____ VAR
Reactive Power Required (Full Load): _____ VAR
Total Rotating Inertia, H : _____ Per Unit on kVA Base

Transformer Data (If Applicable, for Generating Facility-Owned Transformer): *NA*

Transformer Size: _____ kVA

Is the transformer: _____ single phase _____ three phase?

Transformer Impedance: _____ % on _____ kVA Base

Transformer Impedance X/R Ratio: _____

Transformer Positive-Sequence Short Circuit Impedances (pu): _____

Z_{ps}= _____, Z_{pt}= _____, Z_{st}= _____

Transformer Zero-Sequence Impedances (pu): _____

Z_{pm0}= _____, Z_{sm0}= _____, Z_{mg0}= _____

Transformer Neutral Grounding Reactor/Resistor Impedance (Ohms): _____

Transformer BIL Rating _____ kV

If Three Phase:

Transformer Primary: _____ Volts _____ Delta _____ Wye _____ Wye Grounded

Transformer Secondary: _____ Volts _____ Delta _____ Wye _____ Wye Grounded

Transformer Tertiary: _____ Volts _____ Delta _____ Wye _____ Wye Grounded

Transformer Fuse Data (If Applicable, for Generating Facility-Owned Fuse): *NA*

(Attach copy of fuse manufacturer's Minimum Melt and Total Clearing Time-Current Curves)

Manufacturer: _____ Type: _____

Size: _____ Speed: _____

Interconnecting Circuit Breaker (if applicable):

Manufacturer: TBB

Type: TBB

Load Rating (Amps): 1600 Interrupting Rating (Amps): 65K

Trip Speed (Cycles): TBD

Current Transformer Data (If Applicable):

(Enclose Copy of Manufacturer's Excitation and Ratio Correction Curves)

Manufacturer: TBD

Type: _____ Accuracy Class: _____ Proposed Ratio Connection: _____

Manufacturer: _____

Type: _____ Accuracy Class: _____ Proposed Ratio Connection: _____

Potential Transformer Data (If Applicable): NA

Manufacturer: _____

Type: _____ Accuracy Class: _____ Proposed Ratio Connection: _____

Manufacturer: _____

Type: _____ Accuracy Class: _____ Proposed Ratio Connection: _____

General Information:

Is evidence of site control enclosed (see page 1)?

Yes No

Are site electrical One-Line Diagram(s) showing the configuration of all Generating Facility equipment enclosed (see page 1)?

Yes No

Enclose copy of any site documentation that indicates the precise physical location of the proposed Generating Facility (e.g., USGS topographic map or other diagram or documentation).

Enclose copy of municipal tax maps indicating the parcel(s) on which the proposed facility shall be located. Municipality Rochester NH Map # 240 Parcel ID # 49

Enclose copy of any site documentation that describes and details the operation of the protection and control schemes.

Applicant Signature

I hereby certify that, to the best of my knowledge, all the information provided in this Interconnection Request is true and correct.

Interconnection Customer: _____ Date: 3/23/2021

EVERSOURCE NH INTERCONNECTION REQUEST

Send the completed Interconnection Request and required attachments to:

Eversource
Attn: Michael Motta, Lead Engineer – Distributed Energy Resource Planning
P. O. Box 330
Manchester, NH 03105

Telephone Number: 603-634-2920
E-Mail Address: Michael.Motta@eversource.com

An Interconnection Request is considered complete when it provides all applicable and correct information required below.

- Documentation that the applicant has control of the property on which the proposed facility shall be located must be submitted with the Interconnection Request. The documentation shall include proof of ownership, a leasehold interest, a right to develop, or an option to acquire the site, and municipal tax maps indicating the parcel(s) on which the proposed facility shall be located.**
- A site electrical one-line diagram showing the configuration of the Generating Facility equipment, current and potential circuits, and protection control schemes. The one-line diagram shall be signed and stamped by a licensed NH Professional Engineer. The diagram shall indicate compliance with ISO-NE Inverter Source Requirements Document (if applicable) and show protection and advanced function settings.**
- Generator data sheet, complete with specifications.**
- For inverter-based DER only: Islanding Detection Information Document**

Interconnection Customer Information:

Date Prepared: 8/13/21

Legal Name of the Interconnection Customer (or, if an individual, individual's name)

Name: GNM Solar 17, LLC

Contact Person: Packy Campbell

Mailing Address: PO Box 77

City: Farmington State: NH Zip: 03835-0077

Facility Location (if different from above): 60 Shaw Drive, Rochester, NH

Telephone (Day): 603-765-9101 Telephone (Evening): Same

Fax: _____ E-Mail Address: packyc@rsarealty.com

Alternative Customer Information:

Alternative Contact Information (if different from the Interconnection Customer)

Name: None

Contact Person: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Facility Location (if different from above): _____

Telephone (Day): _____ Telephone (Evening): _____

Fax: _____ E-Mail Address: _____

Proposed Location of Generating Facility:

Physical Address: 60 Shaw Drive, Rochester, NH 03867

Requested Point of Interconnection: At a 1600A Main Switch Board

(provide GPS coordinates and satellite map image with proposed POI indicated)

Generating Facility's Requested In-Service Date: 11/15/2021

For installations at locations with existing electric service to which the proposed Generating Facility will interconnect, provide:

Account # N/A

Energy Service Provider (if other than PSNH) _____

Meter # _____

Retail Customer Contact Name: _____

Title: _____

Address: _____

Telephone: _____ E-Mail Address: _____

Is the Interconnection Request for:

New Generating Facility?

Yes No

Capacity addition to or Material Modification of an existing Generating Facility:

Yes No

If capacity addition or Material Modification of an existing facility, please describe:

Commencement of participation in the wholesale markets by an existing Generating Facility:

Yes No

A retail customer interconnecting a New Generating Facility that will produce electric energy to be consumed only on the retail customer's site?

Yes No

If onsite use of power, describe the mode of operation: (Please Check all that Apply)

- Peak Shaving
- Demand Management
- Primary Power/Base Load
- Combined Heat and Power or Cogeneration
- Stand By/Emergency/Back-up
- Net Metering

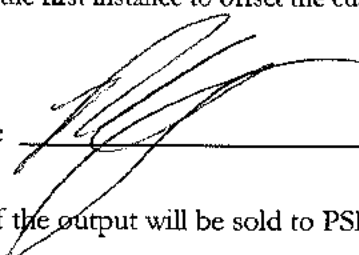
If Net Metering, does the Generating Facility meet the requirements for eligibility as defined in Puc 902.01 for a "Combined Heat and Power System" and/or Puc 902.02 for a "Customer-Generator" of Chapter Puc 900 Net Metering for Customer Owned Renewable Energy Generation Resources of 1000 Kilowatts or Less.

Puc 902.01 "Combined heat and power system" means a "combined heat and power system" as defined on RSA 321-A:1-a, II-d, namely "a new system installed after July 1, 2011, that produces heat and electricity from one fuel input using an eligible fuel, without restriction to generating technology, has an electric generating capacity rating of at least one kilowatt and not more than 30 kilowatts and a fuel system efficiency of not less than 80 percent in the production of heat and electricity, or has an electric generating capacity greater than 30 kilowatts and not more than one megawatt and a fuel system efficiency of not less than 65 percent in the production of heat and electricity. Fuel system efficiency shall be measured as a usable thermal and electrical output in BTU's divided by fuel input in BTU's."

Puc 902.02 "Customer-generator" means "eligible customer-generator" as defined in RSA 362-A:1-a, II-b, namely "an electric utility customer who owns or operates an electrical generating facility either powered by renewable energy or which employs a heat led combined heat and power system, with a total peak generating capacity of not more than 100 kilowatts, or that first began operation after July 1, 2010 and has a total peak generating capacity of 100 kilowatts or more up to one megawatt, that is located behind a retail meter on the customer's premises, is interconnected and operates in parallel with the electric grid, and is used in the first instance to offset the customer's own electricity requirements".

Yes No

Interconnection Customer Signature



Date

8/13/2025

A Qualifying Facility where 100% of the output will be sold to PSNH?

Yes No

A Qualifying Facility intending to sell power at wholesale to an entity other than PSNH?

Yes No

(evidence of FERC QF Certification will be required prior to commercial operation)

A Generator interconnecting a new Generating Facility that plans to participate in the wholesale markets?

Yes No

An existing Generating Facility commencing participation in the wholesale markets?

Yes No

Paralleling:

Will the Generating Facility operate in parallel with the PSNH system for any amount of time?

Yes No If "No," then Generator is operating as "Open" Transition.

If Yes: Will the Generating Facility operate in parallel with PSNH for longer than 100 milliseconds?

Yes No

If No: Then Generator is operating as "Closed" Transition.

If Yes: Then Generator is operating as "Parallel Operation."

Will the generator operation vary by season? (Please describe)

No

Generating Facility Information:

Energy Source:

Solar Wind Hydro Battery
Diesel Natural Gas Fuel Oil

Other (state type) _____

Prime Mover:

Fuel Cell Reciprocating Engine Gas Turbine
Steam Turbine Micro-turbine PV

Other (state type) _____

Type of Generator: Synchronous Induction Inverter

Generator Manufacturer: N/A

Generator Model Name & Number: N/A

Generator Version Number: N/A

Generator Nameplate Rating: 8 @ 125 kW kW (Typical) For Inverter-based machines the kW rating of the inverter, and for all other interconnections the kW rating of the generation unit.

Generator Nameplate kVAR: N/A

Generating Facility or Customer-Site Load: None kW (if none, so state)

Typical Reactive Load (if known): None

Maximum Physical Export Capability Requested: 1,000 kW

Generator Nameplate Output Power Rating in kW:

(Summer) 1,000 (Winter) 1,000

Generator Nameplate Output Power Rating in kVA:

(Summer) 1,000 (Winter) 1,000

Individual Generator Power Factor:

Rated Power Factor: Leading _____ Lagging _____

Generating Facility Characteristic Data (for inverter-based machines):

Inverter Manufacturer: SMA

Model Name & Number: SHP Peak 3 125-USA-20

Is the Inverter UL 1741 certified? Yes No

Attach certification document indicating UL 1741 and IEEE 1547 versions.

Is the Inverter IEEE 1547 listed? Yes No

Is the Inverter IEEE 1547.1 listed? Yes No

Inverter complies with ISO-NE Inverter Source Requirements Document? Yes No

Islanding Detection Information Document attached? Yes No

Transient Overvoltage Compliance Documentation Attached? Yes No

(See Eversource DER Information and Technical Requirements Section 2.3.1)

Max design fault contribution current: _____ Instantaneous _____ or RMS? _____

Harmonics Characteristics: _____

Start-up requirements: None

Available fault current: TBD

Wind Farm Interconnection: N/A

Total Number of Generators in wind farm to be interconnected pursuant to this Interconnection Request:

Quantity: _____ Elevation: _____ Single Phase Three Phase

Generating Facility Characteristic Data (for rotating machines):

N/A

Speed: _____ RPM

Neutral Grounding Impedance (If Applicable): _____

Synchronous Generators:

Direct Axis Synchronous Reactance, X_d : _____ Per Unit

N/A

Direct Axis Transient Reactance, X_d' : _____ Per Unit

Direct Axis Sub Transient Reactance, X_d'' : _____ Per Unit

Negative Sequence Reactance, X_2 : _____ Per Unit

Zero Sequence Reactance, X_0 : _____ Per Unit

KVA Base: _____

Field Volts: _____

Field Amperes: _____

Induction Generators:

N/A

Motoring Power (kW): _____

I_2^2t or K (Heating Time Constant): _____

Rotor Resistance, R_r : _____ Per Unit

Stator Resistance, R_s : _____ Per Unit

Stator Reactance, X_s : _____ Per Unit

Rotor Reactance, X_r : _____ Per Unit

Magnetizing Reactance, X_m : _____ Per Unit

Short Circuit Reactance, X_d'' : _____ Per Unit

Exciting Current: _____ Amps

Temperature Rise: _____

Frame Size: _____

Design Letter: _____

Reactive Power Required (No Load): _____ VAR

Reactive Power Required (Full Load): _____ VAR

Total Rotating Inertia, H: _____ Per Unit on kVA Base

Transformer Data (If Applicable, for Generating Facility-Owned Transformer): N/A

Transformer Size: _____ kVA

Is the transformer: _____ single phase _____ three phase?

Transformer Impedance: _____ % on _____ kVA Base

Transformer Impedance X/R Ratio: _____

Transformer Positive-Sequence Short Circuit Impedances (pu): _____

Zps= _____, Zpt= _____, Zst= _____

Transformer Zero-Sequence Impedances (pu): _____

Zpm0= _____, Zsm0= _____, Zmg0= _____

Transformer Neutral Grounding Reactor/Resistor Impedance (Ohms):

Transformer BIL Rating _____ kV

If Three Phase:

Transformer Primary: _____ Volts _____ Delta _____ Wye _____ Wye Grounded

Transformer Secondary: _____ Volts _____ Delta _____ Wye _____ Wye Grounded

Transformer Tertiary: _____ Volts _____ Delta _____ Wye _____ Wye Grounded

Transformer Fuse Data (If Applicable, for Generating Facility-Owned Fuse): N/A

(Attach copy of fuse manufacturer's Minimum Melt and Total Clearing Time-Current Curves)

Manufacturer: _____ Type: _____

Size: _____ Speed: _____

Interconnecting Circuit Breaker (if applicable):

Manufacturer: TBD

Type: TBD

Load Rating (Amps): 1,600 Interrupting Rating (Amps): 65K

Trip Speed (Cycles): TBD

Current Transformer Data (If Applicable):

(Enclose Copy of Manufacturer's Excitation and Ratio Correction Curves)

Manufacturer: TBD

Type: TBD Accuracy Class: TBD Proposed Ratio Connection: TBD

Manufacturer: TBD

Type: TBD Accuracy Class: TBD Proposed Ratio Connection: TBD

Potential Transformer Data (If Applicable): TBD

Manufacturer: _____

Type: _____ Accuracy Class: _____ Proposed Ratio Connection: _____

Manufacturer: _____

Type: _____ Accuracy Class: _____ Proposed Ratio Connection: _____

General Information:

Is evidence of site control enclosed (see page 1)?

Yes No

Are site electrical One-Line Diagram(s) showing the configuration of all Generating Facility equipment enclosed (see page 1)?

Yes No

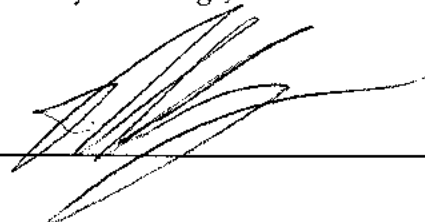
Enclose copy of any site documentation that indicates the precise physical location of the proposed Generating Facility (e.g., USGS topographic map or other diagram or documentation).

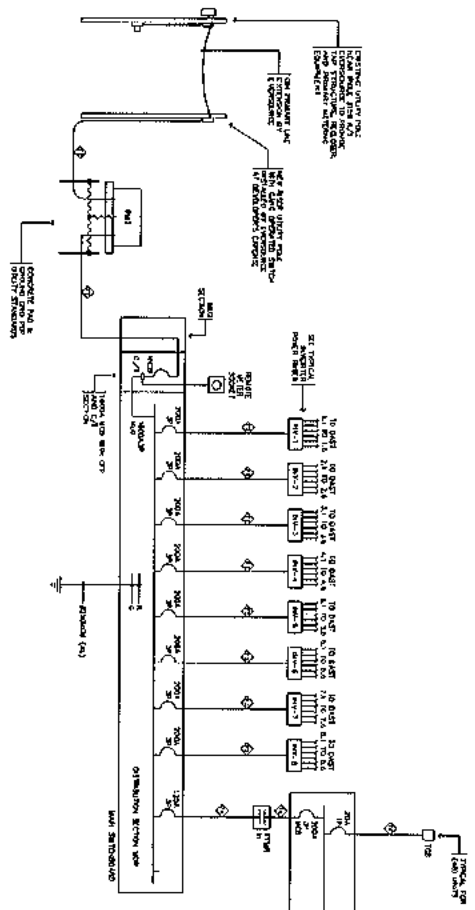
Enclose copy of municipal tax maps indicating the parcel(s) on which the proposed facility shall be located. Municipality Rochester NH Map # 240 Parcel ID # 49

Enclose copy of any site documentation that describes and details the operation of the protection and control schemes.

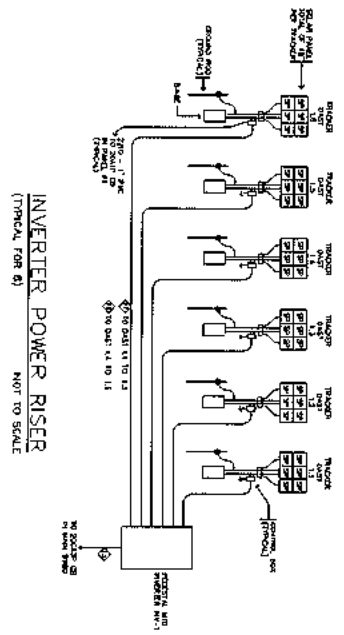
Applicant Signature

I hereby certify that, to the best of my knowledge, all the information provided in this Interconnection Request is true and correct.

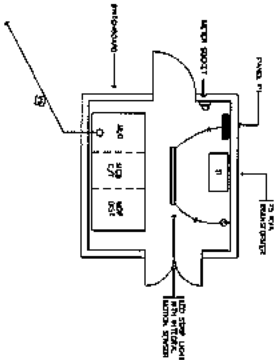
Interconnection Customer:  Date: 8/13/2021



MAIN POWER RISER
NOT TO SCALE



INVERTER POWER RISER
NOT TO SCALE



PROPOSED UTILITY BLDG
1/4" = 1'-0"

EQUIPMENT SCHEDULE

SYMBOL	DESCRIPTION	QUANTITY	REMARKS
EQ1	2000 WATT UPS	1	FOR CONTROL ROOM
EQ2	4000 WATT UPS	1	FOR SERVER ROOM
EQ3	1000 WATT UPS	1	FOR COMMUNICATIONS ROOM

PANEL SCHEDULE

PANEL NO.	DESCRIPTION	LOCATION
1	MAIN POWER RISER	UTILITY BUILDING
2	INVERTER POWER RISER	UTILITY BUILDING

POWER SUMMARY

DESCRIPTION	WATTAGE
CONTROL ROOM	2000
SERVER ROOM	4000
COMMUNICATIONS ROOM	1000
TOTAL	7000

FEEDER SCHEDULE

FEEDER NO.	TO	FROM	CONDUCTOR TYPE	CONDUCTOR SIZE	LENGTH (FT)	LOAD (WATT)	TYPE
1	1	2	200	2	50	2000	UPS
2	1	3	200	2	50	4000	UPS
3	1	4	200	2	50	1000	UPS

RUSSELL DOWNING, P.E.
 CONSULTING ENGINEER
 87 NORTH 11
 FARMINGTON, NH 03825
 TEL. 603-853-8870

RODERS & DONAGHANS
 ELECTRICAL
 55 STATE STREET
 ROCHESTER, NH 03601

PROJECT #201 56 LR
 04/03/2001

E0.1



T3140

Shaw Drive 1 MW PV

Distribution System Impact Study – Final Report
June 24, 2022

Prepared By:

Jeannie Amber

Table of Contents

EXECUTIVE SUMMARY	ii
STUDY FINDINGS	iv
COST ESTIMATE.....	vi
1 BACKGROUND.....	1
1.1 Project Description.....	1
1.2 Utility Circuit & System Information.....	1
1.2.1 Rochester Substation	1
1.2.2 Portland Street Substation.....	1
1.2.3 Tasker Farms Substation	2
1.2.4 Utility Main Circuits.....	2
2 INTERCONNECTION REQUIREMENTS.....	4
3 SYSTEM IMPACT STUDY	4
3.1 Reverse Power Flow & Substation Transformer Ratings	4
3.2 Transmission Ground Fault Detection (3V0).....	6
3.3 Short Circuit Analysis	6
3.3.1 Stiffness Ratio	7
3.3.2 Fault Coordination	7
3.3.3 Effective Grounding	8
3.4 Power Flow Analysis.....	9
3.4.1 Thermal Overload Analysis	9
3.4.2 Steady State Voltage Analysis	9
3.4.3 Rapid Voltage Change & Flicker	10
3.4.4 Tap Position Analysis and Capacitor Operation.....	11
3.4.5 Reverse Power Flow – Feeder Level	11
3.5 Risk of Islanding	11
3.6 Transient Overvoltage.....	11
4 CONCLUSIONS.....	12
5 COST ESTIMATE.....	14
Appendix – Project One Line & Site Plan	1

EXECUTIVE SUMMARY

Public Service Company of New Hampshire (PSNH) DBA Eversource Energy (Eversource) conducted a Distribution System Impact Study on a proposed solar facility interconnecting to the Eversource Electric Power System (EPS). The Project in Table 1 is proposed to interconnect to the 34.5kV system on Shaw Drive via the 371X5, 34.5 kV tap off of the 371P line from Portland Street Substation, which is fed by the 386 circuit from the Rochester 115kV/34.5kV substation.

Project #	Location	Maximum Output (AC MW/MVA)	Point of Interconnection	Project Type
T3140	Shaw Drive, Rochester, NH 03868	1.0/1.0	The POI is in the vicinity of pole# 159A/5	Stand-alone PV project

Table 1: Project Interconnecting on 386 Circuit fed from Rochester Substation via the 371P line from Portland Street Substation

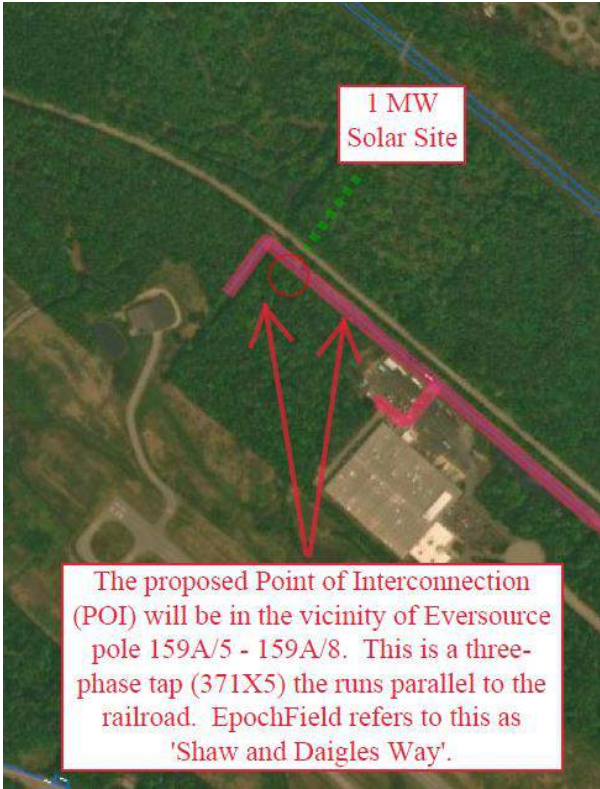


Figure 1: Facility Location

This Study includes an evaluation of the following items:

- Conceptual Design Review
- Short Circuit Analysis
- Short Circuit Ratio (SCR) evaluation
- Load Flow Analysis
- Reverse Power flow Analysis
- Voltage Flicker Analysis.
- Rapid Voltage Change
- Volt/Var Regulating Equipment Operation Analysis.
- Thermal Capacity Analysis
- Risk of Islanding Evaluation
- Transient Over Voltage Evaluation.
- Preliminary Cost Estimate of Interconnection
- Transmission Ground Fault Overvoltage Evaluation.

Conceptual Design of Solar Photovoltaic (PV) Interconnection Facilities

The Interconnection Customer (IC) has proposed to construct one 1.0 MW (AC) solar PV generation facility in Rochester, NH. The project is proposed to interconnect to the 34.5kV system via the 371X5, 34.5 kV tap off of the 371P line from Portland Street Substation, which is fed by the 386 circuit from the Rochester 115kV/34.5kV substation. The Project proposes the following design:

Project #	T3140
Project Type	Stand-alone Solar PV project
Project Size (AC)	1.0 MW/1.0 MVA
Generator Type	Inverter
Power Factor	1.0 (Unity PF)
Generator Make & Model	(8) Eight SMA Sunny Highpower Peak 3-125-US (125kW 480V _{ac}) Total active power nameplate rating of PV plant = 1.0 MW
Transformer Configuration	(1) 1000kVA, 34.5 kV (Yg)/480 V (Y) Intertie Transformer, Z=5.75%, X/R=6.0 (1) 100 kVA, 34.5kV Zig Zag Grounding Transformer Z=4%, X/R=4.0

Table 2: Project Summary

STUDY FINDINGS

The Study evaluated the proposed project impacts of interconnecting to the EPS under N-0 (normal configuration) as well as N-1 (alternate configuration) scenarios during daytime peak and minimum load conditions. The project was studied for the following cases:

Case #	Case Type	N-1 Trigger	Applicable Loading Scenario	POI S/S Source	System Reconfiguration Notes Impacting POI
1	N-0	N/A	Peak & Min	Rochester TB57	POI fed from Rochester TB57 via 386-371P
2	N-1	Loss of Rochester TB53 or TB57	Min	Rochester TB53 or TB57	Supply by single transformer at Rochester.
3	N-1	Loss of Rochester TB53	Peak	Rochester TB57	Supply by a single transformer at Rochester with reduced load on Rochester.
4	N-1	Loss of Rochester TB57	Peak	Tasker Farm TB78	Supply by Tasker Farm via 3228-386-371P.
5	N-1	Loss of Dover TB22 or TB55	Peak	Rochester TB53 & TB57	Additional load on 371P and Rochester
6	N-1	Loss of Tasker Farm TB78	Peak & Min	Rochester TB53 & TB57	Additional load on Rochester (all Tasker load), 3228 and 3157 (via Tasker Bus) restored via 386.

Table 3: Study Cases Summary

By performing this Distribution System Impact Study, Eversource has determined the following results with required mitigations, upgrades, and further analysis, if applicable:

- Point of Interconnection (POI) requirements:** The proposed project will require an electronic SCADA Recloser with load side voltage sensing and reclose blocking, and primary metering equipped with the necessary CT's, PT's and switches. The exact POI will be determined during the facilities study for the project.
- Capacity Performance/Thermal Overload Analysis:** The project is expected to overload the fuses near the project POI. These fuses will be removed as a part of this project. Tree trimming will be required between the fuses and end of line to maintain pre-

project system reliability. No other thermal overloads were observed in any configuration.

