

BLOCK ISLAND UTILITY DISTRICT



National Grid returned to Block Island with the necessary equipment to investigate the cable conduit blockage and will make all attempts to find the blockage and clear it so they can pull in the replacement cable and splice it. An outage to the cable may take place as soon as November 5th.

BOARD OF COMMISSIONERS MEETING
OCTOBER 26, 2021
4:00 PM

Block Island Utility District
Regular Meeting of Board of Commissioners
Tuesday October 26, 2021 @ 4:00 PM

***THIS MEETING WILL BE HELD IN PERSON AT THE BIUD FACILITY AT
100 OCEAN AVENUE, BLOCK ISLAND, RI 02807
IN THE GARAGE BAY NEXT TO THE CONTROL ROOM AT THE POWER PLANT.***

1. Public Input
2. Commissioner's Report
3. Introduction of New Slate of Commissioners and Election of Officers
4. Appoint Rhode Island NRECA Director
5. Discuss and Act Upon Proposed 2022 Meeting Calendar
6. Review and Approve Regular Meeting Minutes from June 26 - July 28 - August 28, 2021
7. Receive and Act Upon Financial Report
8. Receive and Act Upon President's Report
 - a. Net Metering Application Process (Provide Clarity)
 - b. Net Metering Tariff Approval Update
 - c. Home Battery Storage Program Opportunity
 - d. TNS School Electric School Bus Project
 - e. Future Electric Car Charger Program/EV Charging Tariff
 - f. National Grid Cable Work
 - g. Introduction to BIUD Strategic Initiatives (Presented in November)
9. Receive and Act Upon Member Will Young's Offer to Donate Level 3 Charger to BIUD
10. Voltage Conversion Project Review (Will Seek Approval for \$1.5M CFC Loan in November)
11. Review and Act Upon Broadleaf Solar PPA Proposal

Individuals requesting services for the deaf and hard of hearing must call (401) 466-5851 forty-eight hours in advance of the meeting date.

The meeting location will be set up to maximize outdoor air flow and will allow for adequate social distancing.

Posted: October 19, 2021 (1:00 PM)

AGENDA ITEM 1
PUBLIC INPUT

(THIS PAGE INCLUDED FOR NOTES)

AGENDA ITEM 2
COMMISSIONER'S REPORT

AGENDA ITEM 3
INTRODUCTION OF NEW COMMISSIONERS
AND
ELECTION OF OFFICERS

Block Island Utility District

Board of Commissioners

Past Roster

Barbara MacMullan, Board Chair

Clyde Everett Shorey III, Vice-Chair

William Penn, Treasurer

Elliot Taubman, Secretary

Mary Jane Balser

New Roster

Barbara MacMullan

Elliot Taubman

Mary Jane Balser

Tom Risom

John Warfel

BLOCK ISLAND UTILITY DISTRICT ACT OF 2017

45-67-6(d) The board of utility commissioners shall elect each year from among its members: (1) A chairperson, (2) a vice chairperson, 3) a secretary, and (4) a treasurer.


AGENDA ITEM 4
APPOINTMENT OF RHODE ISLAND NRECA DIRECTOR



**BLOCK ISLAND
UTILITY DISTRICT**

dba Block Island Power Company
P.O. Box 518
Block Island, Rhode Island 02807

To: Block Island Utility District Board of Commissioners

From: Jeffery M. Wright 

Date: October 19, 2021

Re: National Rural Electric Cooperative Association (NRECA) Election of Rhode Island Representative on NRECA's Board of Directors

The Block Island Utility District became a member of the NRECA in 2019, adding Rhode Island as the 48th state represented by the national organization. Each member-state is allowed one representative to serve on the NRECA Board of Directors. Each state must hold an election every two years to elect their representative for a two-year term which starts in March of the following year.

In states where there are multiple NRECA members, the election process requires a statewide election. In Rhode Island, we are the only NRECA member so our election process is simpler and can be held at a Block Island Utility District board meeting.

The NRECA Board governs NRECA's business activities and sets policy that becomes the foundation of NRECA's bi-partisan lobbying efforts in Washington, DC. The NRECA is one of the country's largest trade organizations and represents nearly 1,000 electric and telecom cooperatives and utility districts in the country. They also manage cooperative employee benefits programs valued at nearly \$30B.

I have been privileged to serve as the Rhode Island Director since 2019. In addition to my duties as a Director, I serve on the Business Technologies and Strategies Committee and was elected by the Region 1 Directors in 2021 to serve on the Executive Committee.

I have been a NRECA champion for more than a decade now and serving on their Board of Directors has been the highlight of my career. I have lobbied for policies with Rhode Island's state-wide goals in mind and have developed professional and personal relationships that will help BIUD as we evolve as a utility district.

I would greatly appreciate your support to continue serving as the Rhode Island representative.

Notice of NRECA Director Election

To: NRECA Voting Members Located in the State of **Rhode Island**
From: Jim Matheson, NRECA Chief Executive Officer
Date: September 27, 2021



As a NRECA voting member located in the state, ***and regardless of whether you are a member of a NRECA statewide member***, you may vote for the NRECA Director. You may vote, however, only for the NRECA Director representing this state. The NRECA Director elected will serve the term which begins with the adjournment of the 2022 annual meeting of the NRECA Board of Directors (“Board”) and ends with the adjournment of the 2024 annual meeting of the Board.

NRECA notifies you that the NRECA Director representing your state for this term will be elected at the following date, time, and place, and under the following procedure:

Date: October 26, 2021

Time: 4:00 p.m.

**Place: Block Island Utility District Board Meeting
100 Ocean Avenue, Block Island, RI 02807**

Procedure: In nominating and electing the NRECA Director:

- Each NRECA voting member located in the state may select a voting delegate and alternate voting delegate, each voting delegate has one vote only, no voting delegate may vote for more than one NRECA voting member;
- Voting by proxy is prohibited, voting by mail, electronic mail, or other remote communications is prohibited, and the presence of voting delegates representing at least 20 percent of the NRECA voting members located in the state is a quorum;
- The incumbent NRECA Director presides over the election, but, if the incumbent is a candidate and comments regarding the election, then an individual designated by the incumbent, and approved by the NRECA voting members present, presides over the election;
- Any voting member director, officer, employee, or member may nominate himself or herself, or another candidate, from the floor only and no second is required;
- Voting is by secret ballot unless only one candidate is nominated, in which case the candidate may be declared elected by acclamation; and
- The NRECA Director must be elected by a plurality of votes cast (largest number of votes cast), and, if there is a tie vote, then voting is repeated and the nominee receiving the lowest number of votes is not removed from the next ballot.

A NRECA Director candidate must be located in the state, and must be a member, director, officer, or employee of a NRECA voting member in good standing located in the state.¹ To become and remain a NRECA Director, an individual must comply with the *NRECA Board of Directors Conflict of Interest Policy* (“Policy”) and annually complete and sign a *Conflict of Interest Certification and Disclosure Form* (“Form”). The *Policy*, *Form*, and the *NRECA Director Job Description* are available upon request.

For a copy of these documents, or for **administrative** questions about the NRECA Director Election process, please contact Bernita Faulkner, Liaison to the NRECA Board of Directors, at 703-907-5541 or bernita.faulkner@nreca.coop. For **legal** questions about the election process, please contact Jessica Healy, NRECA Office of General Counsel, at 703-907-5846 or jessica.healy@nreca.coop.

¹ If the individual is a director or officer of an NRECA voting member, the individual shall be considered to be “located” in the same jurisdiction as the voting member for which the individual is a director or officer. NRECA Bylaw Article III. Section 1. D. (2) a.

Report and Certification of NRECA Director Election

Following the election, please promptly complete and sign the form and return:

To: NRECA Secretary-Treasurer
c/o Bernita Faulkner, Liaison to the NRECA Board of Directors
bernita.faulkner@nreca.coop; fax: 703-907-5511; phone: 703-907-5541

Pursuant to the NRECA Bylaws, the undersigned person reports and certifies that the following eligible candidate was elected as the member of the NRECA Board of Directors representing RHODE ISLAND (state) for a two-year term beginning on March 6, 2022 with the adjournment of the 2022 annual meeting of the NRECA Board of Directors, held in conjunction with the 2022 NRECA PowerXchange (Annual Member Meeting).

NRECA Director Elected

Name: _____
Title: _____
E-Mail: _____
Phone Number: _____
Home Address: _____

NRECA Voting Member at which NRECA Director Elected is a Member, Director, Officer, or Employee

System Name: **BLOCK ISLAND UTILITY DISTRICT**
City, State: **BLOCK ISLAND, RHODE ISLAND**

Reporting and Certifying Person*

Printed Name: _____
Title: _____
System Name: _____
Signature: _____
Date: _____

*This person must be someone other than the NRECA Director-elect.

AGENDA ITEM 5
PROPOSED 2022 MEETING CALENDAR

Block Island Utility District

By Laws

ARTICLE I – STATEMENT OF PURPOSE

Section 1. The Block Island Utility District was created by legislation entitled “The Block Island Utility District Act of 2017” found at chapter 45-67 of the Rhode Island General laws (the “Act”). The Act authorizes the Utility District to provide utility products and services within the Town of New Shoreham.

Section 2. “Utility District” means the Block Island Utility District, a municipal corporation, having a distinct existence from the State of Rhode Island and empowered by the Act to:

1. Fulfill electric utility functions, powers, rights and obligations;
2. Exercise certain powers as an electric distribution company and an emergency power producer; and
3. Provide additional utility services not inconsistent with the duties, powers, and obligations of the Utility District.

ARTICLE II – MEMBERSHIP

Section 1. A “Qualified Elector” is any person whose name appears on an active account with the Utility District and who is designated by the account holder to be the qualified elector.

Section 2. No active account shall have more than one Qualified Elector, and no Qualified Elector will have more than one vote. Any corporation or other legal entity that holds an active account shall designate in writing an individual officer or other representative to serve as the Qualified Elector for such active account.

Section 3. Annually, on June 1st, the Utility District will mail a form to designate the Qualified Elector to all active account holders. The Qualified Elector Designation will be due back to the Utility District by July 1st. If no new Qualified Elector is designated, it will remain the last Qualified Elector on record.

Section 4. For any vote by Qualified Electors, the Utility District will make available a list of qualified electors thirty (30) days prior to the date of the vote.

ARTICLE III – POWERS OF THE UTILITY DISTRICT

Section 1. The Utility District shall have and may exercise all powers granted to it by the Act, subject to the requirements of the Act and applicable law.

ARTICLE IV – BOARD OF COMMISSIONERS

Section 1. The Board of Commissioners (“Board”) has the responsibility to execute the powers of the Utility District in accordance with the Act.

Section 2. The Board shall consist of five (5) members with no less than three (3) being residents of the Town of New Shoreham.

Section 3. A majority of the Board constitutes a quorum, and unless otherwise expressly required, a majority of the members shall be necessary for all actions to be taken. No vacancy in the membership of the Board shall impair the right of a quorum to exercise all the rights and perform all the duties of the Board.

Section 4. The initial Board consisted of three (3) members of the Board serving four (4) year terms and two (2) members of the Board serving two (2) year terms. Upon the expiration of the term of any member of the Board, such member's successor shall be elected for a four (4) year term. Each member of the Board must be a Qualified Elector. The term of office of any member of the Board expires upon his or her death, disability, resignation, or removal as permitted by these bylaws or applicable law and upon the certification of the election of his or her successor by the secretary of the Utility District in accordance with these bylaws.

Section 5. Board members are elected by mail ballot. Ballots will be mailed to all Qualified Electors five (5) days after the Annual Meeting and must be returned within thirty days (30). Qualified Elector candidates have thirty (30) days prior to the Annual Meeting to submit in writing their declaration of candidacy. The secretary of the Utility District will oversee the tabulation and certification of the results of any election of members to the Board.

Section 6. The Board elects annually from among its members a chairperson; a vice chairperson; a secretary; and a treasurer. Such election shall occur at the first meeting of the Board following the certification of any election by the secretary and, in any year without an election, at the meeting of the Board in the month of September.

Section 7. A Board member who misses four (4) consecutive monthly meetings of the Board may be removed from membership on the Board by a majority vote of the remaining Board members.

Section 8. In the event of a vacancy on the Board, the Board will select an eligible candidate to fill the vacancy until the next Annual Meeting.

Section 9. Board members serve without compensation for attending scheduled and special meetings.

Section 10. Approval of the Board shall be required for all employment contracts with executive employees of the Utility District and the adoption of all employee benefit plans, including fringe benefits, for employees of the Utility District.

Section 11. Annual operating and capital budgets for the Utility District will be approved by the Board and presented at the Annual Meeting.

ARTICLE V – MEETINGS

Section 1. The annual meeting of the Utility District ("Annual Meeting") will be held on a Saturday in August in each year, the specific date to be determined by the Board. Notice of the time and location of the Annual Meeting will be mailed to each Qualified Elector not less than sixty (60) days prior to the Annual Meeting. The meeting time and location will be posted according to the

requirements of Rhode Island law governing meetings of public bodies, including without limitation chapter 42-46 of the Rhode Island General Laws (the “Open Meetings Regulations”), and will also be published in The Block Island Times.

Section 2. A monthly meeting of the Board of the Utility District will be held on dates to be decided during the January Board meeting. The meeting dates will be published on the annual meeting calendar which will be listed on the Secretary of State’s and Utility District’s websites. The time, location and agenda will be posted forty-eight hours prior to the meeting.

Section 3. Special Meetings may be scheduled at the discretion of the Chairperson. The date, time, and location will be posted forty-eight (48) hours prior to the meeting. If an emergency meeting is required, the Board will follow the open meetings regulations for posting such a meeting.

Section 4. All meetings held by the Utility District are subject to the Open Meetings Regulations.

Section 5. On those issues requiring member approval, fifteen (15) Qualified Electors shall constitute a quorum. In the event that a quorum should not be reached at a meeting, the Board of Utility District the meeting will be rescheduled for another vote by the Qualified Electors.

Section 6. A Qualified Elector must present an appropriate form of identification in order to vote at any annual or special meeting.

ARTICLE VI – MONEY OF THE UTILITY DISTRICT

Section 1. All moneys of the Utility District shall be paid to the Office of the Treasurer of the Utility District.

Section 2. Money shall be deposited into separate bank account or accounts established with the approval of the Board.

Section 3. All deposits of money shall be secured by obligations of the United States and/or the State of Rhode Island as required by the Act. The market value of the securities shall not be less than the amount of the deposits.

Section 4. Money in accounts shall be paid out with the approval of the Office of the Treasurer through normal banking practices.

ARTICLE VII – CODE OF CONDUCT

Section 1. No Board member shall directly or indirectly engage or participate in proceeds of any contract or agreement to supply anything of value to or receive anything of value from the Utility District. This prohibition may be waived by a vote of four (4) of the commissioners if, and only if, the Board first obtains an opinion from the attorney general and/or the Rhode Island Ethics Commission based on full disclosure of all relevant facts that the waiver does not contravene state law and is in the best interests of the consumers served by the Utility District.

Section 2. The Board shall adopt a Conflict of Interest Policy. In the event that the Board is to

make a decision that will result in a conflict between the interests of the Utility District and the interests of an individual member of the Board, such member shall inform the Board of such conflict and shall abstain from voting on such decision. The Board may request a ruling from the Attorney General of the State of Rhode Island or RI Ethics Commission on any perceived conflict, and that ruling will be definitive.