- **ISO-NE Source Requirements:** The SMA S HP PEAK3 125-US inverters of the proposed facility are UL 1741 SA and IEEE 1547 certified. The Project inverter's voltage and frequency protection settings shall be compliant with and set to the ISO-NE SRD. All required frequency and voltage settings shall be included in the inverters and on the one line. An updated one-line showing these settings with all the necessary changes shall be submitted if the project moves forward.
- **One Line Revision Requirements:** The Customer's one line, dated 1/21/22 shows inverter size labels that do not match the specifications sheet provided, which must be revised. The study evaluated SMA Sunny Highpower Peak 3 125-US inverters. The customer-owned GOAB switch is also shown without indication that it is lockable and 24/7 accessible, which must be revised. The grounding transformer low side voltage shall be indicated as applicable. An updated one-line showing these settings with all the necessary changes shall be submitted if the project moves forward.
- **Reverse Power Flow (RPF):** The project is expected to cause reverse power flow through the substations. There is no expected reverse flow through distribution line voltage regulating devices. The Rochester TB57 and Tasker TB78 transformer LTCs will be required to be programmed for reverse flow to accommodate the project. The TB53 transformer is expected to experience reverse flow only if QP1136 moves forward, and the LTC upgrade cost for TB53 therefore is not the responsibility of this project. TB78 has a capable LTC, and will only require LTC programming if QP1136 remains prior in queue.
- **Short Circuit Analysis:** The increased fault currents by the proposed projects are not expected to have any adverse impact on the EPS existing equipment. The greatest fault current measured at POI would increase by 1.12%. Additionally, the maximum fault currents at the 34.5 kV bus at both the Rochester and Tasker substations are not expected to exceed 10kA as a result of interconnecting the proposed project.
- **Effective Grounding:** The customer has proposed an effectively grounded interconnection that meets Eversource interconnection technical requirement based on an initial review. The final grounding transformer specs (including impedance) will be reviewed in detail during the execution phase of the project should the Customer choose to move forward.
- **Steady State Voltage Analysis:** The power generation produced by the project are not expected to deviate the area EPS voltage beyond $\pm 5\%$ of nominal.

- **Rapid Voltage Change:** The loss of the proposed generator from full output is NOT expected to change the voltage for any of the studied cases beyond the IEEE 1547-2018 specified limit. The maximum change in the voltage estimated at the POI is 0.25% during the loss of PV full output.
- **Flicker:** The instantaneous change in proposed generator’s output from full 100% to 5% is NOT expected to change the voltage on feeders beyond Eversource’s flicker limit specified in DSEM.
- **Tap Position Analysis and Cap bank operation:** The proposed project is not expected to have a significant impact on the number of operations of the LTCs for transformers TB57 & TB53 (Rochester S/S), and TB78 (Tasker S/S), provided they are programmed for reverse flow. The project is not expected to cause any capacitors to change state.
- **Risk of Islanding (ROI):** The proposed project fails the Eversource ROI evaluation and will require upgrades to the 371X5 recloser. The required upgrades will include modification to add DSCADA capability to the recloser, the addition of voltage sensing (PT’s) on the load side the device, as well as programming changes to enable block of close during voltage presence conditions on the load side of the device as well as SCADA modifications to enable turning on/off the block of close functionality as required. The 371P breaker is already equipped with reclose blocking functionality and does not require upgrades.
- **Transient Overvoltage:** The customer has provided documentation for the inverter showing compliance with transient overvoltage curve in IEEE Std. 1547-2018 clause 7.4.2. The inverter firmware version shall be demonstrated per section 3.6 during the witness test.
- **Protection coordination Review:** A detailed protection coordination study will be completed during the execution stage if the project moves ahead. The 371X5 recloser and the POI recloser settings will be developed/modified as required at a minimum.

Transmission Ground Fault Overvoltage (3V0) Evaluation: a 3V0 detection requirement evaluation has been completed identifying the need for 3V0 protection detection at the Rochester TB53 & TB57 and Tasker TB78 transformer breakers; during the study it was also confirmed that both transformer breakers are currently equipped with 3V0 protection.

COST ESTIMATE

A Facility Study is required to determine the total estimated costs for the project.

This Study was based on eight (8) SMA SHP PEAK 3-125-US inverters. Any further design changes made by the Interconnecting Customer without Eversource's knowledge, review, and/or approval will render the findings of this report null and void.

If changes are anticipated, Eversource shall be informed immediately so that requirements and recommendations contained within this study may be revised where necessary. This will ensure that the Interconnecting Customer is informed of Eversource requirements within a timely fashion and should eliminate delays and expenses, which could otherwise be experienced by the Interconnecting Customer.

1 BACKGROUND

1.1 Project Description

The Project will interconnect to the Eversource 34.5 kV distribution system. For the purpose of this study, analyses were conducted in Synergi Electric and Aspen One-liner. Based on the application submitted by the customer, the following generation and transformer facilities were modeled.

Total Generation Capability	T3140– 1.0 MW/1.0 MVA PV
Transformer (GSU) Characteristics	(1) 1000kVA, 34.5 kV (Yg)/480 V (Yg) Intertie Transformer, Z=5.75%, X/R=6.0 (1) 100 kVA, 34.5kV Zig Zag Grounding Transformer Z=4%, X/R=4.0
Inverter Type & Model	(8) Eight SMA Sunny Highpower Peak 3-125-US (125kW 480V _{ac}) Total active power nameplate rating of PV plant = 1.0 MW
Frequency	60 Hz
Generator Certification	UL 1741 SA, IEEE 1547

Table 4: Inverter and GSU Characteristics

1.2 Utility Circuit & System Information

1.2.1 Rochester Substation

There are two (2) 44.8 MVA – 115/34.5kV transformers, TB53 and TB57, at Rochester Substation. There are four (4) 34.5kV circuits fed from Rochester Substation. The TB53 transformer feeds the Eversource 362 and 340 lines via bus B. The TB57 transformer feeds the Eversource 386, and 392X lines via bus A. There is one (1) normally open bus tie breaker BT32 between bus 1 and 2.

The total aggregated generation inclusive of all the DER (excluding the proposed project) which are online or in the interconnection queue is 18.6 MVA total connected to the TB57 transformer.

1.2.2 Portland Street Substation

There are two (2) 34.5 kV buses at Portland Street Substation, Bus 1 & Bus 2, both buses are electrically connected via a normally closed bus tie switch, J32. Bus 2 is connected to the 386 (Rochester S/S) line through a normally closed breaker 386, and 371 (Dover) line through a

normally closed breaker 0371 and a normally open mid-line electronic switch 371J6, bus 2 also feeds one (1) 34.5kV/12.47kV transformer. Bus 1 is connected to the 340 (Rochester S/S) and 32 (Dover S/S) lines through normally open circuit breakers, Bus 1 also feeds two (2) 34.5kV/12.47 kV transformers.

Under normal system conditions, the 386 line out of Rochester is considered the main 34.5kV source feeding the Portland Street Substation load that consists of the three (3) 34.5 kV/ 12.47 transformers feeding the 12kV system in the area, and the 371 line load up to 371J6 device open point.

1.2.3 Tasker Farms Substation

There is one (1) 44.8 MVA 115/34.5kV transformer, TB78, at Tasker Substation. There are two (2) 34.5 kV buses at Tasker Farms substation, Bus 1 and Bus 2. Both buses are electrically connected via normally closed switches. Bus 1 is connected to the 3174 circuit, and Bus 2 is connected to the 3228 and 3157 circuits.

1.2.4 Utility Main Circuits

Below is a summary of the study cases highlighting the main circuit and substation source feeding the POI for each case.

Case #	Case Type	N-1 Trigger	Applicable Loading Scenario	POI S/S Source	System Reconfiguration Notes Impacting POI
1	N-0	N/A	Peak & Min	Rochester TB57	POI fed from Rochester TB57 via 386-371P
2	N-1	Loss of Rochester TB53 or TB57	Min	Rochester TB53 or TB57	Supply by single transformer at Rochester.
3	N-1	Loss of Rochester TB53	Peak	Rochester TB57	Supply by a single transformer at Rochester with reduced load on Rochester.
4	N-1	Loss of Rochester TB57	Peak	Tasker Farm TB78	Supply by Tasker Farm via 3228-386-371P.
5	N-1	Loss of Dover TB22 or TB55	Peak	Rochester TB53 & TB57	Additional load on 371P and Rochester

6	N-1	Loss of Tasker Farm TB78	Peak & Min	Rochester TB53 & TB57	Additional load on Rochester (all Tasker load), 3228 and 3157 (via Tasker Bus) restored via 386.
---	-----	--------------------------	------------	-----------------------	--

Table 5: Study Cases Summary

The type and location of the relevant modeled circuit interrupting devices on the 371P, 386, 340 and 3228 lines are noted below.

Device	Type	Pole Number
386 Rochester to Portland Street Line		
386A	Line Breaker (Rochester)	Inside Rochester S/S
386	Line Breaker (Portland St)	Inside Portland St S/S
371 Portland Street Substation Line		
0371	Line Breaker (Portland St)	Inside Portland St S/S
371J71	Scadamate Switch	P371/175Y
371J70	Scadamate Switch	P371/174
371X5	Electronic Recloser	P159B/2
371J6	Scadamate Switch (Tie Switch)	P371/111Z
371 Dover Substation Line		
371	Line Breaker (Dover)	Inside Dover S/S
371J32	Scadamate Switch (Tie Switch)	P371/70Y
340 Rochester to Portland Street Substations Line		
0340	Line Breaker (Rochester)	Inside Rochester S/S
340	Line Breaker (Portland St)	Inside Portland St S/S
3228 Tasker Farm Substation Line		

3228	Line Breaker (Tasker)	Inside Tasker S/S
J8628	Electronic Recloser (Tie Switch)	P3228/112

Table 6: 371, 386, 340, 371D, and 3228 Circuits Interrupting Devices

The coincidental net load readings used in the study are given in Table 6. The 3228, 371P, 386 and 340 circuits were modeled in more detail and all other circuits were represented by lumped loads at the respective feeder origins.

Loading Scenario	Day & Time	386		371P		340		3228	
		MW	MVAR	MW	MVAR	MW	MVAR	MW	MVAR
Daytime Max	8/11/2020 14:00	16.60	4.10	5.30	1.10	10.30	0.60	4.10	0.70
Daytime Min	5/17/2020 8:00 AM	5.22	-0.36	1.65	-0.2	4.07	-2.12	1.30	0.00

Table 7: Coincident Net Loading

2 INTERCONNECTION REQUIREMENTS

The project is required to follow the protocols and procedures described in the following documents:

- Eversource DER Standard, “Information and Technical Requirements For the Interconnection of Distributed Energy Resources (DER)”, January 21, 2020
- IEEE Standard 1547-2018, “IEEE Standard for Interconnection and Interoperability of Distributed Energy Resources with Associated Electric Power System Interfaces”
- UL Standard 1741 Supplement A, “Advanced Inverter Testing”
- ISO New England “Inverter Source Requirement Document”
- Other federal or state building, electrical, and safety codes as applicable.

It is the customer’s responsibility to ensure that the proposed design fulfills these requirements.

3 SYSTEM IMPACT STUDY

3.1 Reverse Power Flow & Substation Transformer Ratings

The possibility of reverse flow through the Rochester and Tasker Farm Substations was considered with the addition of this project.

Case #	Transformer	Capacity (with Max Cooling) MVA	Agg. DER (Online & Queue) MVA	Net Min. Load Reading (Daytime) MVA	Agg. DER/TX Capacity	Agg. DER/TX Min. Load
1 Min Load	Rochester TB57	44.8	19.6	10.47	44%	187%
1 Peak Load	Rochester TB57	44.8	19.6	10.47	44%	187%
2	Rochester TB53 or TB57	44.8	23.2	20.02	52%	116%
3	Rochester TB57	44.8	20.6	14.73	46%	140%
4	Tasker Farm TB78	44.8	46	16.33	103%	282%
5	Rochester TB53 & TB57	89.6	23.2	26.23	26%	88%
6 Min Load	Rochester TB53 & TB57	89.6	64.7	31.02	72%	209%
6 Peak Load	Rochester TB53 & TB57	89.6	64.7	31.02	72%	209%

Table 5: Capacity, Loading and Generation

*does not include any DER that may be interconnected on circuits not operated by Eversource.

The total proposed and existing DER does not exceed the 95% rating criteria for the any substation transformers for N-0 scenarios. The emergency rating for the transformer in the N-1 (case # 4, peak load only) configuration for Tasker substation was verified and was not exceeded assuming a minimum load of 16.33 MVA on the Tasker TB78 transformer. Based on these findings, this project does not require any substation transformer upgrades.

The Rochester TB53 and TB57 transformers are expected to experience reverse flow.

The existing LTC controller at the Rochester TB53 transformer does not have bi-directional/cogeneration capable controls, therefore the LTC controller will require replacement with a bi-directional/co-generation capable control, which is only required with QP1136 in service. The cost for the replacement is expected to be covered by QP1136 for this upgrade, and the upgrade will not be required if QP1136 drops from the queue.

For case 2, the gross minimum load was calculated to be more than the aggregate DER, and therefore would not require an LTC upgrade for TB53.

The TB57 transformer LTC is required to be programmed for reverse power capability due to the possibility of reverse power flow in both N-0 and N-1 scenarios.

The Tasker Substation transformer is expected to experience Reverse Power Flow during the Case 4 and Case 6 scenarios. The table above includes QP1136 as prior in queue. If this project drops from the queue, no reverse power would be expected in Case 4 or Case 6.

The LTC controller at the Tasker Farm TB78 transformer has existing bi-directional/co-generation capable controls. It is not yet programmed for reverse power, which must be completed to accommodate this project.

3.2 Transmission Ground Fault Detection (3V0)

DER levels are high enough that the aggregate DERs on the TB53 & TB57 Rochester transformers and on TB78 at Tasker substation are capable of energizing the transformers for transmission-side ground faults. If the aggregate DER nameplate is >67% of the minimum gross load on a particular substation transformer in an N-0 or N-1 condition, 3V0 is required to detect ground faults on the high side of the substation transformer.

As seen in table 8, aggregate DER nameplate is significantly higher than the 67% of the minimum load for all scenarios. However, the addition of this project does not require 3V0 protection at Rochester substation, as it is already existing for both TB53 and TB57 transformers. 3V0 is also existing for TB78 at Tasker Substation.

3.3 Short Circuit Analysis

The Eversource system P&C ASPEN model was used for the study analysis after modeling the proposed project intertie transformer, the grounding transformer, and the inverters per the submitted one line. The inverter parameters are shown in Figure 2 below.

The screenshot shows the Aspen One-Liner Model dialog box with the following settings:

- Impedances (pu based on unit MVA):**
 - Subtransient: 0. +j 0.82
 - Transient: 0. +j 0.82
 - Synchronous: 0. +j 0.82
 - sequence: 0. +j 0.82
 - o sequence: 999. +j 999.
- Neutral Impedance (in actual Ohms):** 0. +j 0.
- Scheduled generation. Enter MVAR for PQ buses only:** MW= 0. MVAR= 0.
- P and Q limits (MW and MVAR):**
 - Pmax= 9999. Qmax= 9999.
 - Pmin= -9999. Qmin= -9999.
- Date In-service:** N/A **Out-of-service:** N/A
- Tags:** None
- Buttons: OK, Cancel, Help

Figure 2: Aspen One-Liner Model

These assumptions were used for all short circuit analysis for the inverters. Should the customer be aware of more accurate parameters and short circuit testing results to model the inverters, they should inform the Company.

3.3.1 Stiffness Ratio

The stiffness ratio was calculated using the below formula provided in IEEE1547.2 and data from the Synergi model, unless otherwise indicated.

$$Stiffness\ ratio = \frac{SC\ MVA(Area\ EPS)}{Nameplate\ MW(DR)} + 1$$

Case #	POI Voltage (kV)	3Ph Fault Current at POI (A)	SC Area EPS (MVA)	Project Output (MW)	Stiffness Ratio
1 (N-0)	34.5	2256	134,808	1.0	136*

Table 9: Stiffness Ratios

*Value from Aspen Oneliner Short circuit model, assuming DER connected directly to 371X5 tap.

3.3.2 Fault Coordination

Table summarizes the calculated fault currents from the Aspen model for all study cases at the POI with and without the proposed PV site connected to the 34.5kV System.

Fault Type	3LG			2LG			1LG			LL		
	PV Off-line	PV On-line	Percent Change	PV Off-line	PV On-line	Percent Change	PV Off-line	PV On-line	Percent Change	PV Off-line	PV On-line	Percent Change
1	2310	2329	0.82%	1332	1385	3.98%	1664	1735	4.27%	1998	2015	0.85%
2	2357	2376	0.81%	1404	1406	0.14%	1757	1764	0.40%	2039	2055	0.78%
3	2312	2331	0.82%	1384	1386	0.14%	1729	1736	0.40%	2000	2016	0.80%
4	1654	1673	1.15%	1029	1031	0.19%	1267	1274	0.55%	1431	1447	1.12%
5	3169	3188	0.60%	1787	1789	0.11%	2284	2290	0.26%	2743	2759	0.58%
6	2889	2907	0.62%	1599	1601	0.13%	2056	2062	0.29%	2498	2514	0.64%

Table 10: Fault Currents at POI

The increase in available fault current is unlikely to have any adverse impact on the feeder’s existing protection equipment. The increase in fault current does not cause the available substation bus fault duty to exceed 10 kA, and the project’s expected increase in fault current is <10% in all cases and locations.

3.3.3 Effective Grounding

It is intended for the utility distribution circuit to remain effectively grounded in any configuration to limit the unfaulted phase voltages to remain within acceptable limits. Furthermore, Eversource mandates an effective grounding criterion of $2 < X0/X1 < 3$. The Customer has proposed a grounding solution on the project one line. The intertie transformer configuration is Yg-Y, and a 34.5kV grounding transformer is proposed, with the following grounding transformer specifications: 100 kVA, 34.5kV, 4% Z, X/R = 4.

For a last-off condition, based on the inverter modeling methods above, and considering ground fault current protection needs, the grounding configuration results in an impedance ratio of $X0/X1 = 0.437$. Therefore, the proposed effective grounding solution appears to be acceptable based on an initial review.

The final grounding transformer impedance will be reviewed in detail during the Protection review should the Customer choose to move forward with constructing the project with the

34.5kV interconnection voltage. The Customer is advised not to purchase grounding transformer equipment until this construction review is complete.

3.4 Power Flow Analysis

The power flow analysis assessed the Facility impacts to the EPS, with assessments including the following:

- Conductor/Equipment Thermal Overload
- Steady State Voltage
- Rapid Voltage Change (RVC) and Flicker
- Voltage Regulation
- Reverse Power Capabilities of Feeder Equipment

The load flow study for the 1 MW PV generator was performed considering scenarios 1-4 below for case 1 (N-0), scenarios 1-2 for case 3, 4, 5 (both N-1), and scenarios 3-4 for case 2 (N-1). All existing DERs $\geq 100\text{kW}$ have been included in the study model, and are considered online during pre-and post-project scenarios.

1. Peak demand without the proposed project interconnection online
2. Peak demand with the proposed project interconnection online
3. Minimum demand without the proposed project interconnection online
4. Minimum demand with the proposed project interconnection online

3.4.1 Thermal Overload Analysis

Thermal ratings on the Rochester TB57 & TB53 transformers, Tasker TB78 transformer, 317P Feeder head, 386 Feeder Head, 3228 Feeder Head, 340 Feeder Head, and POI conductors were examined with all generation offline at peak load and with all generation online at minimum load.

This project does not cause any concern for thermal overloads on any device or line section.

3.4.2 Steady State Voltage Analysis

For each scenario above, the impacts of the proposed DER on the steady state voltage were assessed. All Volt/Var regulating equipment was allowed to operate and the proposed DER was set to operate on unity power factor mode.

The analysis indicated that voltages are adequately maintained within PUC limits based on the load flow simulations, with and without the proposed project online.

3.4.3 Rapid Voltage Change & Flicker

For the rapid voltage change analysis, the proposed 1 MW/1 MVA PV site was reduced to 0% from full output, prior to Volt/Var regulation equipment on the system adjusting (LTC, Voltage regulators and Capacitor banks at fixed position). Each case/scenario combination as per section 3.4 were analyzed. Voltage changes (on 120V base) were monitored for the project at the POI.

Case #	Scenario	Voltage at POI		
		PV On	PV Off	% Change
1	Peak Demand	121.0	120.7	0.25%
	Min Demand	122.7	122.5	0.16%
2	N/A	-	-	-
	Min Demand	121.7	121.5	0.16%
3	Peak Demand	121.4	121.1	0.25%
	N/A	-	-	-
4	Peak Demand	118.3	117.9	0.34%
	N/A	-	-	-
5	Peak Demand	118.5	118.3	0.17%
	N/A	-	-	-
6	Peak Demand	119.5	119.3	0.17%
	Min Demand	120.5	120.3	0.17%

Table 11: Rapid Voltage Change Results

With the proposed DER project being switched, the analysis indicates that the rapid voltage changes were within the variation limit of 3% set by IEEE 1547-2018 for photovoltaic generation. The facility also passes the flicker limit screen of 2% outlined in the Eversource DSEM.

3.4.4 Tap Position Analysis and Capacitor Operation

The output drop analysis was performed with the TB53 & TB57 (Rochester) and TB78 (Tasker) voltage regulation devices allowed to adjust. The transformer LTCs, the line regulators and the switched capacitors were allowed to adjust to confirm the LTC taps don't move more than one position and capacitor banks don't change status as a result of this Project for all study cases and load/generation scenarios.

The analysis identified that there will be no excessive tap movements of any of the LTCs when the PV is reduced to 5% from full output. Therefore, no mitigation is required.

3.4.5 Reverse Power Flow – Feeder Level

The voltage regulation equipment on the study feeders were assessed for reverse power flow. There are no voltage regulators or other devices that would be adversely impacted by reverse power flow.

3.5 Risk of Islanding

The Eversource Risk of Islanding (ROI) evaluation follows the guidelines set forth in the following documents:

- Eversource's DSEM 19.028, "Risk of Islanding Screening Process"
- Sandia Report, "Suggested Guidelines for Anti-Islanding Screening"

The customer has provided documentation that the SMA Sunny Highpower Peak 3-125-US inverters use an active islanding detection method using bidirectional positive feedback on frequency shift, along with passive islanding detection.

However, as the Project exceed Eversource's 200 kW AC screening criterion, and aggregate generation is greater than 67% of the minimum load for the 371X5 device loading. Block of close when voltage is present on the load side of these devices will be required. The 371X5 recloser is not presently a SCADA device and is required to be upgraded to add SCADA capability. Block of close will also be required on the utility-owned project POI recloser.

3.6 Transient Overvoltage

Based on recent DER studies performed by Eversource, it has been determined that transient overvoltage is of concern due to potential load rejection overvoltage (LROV) by the inverters. There is concern that during step changes in load (such as tripping of an upstream device), the proposed inverters may cause transient over voltages in excess of 1.2pu, which can potentially cause damage to the customer's equipment, utility equipment, and/or nearby customer equipment. Due to this concern, Eversource requires that the customer demonstrate that the inverters limit their cumulative overvoltage according to the transient overvoltage curve in IEEE Std. 1547-2018 clause 7.4.2.

The aggregate DER at the 386 Rochester substation feeder breaker is less than 115% of the minimum load, and the aggregate DER at the 371P Portland Street feeder breaker is also less than 115% of the minimum load, and therefore a dynamic study was not required.

The Customer has provided documentation showing compliance with the Transient Overvoltage Limits curve given in the standard, where the SMA Sunny Highpower Peak 3-125-US inverters have transient overvoltage protection that will clear potential transient overvoltages over 1.4 pu in 1 ms or less. The islanding detection information letter indicates that the functionality is available in firmware version V3.10.04.R or higher.

The Customer shall demonstrate this protection is enabled in the project inverters during or prior to the witness test by providing documentation of the inverter serial numbers and firmware version. The inverter serial numbers and firmware version shall be recorded as part of the as-built site verification for submittal to the Company.

Note: In the future revisions, UL 1741 test procedures are anticipated to cover this requirement. In the interim, customers are required to demonstrate compliance to avoid potential damage to customer and utility equipment.

4 CONCLUSIONS

As a result of assessing the impact of the project on Eversource's distribution system, the following conclusions are made:

- **Point of Interconnection (POI) requirements:** The proposed project will require an electronic SCADA Recloser with load side voltage sensing and reclose blocking, and primary metering equipped with the necessary CT's, PT's and switches. The exact POI will be determined during the facilities study for the project.
- **Capacity Performance/Thermal Overload Analysis:** The project is expected to overload the fuses near the project POI. These fuses will be removed as a part of this project. Tree trimming will be required between the fuses and end of line to maintain pre-project system reliability. No other thermal overloads were observed in any configuration.
- **ISO-NE Source Requirements:** The SMA S HP PEAK3 125-US inverters of the proposed facility are UL 1741 SA and IEEE 1547 certified. The Project inverter's voltage and frequency protection settings shall be compliant with and set to the ISO-NE SRD. All required frequency and voltage settings shall be included in the inverters and on the one line. An updated one-line showing these settings with all the necessary changes

shall be submitted if the project moves forward.