ARTICLE VIII – INDEMNIFICATION

Section 1. This Utility District shall indemnify each current and former member of the Board, officer, manager, employee or agent, including, without limitation, members of Board committees who are not Board members, against expenses, including attorneys' fees, judgements, fines, and amounts paid in settlement actually and reasonably incurred, to the fullest extent of Rhode Island law, if:

- a. He or she conducted himself or herself in good faith; and
- b. He or she reasonably believed in the case of conduct in his or her official capacity with the Utility District, that his or her conduct was in its best interests and
- c. In all other cases, that his or her conduct was at least not opposed to its best interests and in the case of any criminal proceeding, he or she had no reasonable cause to believe his or her conduct was unlawful.

Section 2. A director is not indemnified under Section 1 in respect to any proceeding charging improper personal benefit to him or her, whether or not involving action in his or her official capacity, in which he or she has been adjudged to be liable on the basis that personal benefit was improperly received by him or her.

ARTICLE IX – BYLAWS

Section 1. These bylaws may be altered, amended and repealed and new bylaws adopted by the members of the Board at a regular or special meeting of the Board; provided, however, that prior to taking any such action, the Board shall provide notice of its intention to alter, amend, repeal, or adopt new bylaws and schedule a public hearing not less than thirty (30) days prior to adopting any such alteration, amendment, repeal or new adoption to describe the proposed change and take comment from Qualified Electors and members of the Board.

Approved: February 27, 2021

**BLOCK ISLAND UTILITY DISTRICT
BOARD OF COMMISSIONERS CALENDAR - 2022**

April						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

March						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

February						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28					

January						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

August						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

July						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

June						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

May						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

December						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31


November						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

October						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

September						
S	M	T	W	T	F	S
			1	2	3	
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

 HOLIDAYS

 REGULAR MONTHLY MEETING
ALL SCHEDULED FOR 4:00 PM

 ANNUAL MEMBERSHIP MEETING
SCHEDULED FOR AUGUST 27 @ 4:00 PM
BILL STUFFER ANNOUNCEMENT TO BE SENT ON JUNE 1

AGENDA ITEM 6
APPROVAL OF MINUTES

Block Island Utility District
June 26, 2021
9:00 AM

DRAFT MINUTES

HELD REMOTELY VIA ZOOM DUE TO COVID-19 AND TOWN OF NEW SHOREHAM
EMERGENCY ORDER

Minutes

Participating BOD Members Present via ZOOM: Barbara MacMullan, Everett Shorey, Bill Penn, Mary Jane Balser and Elliot Taubman.

Also Present: President Jeffery Wright, Renee Meyers (from BI Times) and Chris Warfel.

Board Chair Barbara MacMullan called the meeting to order at 9:01 AM.

1. Public Input

- There was no public input.

2. Correspondence

- The Board of Commissioners reviewed the correspondence received from Entech Engineering and it was entered into the record – on file.

3. Commissioner's Report

- Board Chair Barbara MacMullan reported that the net metering amendment had been voted out of the house committee and thanked the MayForth group for the hard work in pushing this amendment through.

4. Approve Meeting Minutes from the May 29, 2021 and June 18, 2021 meetings.

- Mary Jane Balser moved to approve the minutes from the May 29, 2021 meeting as presented. The motion was seconded by Eliot Taubman and was passed unanimously.
- Barbara MacMullan moved to approve the minutes from the June 18, 2021 meeting as presented. The motion was seconded by Mary Jane Balser and was passed unanimously.

5. Receive and Act on Treasurer's Report

- Treasurer Bill Penn reported that he had reviewed the disbursement through May, and all were in accordance with the financial policies and procedures.
- Bill presented the YTD financials through May 30, 2021.
- Everett Shorey moved to approve the Treasurer's report. The motion was seconded by Elliot Taubman and was passed unanimously.

6. Receive and Act on President's Report

- President Jeffery Wright presented his update – on file.

- As part of the update, he presented a power supply recommendation and asked the BOD to pass the following resolution:

The BIUD Board of Commissioners hereby authorizes President Jeffery Wright to perform a power supply solicitation directed by ENE as recommended and to execute an 18-month variable load following contract for the term starting November 1, 2021. The price not to exceed shall be 10% above the indication pricing of \$49.00 that was provided on June 24, 2021.

- Mary Jane Balser moved to approve the power supply resolution. The motion was seconded by Bill Penn and the motion passed unanimously.
- Mary Jane Balser then moved to approve the President's Report. The motion was seconded by Elliot Taubman and the motion passed unanimously.

7. Update on BIUD Commissioner Election

- Jeffery Wright provided an update on the election process. On file.

8. Update on the BIUD Appeal of the PUC Declaratory Ruling relating the Direct Assignment Facilities (DAF).

- Barbara MacMullan moved to go into closed session to receive a legal update on the subject litigation. The motion was seconded by Mary Jane Balser and the motion passed unanimously.
- Mary Jane Balser moved to come out of closed session and to seal the minutes of the close session after receiving a legal update on the subject litigation. The motion was seconded by Bill Penn and the motion passed unanimously.
- There was nothing to report.

Mary Jane Balser moved to adjourn the meeting at 10:00 AM, seconded by Elliot Taubman. The motion passed unanimously, and the meeting was adjourned.

APPROVED:

POSTED:

**Block Island Utility District
July 28, 2021
4:00 PM**

DRAFT MINUTES

THIS MEETING WAS HELD IN PERSON AT THE BIUD PLANT

Minutes

Participating BOD Members Present: Barbara MacMullan, Everett Shorey, Bill Penn, Mary Jane Balser and Elliot Taubman.

Also Present: President Jeffery Wright, Tom Risom and Dave Lewis.

Board Chair Barbara MacMullan called the meeting to order at 4:00 PM.

1. Public Input

- There was no public input.

2. Commissioner's Report

- Board Chair Barbara MacMullan reported that the net metering amendment had been passed and signed into law. Additionally, she explained the work that had gone into the net metering tariff that was being presented in this meeting. She explained that we had done financial analysis on several different interconnection and metering methods and that she felt like we were proposing a tariff that was fair to all members. She then asked President Jeffery Wright to present the tariff as part of the next, and only, agenda item.

3. Review and Act Upon Proposed Net Metering Tariff

- President Jeffery Wright presented the net metering tariff – which was included in the BOD materials and provided to all present.
- Jeffery detailed the current net metering penetration in the system and stressed the importance of the second meter for means of disconnecting the generation during times of light loads when BIUD was running their generators. The purpose for this is to disconnect the intermittent solar to ensure system stability. He explained that he had conversations with a Kauai Electric Cooperative peer in Hawaii who has stressed the importance of having the capability of shutting off the solar during times of emergency.
- Member David Lewis asked if the pricing structure was fair to those members who did not net meter and Jeffery responded that the solar credit was as close to an avoided cost as possible. He stressed that the credit would be equal to what he could buy solar on the mainland and transport it to the island for.
- Jeffery Wright presented various bill examples to compare the old tariff to the new tariff.
- Commissioner Elliot Taubman asked that we look at the technical specifications

for wind again to make sure it was correct.

- Commissioner Everett Shorey explained that he had helped do the financial analysis of the various options and felt that this was the fairest structure of all options.
- A lengthy discussion ensued regarding the maximum size of a system and it was decided that the max size of the system would be equal to 10% of the remaining cap. As an example, if there was 200 kW of capacity left in our cap, then the max size anyone could install would be 20%. The administrative challenges of this was discussed but eventually all agreed this was the fairest way to allocate capacity.
- Everett Shorey moved that we approve the tariff with two stipulations; that the language regarding the maximum size be included in the final draft and that Jeffery was to verify the technical specifications were correct. Bill Penn seconded the motion and the motion passed unanimously.
- The BIDU Board of Commissioners was thanked by member David Lewis for their hard work in developing this tariff and applauded everyone's efforts.

Barbara MacMullan moved to adjourn the meeting at 6:10 PM, seconded by Elliot Taubman. The motion passed unanimously, and the meeting was adjourned.

APPROVED:

POSTED:

AGENDA ITEM 7
FINANCIAL REPORT

Block Island Utility District
Balance Sheet
August 30, 2021

ASSETS

	August 30, 2021	August 30, 2020
<u>Property and Equipment</u>		
Land	\$ 1,167,685.78	\$ 867,685.78
Buildings	604,167.64	550,224.70
Machinery & Equipment	1,923,142.83	1,593,257.83
Distribution System	3,012,224.33	2,462,909.59
Office System, Furniture & Fixture	288,964.68	288,964.68
Transportation Equipment	47,104.63	19,945.60
Construction Work in Progress-Distributic	802,767.92	539,982.10
Total Property and Equipment	<u>7,846,057.81</u>	<u>6,322,970.28</u>
Total Accumulated Depreciation	<u><695,728.43></u>	<u><355,252.62></u>
<i>Net Utilities Plant</i>	7,150,329.38	5,967,717.66
<u>Current Assets</u>		
Cash - Main Checking	338,198.18	886,375.84
Cash - Sweep Acct	96,547.21	19,752.30
Accounts Receivable Elect	130,017.41	140,740.82
Allowance For Bad Debt	(9,251.56)	(19,587.93)
Accounts Receivable-Other	9,884.74	1,028.93
AR-Cash due from BIPCo	0.00	16,090.16
AR-Blackrock Acct due from BIPCo	0.00	0.00
Unbilled Revenue	1,035,751.56	1,134,135.38
General Material Inventory	633,754.07	349,678.01
Fuel Inventory	46,122.55	45,439.02
Prepaid Expenses	<u>35,515.19</u>	<u>22,731.57</u>
<i>Total Current Assets</i>	<u>2,316,539.35</u>	<u>2,596,384.10</u>
<u>Deferred Assets</u>		
Def. Regulatory Asset-retiremt	157,088.19	202,750.88
Def. Regulatory Asset-Eng.Res	0.00	0.00
Def. Regulatory Asset-RateCase	96,827.60	106,838.77
Def.Regulatory Asset-Interconnection	<u>82,544.43</u>	<u>123,384.12</u>
<i>Total Deferred Assets</i>	336,460.22	432,973.77
Total Assets	<u><u>\$ 9,803,328.95</u></u>	<u><u>\$ 8,997,075.53</u></u>

Block Island Utility District
Balance Sheet
August 30, 2021

LIABILITIES AND CAPITAL

	August 30, 2021	August 30, 2020
<i>Current Liabilities</i>		
Accounts Payable Trade	\$ 312,168.28	\$ 311,148.20
RI Renewable Fund Payable	0.00	0.00
A/P - Customer Deposits	105,629.13	79,147.92
Accrued Purchase Power Expenses	215,850.33	228,610.27
Accrued Other Expenses	43,123.89	10,118.21
DSI Surcharge Payable	0.00	0.00
Capital Fund	0.00	54,739.53
PPP Loan	0.00	149,837.00
Accrued Payroll and Withholdings	0.00	3,526.02
Total Current Liabilities	676,771.63	837,127.15
<i>Deferred Credits</i>		
Deferred Revenue	490,536.78	400,506.14
National Grid Fuel Deposit	50,000.00	2,668.00
SOLAR RESTRICTED ACCOUNT	14,591.16	28,335.00
VOLTAGE CONVERSION RESTRICTED	126,298.40	0.00
SCR & Engine Maint Reserve	0.00	0.00
Total Deferred Credits	681,426.34	431,509.14
<i>Long-Term Liabilities</i>		
Line of Credit	0.00	350,000.00
Line of Credit-McGinnes Settlement	300,000.00	0.00
Retirement Obligations	157,088.19	202,750.88
CFC Acquisition LOAN	5,615,165.82	5,748,387.21
Total Long-Term Liabilities	6,072,254.01	6,301,138.09
Total Liabilities	7,430,451.98	7,569,774.38
<i>Capital</i>		
Retained Earnings	1,561,782.00	815,649.00
Net Income	811,094.97	611,652.15
Total Capital	2,372,876.97	1,427,301.15
Total Liabilities & Capital	\$ 9,803,328.95	\$ 8,997,075.53

Block Island Utility District
Income Statement
For the Eight Months Ending August 30, 2021

	Current Month Actual	Current Month Prior Year	Year to Date Actual	Year to Date Budget
Revenues				
<u>Revenue from Rates</u>				
Residential Sales	\$ 305,919.85	\$ 280,407.22	\$ 904,713.62	\$ 728,194.00
Commercial Sales	28,824.40	56,767.63	88,804.47	225,843.00
Demand Electric	260,164.50	260,299.00	773,335.96	751,857.00
Public Authority	-	-	-	-
Street Lighting	584.03	584.03	4,672.24	3,504.18
Customer Charge	22,868.00	22,686.00	182,182.00	139,818.00
Demand - All Rates	27,190.10	24,697.50	213,457.38	168,942.00
Efficiency Charges	7,318.04	21,915.55	20,001.68	51,066.00
System Charge	27,075.00	28,300.00	68,750.00	72,575.00
RI Renewable Fund	659.28	559.69	2,984.44	3,878.52
<u>Other Revenue from Operations</u>	-	-	-	-
Grant Revenue-Solar Project	-	-	-	-
Grant. Income (PPP Loan forgiveness)	-	-	149,837.00	-
Billor Penalty (Interest on Delinquent Accts)	-	-	-	14,252.00
Rent - Antennas	18,891.68	18,891.68	152,633.44	151,131.84
Rent - Tower	800.00	800.00	6,400.00	6,400.00
Rent - Property	2,400.00	2,400.00	19,200.00	19,200.00
Misc. Income (Misc., Interest & Connections)	-	-	29,656.64	2,551.33
Total Revenues	702,694.88	718,308.30	2,616,628.87	2,339,212.88
Expenses				
Total Generation-Operating Expense	12,756.72	3,443.28	75,671.18	148,780.00
Total Generation-Maintenance Expense	975.76	1,204.80	56,127.43	116,466.67
Total Distribution-Operating Expense	32,011.21	27,511.19	232,205.21	228,180.67
Total Distribution-Maintenance Expense	24,406.93	21,900.90	211,879.83	242,263.33
Total Customer Accounts/Customer Service	5,400.79	4,389.00	49,750.03	44,502.67
Total Administrative/General Expenses	76,477.77	77,535.40	836,120.74	711,791.33
Total Depreciation Expenses	24,807.83	28,036.00	198,462.64	-
Total Interest Exp on Line & Long- term debt	-	-	96,430.37	122,970.00
Total Miscellaneous Expense	358.49	4,672.24	5,060.35	81,784.00
Total Taxes	5,133.81	4,582.27	43,826.12	40,255.33
Total Expenses	182,329.31	173,275.08	1,805,533.90	1,736,994.00
Net Profit Before Fuel Rev./Exp.	520,365.57	545,033.22	811,094.97	602,218.88
<u>Fuel Expenses/(Revenue)</u>				
Fuel/Standard Offer/Transmission income	(349,859.51)	(437,434.38)	(1,711,878.34)	(805,619.54)
Purchase Power Expenses	236,594.70	239,851.75	1,532,745.82	947,561.26
Net SO/TC due to ratepayers	113,264.81	197,582.63	179,132.52	(141,941.72)
<i>Net Fuel Expense/(Revenue)</i>	<i>-</i>	<i>-</i>	<i>(0.00)</i>	<i>-</i>
Net Income	\$ 520,365.57	\$ 545,033.22	\$ 811,094.97	\$ 602,218.88
<u>Reserves Expenditures</u>				
Remove Depreciation Adj (A)	(24,807.83)	(22,203.00)	(198,462.64)	-
Debt Service Principal (includes CAT)	-	-	54,017.69	56,802.00
Inventory Purchased	14,872.20	-	294,334.18	62,000.00
Proceeds from Solar fund Utilized for Capital	-	-	0.00	-
Capital Exp - Work In Progress	18,327.92	4,109.00	802,767.93	246,294.00
Capital Exp - Distrib Work	-	-	-	-
Capital Exp - Other Assets	-	-	-	-
Total Reserve for Exp.	8,392.29	(18,094.00)	952,657.16	365,096.00
Net Income Cash Budgetary Basis	\$ 511,973.28	\$ 563,127.22	\$ (141,562.19)	\$ 237,122.88