- **One Line Revision Requirements:** The Customer's one line, dated 1/21/22 shows inverter size labels that do not match the specifications sheet provided, which must be revised. The study evaluated SMA Sunny Highpower Peak 3 125-US inverters. The customer-owned GOAB switch is also shown without indication that it is lockable and 24/7 accessible, which must be revised. The grounding transformer low side voltage shall be indicated as applicable. An updated one-line showing these settings with all the necessary changes shall be submitted if the project moves forward.
- **Reverse Power Flow (RPF):** The project is expected to cause reverse power flow through the substations. There is no expected reverse flow through distribution line voltage regulating devices. The Rochester TB57 and Tasker TB78 transformer LTCs will be required to be programmed for reverse flow to accommodate the project. The TB53 transformer is expected to experience reverse flow only if QP1136 moves forward, and the LTC upgrade cost for TB53 therefore is not the responsibility of this project. TB78 has a capable LTC, and will only require LTC programming if QP1136 remains prior in queue.
- **Short Circuit Analysis:** The increased fault currents by the proposed projects are not expected to have any adverse impact on the EPS existing equipment. The greatest fault current measured at POI would increase by 1.12%. Additionally, the maximum fault currents at the 34.5 kV bus at both the Rochester and Tasker substations are not expected to exceed 10kA as a result of interconnecting the proposed project.
- **Effective Grounding:** The customer has proposed an effectively grounded interconnection that meets Eversource interconnection technical requirement based on an initial review. The final grounding transformer specs (including impedance) will be reviewed in detail during the execution phase of the project should the Customer choose to move forward.
- **Steady State Voltage Analysis:** The power generation produced by the project are not expected to deviate the area EPS voltage beyond $\pm 5\%$ of nominal.
- **Rapid Voltage Change:** The loss of the proposed generator from full output is NOT expected to change the voltage for any of the studied cases beyond the IEEE 1547-2018 specified limit. The maximum change in the voltage estimated at the POI is 0.25% during the loss of PV full output.
- **Flicker:** The instantaneous change in proposed generator's output from full 100% to 5% is NOT expected to change the voltage on feeders beyond Eversource's flicker limit specified in DSEM.

- **Tap Position Analysis and Cap bank operation:** The proposed project is not expected to have a significant impact on the number of operations of the LTCs for transformers TB57 & TB53 (Rochester S/S), and TB78 (Tasker S/S), provided they are programmed for reverse flow. The project is not expected to cause any capacitors to change state.
- **Risk of Islanding (ROI):** The proposed project fails the Eversource ROI evaluation and will require upgrades to the 371X5 recloser. The required upgrades will include modification to add DSCADA capability to the recloser, the addition of voltage sensing (PT's) on the load side the device, as well as programming changes to enable block of close during voltage presence conditions on the load side of the device as well as SCADA modifications to enable turning on/off the block of close functionality as required. The 371P breaker is already equipped with reclose blocking functionality and does not require upgrades.
- **Transient Overvoltage:** The customer has provided documentation for the inverter showing compliance with transient overvoltage curve in IEEE Std. 1547-2018 clause 7.4.2. The inverter firmware version shall be demonstrated per section 3.6 during the witness test.
- **Protection coordination Review:** A detailed protection coordination study will be completed during the execution stage if the project moves ahead. The 371X5 recloser and the POI recloser settings will be developed/modified as required at a minimum.

Transmission Ground Fault Overvoltage (3V0) Evaluation: a 3V0 detection requirement evaluation has been completed identifying the need for 3V0 protection detection at the Rochester TB53 & TB57 and Tasker TB78 transformer breakers; during the study it was also confirmed that both transformer breakers are currently equipped with 3V0 protection.

5 COST ESTIMATE

A Facility Study will be required to determine the Total Estimated Cost for this interconnection.

Facility Study Agreement
GNM Solar 17, 60 Shaw Dr PV [T3140]

This Facility Study Agreement (this “**Agreement**”) dated as of **September 27, 2022** (the “**Effective Date**”) is entered into by and between Public Service Company of New Hampshire, dba Eversource Energy, a New Hampshire corporation having its principal place of business in Manchester, New Hampshire (“**Eversource**”), and GNM Solar 17 LLC, having a principal place of business at PO Box 77 Farmington, NH 03835-0077, (“**Generator**”). (Eversource and Generator are collectively referred to as the “**Parties**” and individually as a “**Party**”).

RECITALS

WHEREAS, Generator is proposing to develop a Generating Facility or increase the generating capacity of an existing Generating Facility consistent with the Interconnection Request completed by Generator on **January 25, 2022**;

WHEREAS, Generator desires to interconnect the Generating Facility with the Eversource Distribution System;

WHEREAS, Eversource has identified a preliminary list of interconnection facilities and/or system upgrades with respect to the proposed Interconnection of the Generating Facility; and

WHEREAS, Generator has requested Eversource to perform a Facility Study to specify and estimate the cost of the equipment, engineering, procurement, and construction work required.

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 Capitalized terms used herein but not defined herein shall have the meanings ascribed to such terms in Eversource’s Guidelines for Generator Interconnection (the “**Guidelines**”).
- 2.0 Eversource shall conduct or cause to be conducted a Facility Study in accordance with the Guidelines (the “**Facility Study**”).
- 3.0 The scope of the Facility Study is described in Exhibit A to this Agreement.
- 4.0 In conjunction with the execution of this Agreement, Eversource shall provide to the Generator a written good faith estimate of the cost of the Facility Study (the “**Cost Estimate**”). Prior to commencement of the Facility Study, the Generator shall pay 100% of the Cost Estimate to Eversource (the “**Deposit**”). The Cost Estimate shall be provided in Exhibit A to this Agreement.
- 5.0 Following the conclusion of the Facility Study, Eversource shall prepare a report

setting forth the results of the Facility Study (the "**Report**"). The Report may include, but is not limited to: (a) specification and estimation of the equipment, engineering, procurement and construction work (including overheads) needed to implement the conclusions of the System Impact Study; (b) identification of the electrical switching configuration of the equipment (including, without limitation, transformer, switchgear, meters, and other station equipment); and (c) estimation of the nature and estimated cost of Eversource's Interconnection Facilities and upgrades necessary to accomplish the Interconnection (including, without limitation, an estimation of the time required to complete the construction and installation of such facilities).

6.0 Eversource shall use commercially reasonable efforts to provide the Report to the Generator in accordance with the estimated completion date noted in Exhibit A to this Agreement.

7.0 At any time prior to completion of the Study, Eversource may calculate the expenses that have accrued and, to the extent that the accrued expenses exceed the Deposit, Eversource may provide an invoice to the Generator. The Generator shall pay the invoice to Eversource within thirty (30) Calendar Days of the invoice date (without interest).

8.0 Within thirty (30) days of the completion of the Facility Study, Eversource shall calculate the actual costs of the Facility Study (the "**Actual Cost**"), and Eversource shall provide an invoice to the Generator.

9.0 In the event the Actual Cost exceeds the Deposit, the Generator shall pay the difference to Eversource within thirty (30) Calendar Days of the invoice date (without interest). In the event the Deposit exceeds the Actual Cost, Eversource shall pay the excess to the Generator within thirty (30) Calendar Days of the invoice date (without interest).

10.0 Miscellaneous.

10.1 Accuracy of Information. The Generator represents and warrants that, to the best of its knowledge, the information it provides to Eversource in connection with this Agreement and the Facility Study (including without limitation the data and all information provided on Generator's Interconnection Request) shall be accurate and complete as of the date such information is provided. The Generator shall promptly provide Eversource with any additional information needed to update information previously provided.

10.2 Disclaimer of Warranty. In performing the Facility Study, Eversource may rely on information provided by the Generator and third parties and may not have control over the accuracy of such information. ACCORDINGLY, EVERSOURCE HEREBY EXPRESSLY DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, WHETHER ARISING BY OPERATION OF LAW, COURSE OF PERFORMANCE OR DEALING, CUSTOM, USAGE IN THE TRADE OR PROFESSION, OR OTHERWISE, INCLUDING WITHOUT LIMITATION IMPLIED

WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Generator acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.

10.3 Force Majeure, Liability and Indemnification.

10.3.1 Force Majeure. If a Force Majeure Event prevents a Party from fulfilling any obligations under this Agreement, such Party will promptly notify the other Party in writing and will keep the other Party informed on a continuing basis of the scope and duration of the Force Majeure Event. The affected Party shall specify in reasonable detail the circumstances of the Force Majeure Event, its expected duration, and the steps that the affected Party is taking to mitigate the effects of the event on its performance. The affected Party may suspend or modify its performance of obligations under this Agreement, other than the obligation to make payments then due or becoming due under this Agreement, but only to the extent that the effect of the Force Majeure Event cannot be mitigated by the use of commercially reasonable efforts. The affected Party shall use commercially reasonable efforts to resume its performance as soon as possible. Without limiting this section, the Generator shall immediately notify Eversource verbally if the failure to fulfill the Generator's obligations under this Agreement may impact the safety or reliability of Eversource EPS. For purposes of this Agreement, "**Force Majeure Event**" means any event or circumstance that (a) is beyond the reasonable control of the affected Party and (b) the affected Party is unable to prevent or provide against by exercising commercially reasonable efforts. Force Majeure Events include the following events or circumstances, but only to the extent they satisfy the foregoing requirements: (i) acts of war or terrorism, public disorder, insurrection, or rebellion; (ii) floods, hurricanes, earthquakes, lightning, storms, and other natural calamities; (iii) explosions or fire; (iv) strikes, work stoppages, or labor disputes; (v) embargoes; and (vi) sabotage. In no event shall the lack of funds or the inability to obtain funds constitute a Force Majeure Event.

10.3.2 Liability. Except with respect to a Party's fraud or willful misconduct, and except with respect to damages sought by a third party in connection with a third party claim: (a) neither Party shall be liable to the other Party, for any damages other than direct damages; and (b) each Party agrees that it is not entitled to recover and agrees to waive any claim with respect to, and will not seek, consequential, punitive or any other special damages as to any matter under, relating to, arising from or connected to this Agreement. Notwithstanding the foregoing, nothing in this Section 10.3.2 shall be deemed to limit Generator's obligations under Section 10.3.3.

10.3.3 Indemnification. The Generator shall indemnify, defend and hold harmless Eversource and its trustees, directors, officers, employees and agents (including affiliates, contractors and their employees) from and against any liability, damage, loss, claim, demand, complaint, suit, proceeding, action, audit, investigation, obligation, cost, judgment, adjudication, arbitration decision, penalty (including fees and fines), or expense (including court costs and attorneys' fees) relating to, arising from or connected to this Agreement.

10.4 Term and Termination. This Agreement shall be effective from the Effective Date until the earlier of (a) one year from the Effective Date and (b) the withdrawal of the Generator's Interconnection Request, unless extended in writing by the Parties. Notwithstanding the foregoing, Eversource may terminate this Agreement fifteen (15) days after providing written notice to the Generator that it has breached any of its obligations hereunder, if such breach has not been cured within such fifteen (15) day period.

10.5 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of New Hampshire applicable to contracts made and performed in such State and without regard to conflicts of law doctrines.

10.6 Severability. If any provision of this Agreement is held to be unenforceable for any reason, such provision shall be adjusted rather than voided, if possible, to achieve the intent of the Parties. If no such adjustment is possible, such provision shall be fully severable and severed, and all other provisions of this Agreement will be deemed valid and enforceable to the extent possible.

10.7 Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original, and all counterparts so executed shall constitute one agreement binding on all of the Parties hereto, notwithstanding that all of the Parties are not signatories to the same counterpart. Facsimile counterparts may be delivered by any Party, with the intention that they shall have the same effect as an original counterpart hereof.

10.8 Amendment. No amendment, modification or waiver of any term hereof shall be effective unless set forth in writing and signed by the Parties hereto.

10.9 Survival. The termination of this Agreement shall not relieve either Party of its liabilities and obligations, owed or continuing at the time of termination.

10.10 Independent Contractor. Eversource shall at all times be deemed to be an independent contractor of the Generator, and none of Eversource's employees, contractors or the employees of its contractors shall be deemed to be employees of the Generator as a result of this Agreement.

- 10.11 No Implied Waivers. No failure on the part of any Party to exercise or delay in exercising any right hereunder shall be deemed a waiver thereof, nor shall any single or partial exercise of any right hereunder preclude any further or other exercise of such or any other right.
- 10.12 Successors and Assigns. Neither Party may assign this Agreement, by operation of law or otherwise, without the prior written consent of the other Party, which consent shall not be unreasonably withheld. In the event of an assignment authorized hereunder, each and every term and condition hereof shall be binding upon and inure to the benefit of the Parties and their respective successors and assigns.
- 10.13 Due Authorization. Each Party represents and warrants to the other that (a) it has full power and authority to enter into this Agreement and to perform its obligations hereunder, (b) execution of this Agreement will not violate any other agreement with a third party, and (c) the individual signing this Agreement on its behalf has been properly authorized and empowered to enter into this Agreement. [*Signature page follows.*]

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

GNM Solar 17 LLC

Signed: _____

Name (Printed): _____

Title: _____

Eversource

Signed: _____

Name (Printed): _____

Title: Senior Account Executive, Eversource New Hampshire – Distributed Generation

EXHIBIT A

The Facility Study shall be based upon the conclusions of the System Impact Study (if completed) and/or the following assumptions. At the reasonable request of Eversource, the Generator shall promptly provide additional data to Eversource.

1) Designation of Point of Interconnection and configuration to be studied: The Project is proposed to interconnect to the 34.5kV system on Shaw Drive via the 371X5, 34.5 kV tap off of the 371P line from Portland Street Substation, which is fed by the 386 circuit from the Rochester 115kV/34.5kV substation. The POI is in the vicinity of pole# 159A/5

The project will require the following approximate upgrades:

- **Point of Interconnection (POI) requirements:** The proposed project will require an electronic SCADA Recloser with load side voltage sensing and reclose blocking, and primary metering equipped with the necessary CT's, PT's and switches. The exact POI will be determined during the facilities study for the project.
- **Capacity Performance/Thermal Overload Analysis:** The project is expected to overload the fuses near the project POI. These fuses will be removed as a part of this project. Tree trimming will be required between the fuses and end of line to maintain pre-project system reliability. No other thermal overloads were observed in any configuration.
- **ISO-NE Source Requirements:** The SMA S HP PEAK3 125-US inverters of the proposed facility are UL 1741 SA and IEEE 1547 certified. The Project inverter's voltage and frequency protection settings shall be compliant with and set to the ISO-NE SRD. All required frequency and voltage settings shall be included in the inverters and on the one line. *An updated one-line showing these settings with all the necessary changes shall be submitted if the project moves forward.*
- **Reverse Power Flow (RPF):** The project is expected to cause reverse power flow through the substations. There is no expected reverse flow through distribution line voltage regulating devices. The Rochester TB57 and Tasker TB78 transformer LTCs will be required to be programmed for reverse flow to accommodate the project. The TB53 transformer is expected to experience reverse flow only if QP1136 moves forward, and the LTC upgrade cost for TB53 therefore is not the responsibility of this project. TB78 has a capable LTC, and will only require LTC programming if QP1136 remains prior in queue.
- **Risk of Islanding (ROI):** The proposed project fails the Eversource ROI evaluation and will require upgrades to the 371X5 recloser. The required upgrades will include modification to add DSCADA capability to the recloser, the addition of voltage sensing (PT's) on the load side the device, as well as programming changes to enable block of close during voltage presence conditions on the load side of the device as well as

SCADA modifications to enable turning on/off the block of close functionality as required. The 371P breaker is already equipped with reclose blocking functionality and does not require upgrades.

- **Protection coordination Review:** A detailed protection coordination study will be completed during the execution stage if the project moves ahead. The 371X5 recloser and the POI recloser settings will be developed/modified as required at a minimum.

2) Other assumptions (listed below) are to be provided by the Generator and Eversource.

- The cost estimate resulting from this study is non-binding.
- **ISO-NE Source Requirements:** The SMA S HP PEAK3 125-US inverters of the proposed facility are UL 1741 SA and IEEE 1547 certified. The Project inverter's voltage and frequency protection settings shall be compliant with and set to the ISO-NE SRD. All required frequency and voltage settings shall be included in the inverters and on the one line. *An updated one-line showing these settings with all the necessary changes shall be submitted if the project moves forward.*
- **One Line Revision Requirements:** The Customer's one line, dated 1/21/22 shows inverter size labels that do not match the specifications sheet provided, which must be revised. The study evaluated SMA Sunny Highpower Peak 3 125-US inverters. The customer-owned GOAB switch is also shown without indication that it is lockable and 24/7 accessible, which must be revised. The grounding transformer low side voltage shall be indicated as applicable. *An updated one-line showing these settings with all the necessary changes shall be submitted if the project moves forward.*
- **Short Circuit Analysis:** The increased fault currents by the proposed projects are not expected to have any adverse impact on the EPS existing equipment. The greatest fault current measured at POI would increase by 1.12%. Additionally, the maximum fault currents at the 34.5 kV bus at both the Rochester and Tasker substations are not expected to exceed 10kA as a result of interconnecting the proposed project.
- **Effective Grounding:** The customer has proposed an effectively grounded interconnection that meets Eversource interconnection technical requirement based on an initial review. *The final grounding transformer specs (including impedance) will be reviewed in detail during the execution phase of the project should the Customer choose to move forward.*
- **Steady State Voltage Analysis:** The power generation produced by the project are not expected to deviate the area EPS voltage beyond $\pm 5\%$ of nominal.
- **Rapid Voltage Change:** The loss of the proposed generator from full output is NOT expected to change the voltage for any of the studied cases beyond the IEEE 1547-2018 specified limit. The maximum change in the voltage estimated at the POI is 0.25% during the loss of PV full output.

- **Tap Position Analysis and Cap bank operation:** The proposed project is not expected to have a significant impact on the number of operations of the LTCs for transformers TB57 & TB53 (Rochester S/S), and TB78 (Tasker S/S), provided they are programmed for reverse flow. The project is not expected to cause any capacitors to change state.
- **Flicker:** The instantaneous change in proposed generator's output from full 100% to 5% is NOT expected to change
- **Transient Overvoltage:** The customer has provided documentation for the inverter showing compliance with transient overvoltage curve in IEEE Std. 1547-2018 clause 7.4.2. *The inverter firmware version shall be demonstrated per section 3.6 during the witness test.*
- **Transmission Ground Fault Overvoltage (3V0) Evaluation:** a 3V0 detection requirement evaluation has been completed identifying the need for 3V0 protection detection at the Rochester TB53 & TB57 and Tasker TB78 transformer breakers; during the study it was also confirmed that both transformers are currently equipped with 3V0 protection.

3) Scope of Work:

Design of the above facilities. Prepare sketch with preliminary pole/pad and device locations. Prepare material list. Estimate internal crew construction costs and/or contractor crew cost. Estimate P&CE, Test & Commissioning, Tree Trimming, etc. Prepare overall project cost estimate including overheads.

4) Cost Estimate:

\$12,000.00

5) Estimated Completion Date:

40 business days from the execution of this Agreement and receive of the study deposit, whichever is later.

GENERATOR INTERCONNECTION AGREEMENT

T3140 GNM Solar 17, 60 Shaw Dr

This INTERCONNECTION AGREEMENT (“Agreement”), dated March 8, 2023 (the “Effective Date”), is entered into by and between GNM Solar 17, LLC (hereinafter referred to as the “Interconnector”), and Public Service Company of New Hampshire, dba Eversource Energy, a New Hampshire corporation having its principal place of business in Manchester, New Hampshire (hereinafter referred to as “Eversource”). Eversource and the Interconnector are collectively referred to herein as the "Parties" and individually as a "Party."

WHEREAS, Interconnector desires to interconnect its **1000 kW (AC) solar photovoltaic** generating facility as described in the Interconnection Request documents received by Eversource on **January 01, 2022** (the “Facility”), located **near 60 Shaw Dr Rochester, NH**, with the electric distribution system of Eversource in accordance with applicable New Hampshire Public Utilities Commission (“NHPUC”) Orders and applicable laws; and

WHEREAS, Interconnector desires to, and Eversource agrees to, provide for the interconnection of the Facility with the electric distribution system of Eversource, its successors and permitted assigns; and

WHEREAS, it is necessary that certain agreements be made prior to the interconnection of the Facility to ensure the safety, reliability and integrity of Eversource’s electric distribution system and the operation of the Facility;

NOW, THEREFORE, in consideration of the mutual promises set forth herein the Parties do hereby agree as follows:

Article 1. General Provisions

A. Each payment due to Eversource under this Agreement shall be paid by check or, with the prior consent of Eversource, by wire transfer of immediately available funds to an account designated by Eversource. If made by wire transfer, such payments shall be marked to refer to this Agreement. All payments shall be made in U.S. dollars.

B. All references to days shall refer to calendar days unless otherwise specifically noted.

C. The Interconnector acknowledges that it must perform certain actions or satisfy certain obligations in the development, construction, and operation of the Facility (the “Milestones”). These Milestones are listed in Appendix A of this Agreement. The date specified in Appendix A by which any Milestone must have been performed or otherwise satisfied shall be extended for a reasonable period of time upon written request by the Interconnector for such extension, if the failure or inability to satisfy such Milestone is caused by Force Majeure and provided that no extension shall be requested or granted if the action or obligation involves only the payment of money. The Interconnector shall submit a written request for extension not less than three (3) business days prior to the applicable deadline, if possible under the circumstances. Such written request shall detail the reason(s) for not meeting the Milestone and propose the earliest reasonable alternate date by which it can attain this and future Milestones.

Article 2. Interconnection and Voltage Characteristics.

The Interconnection Point shall be that point at which the Facility interconnects with the **34.5 kV** electric distribution system of Eversource, **(via the 371X5 tap off of the 371P line that is fed from circuit 386)**. Under this Agreement, the Interconnector shall receive and pay for the services necessary for the purpose of connecting the Facility with the Eversource electrical distribution system. The execution of this Agreement does not constitute a request for, or the provision of, transmission or distribution service. Interconnector is responsible for: (a) all arrangements to affect any deliveries of electric energy from the Facility in accordance with the appropriate retail or FERC-jurisdictional tariffs; and (b) arranging for its purchase of retail power (such as back-up or stand-by power). This Agreement does not cover sales of power, capacity, energy or market products generated from the Facility. This agreement does not grant any permit, right or authorization to construct the Facility. The Interconnector shall be responsible for obtaining any and all required permits or authorizations and for ensuring that the Facility does not encroach on any Eversource easement rights.

Unless Eversource converts its interconnection circuit, all electric energy delivered to Eversource's system from the Facility shall be **34.5 kV**, three phase, sixty hertz. If the Eversource circuit is converted to a different voltage in the future, the Interconnector shall be responsible for all Facility interconnection modifications necessitated by the conversion.

Article 3. Interconnection and Protection Requirements.

To ensure the safe and reliable operation of the Facility in parallel with the Eversource system, Interconnector shall install or provide for the installation of all interconnection, protection, and control equipment as specified by Eversource in either the System Impact Study (the “Study”), dated **June 24, 2022**, or the Eversource Technical Requirements for the Interconnection of Distributed Energy Resources (the “Technical Requirements”) in effect at the time of the Effective Date of this Agreement (collectively the “Eversource Interconnection Requirements”). The Eversource Interconnection Requirements may be modified from time to time as set forth below. Modifications to the Facility shall be addressed as set forth in Article 6 below.

The Interconnector may not operate the Facility in parallel with the Eversource system until: (a) the conditions for initial parallel operation of the Facility set forth in the Eversource Interconnection Requirements have been met; (b) commissioning and testing of the Facility has been completed to the satisfaction of Eversource; (c) the Interconnector has paid Eversource all funds due pursuant to this Agreement; (d) Interconnector has complied with the insurance requirements of Article 8; (e) Interconnector has provided Eversource a description of the Facility that incorporates all final design changes, including all design changes made during construction; and (f) Eversource has provided formal written authorization stating that operation of the Facility in parallel with the Eversource system is authorized by Eversource.

The Interconnector shall obtain each consent, approval, authorization, order or acceptance from FERC and/or ISO-NE necessary for the Interconnector or any entity that, directly or indirectly, through one or more intermediaries, controls, or is controlled by, or is under common control with the Interconnector (each, an "Affiliate") to sell any power, capacity, energy or market products from the Facility into the wholesale power market prior to making any such wholesale sales. The Interconnector shall indemnify, defend and hold harmless Eversource, its trustees, directors, officers, employees, agents and affiliates from any and all costs, damages, fines or penalties, including reasonable attorneys' fees, directly resulting from Interconnector's or its Affiliate's non-compliance with any provision of this Article; provided, however, that such indemnification obligation shall be subject to the limitation of liability set forth in Article 8.

Up to the Interconnection Point, unless otherwise noted in the Eversource Interconnection Requirements, all equipment shall be the sole property of Interconnector. Interconnector shall have sole responsibility for the operation, maintenance, replacement, and repair of the Facility, including the interconnection equipment owned by the Interconnector.

The Eversource Interconnection Requirements developed for the Facility are subject to, and are based upon, current Eversource standards, as may be amended from time to time in accordance with Good Utility Practice, regarding protection and control equipment requirements sufficient to ensure the safe and reliable operation of the Eversource electric distribution system. Interconnector hereby acknowledges that such Eversource standards are periodically reviewed and modified pursuant to standard utility practice, and that Interconnector is responsible for compliance with such standards, at its sole cost, as these standards may be modified from time to time. Additionally, the costs of any review of the Eversource Interconnection Requirements necessitated by the Facility and performed by Eversource will be the responsibility of the Interconnector. Interconnector is responsible for any and all additional costs to ensure that all relevant protection and control equipment, software, hardware, and their capabilities meet then-current Eversource standards for interconnection of generating facilities to the Eversource electric distribution system. Eversource will notify Interconnector if upgrades or changes to Interconnector's protection and control equipment are necessary by issuing new or updated Eversource Interconnection Requirements. Within a mutually agreeable period following the issuance of new or updated Eversource Interconnection Requirements the Interconnector shall, at the Interconnector's sole expense, modify the Facility to the extent necessary to meet the revised requirements thereof. Any disputes regarding the necessity for, or scope of, modifications will be addressed in accordance with the dispute resolution provisions of this Agreement.

Prior to the interconnection to Eversource's system under this agreement, Interconnector shall have tested, and every twelve months thereafter, Interconnector shall test, or cause to be tested, all protection devices including verification of calibration and tripping functions; and Interconnector shall provide Eversource with a copy of the tests and results. The Interconnector shall ensure that any such test is performed by an individual or company that Eversource has authorized to perform the testing function.

If either Party reasonably determines that the operation or use of any portion of the protection system will or may not perform its protective function, Interconnector shall immediately open the interconnection between Eversource's system and the Facility. Interconnector shall promptly notify Eversource of this action and the reason for this action. The interconnection shall remain open until Interconnector has satisfactorily cured the defect. Any repair or replacement of Interconnector's equipment shall be at no cost to Eversource, except Eversource shall be responsible for any loss or damage requiring repair or replacement of all or a portion of the Interconnector's equipment as a result of the negligence or willful misconduct of Eversource, its agents or employees.

System Metering

The facility will be equipped with a 4 channel (4X Configuration) recording meter. The meter will capture Watt-hours delivered, lagging Var-hours, Watt-hours received, and leading Var-hours.