Block Island Utility District
Supplemental Information Statement
For the Eight Months Ending August 30, 2021

	August 2021	August 2020	YTD Aug 2021	YTD Aug 2020
Rate Revenues				
Residential Sales	\$ 305,919.85	\$ 280,407.22	\$ 904,713.62	\$ 746,687.41
Commercial Sales	28,824.40	56,767.63	88,804.47	163,091.01
Demand Electric	260,164.50	260,299.00	773,335.96	745,950.72
Public Authority	-	-	-	31,166.93
Street Lighting	584.03	584.03	4,672.24	4,672.24
Customer Charge	22,868.00	22,686.00	182,182.00	200,232.16
Demand - All Rates	27,190.10	24,697.50	213,457.38	131,581.13
System Charge	27,075.00	28,300.00	68,750.00	72,925.00
Total Revenues	672,625.88	673,741.38	2,235,915.67	2,096,306.60
	-0.17%		6.66%	
Rate Revenues -KWH Usage				
Residential Sales	1,073,403	983,855	4,878,788	3,679,903
Commercial Sales	83,549	165,474	393,439	794,434
Demand Electric	1,040,658	1,041,196	4,662,086	4,226,156
Public Authority	-	-	-	310,442
Total Revenues	2,197,610	2,190,525	9,934,313	9,010,935
	0.32%		10.25%	
Rate Revenues -Customer Counts				
Residential Sales	1,623	1,511	12,920	10,842
Commercial Sales	190	300	1,524	2,305
Demand Electric	150	143	891	2,260
Public Authority	-	-	-	165
Total Revenues	1,963	1,954	15,335	15,572

	August 2021	August 2020	YTD Aug 2021	YTD Aug 2020
Payroll				
Capital Exp - Work In Progress				
Capitalized Labor	\$ 6,047.28	\$ 3,199.40	\$ 112,000.71	\$ 75,012.04
Generation-Maintenance Expense				
Inside Maintenance	-	-	-	-
Maint of Station Equipment	12,303.60	4,352.88	61,412.22	98,327.88
Distribution-Operating Expense				
Overhead lines	7,483.48	5,690.64	52,744.50	11,055.28
Distribution-Maintenance Expense				
Overhead Lines	16,564.24	21,900.90	91,967.02	129,925.84
tree trimming	-	-	-	2,115.43
Customer Accounts/Customer Service				
Records & Collections	5,400.79	4,389.00	43,926.98	39,795.00
Administrative/General Expenses				
Vacation Pay	1,917.32	4,498.32	23,794.96	19,891.06
Holidays worked	2,272.00	2,122.64	13,308.16	12,603.04
Holidays not worked	-	-	-	-
Sick Leave	221.64	1,507.36	6,432.50	5,307.98
Personal time	-	600.80	3,557.05	3,251.93
CEO Salary	14,262.75	12,291.35	112,520.12	104,726.17
Total	\$ 66,473.10	\$ 60,553.29	\$ 521,664.22	\$ 502,011.65

AGENDA ITEM 8
PRESIDENT'S REPORT

PRESIDENT'S UPDATE

OCTOBER 26, 2021

Power Supply Procurement

As authorized in the July meeting, ENE assisted BIUD in a power supply solicitation/bid process. We selected Shell Energy N/A again. The load following contract is a variable percentage per month and the price is \$49.90/MWh. I considered waiting to see if prices came back down and ENE recommended against that. Looking back now, I am glad that we executed this when we did because the same contract today is over \$70/MWh.

For comparison, the past Shell contracts we have purchased are shown below:

Date	Supplier	Product	Term	Price \$/MWh
Apr25, 2017	Shell	Energy 100% Load Following	May 1, 2017 - Oct 31, 2018	\$36.77
Feb20, 2018	Shell	Energy 100% Load Following	Nov 1, 2018 - Apr 30, 2020	\$42.20
Dec19, 2019	Shell	Energy 90% Load Following	May 1, 2020 - Oct 31, 2021	\$34.85

Net Metering Application Process

The Town of New Shoreham and BIUD have been working together to ensure that projects permitted by the TNS have been reviewed and approved by BIUD and that the interconnection has been identified (single meter/double meter). We will be running an ad in the BI Times to clarify the process which is as follows:

What are the steps I need to take to before I install solar?



STEP 1: CONTACT THE POWER COMPANY (A BIUD member wanting to explore a solar installation should contact the power company first. The conversation with the member will focus on the commercial terms of the tariff and the interconnection requirements)

STEP 2: SELECT AN INSTALLER (The BIUD member should solicit a proposal from a qualified RI solar installer)

STEP 3: COMPLETE A BIUD NET METERING APPLICATION (Upon selection of an installer, the BIUD member and the installer need to complete a BIUD net metering application)

STEP 4: WAIT FOR POWER COMPANY APPROVAL (The power company will review the project with the developer and will send the member, installer and the TNS building official a copy of the approved application)

STEP 5: GET ALL NECESSARY TOWN PERMITS (The installer then applies for and obtains all the necessary permits from the TNS Building Official)

STEP 6: INSTALL, INSPECT AND TURN ON (Construction can begin and coordination of the interconnection will be coordinated with BIUD and the TNS Building Official.

We will publish a simpler version of this in the BI Times twice a month for 2-3 months. We will also post this to our website.

Net Metering Update

As of October 20th, we have still not filed our net metering tariff due to human resource challenges at McElroy and Donaldson. The tariff is ready, but we are waiting for Leah to put some finishing edits on my testimony. In the meantime, the net metering demands continue to grow. I am hopeful that by the time we meet, I can report that it has been filed.

Home Battery Storage Program

In August, the VT Electric Coop's home battery storage program was highlighted in a CFC newsletter. After reading the story I contacted a past co-worker and good friend at the Coop and asked about the program. My first question was, "does this really work?" His response was, "Yes, and its surprisingly easy to manage."

The details of their program and pricing structure are detailed in the CFC article which I've included. I also have Craig committed to presenting this at our November BOD meeting, working for BIUD to design a rate structure based on our actual costs and to assist us in working this through the necessary regulatory process. As well, there is a \$250K grant opportunity from RI-OER that I have discussed with them. Nathan Cleveland is hoping to attend our November meeting to listen to Craig's presentation.

SEE NEXT TWO PAGES PAGE FOR CFC STORY ON VE'S PROGRAM

CFC Solutions News Bulletin

Service. Integrity. Excellence.

Vermont Cooperative Invites Members to BYOB in Pilot Program

While craft brewing continues to take off across the Green Mountain State, Johnson-based Vermont Electric Cooperative (VEC) is focused a different type of BYOB.

In July, the distribution cooperative launched a pilot residential bring-your-own-battery (BYOB) program, called the

Flexible Load – Home Battery Program. The goal of the program is to tap member-owned residential energy storage to reduce its contribution to Vermont's statewide monthly peak demand and the Independent System Operator New England's (ISO-NE) annual peak demand. Reduced peak demand will lower monthly transmission charges and capacity payments to ISO-NE.

VEC serves 32,000 members across eight counties and operates independently—outside of a typical generation-and-transmission structure—and must manage its power supply through ISO-NE.

The pilot BYOB program offers a financial incentive to members in

exchange for the members' permission for VEC to draw power from the member-owned batteries—up to 40 hours a month, but not to exceed four hours in any single day.

VEC offers members flexibility in how they can participate in the program:

- Members can enroll as little as 2 kilowatts of storage, and up to the full rating of their energy storage unit—typically 5 kW for a residential battery.
- Initial program design allows members to make an informed decision about opting out after receiving an email notification from

Continued on Page 2



Amy Walter, Tony Dungy To Spotlight CFC IBES 2021

Amy Walter, publisher and editor-in-chief of the non-partisan "Cook Political Report with Amy Walter" and former NFL Head Coach Tony Dungy will take the center stage at the CFC Independent Borrowers Executive Summit (IBES) 2021, being held November 15–17 in Tampa, Florida. The conference, targeted toward senior leaders of non-Rural Utilities Service borrower cooperatives, provides critical insights on key energy industry, public policy, financial and management issues.

For more than 20 years, Amy Walter has built a reputation as an accurate, objective and insightful political analyst with unparalleled access to campaign insiders and decision-makers. Known as one of the best political journalists covering Washington, she provides analysis of the issues, trends and events that shape the political environment. She is a regular Sunday panelist on NBC's "Meet the Press" and CNN's "Inside Politics" and appears frequently on "Special Report with

Bret Baier" on Fox News Channel.

Named one of the "Top 50 Journalists" by Washingtonian magazine, Walter was dubbed one of the most powerful people in politics in George magazine for her insights into the mechanics that make the political machine run. She also won the Washington Post's Crystal Ball Award for her spot-on election predictions.

Tony Dungy is one of only three individuals to have won the Super Bowl as both a player and a head coach. His 31-year NFL career included 13 seasons as head coach of the Indianapolis Colts and Tampa Bay Buccaneers. His teams reached the postseason an unprecedented 10 straight years. In 2007, he became the first African American coach to lead a team to a Super Bowl victory when his Colts defeated the Chicago Bears. In 2016, Dungy was inducted into the Pro Football Hall of Fame. Upon retirement from coaching, Dungy became an analyst for NBC's "Football Night in America," earning an Emmy Award nomination in



Amy Walter



Tony Dungy

his first season as a commentator.

Known for a leadership style that emphasizes decency and respect, Dungy's priorities of faith and family were always evident in his coaching. He discussed these values in his best-selling memoir, "Quiet Strength: The Principles, Practices and Priorities of a Winning Life." Dungy has authored other best-sellers, including a children's book and motivational titles that reflect his principles and path to success. He and his wife, Lauren, head up the Dungy Family Foundation, a nonprofit they founded with the goal of strengthening communities by helping those in need. ▲

Vermont Cooperative Invites Members . . .

Continued from Page 1

VEC at least four hours prior to any peak-shaving event. However, members forfeit their incentive payment in any month their batteries are not available during a peak-shaving event.

- Members can choose to receive their financial incentive in monthly bill credits of \$6.40 per kW a month for 10 years or in an upfront payment of \$268 per kW, with the remainder paid as a monthly bill credit of \$3.20 per kW.

“Consider all the effects of a potential storage program on your cooperative and give your project the best chance at success by forming an energy storage committee,” VEC Manager of Power Planning Craig Kieny explained. “Engage your senior leadership, finance and accounting, member services, engineering and power supply teams to get a whole business perspective.”

Members can BYOB from any energy storage manufacturer and any installer. The only requirement is the energy storage unit be compatible with either of two supported communications platforms: Tesla Grid Logic or Virtual Peaker. So far, energy storage systems from Generac, Sonnen and Tesla are known to be on its system and compatible with the communications platforms. The cost of a typical 5-kW Tesla Powerwall system is around \$10,500.

“If your cooperative doesn’t find a way to work with its members on residential energy storage, then the vendors will offer solutions that may benefit the individual member, but may harm the rest of the membership,” Kieny said.

The program has the potential to save VEC and its members:

- 1 kW shaved off monthly peak saves \$12.50 in transmission charges for that month.
- 1 kW shaved off annual ISO-NE peak saves around \$3.80 a month for the entire year.
- Sum total of annual savings possible for 1 kW peak shaving is \$195.60 if VEC hits all 13 peaks with its storage dispatch. The cooperative assumes a 75 percent

success rate when building its financial model; however, it has experienced around 90 percent success rate predicting the 13 peaks per year over approximately two years of experience leading up to the pilot.

The pilot program is limited to four members and includes three Tesla Powerwall systems and a Sonnen battery system. Based on initial results, VEC hopes to expand the program to other members.

Prior to the pilot project, VEC was aware of around 60 Tesla Powerwalls, three Generac PWRcells and one Sonnen battery connected to its lines.

“Don’t start your program from scratch,” Kieny said. “Take advantage of VEC’s lessons learned, templates and program structures so your cooperative can implement a program in less than a year.” ▲



Craig Kieny



Vermont Electric Co-op's Power Planning Analyst Dan Potter reviews charging and dispatch information from a VEC member's residential battery. Photo courtesy VEC.

Non-Discrimination Statement

In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, American Sign Language, etc.) should contact the responsible Agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English.

To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online <https://www.usda.gov/oascr/how-to-file-a-program-discrimination-complaint> and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by:

1. **Mail:** U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights
1400 Independence Avenue, SW, Washington, D.C. 20250-9410;
2. **Fax:** (202) 690-7442; or
3. **E-mail:** program.intake@usda.gov.

This institution is an equal opportunity provider, employer and lender.

Electric School Bus

The BI Solar Initiative has donated a brand-new (and shiny!) electric school bus to the TNS School. The new bus will replace the diesel-powered bus they use today. The bus will be kept at the school and will be connected to a Level 3 charger. The charger and bus have the ability feed power back into the grid and can be used for peak shaving.

I have committed to the school that we will connect the bus charger and bill for energy using the appropriate existing tariff/rate for the 1st year. During that year, we will learn how the EV-TO-GRID feature works and that we will consider a special EV charging rate and a savings-sharing agreement if the bus proves to work for peak shaving. With ENE's help, similar to how we were going to peak shave with the generators, I think we can save on our transmission and capacity costs.

The bus should arrive in plenty of time to be connected, tested and be ready for our peak shaving pilot next summer. More information on the bus can be found at the NUVVE website.

<https://nuvve.com/buses/>

A picture of the Level 3 charger is shown below:



BIUD EV Charging / Special EV Rates

This summer we received numerous calls asking about car charging and where visitors could find a charging station. We also received many calls from home-owners and realtors who were concerned about increased usage due to their renters using household outlets in their homes to charge their vehicle. Without question, our membership is looking to us for assistance with this advancement in car technologies.

I have spoken with several electric coops who have developed special EV charging rates and even an EV charging cooperative (www.charge.coop) about their programs.

I would like to have a discussion about what the BIUD BOD thinks our roles should be in this evolution. I will also report out on a discussion we had with the DPUC and Commission staff about their thoughts.

My vision would be to offer a special time of use rate (not necessarily interruptible) for in-home Level 1 & 2 chargers, install a Level 3 charger to be used as a demonstration for local business owners at the power company and eventually purchase and operate a BIUD owned EV.

Before I propose a special rate design I will do more research and offer more insight into what others are doing but we should have something in place for the spring of 2022 so we can get ahead of the summer EV rush.

I've included a CFC story on some programs.

SEE NEXT TWO PAGES FOR EV RATE AND OTHER STORAGE STORY

CFC Solutions News Bulletin

Service. Integrity. Excellence.

Learn From Members' Electric Vehicle Rate Design Projects

CFC recently completed work on a third case study covering the design process and implementation of member-centric electric vehicle (EV) programs. The studies highlight three different approaches to implementing dynamic pricing to support current and future member EV adoption and various levels of home charging.

"Members are beginning to bring us into the fold earlier in the process to collaboratively develop and provide feedback on EV home program policy and technology considerations," CFC Vice President of Regulatory Affairs Jason Strong said. "Early evaluation of advanced metering infrastructure (AMI) data is critical to ensure a robust analysis and accurate development of rates that align with anticipated outcomes. It is important to determine—sooner than later—if AMI meter data is sufficient enough to draw conclusions."