A customer owned, dedicated phone line or other source of communication to the meter is required to be operational at all times to allow for remote interrogation.

All costs of metering equipment and installation shall be borne by the Interconnector. Eversource shall retain ownership and maintenance responsibilities for the metering equipment. The metering equipment must consist of Eversource approved components.

The Interconnector shall allow Eversource reasonable access to the Facility, its premises, and the metering equipment in accordance with Article 5 for, but not limited to, meter reading, meter testing, and meter maintenance.

Delivery Point

For the purpose of establishing ownership, operation and maintenance responsibilities, the location of facility energy delivery to Eversource (the "Delivery Point") must be defined. **At this site, the Delivery Point will be designated as the customer-side of the primary metering equipment.** To the extent this facility is participating in net energy metering, the delivery of power (for the purposes of customer billing and ISO reporting) will be in accordance with the then-effective Eversource Electricity Delivery Service Tariff, as approved by the NHPUC.

Description of Responsibilities

Eversource will own and maintain all equipment up to the Delivery Point. Interconnector will own and maintain all equipment from the Delivery Point into and throughout the Facility. Eversource will own the metering equipment, to be maintained by Eversource in accordance with the Eversource's Electricity Delivery Service Tariff, as approved by the NHPUC.

Article 4. General Payment Terms.

Interconnection Costs. The Interconnector is responsible for paying all costs incurred by Eversource associated with Interconnection of the Facility including: (a) testing costs; (b) costs associated with installing, testing and maintaining the communications infrastructure necessary to provide protection and/or monitoring of the Facility; (c) construction, modification and Upgrade costs (as defined in the paragraph below) necessary to accommodate the Interconnection; and (d) any ongoing maintenance costs and other charges deemed necessary by Eversource to maintain the Interconnection (all costs described in this sentence, the "Interconnection Costs").

Distribution Upgrades. Eversource shall design, procure, construct, install, and own any distribution system upgrades described in the Eversource Interconnection Requirements (the "Upgrade(s)"). The actual cost of the Upgrades, including overheads, shall be the sole responsibility of the Interconnector.

Initial Cost Estimate. The Initial Cost Estimate for the Facility is **\$325,000.00**

Scope:

- The Company will install one (1) new three-phase primary service, with a DSCADA recloser with block-close functionality and primary metering package, built to Eversource standards.
- The required upgrades will include modification to add DSCADA & block of close capability to recloser 371X5
- Relocate fuses from pole 159A/9 to new Telco set pole
- ROW Tree trimming
- **Note: Interconnector is responsible to permit and construct railway crossing at the POI to the applicable railroad and Eversource standards to allow Eversource 24/7 access to the POI for construction, maintenance, and emergencies.**
- **Note: Project is to be designed as an overhead project. Project contingent on Eversource successfully renewing permit for aerial railway crossing.**
- **Note: Cost of Telco set poles not included and at additional cost to interconnector**

Billing and Payment Procedures for Interconnection Costs. The Interconnector shall pay Eversource the amount set forth in the Initial Cost Estimate (the “Initial Payment”) within thirty (30) days of the Effective Date, unless other payment deadlines have been specified in the Milestones (Appendix A). Eversource will not incur Interconnection Costs prior to receipt of the Initial Payment. The Interconnector acknowledges that provision of the Initial Payment constitutes authorization for Eversource to commence efforts to design, procure, and construct any required Upgrades and/or incur Interconnection Costs.

Actual incurred Interconnection Costs may vary from those costs included in the Study, or the Initial Cost Estimate. Eversource shall invoice the Interconnector for all Interconnection Costs as such costs are incurred (unless other payment deadlines have been specified in the Milestones) and the Interconnector shall pay each such invoice within thirty (30) days of receipt, or as otherwise agreed to by the Parties.

If this Agreement is terminated prior to the completion of the initial interconnection, Eversource will discontinue efforts to interconnect the Facility and refund to the Interconnector any funds from the Initial Payment that have not been expended. Such refund shall be net of any reasonable costs incurred by Eversource or its employees, agents, contractors and/or subcontractors to remove, decommission and/or return to inventory any equipment related to the terminated interconnection project.

Within ninety (90) days following the date on which Eversource determines that Eversource has received all of the necessary information Eversource has requested from its employees, agents, contractors and/or subcontractors working on, or providing services in connection with, the design and construction of the Interconnection, Eversource shall provide the Interconnector with notice detailing any Underpayment (as such term is defined below) or Overpayment (as such term is defined below) made by the Interconnector with respect to the Initial Payment (the “True-up Notice”).

To the extent that the actual Interconnection Costs accrued up to the date of the initial interconnection exceed the Initial Payment (an “Underpayment”), Eversource shall invoice the

Interconnector for an amount equal to the Underpayment and the Interconnector shall pay such amount to Eversource within thirty (30) days of such invoice.

To the extent that the Initial Payment exceeds the actual Interconnection Costs accrued up to the date of the initial interconnection (an “Overpayment”), Eversource shall refund to the Interconnector an amount equal to the Overpayment within thirty (30) days of the provision of the True-Up Notice. Any and all Interconnection Costs incurred by Eversource after the date of the True-up Notice shall be billed in accordance with this provision.

Taxes. The Parties shall comply with all applicable federal and state tax laws.

Article 5. Right of Access.

Eversource Right to Access. The Interconnector shall allow Eversource access to Eversource equipment and Eversource facilities located on the Facility's premises (the "***Eversource Property***"). To the extent that the Interconnector does not own all or part of the real property on which Eversource is required to locate Eversource Property in order to serve the Facility, the Interconnector shall procure, at its expense, and provide to Eversource all necessary rights, including easements, for access to Eversource Property. Additionally, Eversource shall have the right to enter the property of Interconnector at mutually agreed upon reasonable times and shall be provided reasonable access to Interconnector's metering, protection, control, and interconnection equipment to review for compliance with this Agreement. Upon request, Eversource shall provide the Interconnector with a copy of any notes, reports, or other documents made relating to any such inspection or review.

Isolation Device. Eversource shall have access to the Isolation Device (as described in the Eversource Interconnection Requirements) of the Facility at all times. Interconnector is responsible for obtaining any and all property rights, including easements, which will permit Eversource access to such Isolation Device.

Right to Review Information. Eversource shall have the right to review and obtain copies of the Interconnector's operations and maintenance records, logs, or other information such as unit availability, maintenance outages, circuit breaker operation requiring manual reset, relay targets and unusual events pertaining to the Facility or its Interconnection. Eversource shall treat such information as confidential and shall use such information solely for the purposes of determining compliance with the operating requirements of Eversource.

Article 6. Modification of Facility.

A description of the Facility as studied is contained in the Eversource Interconnection Requirements and in the Interconnection Request documents. Any changes to the design of the Facility must be approved by Eversource in writing prior to the implementation of such design changes. Only design changes approved in accordance with this Article 6 shall be implemented. If

Interconnector plans any modifications to its Facility, which modifications would reasonably be expected to affect its interconnection with the Eversource system, Interconnector shall give Eversource ninety (90) day prior written notice of its intentions. Eversource will review the modifications at the Interconnector's expense and provide a written notice of approval or notification that the modification will require revised protection and control equipment. The cost of any and all upgrades to either the Facility interconnection equipment or the Eversource electric distribution system required to permit the Facility modification shall be the responsibility of the Interconnector.

Article 7. Term of Agreement.

This Agreement shall become effective as of the Effective Date and shall remain in full force and effect subject to the suspension and termination rights contained in this Article 7.

Interconnector may terminate this Agreement by giving Eversource not less than sixty (60) days prior written notice of its intention to terminate. Eversource may terminate the interconnection under this Agreement by giving not less than sixty (60) days prior written notice should Interconnector fail to substantially perform with the interconnection, metering and other safety provisions of this Agreement, and such failure continues for more than sixty (60) days from date of notice without cure. The Eversource notice shall state with specificity the facts constituting the alleged failure to perform by Interconnector. If the Parties are unable to reach agreement within 60 days on a cure for the failure to perform, either Party may elect to submit the dispute to the NHPUC for resolution.

If changes in applicable federal or state statutes, regulations or orders; or changes in applicable ISO or NEPOOL requirements occur which materially affect this Agreement, the Parties shall negotiate in good faith to modify this Agreement to accommodate such changes. If the Parties are unable to reach agreement within 60 days, either Party may elect to submit the dispute to the NHPUC for resolution.

Eversource may terminate its obligation contained in this Agreement if applicable laws, regulations and orders mandating interconnections from qualifying facilities are repealed, or declared invalid by a Court or Regulatory Agency, and no revised law is enacted providing for such interconnection on a similar basis.

Eversource may terminate this Agreement if the Interconnector either: (1) fails to energize the Facility within 12 months of the Effective Date (or as otherwise required by the Milestones); or, (2) permanently abandons the Facility. Failure to operate the Facility for any consecutive 12-month period after the Effective Date of this Agreement shall constitute permanent abandonment unless otherwise agreed to in writing between the Parties.

After termination of this Agreement, both Parties shall be discharged from all further obligations under the terms of this Agreement, excepting any liability which may have been incurred before the date of such termination. Any reasonable costs incurred by Eversource to physically disconnect the Facility as a result of the termination of this Agreement shall be paid by the Interconnector.

Article 8. Insurance, Performance Assurance, Indemnification & Limitation of Liability.

A. Insurance Requirements.

General Liability. In connection with the Interconnector's performance of its duties and obligations under this Agreement, the Interconnector shall maintain, beginning upon the commencement of onsite construction of the Facility and during the remaining term of this Agreement, general liability insurance with a combined single limit of not less than:

One million dollars (\$1,000,000) per occurrence and in the aggregate for bodily injury and/or property damage claims where the gross nameplate rating of the Facility is less than or equal to an aggregate of 500 KW;

Three million dollars (\$3,000,000) per occurrence and in the aggregate for bodily injury and/or property damage claims where the gross nameplate rating of the Facility is greater than 500 KW.

Insurer Requirements and Endorsements. All insurance required pursuant to this Article 8 A. shall be carried by insurers qualified to underwrite insurance in New Hampshire with an A.M. Best rating of A- or better. In addition, all insurance shall: (a) include Eversource as an additional insured; (b) contain a severability of interest clause or cross-liability clause unless the Interconnector is a residential customer; (c) provide that Eversource shall not be liable to the insurance carrier with respect to the payment of premium for such insurance; and (d) provide for written notice to Eversource thirty (30) days prior to cancellation, termination, or material change of such insurance.

Evidence of Insurance. If insurance similar to the insurance provided by this endorsement is held by the additional insured noted above, the insurance provided by this endorsement is primary to that other insurance, and that other insurance shall not contribute to amounts payable under the insurance provided by this endorsement.

Prior to Eversource commencing any work on system modifications, the Interconnector shall have its insurer provide to Eversource certificates of insurance evidencing the insurance coverage required pursuant to this Article 8 A. Such certificates shall clearly indicate that such insurance policy is written on an “occurrence made” basis. Eversource may, at its discretion, require the Interconnector to maintain tail coverage with respect to any policy written on a “claims-made” basis for a period of three years after expiration or termination of such policy.

All insurance certificates, statements of self-insurance, endorsements, cancellations, terminations, alterations, and material changes of such insurance shall be issued and submitted to Eversource.

B. Indemnification.

Each Party will be responsible for its equipment and the operation thereof and will indemnify and save the other harmless from any and all loss by reason of property damage, bodily injury, including death resulting therefrom suffered by any person or persons including the Parties hereto, employees thereof or members of the public, (and all expenses in connection therewith, including attorney’s fees) whether arising in contract, warranty, tort (including negligence), strict liability or otherwise, caused by or sustained on, or alleged to be caused by or sustained on, equipment or property, or the operation or use thereof, owned or controlled by such Party, except that each Party shall be solely responsible for and shall bear all costs of its negligence, and willful misconduct, and claims by its own employees or contractors growing out of any workers’ compensation law. The foregoing paragraph shall survive the termination of this Agreement and such termination will not extinguish any liabilities or obligations in respect of reimbursements under this paragraph, incurred up to the time of termination.

Survival of Indemnification. The indemnification obligations of each Party set forth in this Article 8 B. shall continue in full force and effect regardless of whether this Agreement has expired or

been terminated, defaulted, or cancelled, and shall not be limited in any way by any limitation on insurance.

- Limitation of Liability.

Except with respect to a Party's fraud or willful misconduct, and except with respect to damages sought by a third Party in connection with a third Party claim: (a) neither Party shall be liable to the other Party, for any damages other than direct damages; and (b) each Party agrees that it is not entitled to recover and agrees to waive any claim with respect to, and will not seek, consequential, punitive or any other special damages as to any matter under, relating to, arising from or connected to this Agreement.

Article 9. Force Majeure.

Neither Party shall be considered to be in default hereunder and shall be excused from performance hereunder if and to the extent that it shall be prevented from doing so by storm, flood, lightning, earthquake, explosion, equipment failure, civil disturbance, labor dispute, act of God or the public enemy, action of a court or public authority, withdrawal of equipment from operation for necessary maintenance and repair, or any other cause beyond the reasonable control of either Party and not due to the fault or negligence of the Party claiming force majeure (a "Force Majeure Event"), provided that the Party claiming excuse from performance uses its best efforts to remedy its inability to perform. In no event shall the lack of funds or the inability to obtain funds constitute a Force Majeure Event.

Article 10. Dispute Resolution and Voluntary Arbitration.

In the event of any dispute, disagreement, or claim (except for disputes referred to the NHPUC under Article 7 of this Agreement) arising out of or concerning this Agreement, the Party that believes there is such a dispute, disagreement, or claim will give written notice to the other Party of such dispute, disagreement, or claim. The affected Parties shall negotiate in good faith to resolve such dispute, disagreement, or claim. If such negotiations have not resulted in resolution of such dispute to the satisfaction of the affected Parties within twenty (20) business days after notice of the dispute has been given, then an affected Party may submit such dispute, disagreement, or claim arising out of or concerning this Agreement to the NH PUC for resolution. Upon mutual agreement of the Parties, a

dispute may be submitted to arbitration in lieu of being submitted to the NH PUC and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such claim or dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of this Agreement.

The arbitration proceeding shall be conducted by a single arbitrator, appointed by mutual agreement of the affected Parties, in Manchester, New Hampshire, under the Commercial Arbitration Rules of the American Arbitration Association in effect at the time a demand for arbitration under such rules was made. In the event that the affected Parties fail to agree upon a single arbitrator, each shall select one arbitrator, and the arbitrators so selected shall, within twenty (20) days of being selected, mutually select a single arbitrator to govern the arbitration. A decision and award of the arbitrator made under the Rules and within the scope of his or her jurisdiction shall be exclusive, final, and binding on all Parties, their successors, and assigns. The costs and expenses of the arbitration shall be allocated equitably amongst the affected Parties, as determined by the arbitrator(s). Judgment upon the award rendered by the arbitrator(s) may be entered in any court having jurisdiction. Each Party hereby consents and submits to the jurisdiction of the federal and state courts in the State of New Hampshire for the purpose of confirming any arbitration award and entering judgment thereon.

Article 11. Operating Requirements.

General Operating Requirements. The Interconnector shall construct, interconnect, operate, and maintain the Facility and all accompanying and necessary facilities in accordance with: (a) all applicable laws and requirements and, “Good Utility Practice” (as defined in Section I of the ISO New England Inc., Transmission, Markets and Services Tariff, FERC Electric Tariff No. 3); and (b) ISO-NE operating requirements in effect at the time of construction and other applicable national and state codes and standards. Following the initial interconnection of the Facility, the Interconnector shall comply with all special operating requirements set forth in the Eversource Interconnection Requirements. If Eversource believes that the cause of any electrical disturbance, interruption, or other negative impact to the Eversource electric distribution system originates from the Facility, Eversource has the right to install monitoring equipment at a mutually agreed upon location to determine the exact cause of the problem. The cost of such monitoring equipment shall be borne by Eversource, unless such problem or problems are demonstrated to be caused by the Facility, or, if the

monitoring or testing was performed at the request of the Interconnector, the costs of the monitoring equipment shall be borne by the Interconnector. If the operation of the Facility interferes with Eversource's or its customers' operations, the Interconnector must immediately take corrective action to stop such interference and shall not operate the Facility until such time as such interference is stopped. If the Interconnector fails to take immediate corrective action pursuant to the preceding sentence, Eversource may disconnect the Facility in accord with Good Utility Practice.

No Adverse Effects; Non-interference. Eversource shall notify the Interconnector if Eversource has information demonstrating that the operation of the Facility could cause disruption or deterioration of service to other customers served from Eversource's system or if operation of the Facility could cause damage to the Eversource system or other affected systems. The Interconnector shall cease operation of the Facility until such time as the Facility can operate without causing disruption or deterioration of service to other customers served from the Eversource system or causing damage to the Eversource system or other affected systems. Each Party shall promptly notify the other Party in writing of any condition or occurrence relating to such Party's equipment or facilities which, in such Party's reasonable judgment, could adversely affect the operation of the other Party's equipment or facilities.

Eversource shall operate its system in such a manner so as to not unreasonably interfere with the operation of the Facility. The Interconnector shall protect itself from normal disturbances propagating through the Eversource system in accordance with Good Utility Practice. Examples of such normal disturbances include single-phasing events, voltage sags from remote faults on Eversource system, and outages on the Eversource system.

Safe Operations and Maintenance. The Interconnector shall operate, maintain, repair, and inspect, and shall be fully responsible for, the Facility. Each Party shall be responsible for the maintenance, repair and condition of its respective lines and appurtenances on such Party's respective side of the Interconnection Point. Eversource and the Interconnector shall each provide equipment on its respective side of the Interconnection Point that adequately protects the Eversource system, personnel, and other persons from damage and injury. If Eversource has constructed or owns equipment or facilities, including but not limited to Upgrades, that are for the sole use of the Interconnector and that provide minimal benefit to other Eversource customers, then, unless otherwise documented in the Eversource Interconnection Requirements, the costs associated with the

operation, maintenance, repair and replacement of such equipment or facilities shall be the ongoing responsibility of the Interconnector and the Interconnector shall reimburse Eversource for such costs.

Ongoing Maintenance; Testing of the Facility. The Parties hereby acknowledge and agree that maintenance testing of the Facility's protective relaying is imperative for safe, reliable operation of the Facility. The test cycle for such protective relaying shall not be less frequent than once every twelve (12) calendar months or the manufacturer's recommended test cycle, whichever is more frequent. The Interconnector shall provide copies of test records to Eversource within thirty (30) days of the completion of maintenance testing. Eversource may disconnect the Facility from the Eversource system if the Interconnector fails to adhere to the relevant testing standards or fails to provide testing results as required by this Agreement. The Interconnector is responsible for all ongoing maintenance costs associated with the Facility.

Article 12. Disconnection.

A. Temporary Disconnection.

Emergency Conditions. Eversource may immediately and temporarily disconnect the Facility from the Eversource system without prior notification in cases where, in the reasonable judgment of Eversource, the continued connection of the Facility is imminently likely to: (a) endanger persons or damage property; or (b) cause an adverse effect on the integrity or security of, or damage to, the Eversource system or to other electric power systems to which the Eversource system is directly connected (each, an "Emergency Condition"). After temporary disconnection or suspension pursuant to this paragraph, the Facility may not be reconnected or resume operation until Eversource and Interconnector are both satisfied that the cause of such Emergency Condition has been corrected. If the Interconnector fails to correct an Emergency Condition that Eversource has reasonably determined to be within the control of the Interconnector within ninety (90) days from the time that Eversource has temporarily disconnected the Facility due to an Emergency Condition, Eversource may elect to terminate this Agreement and/or permanently disconnect the Facility, provided that the time to correct will be reasonably extended if the Emergency Condition is the result of a Force Majeure Event.

Routine Maintenance, Construction and Repair. Eversource shall have the right to disconnect the Facility from the Eversource system when necessary for routine maintenance, construction and repairs to the Eversource system. Eversource shall provide the Interconnector with notice of such disconnection, consistent with Eversource's Planned and Unplanned Outage Scheduling Procedure.

Forced Outages. During any forced outage, Eversource shall have the right to temporarily disconnect the Facility from the Eversource system to affect immediate repairs to the Eversource system. Eversource shall use reasonable efforts to provide the Interconnector with prior notice of such temporarily disconnection; provided, however, Eversource may temporarily disconnect the Facility from the Eversource system without such notice pursuant to this paragraph in the event circumstances do not permit such prior notice to the Interconnector.

Non-Emergency Adverse Operating Effects. Eversource will notify the Interconnector in the event the Facility is having a non-emergency adverse operating effect on the Eversource system or on other customers (a "Non-Emergency Adverse Operating Effect"). Eversource may temporarily disconnect the Facility if the Interconnector fails to correct such Non-Emergency Adverse Operating Effect within forty-five (45) days of Eversource's written notice to the Interconnector requesting correction of such Non-Emergency Adverse Operating Effect. If the Interconnector fails to correct a Non-Emergency Adverse Operating Effect within ninety (90) days from the time that Eversource has temporarily disconnected the Facility due to such an event, Eversource may elect to terminate this Agreement and/or permanently disconnect the Facility.

Modification of the Facility. Eversource has the right to immediately suspend Interconnection service and temporarily disconnect the Facility in the event any material modification to the Facility or the Interconnector's interconnection facilities has been implemented without prior written authorization from Eversource.

Re-connection. Any temporary disconnection pursuant this Article 12 shall continue only for so long as is reasonably necessary. The Interconnector and Eversource shall cooperate with each other to restore the Facility and the Eversource system, respectively, to their normal operating states as soon as reasonably practicable following the correction of the event that led to the temporary disconnection.

B. Permanent Disconnection.

The Interconnector may permanently disconnect the Facility at any time upon thirty (30) days prior written notice to Eversource. Eversource may permanently disconnect the Facility upon termination of this Agreement in accordance with the terms of this Agreement.

Article 13. Modification of Agreement.

For any modification to this Agreement to be binding upon the Parties, the modification must be in writing and signed by both Parties.

Article 14. Confidentiality.

Eversource shall maintain the confidentiality of information provided from the Interconnector to Eversource if such information is clearly marked and labeled "Confidential" (the "Confidential Information"). Confidential Information shall not include information that: (a) is or hereafter becomes part of the public domain; (b) previously was in the possession of Eversource; or (c) Eversource is required to disclose pursuant to a valid order of a court or other governmental body or any political subdivision thereof; provided, however, that to the extent that it may lawfully do so, Eversource shall give notice to the Interconnector and give the Interconnector a reasonable opportunity to interpose an objection or obtain a protective order requiring that the Confidential Information and/or documents so disclosed be used only for the purpose for which the order was issued.

Article 15. Permits and Approvals.

The Interconnector is responsible for obtaining all environmental and other permits required by governmental authorities for the construction and operation of the Facility (each, a "Required Permit"). Eversource assumes no responsibility for obtaining any Required Permit, advising the Interconnector with respect to Required Permits, or assuring that all Required Permits have been

obtained by the Interconnector. Upon written request of Eversource, the Interconnector shall promptly provide to Eversource a copy of any Required Permit.

Article 16. Default and Remedies.

A. Defaults. Each of the following shall constitute an "Event of Default."

(i) A Party fails to pay any bill or invoice for charges incurred pursuant to this Agreement or any other amount due from such Party to the other Party as and when due, including payment obligations listed as Milestones in Appendix A, and such failure continues for a period of thirty (30) days after written notice of nonpayment from the affected Party to the defaulting Party; provided, however, if such Party disputes such bill, invoice or other amount due in good faith, then such failure to pay shall not constitute an Event of Default and the Parties shall resolve such dispute in accordance with Article 10;

(ii)) A Party: (a) fails to comply with any provision of this Agreement (including Milestones that do not involve a payment obligation to the other Party) or breaches any representation or warranty in any material respect or fails to perform any obligation hereunder in accordance with applicable laws and regulations, the ISO-NE operating documents, procedures, and reliability standards or Good Utility Practice; and (b) fails to cure or remedy such failure or breach within sixty (60) days after notice and written demand by the other Party to cure the same or, if mutually agreed upon and provided that the failing or breaching Party diligently continues to cure until such failure or breach is fully cured, such longer period reasonably required to cure the same (not to exceed an additional ninety (90) days). This provision pertains only to cure periods not specifically addressed elsewhere in this Agreement; or

(iii) Interconnector modifies the Facility or any part of the Interconnection without the prior written approval of Eversource.

B. Remedies. Upon the occurrence of an Event of Default, the non-defaulting Party may, at its option, in addition to any remedies available under any other provision herein, do any, or any combination, as appropriate, of the following: (a) continue to perform and enforce this Agreement; (b) recover damages from the defaulting Party except as limited by this Agreement; (c) by written notice to the defaulting Party terminate this Agreement; or (d) pursue any other remedies it may have under this Agreement or under applicable law or in equity.

Article 17. Prior Agreements Superseded.

Once effective, this Agreement represents the entire agreement between the Parties with respect to the interconnection of the Facility with the Eversource electric distribution system and, as between Interconnector and Eversource, all previous agreements including any previous discussion, communications and correspondence related thereto are superseded by the execution of this Agreement.

Article 18. Waiver of Terms or Conditions.

The failure of either Party to enforce or insist upon compliance with any of the terms or conditions of this Agreement shall not constitute a general waiver or relinquishment of any such terms or conditions, but the same shall remain at all times in full force and effect. Any waiver is only effective if given to the other Party in writing.

Article 19. Binding Effect; Assignment

This Agreement shall be binding upon, and shall inure to the benefit of, the respective successors and permitted assigns of the Parties hereto. Eversource shall not assign this Agreement or any of its rights or obligations hereunder without the prior written consent of Interconnector except to a successor-in-interest. Eversource shall provide written notice to Interconnector of any such assignment to a successor-in-interest within fifteen (15) days following the effective date of the assignment. Interconnector shall have the right to assign this Agreement to any person or entity that is a successor-in-interest to the Facility (including assignment for collateral security purposes to aid in providing financing for the Facility) without the consent of Eversource. In the event of any such assignment, Interconnector shall notify Eversource in writing within fifteen (15) days following the effective date of the assignment. Interconnector may make such other assignment of this Agreement as it determines, subject to the prior written consent of Eversource, which consent shall not be unreasonably withheld, conditioned, or delayed. Any assignment in violation of this Article shall be void at the option of the non-assigning Party.

Article 20. Applicable Law.

This Agreement is made under the laws of the State of New Hampshire and, to the extent applicable, the Federal Power Act, and the interpretation and performance hereof shall be in accordance with and controlled by such laws, excluding any conflicts of law provisions of the State of New Hampshire that could require application of the laws of any other jurisdiction.

Article 21. Headings.

Captions and headings in the Agreement are for ease of reference and shall not be used to and do not affect the meaning of this Agreement.

Article 22. Notices and Service.

All notices, including communications and statements which are required or permitted under the terms of this Agreement, shall be in writing, except as otherwise provided or as reasonable under the circumstances. Service of a notice shall be deemed properly given if delivered in person, delivered by electronic mail, delivered by recognized national carrier service, or sent by first class mail. Notice shall be deemed properly given on the date actually delivered in person or five (5) business days after being sent by courier, mail or electronic mail with confirmation of receipt to the person specified below (provided that either Party may update its contact information by written notice to the other Party):

Interconnector: GNM Solar 17, LLC
Po Box 77
Farmington, NH 03835-0077
Attn: Packey Campbell

Eversource: Public Service Company of New Hampshire
d/b/a Eversource Energy
780 North Commercial Street
P. O. Box 330
Manchester, NH 03105-0330
Toni Berlandy
Account Executive Customer Care Distributed Energy Resources

Article 23. Counterparts.

This Agreement may be executed in counterparts, each of which shall be deemed an original, and all counterparts so executed shall constitute one agreement binding on all of the Parties hereto, notwithstanding that all of the Parties are not signatories to the same counterpart. Facsimile counterparts may be delivered by any Party, with the intention that they shall have the same effect as an original counterpart hereof.

Article 24. Signatures.

Each Party hereby signifies its agreement to the all of the terms of this Agreement by its signatures hereto. Each Party represents that it has carefully reviewed this Agreement individually and has been given the opportunity to consult with the counsel of its choosing and that it has knowingly and willingly executed this Agreement.

IN WITNESS WHEREOF, the Parties, each by its duly authorized representative, have hereunto caused their names to be subscribed, as of the day and year first above written.

Interconnector

Signature: *Packy Campbell*
Name: Packy Campbell
Title: Manager/Member GNM Solar 17 LLC
Date: 5/10/2023

Public Service Company of New Hampshire d/b/a Eversource Energy

Signature: *Toni Berlandy*
Name: Toni Berlandy
Title: Senior Account Executive, DER Eversource NH
Date: May 17, 2023

Appendix A
Schedule of Milestones (Note 1)

No.	Action or Obligation	Due Date	Responsible Party	Comments
1A	Execute and Return the Interconnection Agreement	4/7/2023	Interconnector	
1B	Payment of the Initial Deposit	4/7/2023	Interconnector	See Article 4 and Note 1B (below)
2A	Pay the balance of the Initial Cost Estimate	8/5/2023	Interconnector	See Article 4 and Note 2 (below)
2B	Submit revised one-line and, if requested, three-line project drawings, if applicable	8/5/2023	Interconnector	Refer to the Study and Note 2B (below)
3	Non-ministerial Permits & Approvals	9/4/2023	Interconnector	See Note 3 (below)
4	Building & Electrical Permits	12/3/2023	Interconnector	See Note 4 (below)
5	Project Completion	7/5/2024*	Interconnector	See Note 5 (below)

Note 1. Milestones that involve only the payment of money (i.e. 1B and 2A) may not be extended. For other Milestones, see Article 1.C relative to requests for extensions.

Note 1B. The Initial Deposit is the lesser of 25% of the Initial Cost Estimate or \$50 per kilowatt of Facility capacity. Unless otherwise requested in writing by the Interconnector, provision of this deposit payment constitutes authorization for Eversource to commence efforts to design any required Upgrades.

Note 2. Provision of this payment constitutes authorization for Eversource to commence efforts to design, procure, and construct any required Upgrades and/or incur Interconnection Costs. Payment of all or a portion of this balance may be required prior to the due date noted above if Eversource or Interconnector deems such payment necessary to support the project construction schedule.

Note 2B. The Customer shall provide an updated one line showing the appropriate transformer and/or grounding transformer configuration that would meet the Eversource Technical Requirements for DER.

Note 3. The Interconnector shall submit a written statement to Eversource attesting that all non-ministerial project permits and approvals have been obtained, in final and non-appealable form, including,

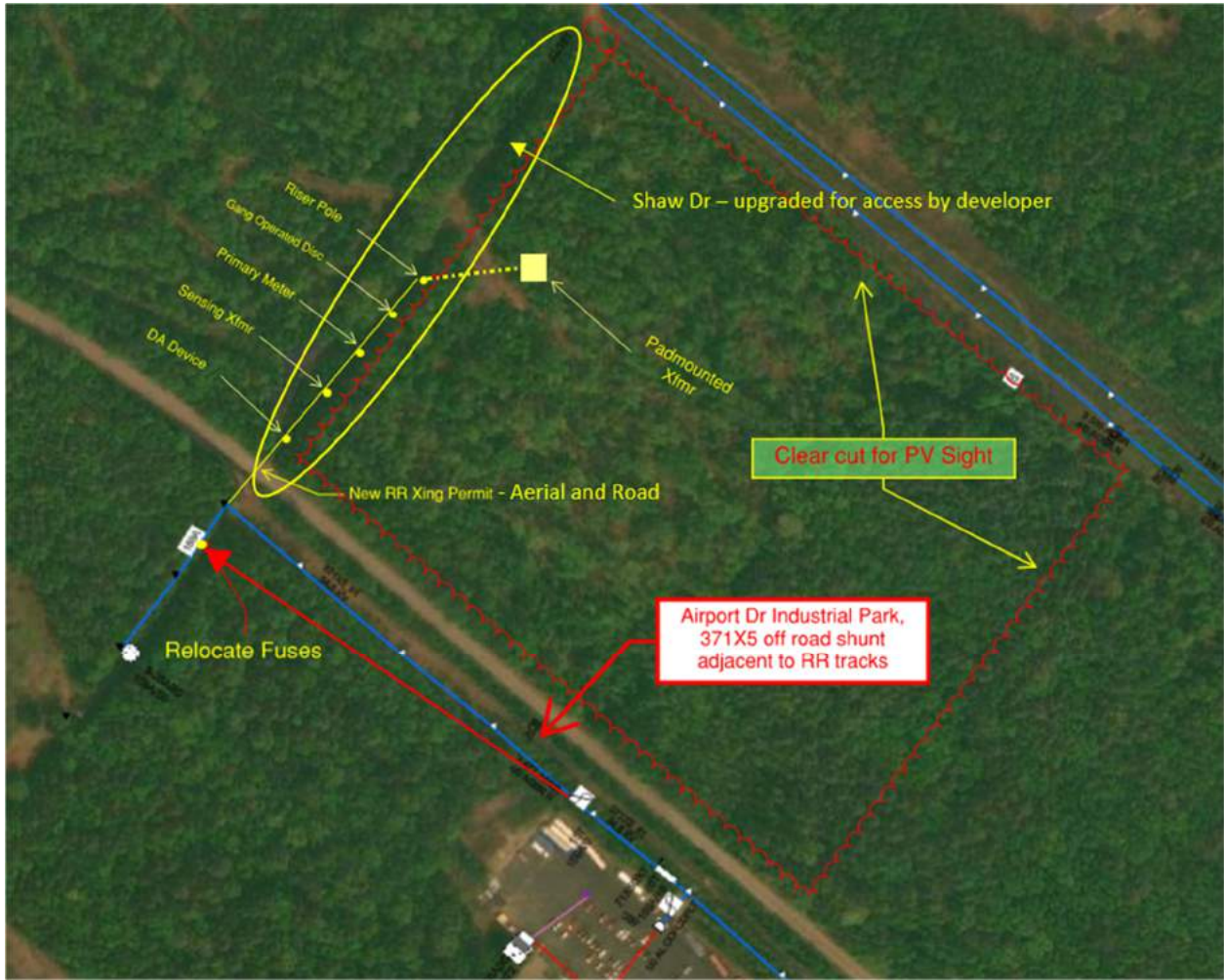
but not limited to, any and all federal, state, and local permits and approvals required for construction and operation of the project, with the exception of building and electrical permits.

Note 4. The Interconnector shall submit to Eversource copies of issued and effective building and electrical permits, and any other ministerial permits and approvals, related to construction and operation of the project to Eversource.

Note 5. The project shall be complete, fully interconnected and operational, which includes, but is not limited to, the submission of any testing and commissioning documents requested or required by Eversource, the installation of any necessary metering, and the generation of power on a regular, non-test basis. Projects that are fully constructed and capable of test power operation but are waiting for final utility interconnection construction as a result of factors beyond their control, shall have this Milestone deadline extended for a reasonable period of time in order to permit such final utility interconnection construction.

- **Project completion milestone 5 shall be the later of the date noted above or one year from completion of the railway vehicle crossing.**
- **The following items will be required prior to commencement of system modifications and construction:**
 - **Final engineering complete**
 - **Signed easement and/or rights documents, if applicable**
 - **Including Aerial OH Railway Crossing**
 - **Telco pole sets, where applicable, must be completed prior to Eversource modifications**
 - **Signed agreements to operate within Eversource Right-of-Ways, if applicable**
 - **Payment in full**
 - **Site prepped for Eversource access**

Appendix B Conceptual Equipment Layout



Appendix C
System Impact Study



T3140

Shaw Drive 1 MW PV

June 24, 2022

Prepared By:
Jeannie Amber

Table of Contents

EXECUTIVE SUMMARY		xxix
STUDY FINDINGS.....		xxx
COST ESTIMATE.....		xxxiii
1	BACKGROUND	1
	1.1 Project Description.....	1
	1.2 Utility Circuit & System Information.....	1
	1.2.1 Rochester Substation.....	1
	1.2.2 Portland Street Substation.....	1
	1.2.3 Tasker Farms Substation.....	2
	1.2.4 Utility Main Circuits.....	2
2	INTERCONNECTION REQUIREMENTS.....	3
3	SYSTEM IMPACT STUDY	4
	3.1 Reverse Power Flow & Substation Transformer Ratings.....	4
	3.2 Transmission Ground Fault Detection (3V0)	5
	3.3 Short Circuit Analysis.....	5
	3.3.1 Stiffness Ratio.....	6
	3.3.2 Fault Coordination	6
	3.3.3 Effective Grounding.....	7
	3.4 Power Flow Analysis	7
	3.4.1 Thermal Overload Analysis	8
	3.4.2 Steady State Voltage Analysis.....	8
	3.4.3 Rapid Voltage Change & Flicker.....	8
	3.4.4 Tap Position Analysis and Capacitor Operation.....	9
	3.4.5 Reverse Power Flow – Feeder Level	9
	3.5 Risk of Islanding.....	9
	3.6 Transient Overvoltage.....	9
4	CONCLUSIONS.....	10
5	COST ESTIMATE.....	12
	Appendix – Project One Line & Site Plan	1

EXECUTIVE SUMMARY

Public Service Company of New Hampshire (PSNH) DBA Eversource Energy (Eversource) conducted a Distribution System Impact Study on a proposed solar facility interconnecting to the Eversource Electric Power System (EPS). The Project in Table 1 is proposed to interconnect to the 34.5kV system on Shaw Drive via the 371X5, 34.5 kV tap off of the 371P line from Portland Street Substation, which is fed by the 386 circuit from the Rochester 115kV/34.5kV substation.

Project #	Location	Maximum Output (AC MW/MVA)	Point of Interconnection	Project Type
T3140	Shaw Drive, Rochester, NH 03868	1.0/1.0	The POI is in the vicinity of pole# 159A/5	Stand-alone PV project

Table 1: Project Interconnecting on 386 Circuit fed from Rochester Substation via the 371P line from Portland Street Substation

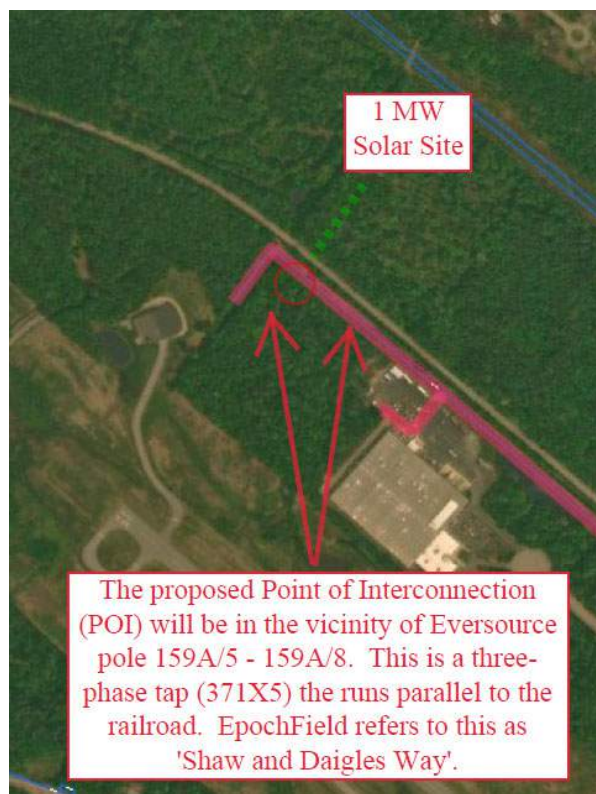


Figure 1: Facility Location

This Study includes an evaluation of the following items:

- Conceptual Design Review
- Short Circuit Analysis
- Short Circuit Ratio (SCR) evaluation
- Load Flow Analysis
- Reverse Power flow Analysis

- Voltage Flicker Analysis.
- Rapid Voltage Change
- Volt/Var Regulating Equipment Operation Analysis.
- Thermal Capacity Analysis
- Risk of Islanding Evaluation
- Transient Over Voltage Evaluation.
- Preliminary Cost Estimate of Interconnection
- Transmission Ground Fault Overvoltage Evaluation.

Conceptual Design of Solar Photovoltaic (PV) Interconnection Facilities

The Interconnection Customer (IC) has proposed to construct one 1.0 MW (AC) solar PV generation facility in Rochester, NH. The project is proposed to interconnect to the 34.5kV system via the 371X5, 34.5 kV tap off of the 371P line from Portland Street Substation, which is fed by the 386 circuit from the Rochester 115kV/34.5kV substation. The Project proposes the following design:

Project #	T3140
Project Type	Stand-alone Solar PV project
Project Size (AC)	1.0 MW/1.0 MVA
Generator Type	Inverter
Power Factor	1.0 (Unity PF)
Generator Make & Model	(8) Eight SMA Sunny Highpower Peak 3-125-US (125kW 480V _{ac}) Total active power nameplate rating of PV plant = 1.0 MW
Transformer Configuration	(1) 1000kVA, 34.5 kV (Yg)/480 V (Y) Intertie Transformer, Z=5.75%, X/R=6.0 (1) 100 kVA, 34.5kV Zig Zag Grounding Transformer Z=4%, X/R=4.0

Table 2: Project Summary

STUDY FINDINGS

The Study evaluated the proposed project impacts of interconnecting to the EPS under N-0 (normal configuration) as well as N-1 (alternate configuration) scenarios during daytime peak and minimum load conditions. The project was studied for the following cases:

Case #	Case Type	N-1 Trigger	Applicable Loading Scenario	POI S/S Source	System Reconfiguration Notes Impacting POI
1	N-0	N/A	Peak & Min	Rochester TB57	POI fed from Rochester TB57 via 386-371P

2	N-1	Loss of Rochester TB53 or TB57	Min	Rochester TB53 or TB57	Supply by single transformer at Rochester.
3	N-1	Loss of Rochester TB53	Peak	Rochester TB57	Supply by a single transformer at Rochester with reduced load on Rochester.
4	N-1	Loss of Rochester TB57	Peak	Tasker Farm TB78	Supply by Tasker Farm via 3228-386-371P.
5	N-1	Loss of Dover TB22 or TB55	Peak	Rochester TB53 & TB57	Additional load on 371P and Rochester
6	N-1	Loss of Tasker Farm TB78	Peak & Min	Rochester TB53 & TB57	Additional load on Rochester (all Tasker load), 3228 and 3157 (via Tasker Bus) restored via 386.

Table 3: Study Cases Summary

By performing this Distribution System Impact Study, Eversource has determined the following results with *required mitigations, upgrades, and further analysis*, if applicable:

- Point of Interconnection (POI) requirements:** The proposed project will require an electronic SCADA Recloser with load side voltage sensing and reclose blocking, and primary metering equipped with the necessary CT's, PT's and switches. The exact POI will be determined during the facilities study for the project.
- Capacity Performance/Thermal Overload Analysis:** The project is expected to overload the fuses near the project POI. These fuses will be removed as a part of this project. Tree trimming will be required between the fuses and end of line to maintain pre-project system reliability. No other thermal overloads were observed in any configuration.
- ISO-NE Source Requirements:** The SMA S HP PEAK3 125-US inverters of the proposed facility are UL 1741 SA and IEEE 1547 certified. The Project inverter's voltage and frequency protection settings shall be compliant with and set to the ISO-NE SRD. All required frequency and voltage settings shall be included in the inverters and on the one line. An updated one-line showing these settings with all the necessary changes shall be submitted if the project moves forward.
- One Line Revision Requirements:** The Customer's one line, dated 1/21/22 shows inverter size labels that do not match the specifications sheet provided, which must be revised. The study evaluated SMA Sunny Highpower Peak 3 125-US inverters. The customer-owned GOAB switch is also shown without indication that it is lockable and

24/7 accessible, which must be revised. The grounding transformer low side voltage shall be indicated as applicable. An updated one-line showing these settings with all the necessary changes shall be submitted if the project moves forward.

- **Reverse Power Flow (RPF):** The project is expected to cause reverse power flow through the substations. There is no expected reverse flow through distribution line voltage regulating devices. The Rochester TB57 and Tasker TB78 transformer LTCs will be required to be programmed for reverse flow to accommodate the project. The TB53 transformer is expected to experience reverse flow only if QP1136 moves forward, and the LTC upgrade cost for TB53 therefore is not the responsibility of this project. TB78 has a capable LTC, and will only require LTC programming if QP1136 remains prior in queue.
- **Short Circuit Analysis:** The increased fault currents by the proposed projects are not expected to have any adverse impact on the EPS existing equipment. The greatest fault current measured at POI would increase by 1.12%. Additionally, the maximum fault currents at the 34.5 kV bus at both the Rochester and Tasker substations are not expected to exceed 10kA as a result of interconnecting the proposed project.
- **Effective Grounding:** The customer has proposed an effectively grounded interconnection that meets Eversource interconnection technical requirement based on an initial review. The final grounding transformer specs (including impedance) will be reviewed in detail during the execution phase of the project should the Customer choose to move forward.
- **Steady State Voltage Analysis:** The power generation produced by the project are not expected to deviate the area EPS voltage beyond $\pm 5\%$ of nominal.
- **Rapid Voltage Change:** The loss of the proposed generator from full output is NOT expected to change the voltage for any of the studied cases beyond the IEEE 1547-2018 specified limit. The maximum change in the voltage estimated at the POI is 0.25% during the loss of PV full output.
- **Flicker:** The instantaneous change in proposed generator's output from full 100% to 5% is NOT expected to change the voltage on feeders beyond Eversource's flicker limit specified in DSEM.
- **Tap Position Analysis and Cap bank operation:** The proposed project is not expected to have a significant impact on the number of operations of the LTCs for transformers TB57 & TB53 (Rochester S/S), and TB78 (Tasker S/S), provided they are programmed for reverse flow. The project is not expected to cause any capacitors to change state.

- **Risk of Islanding (ROI):** The proposed project fails the Eversource ROI evaluation and will require upgrades to the 371X5 recloser. The required upgrades will include modification to add DSCADA capability to the recloser, the addition of voltage sensing (PT's) on the load side the device, as well as programming changes to enable block of close during voltage presence conditions on the load side of the device as well as SCADA modifications to enable turning on/off the block of close functionality as required. The 371P breaker is already equipped with reclose blocking functionality and does not require upgrades.
- **Transient Overvoltage:** The customer has provided documentation for the inverter showing compliance with transient overvoltage curve in IEEE Std. 1547-2018 clause 7.4.2. The inverter firmware version shall be demonstrated per section 3.6 during the witness test.
- **Protection coordination Review:** A detailed protection coordination study will be completed during the execution stage if the project moves ahead. The 371X5 recloser and the POI recloser settings will be developed/modified as required at a minimum.

Transmission Ground Fault Overvoltage (3V0) Evaluation: a 3V0 detection requirement evaluation has been completed identifying the need for 3V0 protection detection at the Rochester TB53 & TB57 and Tasker TB78 transformer breakers; during the study it was also confirmed that both transformer breakers are currently equipped with 3V0 protection.

COST ESTIMATE

A Facility Study is required to determine the total estimated costs for the project.

This Study was based on eight (8) SMA SHP PEAK 3-125-US inverters. Any further design changes made by the Interconnecting Customer without Eversource's knowledge, review, and/or approval will render the findings of this report null and void.

If changes are anticipated, Eversource shall be informed immediately so that requirements and recommendations contained within this study may be revised where necessary. This will ensure that the Interconnecting Customer is informed of Eversource requirements within a timely fashion and should eliminate delays and expenses, which could otherwise be experienced by the Interconnecting Customer.

1 BACKGROUND

2 Project Description

The Project will interconnect to the Eversource 34.5 kV distribution system. For the purpose of this study, analyses were conducted in Synergi Electric and Aspen One-liner. Based on the application submitted by the customer, the following generation and transformer facilities were modeled.

Total Generation Capability	T3140– 1.0 MW/1.0 MVA PV
Transformer (GSU) Characteristics	(1) 1000kVA, 34.5 kV (Yg)/480 V (Yg) Intertie Transformer, Z=5.75%, X/R=6.0 (1) 100 kVA, 34.5kV Zig Zag Grounding Transformer Z=4%, X/R=4.0
Inverter Type & Model	(8) Eight SMA Sunny Highpower Peak 3-125-US (125kW 480V _{ac}) Total active power nameplate rating of PV plant = 1.0 MW
Frequency	60 Hz
Generator Certification	UL 1741 SA, IEEE 1547

Table 4: Inverter and GSU Characteristics

3 Utility Circuit & System Information

4 Rochester Substation

There are two (2) 44.8 MVA – 115/34.5kV transformers, TB53 and TB57, at Rochester Substation. There are four (4) 34.5kV circuits fed from Rochester Substation. The TB53 transformer feeds the Eversource 362 and 340 lines via bus B. The TB57 transformer feeds the Eversource 386, and 392X lines via bus A. There is one (1) normally open bus tie breaker BT32 between bus 1 and 2.

The total aggregated generation inclusive of all the DER (excluding the proposed project) which are online or in the interconnection queue is 18.6 MVA total connected to the TB57 transformer.

5 Portland Street Substation

There are two (2) 34.5 kV buses at Portland Street Substation, Bus 1 & Bus 2, both buses are electrically connected via a normally closed bus tie switch, J32. Bus 2 is connected to the 386 (Rochester S/S) line through a normally closed breaker 386, and 371 (Dover) line through a normally closed breaker 0371 and a normally open mid-line electronic switch 371J6, bus 2 also feeds one (1) 34.5kV/12.47kV transformer. Bus 1 is connected to the 340 (Rochester S/S) and 32 (Dover S/S) lines through normally open circuit breakers, Bus 1 also feeds two (2) 34.5kV/12.47 kV transformers.

Under normal system conditions, the 386 line out of Rochester is considered the main 34.5kV source feeding the Portland Street Substation load that consists of the three (3) 34.5 kV/ 12.47 transformers feeding the 12kV system in the area, and the 371 line load up to 371J6 device open point.

6 Tasker Farms Substation

There is one (1) 44.8 MVA 115/34.5kV transformer, TB78, at Tasker Substation. There are two (2) 34.5 kV buses at Tasker Farms substation, Bus 1 and Bus 2. Both buses are electrically connected via normally closed switches. Bus 1 is connected to the 3174 circuit, and Bus 2 is connected to the 3228 and 3157 circuits.

7 Utility Main Circuits

Below is a summary of the study cases highlighting the main circuit and substation source feeding the POI for each case.

Case #	Case Type	N-1 Trigger	Applicable Loading Scenario	POI S/S Source	System Reconfiguration Notes Impacting POI
1	N-0	N/A	Peak & Min	Rochester TB57	POI fed from Rochester TB57 via 386-371P
2	N-1	Loss of Rochester TB53 or TB57	Min	Rochester TB53 or TB57	Supply by single transformer at Rochester.
3	N-1	Loss of Rochester TB53	Peak	Rochester TB57	Supply by a single transformer at Rochester with reduced load on Rochester.
4	N-1	Loss of Rochester TB57	Peak	Tasker Farm TB78	Supply by Tasker Farm via 3228-386-371P.
5	N-1	Loss of Dover TB22 or TB55	Peak	Rochester TB53 & TB57	Additional load on 371P and Rochester
6	N-1	Loss of Tasker Farm TB78	Peak & Min	Rochester TB53 & TB57	Additional load on Rochester (all Tasker load), 3228 and 3157 (via Tasker Bus) restored via 386.

Table 5: Study Cases Summary

The type and location of the relevant modeled circuit interrupting devices on the 371P, 386, 340 and 3228 lines are noted below.

Device	Type	Pole Number
386 Rochester to Portland Street Line		
386A	Line Breaker (Rochester)	Inside Rochester S/S

Table 6:
371,
386,
340,

386	Line Breaker (Portland St)	Inside Portland St S/S
371 Portland Street Substation Line		
0371	Line Breaker (Portland St)	Inside Portland St S/S
371J71	Scadamate Switch	P371/175Y
371J70	Scadamate Switch	P371/174
371X5	Electronic Recloser	P159B/2
371J6	Scadamate Switch (Tie Switch)	P371/111Z
371 Dover Substation Line		
371	Line Breaker (Dover)	Inside Dover S/S
371J32	Scadamate Switch (Tie Switch)	P371/70Y
340 Rochester to Portland Street Substations Line		
0340	Line Breaker (Rochester)	Inside Rochester S/S
340	Line Breaker (Portland St)	Inside Portland St S/S
3228 Tasker Farm Substation Line		
3228	Line Breaker (Tasker)	Inside Tasker S/S
J8628	Electronic Recloser (Tie Switch)	P3228/112

371D, and 3228 Circuits Interrupting Devices

The coincidental net load readings used in the study are given in Table 6. The 3228, 371P, 386 and 340 circuits were modeled in more detail and all other circuits were represented by lumped loads at the respective feeder origins.