While there is no one-size-fits-all approach, Strong explained that a traditional time-of-use (TOU) rate utilizing existing metering and charging capabilities (Level 1) may not be as effective as expected and miss the mark on what residential members are looking for from their cooperative and in an EV program.

"EV programs and accompanying rate designs will need to evolve over time as EV adoption increases," Strong said. "As market share of EVs increases on a system, so does the cost of system upgrades. TOU rates can—in the short term—shift loads to lower-cost periods and during times that the system is not currently heavily utilized." However, in situations where there are no—or inadequate—time-varying price signals from the power supply, a TOU rate may not be as effective. CFC can work with you to determine the best EV pricing strategies unique to your cooperative.



As more EVs are sold and charged at home, CFC anticipates new system peaks outside of historically traditional peak periods. Strong added, "At some point—in the not too distant future—a new peak period will be created that will require system upgrades to support the additional EV load." The key question then, is how these additional system costs should be shared among member-customers.

Contact your regional vice president to discuss whether CFC can help your cooperative today. ▲

Three rate design case studies are now available for CFC members to download and review from the CFC Industry Insights page on the CFC Member Website.

Boone Electric Cooperative (BEC) | Missouri

The cooperative and CFC began to explore new TOU rate options in 2020. BEC wanted to create a "win-win" proposition for the members and the cooperative. Time-varying rates can help distribution cooperatives shift load, thereby saving money by reducing power supply costs and other expenses related to peak loads, such as reduced run-time for peaking generation plants.



Cobb Electric Membership Corporation | Georgia

CFC worked with Cobb EMC to develop an overarching set of rate policy goals and establish a three-year rate strategy. The policy goals included expanding residential consumer choice regarding rates, improving fixed-cost recovery for the cooperative and decreasing the magnitude of any rate-related cross-subsidies of customer classes.



Roanoke Electric Membership Corporation | North Carolina

The process of implementing the EV subscription rate began in 2019 when CFC worked with Roanoke EMC to analyze the cooperative's EV goals and put together an overall EV strategy. This included developing an EV incentive program that focused initially on residential at-home charging.



Redefining How Battery Storage Scales for the Long Haul

The U.S. Energy Information Administration (EIA) expects large-scale battery storage installations to contribute 10 gigawatts to the grid from 2021 to 2023—10 times the installed capacity in 2019. The EIA also expects most large-scale storage systems coming on-line over the next three years to be colocated at power plants that produce electricity from photovoltaics.

This marks a change from the end of 2020, when the majority of large-scale battery storage systems had been built as standalone facilities. Over the next three years, if all currently announced projects become operational, the share of battery storage that is colocated with generation would increase from 30 to 60 percent.

Lower costs of installing and operating large-scale battery storage systems (BSS) support adding more capacity to store energy at each facility, which could increase the duration that systems can last when operating at their maximum power.

“Adding battery storage to solar generation assets can help firm up the asset,” CFC Vice President of Industry Research and Consulting Mark Schneider said. “This is a way of making a nondispatchable solar resource at least partially dispatchable. For example, in the late afternoon as the sun goes down and electric loads are at their peak, batteries can discharge energy into the grid that the solar panels had collected earlier in the day.”

As more large-scale BSS are connected to the grid, there has been some confusion on defining the duration of those systems. An energy storage system’s duration is the length of time it can discharge continuously at its rated output power. For example, a BSS that stores 200 megawatt-hours of energy and has a discharge rate of 50 megawatts of power would have a duration of approximately four hours. If the same system discharged at 20 megawatts of power, it would have a duration of 10 hours.

“Short-duration storage can discharge for about four hours or less, while long-duration storage can discharge for about 10 hours. There is a growing need for storage with multiday discharge capability to firm up nondispatchable renewables,” Schneider stated.

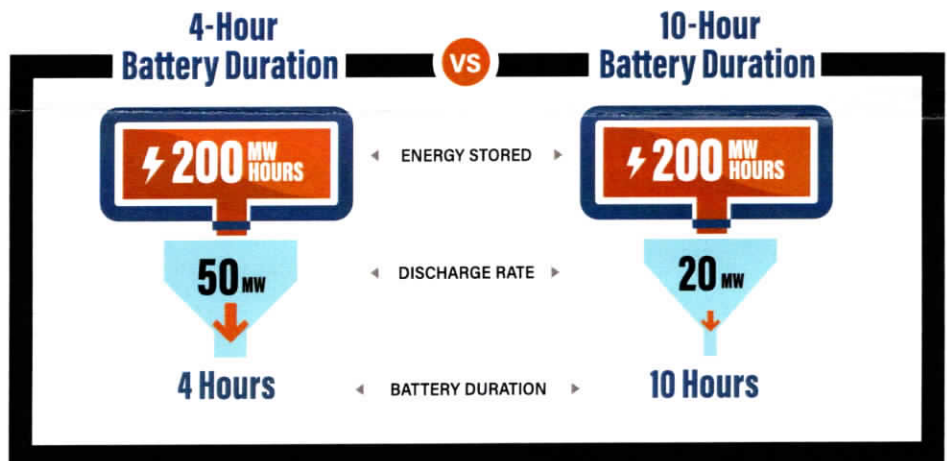
Applications for energy storage projects include:

- **Short duration, less than four hours:** Peak shaving/demand management/energy arbitrage, substation or distribution feeder upgrade deferral, frequency regulation, voltage support and black start.
- **Long duration, about 10 hours:** All short duration applications plus firming of renewables like solar to make them more like dispatchable generators and microgrid resilience applications.
- **Multiday duration, more than 24 hours:** All short- and long-term duration applications plus larger-scale resilience/reliability improvements in the face of weather events or other acute impacts on power supply.

Minnesota-based Great River Energy and partner Form Energy recently unveiled details on their upcoming first-of-its-kind, multiday storage project. The project is expected to be in operation by the end of 2023 with a 1-megawatt, grid-connected storage system capable of delivering its rated power continuously for 100-plus hours. This is in contrast to the shorter duration available from utility-scale lithium-ion batteries today.

Understanding Energy Storage Duration

Battery Duration ≠ How Long a Battery Can Store Energy



“While other battery technologies employ expensive and rare metals, iron is one of the safest, cheapest and most abundant minerals on Earth,” Great River Energy President and CEO David Saggau said.

The generation and transmission cooperative expects long-duration energy storage to have the potential to solve challenges posed by the variable nature of the most common types of renewable energy.

“While this project will be a relatively small resource on the grid, it is a leap forward for multiday duration storage,” Great River Energy Vice President and Chief Power Supply Officer Jon Brekke said. “We are optimistic that this type of resource could be very valuable as the electric system continues to evolve.” ▲



IN BRIEF

Abel, Janorschke Selected for CFC Board

At the September 29 Districts 7 and 9 meeting in Las Vegas delegates elected newcomer **Charles Abel II** to represent District 7 and reelected **Bradley Janorschke** to represent District 9. Both will serve a three-year term on the CFC Board of Directors. Abel serves as a director of Sangre de Cristo Electric Association in Buena Vista, Colorado. Janorschke serves as the general manager of Homer Electric Association and Alaska Electric and Energy Cooperative in Homer, Alaska.

NATIONAL GRID CABLE WORK

National Grid has mobilized and is planning to attempt to clear the pipe buried last year so they can install and splice the cable. They are optimistically prepared to pull cable and splice as soon as November 5th. We are prepared but I am more pessimistic. I will update the BOD by e-mail as futures updates become available.

BIUD STRATEGIC PLAN

Strategic Planning is a great exercise that is often done annually by organizations. We have made several attempts at holding a retreat for this purpose but scheduling around everyone's demands made it very difficult. With a quickly evolving industry and two new Commissioners joining us, I think it is important to at least spend some time on what I think are BIUD's strategic initiatives and give the Commission an opportunity to redirect our efforts if appropriate.

In the November meeting I will provide a summary of key initiatives and measures that we can use for this discussion.