Loading Scenario	Day & Time	386		371P		340		3228	
		MW	MVAR	MW	MVAR	MW	MVAR	MW	MVAR
Daytime Max	8/11/2020 14:00	16.60	4.10	5.30	1.10	10.30	0.60	4.10	0.70
Daytime Min	5/17/2020 8:00 AM	5.22	-0.36	1.65	-0.2	4.07	-2.12	1.30	0.00

Table 7: Coincident Net Loading

8 INTERCONNECTION REQUIREMENTS

The project is required to follow the protocols and procedures described in the following documents:

- Eversource DER Standard, “Information and Technical Requirements For the Interconnection of Distributed Energy Resources (DER)”, January 21, 2020
- IEEE Standard 1547-2018, “IEEE Standard for Interconnection and Interoperability of Distributed Energy Resources with Associated Electric Power System Interfaces”
- UL Standard 1741 Supplement A, “Advanced Inverter Testing”
- ISO New England “Inverter Source Requirement Document”
- Other federal or state building, electrical, and safety codes as applicable.

It is the customer’s responsibility to ensure that the proposed design fulfills these requirements.

The possibility of reverse flow through the Rochester and Tasker Farm Substations was considered with the addition of this project.

Case #	Transformer	Capacity (with Max Cooling) MVA	Agg. DER (Online & Queue) MVA	Net Min. Load Reading (Daytime) MVA	Agg. DER/TX Capacity	Agg. DER/TX Min. Load
1 Min Load	Rochester TB57	44.8	19.6	10.47	44%	187%
1 Peak Load	Rochester TB57	44.8	19.6	10.47	44%	187%
2	Rochester TB53 or TB57	44.8	23.2	20.02	52%	116%
3	Rochester TB57	44.8	20.6	14.73	46%	140%
4	Tasker Farm TB78	44.8	46	16.33	103%	282%
5	Rochester TB53 & TB57	89.6	23.2	26.23	26%	88%
6 Min Load	Rochester TB53 & TB57	89.6	64.7	31.02	72%	209%
6 Peak Load	Rochester TB53 & TB57	89.6	64.7	31.02	72%	209%

Table 5: Capacity, Loading and Generation

*does not include any DER that may be interconnected on circuits not operated by Eversource.

The total proposed and existing DER does not exceed the 95% rating criteria for the any substation transformers for N-0 scenarios. The emergency rating for the transformer in the N-1 (case # 4, peak load only) configuration for Tasker substation was verified and was not exceeded assuming a minimum load of 16.33 MVA on the Tasker TB78 transformer. Based on these findings, this project does not require any substation transformer upgrades.

The Rochester TB53 and TB57 transformers are expected to experience reverse flow.

The existing LTC controller at the Rochester TB53 transformer does not have bi-directional/cogeneration capable controls, therefore the LTC controller will require replacement with a bi-directional/co-generation capable control, which is only required with QP1136 in service. The cost for the replacement is expected to be covered by QP1136 for this upgrade, and the upgrade will not be required if QP1136 drops from the queue.

For case 2, the gross minimum load was calculated to be more than the aggregate DER, and therefore would not require an LTC upgrade for TB53.

The TB57 transformer LTC is required to be programmed for reverse power capability due to the possibility of reverse power flow in both N-0 and N-1 scenarios.

The Tasker Substation transformer is expected to experience Reverse Power Flow during the Case 4 and Case 6 scenarios. The table above includes QP1136 as prior in queue. If this project drops from the queue, no reverse power would be expected in Case 4 or Case 6.

The LTC controller at the Tasker Farm TB78 transformer has existing bi-directional/co-generation capable controls. It is not yet programmed for reverse power, which must be completed to accommodate this project.

11 Transmission Ground Fault Detection (3V0)

DER levels are high enough that the aggregate DERs on the TB53 & TB57 Rochester transformers and on TB78 at Tasker substation are capable of energizing the transformers for transmission-side ground faults. If the aggregate DER nameplate is >67% of the minimum gross load on a particular substation transformer in an N-0 or N-1 condition, 3V0 is required to detect ground faults on the high side of the substation transformer.

As seen in table 8, aggregate DER nameplate is significantly higher than the 67% of the minimum load for all scenarios. However, the addition of this project does not require 3V0 protection at Rochester substation, as it is already existing for both TB53 and TB57 transformers. 3V0 is also existing for TB78 at Tasker Substation.

12 Short Circuit Analysis

The Eversource system P&C ASPEN model was used for the study analysis after modeling the proposed project intertie transformer, the grounding transformer, and the inverters per the submitted one line. The inverter parameters are shown in Figure 2 below.

Figure 2: Aspen One-Liner Model

These assumptions were used for all short circuit analysis for the inverters. Should the customer be aware of more accurate parameters and short circuit testing results to model the inverters, they should inform the Company.

13 Stiffness Ratio

The stiffness ratio was calculated using the below formula provided in IEEE1547.2 and data from the Synergi model, unless otherwise indicated.

$$Stiffness\ ratio = \frac{SC\ MVA(Area\ EPS)}{Nameplate\ MW(DR)} + 1$$

Case #	POI Voltage (kV)	3Ph Fault Current at POI (A)	SC Area EPS (MVA)	Project Output (MW)	Stiffness Ratio
1 (N-0)	34.5	2256	134,808	1.0	136*

Table 9: Stiffness Ratios

*Value from Aspen Oneliner Short circuit model, assuming DER connected directly to 371X5 tap.

14 Fault Coordination

Table summarizes the calculated fault currents from the Aspen model for all study cases at the POI with and without the proposed PV site connected to the 34.5kV System.

Fault Type	3LG	2LG	1LG	LL
------------	-----	-----	-----	----

Case #	PV Off-line	PV On-line	Percent Change	PV Off-line	PV On-line	Percent Change	PV Off-line	PV On-line	Percent Change	PV Off-line	PV On-line	Percent Change
1	2310	2329	0.82%	1332	1385	3.98%	1664	1735	4.27%	1998	2015	0.85%
2	2357	2376	0.81%	1404	1406	0.14%	1757	1764	0.40%	2039	2055	0.78%
3	2312	2331	0.82%	1384	1386	0.14%	1729	1736	0.40%	2000	2016	0.80%
4	1654	1673	1.15%	1029	1031	0.19%	1267	1274	0.55%	1431	1447	1.12%
5	3169	3188	0.60%	1787	1789	0.11%	2284	2290	0.26%	2743	2759	0.58%
6	2889	2907	0.62%	1599	1601	0.13%	2056	2062	0.29%	2498	2514	0.64%

Table 10: Fault Currents at POI

The increase in available fault current is unlikely to have any adverse impact on the feeder's existing protection equipment. The increase in fault current does not cause the available substation bus fault duty to exceed 10 kA, and the project's expected increase in fault current is <10% in all cases and locations.

15 Effective Grounding

It is intended for the utility distribution circuit to remain effectively grounded in any configuration to limit the unfaulted phase voltages to remain within acceptable limits. Furthermore, Eversource mandates an effective grounding criterion of $2 < X0/X1 < 3$. The Customer has proposed a grounding solution on the project one line. The intertie transformer configuration is Yg-Y, and a 34.5kV grounding transformer is proposed, with the following grounding transformer specifications: 100 kVA, 34.5kV, 4% Z, X/R = 4. For a last-off condition, based on the inverter modeling methods above, and considering ground fault current protection needs, the grounding configuration results in an impedance ratio of $X0/X1 = 0.437$. Therefore, the proposed effective grounding solution appears to be acceptable based on an initial review.

The final grounding transformer impedance will be reviewed in detail during the Protection review should the Customer choose to move forward with constructing the project with the 34.5kV interconnection voltage. The Customer is advised not to purchase grounding transformer equipment until this construction review is complete.

16 Power Flow Analysis

The power flow analysis assessed the Facility impacts to the EPS, with assessments including the following:

- Conductor/Equipment Thermal Overload
- Steady State Voltage
- Rapid Voltage Change (RVC) and Flicker
- Voltage Regulation
- Reverse Power Capabilities of Feeder Equipment

The load flow study for the 1 MW PV generator was performed considering scenarios 1-4 below

for case 1 (N-0), scenarios 1-2 for case 3, 4, 5 (both N-1), and scenarios 3-4 for case 2 (N-1). All existing DERs >100kW have been included in the study model, and are considered online during pre-and post-project scenarios.

1. Peak demand without the proposed project interconnection online
2. Peak demand with the proposed project interconnection online
3. Minimum demand without the proposed project interconnection online
4. Minimum demand with the proposed project interconnection online

17 Thermal Overload Analysis

Thermal ratings on the Rochester TB57 & TB53 transformers, Tasker TB78 transformer, 317P Feeder head, 386 Feeder Head, 3228 Feeder Head, 340 Feeder Head, and POI conductors were examined with all generation offline at peak load and with all generation online at minimum load.

This project does not cause any concern for thermal overloads on any device or line section.

18 Steady State Voltage Analysis

For each scenario above, the impacts of the proposed DER on the steady state voltage were assessed. All Volt/Var regulating equipment was allowed to operate and the proposed DER was set to operate on unity power factor mode.

The analysis indicated that voltages are adequately maintained within PUC limits based on the load flow simulations, with and without the proposed project online.

19 Rapid Voltage Change & Flicker

For the rapid voltage change analysis, the proposed 1 MW/1 MVA PV site was reduced to 0% from full output, prior to Volt/Var regulation equipment on the system adjusting (LTC, Voltage regulators and Capacitor banks at fixed position). Each case/scenario combination as per section 3.4 were analyzed. Voltage changes (on 120V base) were monitored for the project at the POI.

Case #	Scenario	Voltage at POI		
		PV On	PV Off	% Change
1	Peak Demand	121.0	120.7	0.25%
	Min Demand	122.7	122.5	0.16%
2	N/A	-	-	-
	Min Demand	121.7	121.5	0.16%
3	Peak Demand	121.4	121.1	0.25%
	N/A	-	-	-
4	Peak Demand	118.3	117.9	0.34%
	N/A	-	-	-

5	Peak Demand	118.5	118.3	0.17%
	N/A	-	-	-
6	Peak Demand	119.5	119.3	0.17%
	Min Demand	120.5	120.3	0.17%

Table 11: Rapid Voltage Change Results

With the proposed DER project being switched, the analysis indicates that the rapid voltage changes were within the variation limit of 3% set by IEEE 1547-2018 for photovoltaic generation. The facility also passes the flicker limit screen of 2% outlined in the Eversource DSEM.

20 Tap Position Analysis and Capacitor Operation

The output drop analysis was performed with the TB53 & TB57 (Rochester) and TB78 (Tasker) voltage regulation devices allowed to adjust. The transformer LTCs, the line regulators and the switched capacitors were allowed to adjust to confirm the LTC taps don't move more than one position and capacitor banks don't change status as a result of this Project for all study cases and load/generation scenarios.

The analysis identified that there will be no excessive tap movements of any of the LTCs when the PV is reduced to 5% from full output. Therefore, no mitigation is required.

21 Reverse Power Flow – Feeder Level

The voltage regulation equipment on the study feeders were assessed for reverse power flow. There are no voltage regulators or other devices that would be adversely impacted by reverse power flow.

22 Risk of Islanding

The Eversource Risk of Islanding (ROI) evaluation follows the guidelines set forth in the following documents:

- Eversource's DSEM 19.028, "Risk of Islanding Screening Process"
- Sandia Report, "Suggested Guidelines for Anti-Islanding Screening"

The customer has provided documentation that the SMA Sunny Highpower Peak 3-125-US inverters use an active islanding detection method using bidirectional positive feedback on frequency shift, along with passive islanding detection.

However, as the Project exceed Eversource's 200 kW AC screening criterion, and aggregate generation is greater than 67% of the minimum load for the 371X5 device loading. Block of close when voltage is present on the load side of these devices will be required. The 371X5 recloser is not presently a SCADA device and is required to be upgraded to add SCADA capability. Block of close will also be required on the utility-owned project POI recloser.

23 Transient Overvoltage

Based on recent DER studies performed by Eversource, it has been determined that transient overvoltage is of concern due to potential load rejection overvoltage (LROV) by the inverters. There is concern that during step changes in load (such as tripping of an upstream device), the

proposed inverters may cause transient over voltages in excess of 1.2pu, which can potentially cause damage to the customer's equipment, utility equipment, and/or nearby customer equipment. Due to this concern, Eversource requires that the customer demonstrate that the inverters limit their cumulative overvoltage according to the transient overvoltage curve in IEEE Std. 1547-2018 clause 7.4.2.

The aggregate DER at the 386 Rochester substation feeder breaker is less than 115% of the minimum load, and the aggregate DER at the 371P Portland Street feeder breaker is also less than 115% of the minimum load, and therefore a dynamic study was not required.

The Customer has provided documentation showing compliance with the Transient Overvoltage Limits curve given in the standard, where the SMA Sunny Highpower Peak 3-125-US inverters have transient overvoltage protection that will clear potential transient overvoltages over 1.4 pu in 1 ms or less. The islanding detection information letter indicates that the functionality is available in firmware version V3.10.04.R or higher.

The Customer shall demonstrate this protection is enabled in the project inverters during or prior to the witness test by providing documentation of the inverter serial numbers and firmware version. The inverter serial numbers and firmware version shall be recorded as part of the as-built site verification for submittal to the Company.

Note: In the future revisions, UL 1741 test procedures are anticipated to cover this requirement. In the interim, customers are required to demonstrate compliance to avoid potential damage to customer and utility equipment.

24 CONCLUSIONS

As a result of assessing the impact of the project on Eversource's distribution system, the following conclusions are made:

- **Point of Interconnection (POI) requirements:** The proposed project will require an electronic SCADA Recloser with load side voltage sensing and reclose blocking, and primary metering equipped with the necessary CT's, PT's and switches. The exact POI will be determined during the facilities study for the project.
- **Capacity Performance/Thermal Overload Analysis:** The project is expected to overload the fuses near the project POI. These fuses will be removed as a part of this project. Tree trimming will be required between the fuses and end of line to maintain pre-project system reliability. No other thermal overloads were observed in any configuration.
- **ISO-NE Source Requirements:** The SMA S HP PEAK3 125-US inverters of the proposed facility are UL 1741 SA and IEEE 1547 certified. The Project inverter's voltage and frequency protection settings shall be compliant with and set to the ISO-NE SRD. All required frequency and voltage settings shall be included in the inverters and on the one line. An updated one-line showing these settings with all the necessary changes shall be submitted if the project moves forward.
- **One Line Revision Requirements:** The Customer's one line, dated 1/21/22 shows inverter size labels that do not match the specifications sheet provided, which must be

revised. The study evaluated SMA Sunny Highpower Peak 3 125-US inverters. The customer-owned GOAB switch is also shown without indication that it is lockable and 24/7 accessible, which must be revised. The grounding transformer low side voltage shall be indicated as applicable. An updated one-line showing these settings with all the necessary changes shall be submitted if the project moves forward.

- **Reverse Power Flow (RPF):** The project is expected to cause reverse power flow through the substations. There is no expected reverse flow through distribution line voltage regulating devices. The Rochester TB57 and Tasker TB78 transformer LTCs will be required to be programmed for reverse flow to accommodate the project. The TB53 transformer is expected to experience reverse flow only if QP1136 moves forward, and the LTC upgrade cost for TB53 therefore is not the responsibility of this project. TB78 has a capable LTC, and will only require LTC programming if QP1136 remains prior in queue.
- **Short Circuit Analysis:** The increased fault currents by the proposed projects are not expected to have any adverse impact on the EPS existing equipment. The greatest fault current measured at POI would increase by 1.12%. Additionally, the maximum fault currents at the 34.5 kV bus at both the Rochester and Tasker substations are not expected to exceed 10kA as a result of interconnecting the proposed project.
- **Effective Grounding:** The customer has proposed an effectively grounded interconnection that meets Eversource interconnection technical requirement based on an initial review. The final grounding transformer specs (including impedance) will be reviewed in detail during the execution phase of the project should the Customer choose to move forward.
- **Steady State Voltage Analysis:** The power generation produced by the project are not expected to deviate the area EPS voltage beyond $\pm 5\%$ of nominal.
- **Rapid Voltage Change:** The loss of the proposed generator from full output is NOT expected to change the voltage for any of the studied cases beyond the IEEE 1547-2018 specified limit. The maximum change in the voltage estimated at the POI is 0.25% during the loss of PV full output.
- **Flicker:** The instantaneous change in proposed generator's output from full 100% to 5% is NOT expected to change the voltage on feeders beyond Eversource's flicker limit specified in DSEM.
- **Tap Position Analysis and Cap bank operation:** The proposed project is not expected to have a significant impact on the number of operations of the LTCs for transformers TB57 & TB53 (Rochester S/S), and TB78 (Tasker S/S), provided they are programmed for reverse flow. The project is not expected to cause any capacitors to change state.

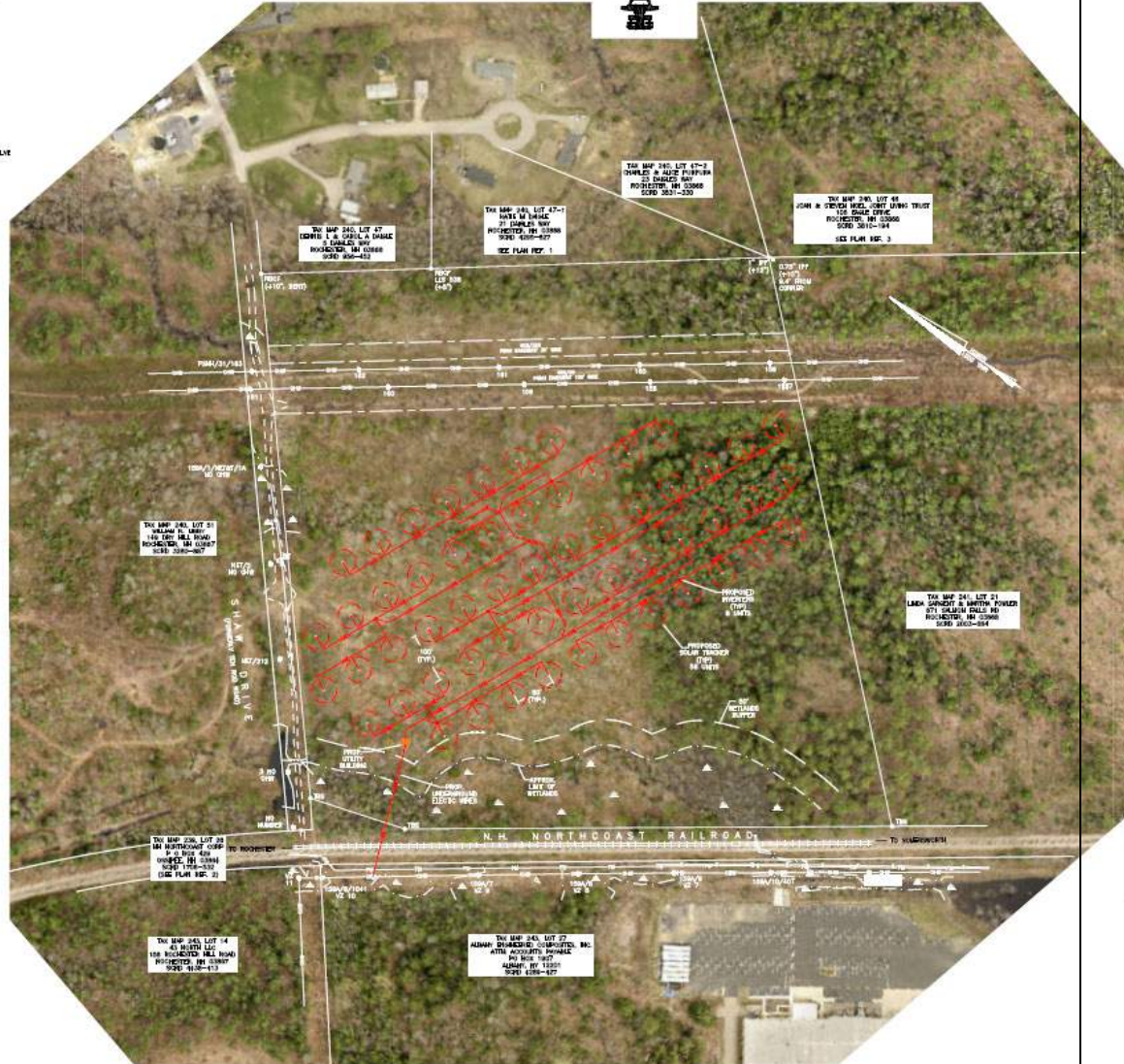
- **Risk of Islanding (ROI):** The proposed project fails the Eversource ROI evaluation and will require upgrades to the 371X5 recloser. The required upgrades will include modification to add DSCADA capability to the recloser, the addition of voltage sensing (PT's) on the load side the device, as well as programming changes to enable block of close during voltage presence conditions on the load side of the device as well as SCADA modifications to enable turning on/off the block of close functionality as required. The 371P breaker is already equipped with reclose blocking functionality and does not require upgrades.
- **Transient Overvoltage:** The customer has provided documentation for the inverter showing compliance with transient overvoltage curve in IEEE Std. 1547-2018 clause 7.4.2. The inverter firmware version shall be demonstrated per section 3.6 during the witness test.
- **Protection coordination Review:** A detailed protection coordination study will be completed during the execution stage if the project moves ahead. The 371X5 recloser and the POI recloser settings will be developed/modified as required at a minimum.

Transmission Ground Fault Overvoltage (3V0) Evaluation: a 3V0 detection requirement evaluation has been completed identifying the need for 3V0 protection detection at the Rochester TB53 & TB57 and Tasker TB78 transformer breakers; during the study it was also confirmed that both transformer breakers are currently equipped with 3V0 protection.

25 COST ESTIMATE

A Facility Study will be required to determine the Total Estimated Cost for this interconnection.

- LEGEND**
- PROPERTY LINE
 - ARRESTED WETLANDS
 - 50' WETLAND BUFFER
 - EXISTING TIEB LINE
 - EXISTING OVERHEAD WIRES
 - EXISTING DRAIN LINE
 - EXISTING SEWER LINE
 - EXISTING FORCE MAIN SEWER LINE
 - EXISTING WATER LINE
 - EXISTING UTILITY POLE
 - EXISTING HIGHWAY
 - EXISTING WATER GATE OR SHUT-OFF VALVE
 - PROPOSED OVERHEAD WIRES
 - PROPOSED UNDERGROUND ELECTRIC
 - PROPOSED TIEB LINE



FILE NO. 104
 PLAN NO. C-2012
 DWG. NO. 18289 SP-1
 F.B. NO.

51 Mooney Street, Arton, N.H. 0303-875-9948

NORWAY PLAINS ASSOCIATES, INC.



The Senate of the State of New Hampshire

107 North Main Street, Concord, N.H. 03301-4951

Jared S. Chicoine
Commissioner, Department of Energy
21 S. Fruit St., Suite 10 Concord, N.H. 03301-2429
Jared.S.Chicoine@energy.nh.gov

RE: Department of Energy IP 2022-XXX Investigative Proceedings Relative to Customer-Generator Interconnection SB262

Dear Commissioner Chicoine:

New Hampshire has been clear and consistent in stating that it has its own energy policy and does not want the policies of other states imposed upon New Hampshire. There are limited opportunities for New Hampshire to exercise its sovereignty due to federal policies and the structure of energy and electricity markets. The passage of Senate Bill 262 ("SB262") in 2022 is a demonstration of New Hampshire acting where it has the ability to set policies - the interconnection of Distributed Energy Resources ("DERs") on the distribution system.

We appreciate the Department of Energy ("DOE") commencing proceedings in its investigation of interconnection policies, as prescribed in SB262, per the Department's December 5th, 2022 Order of Notice. As sponsors of SB262, we look forward to the timely results of the proceeding.

However, it has come to our attention that Eversource has stated in its most recent Least Cost Integrated Resource Plan, filed in NH Public Utilities Commission ("PUC") Docket No. DE 20-161, that it has changed its interconnection standards in New Hampshire, specifically the application of the N-1 standard to certain DERs. Changes to the interconnection standards and to the procedures for DERs connecting to the distribution systems in New Hampshire must be reviewed and approved by the PUC to ensure consistency with New Hampshire's energy policies. The change referenced in DE20-161 did not go through such and approval process.

The clear intent of SB262 is to review the existing interconnection procedures, specifically including engineering standards, and make recommendations to the standing committees of the House of Representatives and Senate with jurisdiction over energy and utility matters. Eversource cannot change its interconnection standards for DERs on its New Hampshire distribution system without the review and approval of New Hampshire, and Eversource's change to the use of an N-1 standard on its distribution system has not been reviewed or approved.

We believe the interconnection changes referenced in DE20-161 did not undergo the required review or approval process and therefore should not be included in the Least Cost Integrated Resource Plan. The appropriate venue for the review of these standards was established by SB262, and fortunately, the DOE's investigation of interconnection procedures and standards has commenced.

Respectfully,



Sen. Kevin Avar
Chairman, Senate Energy and Natural Resources



Sen. David Watters
Member, Senate Energy and Natural Resources

Cc:

Chris Ellms (christopher.j.ellmsjr@energy.nh.gov)
Tom Frantz (Thomas.C.Frantz@energy.nh.gov)
Mary Schwarzer (mary.e.schwarzer@energy.nh.gov)
Jay Dudley (jay.e.dudley@energy.nh.gov)
Proceedings@energy.nh.gov

1/25/2022

EVERSOURCE NH INTERCONNECTION REQUEST

Send the completed Interconnection Request and required attachments to:

Eversource
Attn: Michael Motta, Lead Engineer – Distributed Energy Resource Planning
P. O. Box 330
Manchester, NH 03105

Telephone Number: 603-634-2920
E-Mail Address: Michael.Motta@eversource.com

An Interconnection Request is considered complete when it provides all applicable and correct information required below.

- Documentation that the applicant has control of the property on which the proposed facility shall be located must be submitted with the Interconnection Request. The documentation shall include proof of ownership, a leasehold interest, a right to develop, or an option to acquire the site, and municipal tax maps indicating the parcel(s) on which the proposed facility shall be located. *Dec'd attached*
- A site electrical one-line diagram showing the configuration of the Generating Facility equipment, current and potential circuits, and protection control schemes. The one-line diagram shall be signed and stamped by a licensed NH Professional Engineer. The diagram shall indicate compliance with ISO-NE Inverter Source Requirements Document (if applicable) and show protection and advanced function settings. *attached*
- Generator data sheet, complete with specifications. *Summary Design attached*
- For inverter-based DER only: Islanding Detection Information Document *N/A*

1/25/2022
P.16
TMC

Interconnection Customer Information:

Date Prepared: 8/13/21

Legal Name of the Interconnection Customer (or, if an individual, individual's name)

Name: GNM Solar 17, LLC

Contact Person: Packy Campbell

Mailing Address: PO Box 77

City: Farmington State: NH Zip: 03835-0077

Facility Location (if different from above): 60 Shaw Drive, Rochester, NH

Telephone (Day): 603-765-9101 Telephone (Evening): Same

Fax: _____ E-Mail Address: packyc@rsarealty.com

Alternative Customer Information:

Alternative Contact Information (if different from the Interconnection Customer)

Name: None

Contact Person: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Facility Location (if different from above): _____

Telephone (Day): _____ Telephone (Evening): _____

Fax: _____ E-Mail Address: _____

Proposed Location of Generating Facility:

Physical Address: 60 Shaw Drive, Rochester, NH 03867

Requested Point of Interconnection: At a 1600A Main Switch Board

(provide GPS coordinates and satellite map image with proposed POI indicated)

Generating Facility's Requested In-Service Date: 11/15/2021

For installations at locations with existing electric service to which the proposed Generating Facility will interconnect, provide:

Account # N/A

Energy Service Provider (if other than PSNH) _____

Meter # _____

Retail Customer Contact Name: _____

Title: _____

Address: _____

Telephone: _____ E-Mail Address: _____

Is the Interconnection Request for:

New Generating Facility?

Yes No

Capacity addition to or Material Modification of an existing Generating Facility:

Yes No

If capacity addition or Material Modification of an existing facility, please describe:

Commencement of participation in the wholesale markets by an existing Generating Facility:

Yes No

A retail customer interconnecting a New Generating Facility that will produce electric energy to be consumed only on the retail customer's site?

Yes No

If onsite use of power, describe the mode of operation: (Please Check all that Apply)

- Peak Shaving
- Demand Management
- Primary Power/Base Load
- Combined Heat and Power or Cogeneration
- Stand By/Emergency/Back-up
- Net Metering

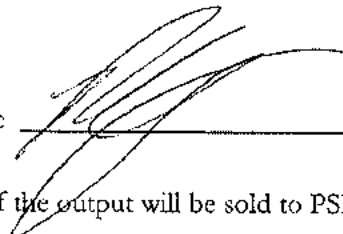
If Net Metering, does the Generating Facility meet the requirements for eligibility as defined in Puc 902.01 for a "Combined Heat and Power System" and/or Puc 902.02 for a "Customer-Generator" of Chapter Puc 900 Net Metering for Customer Owned Renewable Energy Generation Resources of 1000 Kilowatts or Less.

Puc 902.01 "Combined heat and power system" means a "combined heat and power system" as defined on RSA 321-A:1-a, II-d, namely "a new system installed after July 1, 2011, that produces heat and electricity from one fuel input using an eligible fuel, without restriction to generating technology, has an electric generating capacity rating of at least one kilowatt and not more than 30 kilowatts and a fuel system efficiency of not less than 80 percent in the production of heat and electricity, or has an electric generating capacity greater than 30 kilowatts and not more than one megawatt and a fuel system efficiency of not less than 65 percent in the production of heat and electricity. Fuel system efficiency shall be measured as a usable thermal and electrical output in BTU's divided by fuel input in BTU's."

Puc 902.02 "Customer-generator" means "eligible customer-generator" as defined in RSA 362-A:1-a, II-b, namely "an electric utility customer who owns or operates an electrical generating facility either powered by renewable energy or which employs a heat led combined heat and power system, with a total peak generating capacity of not more than 100 kilowatts, or that first began operation after July 1, 2010 and has a total peak generating capacity of 100 kilowatts or more up to one megawatt, that is located behind a retail meter on the customer's premises, is interconnected and operates in parallel with the electric grid, and is used in the first instance to offset the customer's own electricity requirements".

Yes No

Interconnection Customer Signature



Date

8/3/2022
~~2/22/2022~~
1/25/2022

A Qualifying Facility where 100% of the output will be sold to PSNH?

Yes No

A Qualifying Facility intending to sell power at wholesale to an entity other than PSNH?

Yes No

(evidence of FERC QF Certification will be required prior to commercial operation)

A Generator interconnecting a new Generating Facility that plans to participate in the wholesale markets?

Yes No

An existing Generating Facility commencing participation in the wholesale markets?

Yes No

Paralleling:

Will the Generating Facility operate in parallel with the PSNH system for any amount of time?

Yes No If "No," then Generator is operating as "Open" Transition.

If Yes: Will the Generating Facility operate in parallel with PSNH for longer than 100 milliseconds?

Yes No

If No: Then Generator is operating as "Closed" Transition.

If Yes: Then Generator is operating as "Parallel Operation."

Will the generator operation vary by season? (Please describe)

No

Generating Facility Information:

Energy Source:

Solar Wind Hydro Battery
Diesel Natural Gas Fuel Oil

Other (state type) _____

Prime Mover:

Fuel Cell Reciprocating Engine Gas Turbine
Steam Turbine Micro-turbine PV

Other (state type) _____

Type of Generator: Synchronous Induction Inverter

Generator Manufacturer: N/A

Generator Model Name & Number: N/A

Generator Version Number: N/A

Generator Nameplate Rating: 8 @ 125 kW kW (Typical) For Inverter-based machines the kW rating of the inverter, and for all other interconnections the kW rating of the generation unit.

Generator Nameplate kVAR: N/A

Generating Facility or Customer-Site Load: None kW (if none, so state)

Typical Reactive Load (if known): None

Maximum Physical Export Capability Requested: 1,000 kW

Generator Nameplate Output Power Rating in kW:

(Summer) 1,000 (Winter) 1,000

Generator Nameplate Output Power Rating in kVA:

(Summer) 1,000 (Winter) 1,000

Individual Generator Power Factor:

Rated Power Factor: Leading _____ Lagging _____

Generating Facility Characteristic Data (for inverter-based machines):

Inverter Manufacturer: SMA

Model Name & Number: SHP Peak 3 125-USA-20

Is the Inverter UL 1741 certified? Yes No

Attach certification document indicating UL 1741 and IEEE 1547 versions.

Is the Inverter IEEE 1547 listed? Yes No

Is the Inverter IEEE 1547.1 listed? Yes No

Inverter complies with ISO-NE Inverter Source Requirements Document? Yes No

Islanding Detection Information Document attached? Yes No

Transient Overvoltage Compliance Documentation Attached? Yes No

(See Eversource DER Information and Technical Requirements Section 2.3.1)

Max design fault contribution current: _____ Instantaneous _____ or RMS? _____

Harmonics Characteristics: _____

Start-up requirements: None

Available fault current: TBD

Wind Farm Interconnection: N/A

Total Number of Generators in wind farm to be interconnected pursuant to this Interconnection

Request:

Quantity: _____ Elevation: _____ Single Phase Three Phase

Generating Facility Characteristic Data (for rotating machines):

N/A

Speed: _____ RPM

Neutral Grounding Impedance (If Applicable): _____

Synchronous Generators:

Direct Axis Synchronous Reactance, X_d : _____ Per Unit

N/A

Direct Axis Transient Reactance, X_d' : _____ Per Unit

Direct Axis Sub Transient Reactance, X_d'' : _____ Per Unit

Negative Sequence Reactance, X_2 : _____ Per Unit

Zero Sequence Reactance, X_0 : _____ Per Unit

KVA Base: _____

Field Volts: _____

Field Amperes: _____

Induction Generators:

N/A

Motoring Power (kW): _____

I_2^2t or K (Heating Time Constant): _____

Rotor Resistance, R_r : _____ Per Unit

Stator Resistance, R_s : _____ Per Unit

Stator Reactance, X_s : _____ Per Unit

Rotor Reactance, X_r : _____ Per Unit

Magnetizing Reactance, X_m : _____ Per Unit

Short Circuit Reactance, X_d'' : _____ Per Unit

Exciting Current: _____ Amps

Temperature Rise: _____

Frame Size: _____

Design Letter: _____

Reactive Power Required (No Load): _____ VAR

Reactive Power Required (Full Load): _____ VAR

Total Rotating Inertia, H : _____ Per Unit on kVA Base

Transformer Data (If Applicable, for Generating Facility-Owned Transformer):

N/A

Transformer Size: _____ kVA

Is the transformer: _____ single phase _____ three phase?

Transformer Impedance: _____ % on _____ kVA Base

Transformer Impedance X/R Ratio: _____

Transformer Positive-Sequence Short Circuit Impedances (pu): _____

Zps= _____, Zpt= _____, Zst= _____

Transformer Zero-Sequence Impedances (pu): _____

Zpm0= _____, Zsm0= _____, Zmg0= _____

Transformer Neutral Grounding Reactor/Resistor Impedance (Ohms):

Transformer BIL Rating _____ kV

If Three Phase:

Transformer Primary: _____ Volts _____ Delta _____ Wye _____ Wye Grounded

Transformer Secondary: _____ Volts _____ Delta _____ Wye _____ Wye Grounded

Transformer Tertiary: _____ Volts _____ Delta _____ Wye _____ Wye Grounded

Transformer Fuse Data (If Applicable, for Generating Facility-Owned Fuse):

N/A

(Attach copy of fuse manufacturer's Minimum Melt and Total Clearing Time-Current Curves)

Manufacturer: _____ Type: _____

Size: _____ Speed: _____

Interconnecting Circuit Breaker (if applicable):

Manufacturer: _____ TBD _____

Type: _____ TBD _____

Load Rating (Amps): _____ 1,600 _____ Interrupting Rating (Amps): _____ 65K _____

Trip Speed (Cycles): _____ TBD _____

Current Transformer Data (If Applicable):

(Enclose Copy of Manufacturer's Excitation and Ratio Correction Curves)

Manufacturer: _____ TBD _____

Type: _____ TBD _____ Accuracy Class: _____ TBD _____ Proposed Ratio Connection: _____ TBD _____

Manufacturer: _____ TBD _____

Type: TBD Accuracy Class: TBD Proposed Ratio Connection: TBD

Potential Transformer Data (If Applicable): TBD

Manufacturer: _____

Type: _____ Accuracy Class: _____ Proposed Ratio Connection: _____

Manufacturer: _____

Type: _____ Accuracy Class: _____ Proposed Ratio Connection: _____

General Information:

Is evidence of site control enclosed (see page 1)?

Yes No

Are site electrical One-Line Diagram(s) showing the configuration of all Generating Facility equipment enclosed (see page 1)?

Yes No

Enclose copy of any site documentation that indicates the precise physical location of the proposed Generating Facility (e.g., USGS topographic map or other diagram or documentation).

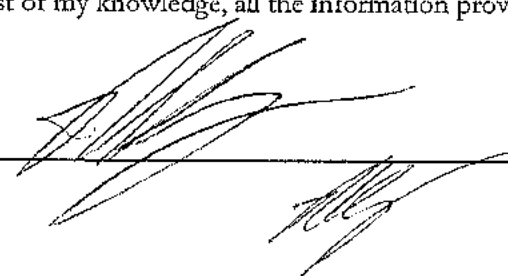
Enclose copy of municipal tax maps indicating the parcel(s) on which the proposed facility shall be located. Municipality Rochester NH Map # 240 Parcel ID # 49

Enclose copy of any site documentation that describes and details the operation of the protection and control schemes.

Applicant Signature

I hereby certify that, to the best of my knowledge, all the information provided in this Interconnection Request is true and correct.

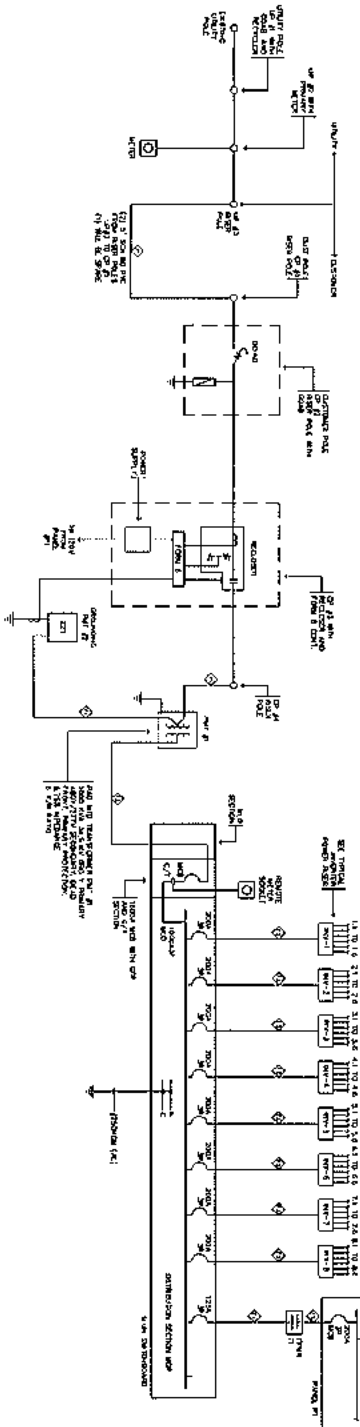
Interconnection Customer: _____



Date: _____

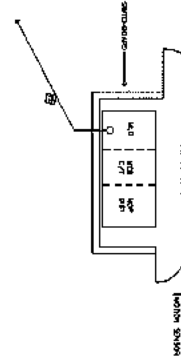
8/13/2021
1/25/2022

NOTE: FINAL UTILITY DESIGN AND INSTALLATION BY ELECTRICAL.



MAIN POWER RISER
NOT TO SCALE

INVERTER POWER RISER
(TYPICAL FOR 8)
NOT TO SCALE



PROPOSED UTILITY BLDG
1/8" = 1'-0"

RELAY/RECLOSER SETTINGS
PROTECTIVE RELAY SETTINGS

DESCRIPTION	TYPE	SETTING	SETTING	SETTING
27-1 MOTOR FEED	2	200A	2700	1.1
27-2 MOTOR FEED	2	200A	2700	2
27-3 MOTOR FEED	2	200A	2700	2
27-4 MOTOR FEED	2	200A	2700	2
27-5 MOTOR FEED	2	200A	2700	2
27-6 MOTOR FEED	2	200A	2700	2
27-7 MOTOR FEED	2	200A	2700	2
27-8 MOTOR FEED	2	200A	2700	2
27-9 MOTOR FEED	2	200A	2700	2
27-10 MOTOR FEED	2	200A	2700	2
27-11 MOTOR FEED	2	200A	2700	2
27-12 MOTOR FEED	2	200A	2700	2
27-13 MOTOR FEED	2	200A	2700	2
27-14 MOTOR FEED	2	200A	2700	2
27-15 MOTOR FEED	2	200A	2700	2
27-16 MOTOR FEED	2	200A	2700	2
27-17 MOTOR FEED	2	200A	2700	2
27-18 MOTOR FEED	2	200A	2700	2
27-19 MOTOR FEED	2	200A	2700	2
27-20 MOTOR FEED	2	200A	2700	2
27-21 MOTOR FEED	2	200A	2700	2
27-22 MOTOR FEED	2	200A	2700	2
27-23 MOTOR FEED	2	200A	2700	2
27-24 MOTOR FEED	2	200A	2700	2
27-25 MOTOR FEED	2	200A	2700	2
27-26 MOTOR FEED	2	200A	2700	2
27-27 MOTOR FEED	2	200A	2700	2
27-28 MOTOR FEED	2	200A	2700	2
27-29 MOTOR FEED	2	200A	2700	2
27-30 MOTOR FEED	2	200A	2700	2
27-31 MOTOR FEED	2	200A	2700	2
27-32 MOTOR FEED	2	200A	2700	2
27-33 MOTOR FEED	2	200A	2700	2
27-34 MOTOR FEED	2	200A	2700	2
27-35 MOTOR FEED	2	200A	2700	2
27-36 MOTOR FEED	2	200A	2700	2
27-37 MOTOR FEED	2	200A	2700	2
27-38 MOTOR FEED	2	200A	2700	2
27-39 MOTOR FEED	2	200A	2700	2
27-40 MOTOR FEED	2	200A	2700	2
27-41 MOTOR FEED	2	200A	2700	2
27-42 MOTOR FEED	2	200A	2700	2
27-43 MOTOR FEED	2	200A	2700	2
27-44 MOTOR FEED	2	200A	2700	2
27-45 MOTOR FEED	2	200A	2700	2
27-46 MOTOR FEED	2	200A	2700	2
27-47 MOTOR FEED	2	200A	2700	2
27-48 MOTOR FEED	2	200A	2700	2
27-49 MOTOR FEED	2	200A	2700	2
27-50 MOTOR FEED	2	200A	2700	2
27-51 MOTOR FEED	2	200A	2700	2
27-52 MOTOR FEED	2	200A	2700	2
27-53 MOTOR FEED	2	200A	2700	2
27-54 MOTOR FEED	2	200A	2700	2
27-55 MOTOR FEED	2	200A	2700	2
27-56 MOTOR FEED	2	200A	2700	2
27-57 MOTOR FEED	2	200A	2700	2
27-58 MOTOR FEED	2	200A	2700	2
27-59 MOTOR FEED	2	200A	2700	2
27-60 MOTOR FEED	2	200A	2700	2
27-61 MOTOR FEED	2	200A	2700	2
27-62 MOTOR FEED	2	200A	2700	2
27-63 MOTOR FEED	2	200A	2700	2
27-64 MOTOR FEED	2	200A	2700	2
27-65 MOTOR FEED	2	200A	2700	2
27-66 MOTOR FEED	2	200A	2700	2
27-67 MOTOR FEED	2	200A	2700	2
27-68 MOTOR FEED	2	200A	2700	2
27-69 MOTOR FEED	2	200A	2700	2
27-70 MOTOR FEED	2	200A	2700	2
27-71 MOTOR FEED	2	200A	2700	2
27-72 MOTOR FEED	2	200A	2700	2
27-73 MOTOR FEED	2	200A	2700	2
27-74 MOTOR FEED	2	200A	2700	2
27-75 MOTOR FEED	2	200A	2700	2
27-76 MOTOR FEED	2	200A	2700	2
27-77 MOTOR FEED	2	200A	2700	2
27-78 MOTOR FEED	2	200A	2700	2
27-79 MOTOR FEED	2	200A	2700	2
27-80 MOTOR FEED	2	200A	2700	2
27-81 MOTOR FEED	2	200A	2700	2
27-82 MOTOR FEED	2	200A	2700	2
27-83 MOTOR FEED	2	200A	2700	2
27-84 MOTOR FEED	2	200A	2700	2
27-85 MOTOR FEED	2	200A	2700	2
27-86 MOTOR FEED	2	200A	2700	2
27-87 MOTOR FEED	2	200A	2700	2
27-88 MOTOR FEED	2	200A	2700	2
27-89 MOTOR FEED	2	200A	2700	2
27-90 MOTOR FEED	2	200A	2700	2
27-91 MOTOR FEED	2	200A	2700	2
27-92 MOTOR FEED	2	200A	2700	2
27-93 MOTOR FEED	2	200A	2700	2
27-94 MOTOR FEED	2	200A	2700	2
27-95 MOTOR FEED	2	200A	2700	2
27-96 MOTOR FEED	2	200A	2700	2
27-97 MOTOR FEED	2	200A	2700	2
27-98 MOTOR FEED	2	200A	2700	2
27-99 MOTOR FEED	2	200A	2700	2
27-100 MOTOR FEED	2	200A	2700	2

INVERTER SETTINGS
PROTECTIVE RELAY SETTINGS

DESCRIPTION	TYPE	SETTING	SETTING	SETTING
27-1 MOTOR FEED	2	200A	2700	1.1
27-2 MOTOR FEED	2	200A	2700	2
27-3 MOTOR FEED	2	200A	2700	2
27-4 MOTOR FEED	2	200A	2700	2
27-5 MOTOR FEED	2	200A	2700	2
27-6 MOTOR FEED	2	200A	2700	2
27-7 MOTOR FEED	2	200A	2700	2
27-8 MOTOR FEED	2	200A	2700	2
27-9 MOTOR FEED	2	200A	2700	2
27-10 MOTOR FEED	2	200A	2700	2
27-11 MOTOR FEED	2	200A	2700	2
27-12 MOTOR FEED	2	200A	2700	2
27-13 MOTOR FEED	2	200A	2700	2
27-14 MOTOR FEED	2	200A	2700	2
27-15 MOTOR FEED	2	200A	2700	2
27-16 MOTOR FEED	2	200A	2700	2
27-17 MOTOR FEED	2	200A	2700	2
27-18 MOTOR FEED	2	200A	2700	2
27-19 MOTOR FEED	2	200A	2700	2
27-20 MOTOR FEED	2	200A	2700	2
27-21 MOTOR FEED	2	200A	2700	2
27-22 MOTOR FEED	2	200A	2700	2
27-23 MOTOR FEED	2	200A	2700	2
27-24 MOTOR FEED	2	200A	2700	2
27-25 MOTOR FEED	2	200A	2700	2
27-26 MOTOR FEED	2	200A	2700	2
27-27 MOTOR FEED	2	200A	2700	2
27-28 MOTOR FEED	2	200A	2700	2
27-29 MOTOR FEED	2	200A	2700	2
27-30 MOTOR FEED	2	200A	2700	2
27-31 MOTOR FEED	2	200A	2700	2
27-32 MOTOR FEED	2	200A	2700	2
27-33 MOTOR FEED	2	200A	2700	2
27-34 MOTOR FEED	2	200A	2700	2
27-35 MOTOR FEED	2	200A	2700	2
27-36 MOTOR FEED	2	200A	2700	2
27-37 MOTOR FEED	2	200A	2700	2
27-38 MOTOR FEED	2	200A	2700	2
27-39 MOTOR FEED	2	200A	2700	2
27-40 MOTOR FEED	2	200A	2700	2
27-41 MOTOR FEED	2	200A	2700	2
27-42 MOTOR FEED	2	200A	2700	2
27-43 MOTOR FEED	2	200A	2700	2
27-44 MOTOR FEED	2	200A	2700	2
27-45 MOTOR FEED	2	200A	2700	2
27-46 MOTOR FEED	2	200A	2700	2
27-47 MOTOR FEED	2	200A	2700	2
27-48 MOTOR FEED	2	200A	2700	2
27-49 MOTOR FEED	2	200A	2700	2
27-50 MOTOR FEED	2	200A	2700	2
27-51 MOTOR FEED	2	200A	2700	2
27-52 MOTOR FEED	2	200A	2700	2
27-53 MOTOR FEED	2	200A	2700	2
27-54 MOTOR FEED	2	200A	2700	2
27-55 MOTOR FEED	2	200A	2700	2
27-56 MOTOR FEED	2	200A	2700	2
27-57 MOTOR FEED	2	200A	2700	2
27-58 MOTOR FEED	2	200A	2700	2
27-59 MOTOR FEED	2	200A	2700	2
27-60 MOTOR FEED	2	200A	2700	2
27-61 MOTOR FEED	2	200A	2700	2
27-62 MOTOR FEED	2	200A	2700	2
27-63 MOTOR FEED	2	200A	2700	2
27-64 MOTOR FEED	2	200A	2700	2
27-65 MOTOR FEED	2	200A	2700	2
27-66 MOTOR FEED	2	200A	2700	2
27-67 MOTOR FEED	2	200A	2700	2
27-68 MOTOR FEED	2	200A	2700	2
27-69 MOTOR FEED	2	200A	2700	2
27-70 MOTOR FEED	2	200A	2700	2
27-71 MOTOR FEED	2	200A	2700	2
27-72 MOTOR FEED	2	200A	2700	2
27-73 MOTOR FEED	2	200A	2700	2
27-74 MOTOR FEED	2	200A	2700	2
27-75 MOTOR FEED	2	200A	2700	2
27-76 MOTOR FEED	2	200A	2700	2
27-77 MOTOR FEED	2	200A	2700	2
27-78 MOTOR FEED	2	200A	2700	2
27-79 MOTOR FEED	2	200A	2700	2
27-80 MOTOR FEED	2	200A	2700	2
27-81 MOTOR FEED	2	200A	2700	2
27-82 MOTOR FEED	2	200A	2700	2
27-83 MOTOR FEED	2	200A	2700	2
27-84 MOTOR FEED	2	200A	2700	2
27-85 MOTOR FEED	2	200A	2700	2
27-86 MOTOR FEED	2	200A	2700	2
27-87 MOTOR FEED	2	200A	2700	2
27-88 MOTOR FEED	2	200A	2700	2
27-89 MOTOR FEED	2	200A	2700	2
27-90 MOTOR FEED	2	200A	2700	2
27-91 MOTOR FEED	2	200A	2700	2
27-92 MOTOR FEED	2	200A	2700	2
27-93 MOTOR FEED	2	200A	2700	2
27-94 MOTOR FEED	2	200A	2700	2
27-95 MOTOR FEED	2	200A	2700	2
27-96 MOTOR FEED	2	200A	2700	2
27-97 MOTOR FEED	2	200A	2700	2
27-98 MOTOR FEED	2	200A	2700	2
27-99 MOTOR FEED	2	200A	2700	2
27-100 MOTOR FEED	2	200A	2700	2

EQUIPMENT SCHEDULE

SYMBOL	DESCRIPTION
1	120V 15A 1P 1W 1PH 1CIRCUIT BREAKER
2	120V 20A 1P 1W 1PH 1CIRCUIT BREAKER
3	120V 30A 1P 1W 1PH 1CIRCUIT BREAKER
4	120V 40A 1P 1W 1PH 1CIRCUIT BREAKER
5	120V 50A 1P 1W 1PH 1CIRCUIT BREAKER
6	120V 60A 1P 1W 1PH 1CIRCUIT BREAKER
7	120V 75A 1P 1W 1PH 1CIRCUIT BREAKER
8	120V 100A 1P 1W 1PH 1CIRCUIT BREAKER
9	120V 150A 1P 1W 1PH 1CIRCUIT BREAKER
10	120V 200A 1P 1W 1PH 1CIRCUIT BREAKER
11	120V 250A 1P 1W 1PH 1CIRCUIT BREAKER
12	120V 300A 1P 1W 1PH 1CIRCUIT BREAKER
13	120V 350A 1P 1W 1PH 1CIRCUIT BREAKER

Catherine A. Berube
Register of Deeds, Strafford County
LCHIP STA184873 25.00
TRANS TAX ST855677 1,500.00

WARRANTY DEED

KNOW ALL PERSONS by these presents that we, **HEATH W. BEAUDOIN and DARCY R. BEAUDOIN**, husband and wife, both of 21 Elmo Lane in the City of Rochester, County of Strafford, State of New Hampshire 03867, *for consideration paid*, hereby grant unto

GNM SOLAR 17, LLC, a New Hampshire limited liability company with a mailing address of P.O. Box 77, Town of Farmington, County of Strafford, State of New Hampshire 03835-0077, with *warranty covenants*, the following:

CITY OF ROCHESTER, COUNTY OF STRAFFORD:

A certain tract or parcel of land situate in the City of Rochester, County of Strafford, State of New Hampshire, being more particularly bounded and described as follows:

Northeasterly of the road leading from Salmon Falls Road, so-called, near the dwelling formerly occupied by Samuel M. Wingate, to the Main Road near the dwelling house now or formerly of Hannah Halpin; Northeasterly by land formerly owned by Asa Roberts and Samuel Roberts; Southeasterly by land now or formerly of Jessie H. Horne and Southwesterly by the Portsmouth, Great Falls and Conway Branch of the Boston & Maine Railroad; being thirty (30) acres, more or less.

This conveyance is subject to the rights of easement of Twin State Gas and Electric Company and its successors, to erect and maintain power lines thereon, also subject to certain rights conveyed to the Boston & Maine Railroad by Charles F. Roberts.

Meaning and intending to describe and convey the premises conveyed to the grantors by (a) warranty deed of Marisa Lore (Bebris) Tobey and Jane Dziedra (Bebris) Lodge dated October 13, 2004 and recorded in the Strafford County Registry of Deeds at Book 3088, Page 962, and (b) warranty deed of Velta Bebris dated October 22, 2004 and recorded in said Registry at Book 3088, Page 965.

This is NOT the homestead property of the grantors.

Property situs: 60 Shaw Drive, Rochester, NH 03867.

In witness whereof, we have executed this instrument on this the 25 day of August, 2021.

Jamie L Kean
Witness
Jamie L Kean
Witness

Heath W. Beaudoin
Heath W. Beaudoin
Darcy R. Beaudoin
Darcy R. Beaudoin

STATE OF NEW HAMPSHIRE
COUNTY OF STRAFFORD, ss

Personally appeared the above named Heath W. Beaudoin and Darcy R. Beaudoin, known to me or satisfactorily proven to be the persons whose names are subscribed above, who acknowledged that they executed the within of their own free act and deed for the purposes therein contained. Before me,

Dated: August 25, 2021

Jamie L Kean
Notary Public/Justice of the Peace
My Comm. Exp.: _____





Bright Spot Solar, LLC • 67 NH Rt. 11 • Farmington, NH 03835

Bright Spot Solar, LLC
67 NH Rt. 11
Farmington, NH 03835

Tel.: +1 (603) 833-8870
Fax: +1 (603) 332-1900
E-Mail: info@brightspot.solar
Internet: www.brightspot.solar

Project: 60 Shaw Drive
Project number: ---

Location: United States / Rochester

Grid voltage: 20.0 kV

System overview

2688 x Longi Solar LR4-72HIBD-450M (06/2020) (PV array 1)

Azimuth angle: tracked, Tilt angle: tracked, Mounting type: Ground mount, Peak power: 1.21 MWp

8 x SMA SHP 125-US-20 480V

PV design data

Total number of PV modules:	2688	Energy usability factor:	98 %
Peak power:	1.21 MWp	Performance ratio*:	87.9 %
Number of PV inverters:	8	Spec. energy yield*:	1781 kWh/kWp
Nominal AC power of the PV inverters:	1.00 MW	Line losses (in % of PV energy):	---
AC active power:	1.00 MW	Unbalanced load:	0.00 VA
Active power ratio:	82.7 %	CO ₂ reduction after 20 years:	22,030 t
Annual energy yield*:	2,154.39 MWh		

Signature

*Important: The yield values displayed are estimates. They are determined mathematically. SMA Solar Technology AG accepts no responsibility for the real yield value which can deviate from the yield values displayed here. Reasons for deviations are various external conditions, such as soiling of the PV modules or fluctuations in the efficiency of the PV modules.

Inverter designs

Project: 60 Shaw Drive

Project number:

Location: United States / Rochester

Ambient temperature:

Annual extreme low temperature: -15 °C

Average high Temperature: 22 °C

Annual extreme high temperature: 34 °C

Subproject Subproject 1

8 x SMA SHP 125-US-20 480V (PV system section 2)

Peak power:	1.21 MWp
Total number of PV modules:	2688
Number of PV inverters:	8
Max. DC power (cos φ = 1):	127.50 kW
Max. AC active power (cos φ = 1):	125.00 kW
Grid voltage:	20.0 kV
Nominal power ratio:	84 %
Dimensioning factor:	121 %
Displacement power factor cos φ :	1
Full load hours:	2154.4 h



SMA SHP 125-US-20 480V

PV design data

Input A: PV array 1

336 x Longi Solar LR4-72H18D-450M (06/2020), Azimuth angle: tracked, Tilt angle: tracked, Mounting type: Ground mount

	Input A:
Number of strings:	14
PV modules:	24
Peak power (input):	151.20 kWp
Inverter min. DC voltage (Grid voltage 20.0 kV):	705 V
PV typical voltage:	☹ 950 V
Min. PV voltage:	896 V
Max. DC voltage (PV module):	1500 V
Max. PV voltage:	☹ 1326 V
Inverter max. operating input current per MPPT:	180 A
Max. MPP current of PV array:	☹ 152.2 A
Inverter max. input short-circuit current per MPPT:	325 A
PV max. circuit current:	☹ 162.1 A

PV/Inverter partly compatible

PV array and inverter type are only conditionally compatible, since the inverter is undersized in this combination (< 95 %).

Information

Project: 60 Shaw Drive

Location: United States / Rochester

Project number:



60 Shaw Drive



Subproject 1



8 x SMA SHP 125-US-20 480V (PV system section 2)



PV array and inverter type are only conditionally compatible, since the inverter is undersized in this combination (< 95 %).

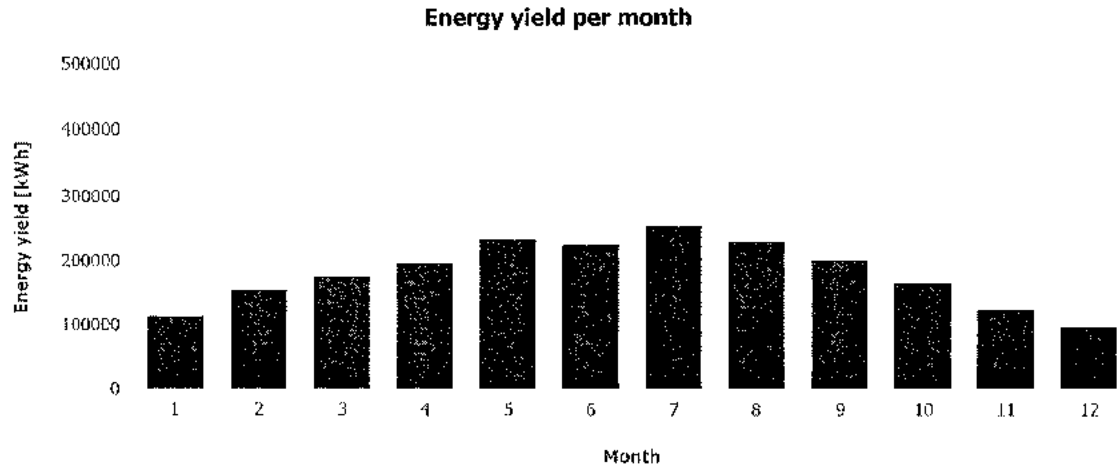
Monthly values

Project: 60 Shaw Drive

Location: United States / Rochester

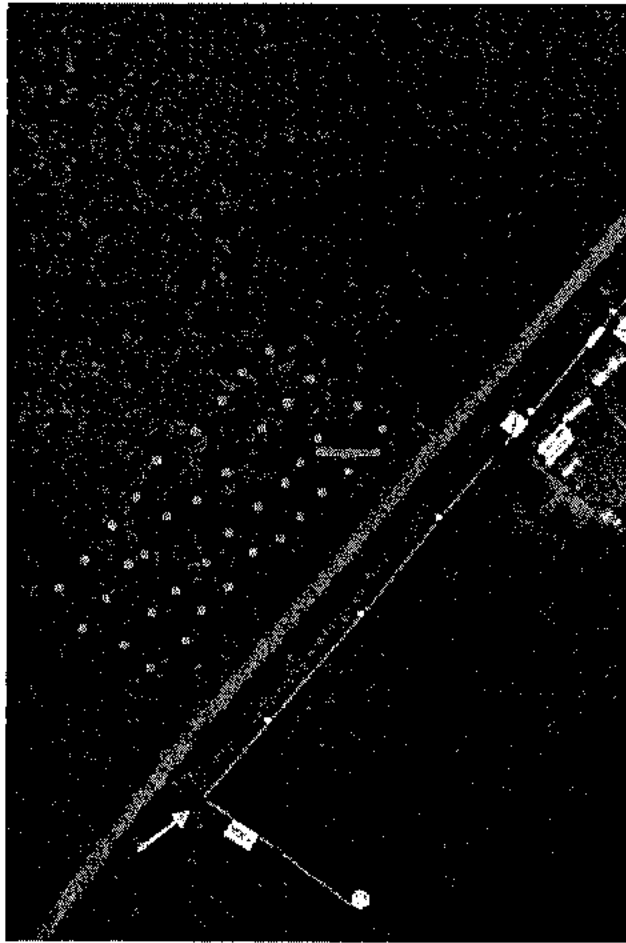
Project number:

Diagram



Table

Month	Energy yield [kWh]	Performance ratio
1	112745 (5.2 %)	91 %
2	153354 (7.1 %)	90 %
3	174538 (8.1 %)	91 %
4	195047 (9.1 %)	88 %
5	232108 (10.8 %)	87 %
6	224065 (10.4 %)	86 %
7	253006 (11.7 %)	87 %
8	228558 (10.6 %)	86 %
9	199163 (9.2 %)	87 %
10	164024 (7.6 %)	88 %
11	122466 (5.7 %)	88 %
12	95312 (4.4 %)	91 %



Bright Spot Solar, LLC

Eversource

5/17/2023

9246875070

50,000.00

TD Bank 4922

50,000.00

PRODUCT SSLT104 USE WITH 91663 ENVELOPE

Deluxe Corporation 1-800-328-0304 or www.deluxe.com/shop

07M42D 8TKDKCQ 12/00-2021 19 45 100
2441218900



Facility Study Agreement
GNM Solar 17, 60 Shaw Dr PV [T3140]

This Facility Study Agreement (this “**Agreement**”) dated as of **September 27, 2022** (the “**Effective Date**”) is entered into by and between Public Service Company of New Hampshire, dba Eversource Energy, a New Hampshire corporation having its principal place of business in Manchester, New Hampshire (“**Eversource**”), and GNM Solar 17 LLC, having a principal place of business at PO Box 77 Farmington, NH 03835-0077, (“**Generator**”). (Eversource and Generator are collectively referred to as the “**Parties**” and individually as a “**Party**”).

RECITALS

WHEREAS, Generator is proposing to develop a Generating Facility or increase the generating capacity of an existing Generating Facility consistent with the Interconnection Request completed by Generator on **January 25, 2022**;

WHEREAS, Generator desires to interconnect the Generating Facility with the Eversource Distribution System;

WHEREAS, Eversource has identified a preliminary list of interconnection facilities and/or system upgrades with respect to the proposed Interconnection of the Generating Facility; and

WHEREAS, Generator has requested Eversource to perform a Facility Study to specify and estimate the cost of the equipment, engineering, procurement, and construction work required.

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 Capitalized terms used herein but not defined herein shall have the meanings ascribed to such terms in Eversource’s Guidelines for Generator Interconnection (the “**Guidelines**”).
- 2.0 Eversource shall conduct or cause to be conducted a Facility Study in accordance with the Guidelines (the “**Facility Study**”).
- 3.0 The scope of the Facility Study is described in Exhibit A to this Agreement.
- 4.0 In conjunction with the execution of this Agreement, Eversource shall provide to the Generator a written good faith estimate of the cost of the Facility Study (the “**Cost Estimate**”). Prior to commencement of the Facility Study, the Generator shall pay 100% of the Cost Estimate to Eversource (the “**Deposit**”). The Cost Estimate shall be provided in Exhibit A to this Agreement.
- 5.0 Following the conclusion of the Facility Study, Eversource shall prepare a report

setting forth the results of the Facility Study (the “**Report**”). The Report may include, but is not limited to: (a) specification and estimation of the equipment, engineering, procurement and construction work (including overheads) needed to implement the conclusions of the System Impact Study; (b) identification of the electrical switching configuration of the equipment (including, without limitation, transformer, switchgear, meters, and other station equipment); and (c) estimation of the nature and estimated cost of Eversource’s Interconnection Facilities and upgrades necessary to accomplish the Interconnection (including, without limitation, an estimation of the time required to complete the construction and installation of such facilities).

6.0 Eversource shall use commercially reasonable efforts to provide the Report to the Generator in accordance with the estimated completion date noted in Exhibit A to this Agreement.

7.0 At any time prior to completion of the Study, Eversource may calculate the expenses that have accrued and, to the extent that the accrued expenses exceed the Deposit, Eversource may provide an invoice to the Generator. The Generator shall pay the invoice to Eversource within thirty (30) Calendar Days of the invoice date (without interest).

8.0 Within thirty (30) days of the completion of the Facility Study, Eversource shall calculate the actual costs of the Facility Study (the “**Actual Cost**”), and Eversource shall provide an invoice to the Generator.

9.0 In the event the Actual Cost exceeds the Deposit, the Generator shall pay the difference to Eversource within thirty (30) Calendar Days of the invoice date (without interest). In the event the Deposit exceeds the Actual Cost, Eversource shall pay the excess to the Generator within thirty (30) Calendar Days of the invoice date (without interest).

10.0 Miscellaneous.

10.1 Accuracy of Information. The Generator represents and warrants that, to the best of its knowledge, the information it provides to Eversource in connection with this Agreement and the Facility Study (including without limitation the data and all information provided on Generator’s Interconnection Request) shall be accurate and complete as of the date such information is provided. The Generator shall promptly provide Eversource with any additional information needed to update information previously provided.

10.2 Disclaimer of Warranty. In performing the Facility Study, Eversource may rely on information provided by the Generator and third parties and may not have control over the accuracy of such information. ACCORDINGLY, EVERSOURCE HEREBY EXPRESSLY DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, WHETHER ARISING BY OPERATION OF LAW, COURSE OF PERFORMANCE OR DEALING, CUSTOM, USAGE IN THE TRADE OR PROFESSION, OR OTHERWISE, INCLUDING WITHOUT LIMITATION IMPLIED

WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Generator acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.

10.3 Force Majeure, Liability and Indemnification.

10.3.1 Force Majeure. If a Force Majeure Event prevents a Party from fulfilling any obligations under this Agreement, such Party will promptly notify the other Party in writing and will keep the other Party informed on a continuing basis of the scope and duration of the Force Majeure Event. The affected Party shall specify in reasonable detail the circumstances of the Force Majeure Event, its expected duration, and the steps that the affected Party is taking to mitigate the effects of the event on its performance. The affected Party may suspend or modify its performance of obligations under this Agreement, other than the obligation to make payments then due or becoming due under this Agreement, but only to the extent that the effect of the Force Majeure Event cannot be mitigated by the use of commercially reasonable efforts. The affected Party shall use commercially reasonable efforts to resume its performance as soon as possible. Without limiting this section, the Generator shall immediately notify Eversource verbally if the failure to fulfill the Generator's obligations under this Agreement may impact the safety or reliability of Eversource EPS. For purposes of this Agreement, "***Force Majeure Event***" means any event or circumstance that (a) is beyond the reasonable control of the affected Party and (b) the affected Party is unable to prevent or provide against by exercising commercially reasonable efforts. Force Majeure Events include the following events or circumstances, but only to the extent they satisfy the foregoing requirements: (i) acts of war or terrorism, public disorder, insurrection, or rebellion; (ii) floods, hurricanes, earthquakes, lightning, storms, and other natural calamities; (iii) explosions or fire; (iv) strikes, work stoppages, or labor disputes; (v) embargoes; and (vi) sabotage. In no event shall the lack of funds or the inability to obtain funds constitute a Force Majeure Event.

10.3.2 Liability. Except with respect to a Party's fraud or willful misconduct, and except with respect to damages sought by a third party in connection with a third party claim: (a) neither Party shall be liable to the other Party, for any damages other than direct damages; and (b) each Party agrees that it is not entitled to recover and agrees to waive any claim with respect to, and will not seek, consequential, punitive or any other special damages as to any matter under, relating to, arising from or connected to this Agreement. Notwithstanding the foregoing, nothing in this Section 10.3.2 shall be deemed to limit Generator's obligations under Section 10.3.3.

- 10.3.3 Indemnification. The Generator shall indemnify, defend and hold harmless Eversource and its trustees, directors, officers, employees and agents (including affiliates, contractors and their employees) from and against any liability, damage, loss, claim, demand, complaint, suit, proceeding, action, audit, investigation, obligation, cost, judgment, adjudication, arbitration decision, penalty (including fees and fines), or expense (including court costs and attorneys' fees) relating to, arising from or connected to this Agreement.
- 10.4 Term and Termination. This Agreement shall be effective from the Effective Date until the earlier of (a) one year from the Effective Date and (b) the withdrawal of the Generator's Interconnection Request, unless extended in writing by the Parties. Notwithstanding the foregoing, Eversource may terminate this Agreement fifteen (15) days after providing written notice to the Generator that it has breached any of its obligations hereunder, if such breach has not been cured within such fifteen (15) day period.
- 10.5 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of New Hampshire applicable to contracts made and performed in such State and without regard to conflicts of law doctrines.
- 10.6 Severability. If any provision of this Agreement is held to be unenforceable for any reason, such provision shall be adjusted rather than voided, if possible, to achieve the intent of the Parties. If no such adjustment is possible, such provision shall be fully severable and severed, and all other provisions of this Agreement will be deemed valid and enforceable to the extent possible.
- 10.7 Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original, and all counterparts so executed shall constitute one agreement binding on all of the Parties hereto, notwithstanding that all of the Parties are not signatories to the same counterpart. Facsimile counterparts may be delivered by any Party, with the intention that they shall have the same effect as an original counterpart hereof.
- 10.8 Amendment. No amendment, modification or waiver of any term hereof shall be effective unless set forth in writing and signed by the Parties hereto.
- 10.9 Survival. The termination of this Agreement shall not relieve either Party of its liabilities and obligations, owed or continuing at the time of termination.
- 10.10 Independent Contractor. Eversource shall at all times be deemed to be an independent contractor of the Generator, and none of Eversource's employees, contractors or the employees of its contractors shall be deemed to be employees of the Generator as a result of this Agreement.

- 10.11 No Implied Waivers. No failure on the part of any Party to exercise or delay in exercising any right hereunder shall be deemed a waiver thereof, nor shall any single or partial exercise of any right hereunder preclude any further or other exercise of such or any other right.
- 10.12 Successors and Assigns. Neither Party may assign this Agreement, by operation of law or otherwise, without the prior written consent of the other Party, which consent shall not be unreasonably withheld. In the event of an assignment authorized hereunder, each and every term and condition hereof shall be binding upon and inure to the benefit of the Parties and their respective successors and assigns.
- 10.13 Due Authorization. Each Party represents and warrants to the other that (a) it has full power and authority to enter into this Agreement and to perform its obligations hereunder, (b) execution of this Agreement will not violate any other agreement with a third party, and (c) the individual signing this Agreement on its behalf has been properly authorized and empowered to enter into this Agreement. [*Signature page follows.*]

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

GNM Solar 17 LLC

Signed: _____

Name (Printed): _____

Title: _____

Eversource

Signed: _____

Name (Printed): _____

Title: Senior Account Executive, Eversource New Hampshire – Distributed Generation

EXHIBIT A

The Facility Study shall be based upon the conclusions of the System Impact Study (if completed) and/or the following assumptions. At the reasonable request of Eversource, the Generator shall promptly provide additional data to Eversource.

1) Designation of Point of Interconnection and configuration to be studied: The Project is proposed to interconnect to the 34.5kV system on Shaw Drive via the 371X5, 34.5 kV tap off of the 371P line from Portland Street Substation, which is fed by the 386 circuit from the Rochester 115kV/34.5kV substation. The POI is in the vicinity of pole# 159A/5

The project will require the following approximate upgrades:

- **Point of Interconnection (POI) requirements:** The proposed project will require an electronic SCADA Recloser with load side voltage sensing and reclose blocking, and primary metering equipped with the necessary CT's, PT's and switches. The exact POI will be determined during the facilities study for the project.
- **Capacity Performance/Thermal Overload Analysis:** The project is expected to overload the fuses near the project POI. These fuses will be removed as a part of this project. Tree trimming will be required between the fuses and end of line to maintain pre-project system reliability. No other thermal overloads were observed in any configuration.
- **ISO-NE Source Requirements:** The SMA S HP PEAK3 125-US inverters of the proposed facility are UL 1741 SA and IEEE 1547 certified. The Project inverter's voltage and frequency protection settings shall be compliant with and set to the ISO-NE SRD. All required frequency and voltage settings shall be included in the inverters and on the one line. *An updated one-line showing these settings with all the necessary changes shall be submitted if the project moves forward.*
- **Reverse Power Flow (RPF):** The project is expected to cause reverse power flow through the substations. There is no expected reverse flow through distribution line voltage regulating devices. The Rochester TB57 and Tasker TB78 transformer LTCs will be required to be programmed for reverse flow to accommodate the project. The TB53 transformer is expected to experience reverse flow only if QP1136 moves forward, and the LTC upgrade cost for TB53 therefore is not the responsibility of this project. TB78 has a capable LTC, and will only require LTC programming if QP1136 remains prior in queue.
- **Risk of Islanding (ROI):** The proposed project fails the Eversource ROI evaluation and will require upgrades to the 371X5 recloser. The required upgrades will include modification to add DSCADA capability to the recloser, the addition of voltage sensing (PT's) on the load side the device, as well as programming changes to enable block of close during voltage presence conditions on the load side of the device as well as

SCADA modifications to enable turning on/off the block of close functionality as required. The 371P breaker is already equipped with reclose blocking functionality and does not require upgrades.

- **Protection coordination Review:** A detailed protection coordination study will be completed during the execution stage if the project moves ahead. The 371X5 recloser and the POI recloser settings will be developed/modified as required at a minimum.

2) Other assumptions (listed below) are to be provided by the Generator and Eversource.

- The cost estimate resulting from this study is non-binding.
- **ISO-NE Source Requirements:** The SMA S HP PEAK3 125-US inverters of the proposed facility are UL 1741 SA and IEEE 1547 certified. The Project inverter's voltage and frequency protection settings shall be compliant with and set to the ISO-NE SRD. All required frequency and voltage settings shall be included in the inverters and on the one line. *An updated one-line showing these settings with all the necessary changes shall be submitted if the project moves forward.*
- **One Line Revision Requirements:** The Customer's one line, dated 1/21/22 shows inverter size labels that do not match the specifications sheet provided, which must be revised. The study evaluated SMA Sunny Highpower Peak 3 125-US inverters. The customer-owned GOAB switch is also shown without indication that it is lockable and 24/7 accessible, which must be revised. The grounding transformer low side voltage shall be indicated as applicable. *An updated one-line showing these settings with all the necessary changes shall be submitted if the project moves forward.*
- **Short Circuit Analysis:** The increased fault currents by the proposed projects are not expected to have any adverse impact on the EPS existing equipment. The greatest fault current measured at POI would increase by 1.12%. Additionally, the maximum fault currents at the 34.5 kV bus at both the Rochester and Tasker substations are not expected to exceed 10kA as a result of interconnecting the proposed project.
- **Effective Grounding:** The customer has proposed an effectively grounded interconnection that meets Eversource interconnection technical requirement based on an initial review. *The final grounding transformer specs (including impedance) will be reviewed in detail during the execution phase of the project should the Customer choose to move forward.*
- **Steady State Voltage Analysis:** The power generation produced by the project are not expected to deviate the area EPS voltage beyond $\pm 5\%$ of nominal.
- **Rapid Voltage Change:** The loss of the proposed generator from full output is NOT expected to change the voltage for any of the studied cases beyond the IEEE 1547-2018 specified limit. The maximum change in the voltage estimated at the POI is 0.25% during the loss of PV full output.

- **Tap Position Analysis and Cap bank operation:** The proposed project is not expected to have a significant impact on the number of operations of the LTCs for transformers TB57 & TB53 (Rochester S/S), and TB78 (Tasker S/S), provided they are programmed for reverse flow. The project is not expected to cause any capacitors to change state.
- **Flicker:** The instantaneous change in proposed generator's output from full 100% to 5% is NOT expected to change
- **Transient Overvoltage:** The customer has provided documentation for the inverter showing compliance with transient overvoltage curve in IEEE Std. 1547-2018 clause 7.4.2. *The inverter firmware version shall be demonstrated per section 3.6 during the witness test.*
- **Transmission Ground Fault Overvoltage (3V0) Evaluation:** a 3V0 detection requirement evaluation has been completed identifying the need for 3V0 protection detection at the Rochester TB53 & TB57 and Tasker TB78 transformer breakers; during the study it was also confirmed that both transformers are currently equipped with 3V0 protection.

3) Scope of Work:

Design of the above facilities. Prepare sketch with preliminary pole/pad and device locations. Prepare material list. Estimate internal crew construction costs and/or contractor crew cost. Estimate P&CE, Test & Commissioning, Tree Trimming, etc. Prepare overall project cost estimate including overheads.

4) Cost Estimate:

\$12,000.00

5) Estimated Completion Date:

40 business days from the execution of this Agreement and receive of the study deposit, whichever is later.