To get you thinking about this between meetings though, my initiatives will include key focus areas such as Safety, Employee Engagement and Retention, Financial Metrics, Reliability and Resiliency, Innovation and Power Supply Initiatives.

AGENDA ITEM 9
LEVEL 3 EV CHARGER DONATION
PROPOSAL BY MEMBER WILL YOUNG

EV Charger Proposal

The Island is in need of a Level 3 EV Charger for vacationers and fulltime residents alike. I am willing to raise the funds necessary to purchase and install one at the power station. I will fund at least half of the cost with the goal of seeking donations from other individuals, non-profits and businesses to cover the full amount. I also believe this charger should benefit the community. My proposal is to have the revenue split between BIPCO and a revolving non-profit. The bulk of the revenue 60-70% or perhaps more, will go to BIPCO ensuring that the income is sufficient to maintain the charger. The smaller percentage will go to a non-profit entity which will change on an annual or less frequent cycle. I will create a small board to help determine the non-profits that will receive the income.

AGENDA ITEM 10
VOLTAGE CONVERSION PROJECT REVIEW

Block Island System Voltage Conversion

Summary

The BIUD system voltage conversion has been contemplated for decades. We are prepared to do the conversion this coming year. The benefits include; increased system capacity (2X), improved power quality and reduced system losses.

Scope

Phase One – Convert Substation, New Harbor Circuit and a portion of each circuit.

Phase Two – Convert Corn Neck Circuit

Phase Three – Convert High Street Circuit

Phase Four – Convert Old Harbor Circuit

Phase Five – Convert West Side and Airport Circuits

Schedule

Phase One – 2022

Phases Two-Five in subsequent years over the course of 5-6 years.

Cost/Budget

Phase One = \$1.3M

Subsequent Phases = TBD

Major Cost Components:

Step Transformers = \$170K

Substation Recloser = \$185K

Substation Upgrade = \$75K

National Grid Conversion = TBD

Misc Materials = \$100K

Labor = \$500K

Funding Source

\$1.5M CFC Loan (Debt Service Covered by Voltage Conversion Restricted Fund \$67K/Yr)

I am working with CFC on the loan approval. I will then seek BIUD BOD approval in November followed by DPUC approval.

I will present the project details and status in our meeting. For informational purposes a voltage conversion white paper was written by the project manager and engineers. I have also included a org chart of the team (contract resources) I have assembled for this project and a system map that shows the area to be converted during Phase One.

OVERVIEW- CONVERSION FROM 2.4 KV DELTA TO 2.4/4.16 KV WYE

The main advantage of this conversion will be the reduction of the phase current on each line which will allow additional load to be added or reduce/eliminate existing overloads, improve voltage regulation and reduce I^2R losses (power paid for by BIP but not recovered through rates.) There will be no need to replace existing transformers but they will need to be reconnected at the time of conversion to a new neutral wire that is either currently there or needs to be installed. Existing capacitors and regulators should be able to be reused by reconnecting them into a wye configuration. Since it's unlikely the entire system can be converted at the same time due to the magnitude of the work involved, a set of step transformers that take the new wye at the substation back to a 2.4 KV delta will be required on each circuit not part of the initial conversion. Each circuit could then be converted one at a time or even doing each circuit in phases by moving the steps to allow conversion in phases that match reasonable work resources. It should be noted that the neutral will need to be grounded a minimum of 4 times per mile per NESC requirements and all equipment will need to be connected to ground. The source from National Grid will now have a neutral brought into the substation that will need to be tied to ground through the substation ground grid (assumes that there is an existing ground grid). The introduction of the ground will now allow a phase that gets grounded to have fault current flow so the system will need to be analyzed to make sure that there are reclosers or fuses installed in strategic locations (i.e. all single phase side taps) to limit the size of the outage or reliability could suffer. The use of fast shots on reclosers may be desirable to allow a temporary fault to clear to reduce the number of outages that require a truck to roll. Tree trimming will need to be kept up or reliability could suffer as the new system will only need contact on one phase of the wye instead of two phases of the old delta.

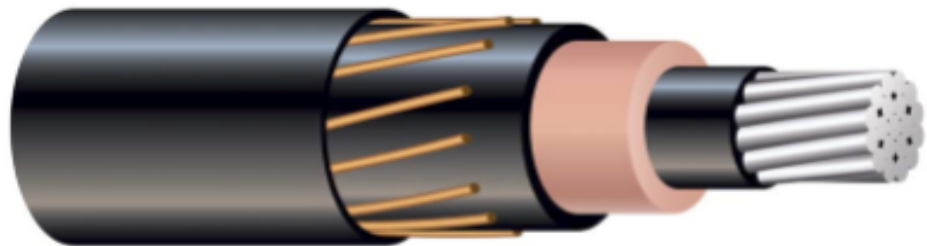
Attached is some information to get some the thought process going and we can discuss in more detail when we get together on the 24th.

AMPACITIES- UG CABLE

Underground cable typically has a normal rating based on its design temperature (older cable had lower temperature ratings such as 70° C while newer cables have a typical rating of 90° C which does allow higher ratings. Attached are some cut sheets of what may be used if new cable is needed and also some ampacity tables (The ampacities are based on a 100% LF, 20° C earth ambient temperature and an earth RHO of 90 and a 30" burial depth). Two things to note on the tables are that if multiple circuits are installed in the same duct bank then the ratings are reduced since each act as a heat source to each other so I've shown what the ratings are for a circuit that is by itself and then what the ratings are if there a three circuits close together in the same duct bank. Based on our first visit it seems that the cables are generally by themselves so it seems like the one circuit ratings could be used. There is also an emergency rating using 105° C which does allow the cable to carry a higher load for periods of time but the extra heat does degrade the cable and shorten it's life. Some utilities don't allow any overloading for this reason but others use a general rule of thumb in the industry which is not to exceed 100 hours per year and no more than 500 hours in the life of the cable. If any of the cables need to be changed out for capacity reasons a set of 3-1/c 500 MCM Cu 15 kV cables should fit in the existing conduits and not exceed percent fill or create a jam possibility when pulling.

15kV Primary UD EPR Cable

Aluminum or Copper Conductor. EPR Insulation.
Bare Copper Concentric Neutrals.
Low Density Polyethylene Jacket.



APPLICATIONS

Predominantly used for primary underground distribution in conduit systems; suitable for use in wet or dry locations, direct burial, underground duct, and where exposed to sunlight. To be used at 15,000 volts or less and at conductor temperatures not to exceed 105°C for normal operation.

SPECIFICATIONS

Southwire 15kV Primary UD EPR Cable meets or exceeds the following ASTM specifications:

- B3 Soft Annealed Copper Wire
- B8 Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard or Soft
- B230 Aluminum, 1350-H19 Wire for Electrical Purposes
- B231 Aluminum 1350 Conductors, Concentric-Lay-Stranded
- B609 Aluminum 1350 Round Wire, Annealed and Intermediate Tempers, for Electrical Purposes

Southwire 15kV Primary UD EPR Cable is manufactured to the latest edition of the following specifications, and in the order as listed:

- ANSI/ICEA S-94-649
- AEIC CS-8
- UL 1072, When Specified
- RUS 1728F-U1

CONSTRUCTION

The cable is composed of a solid or moisture blocked reverse lay, compressed stranded soft drawn copper, or a solid or moisture blocked reverse lay or unilay compressed stranded 1350-H16/26 aluminum phase conductor, covered by a semi-conducting cross-linked polyethylene strand shield, an ethylene propylene rubber primary insulation, and a semi-conducting cross-linked polyethylene insulation shield. Conductors are available with either 100% or 133% insulation levels. A concentric neutral of bare copper wires and a sunlight resistant, -40°C rated, insulating linear low density polyethylene jacket are applied over the insulation shield. The cable is identified by surface print on the jacket and with the lightning bolt symbol for supply cables indented in the jacket. Red extruded stripes available upon request. A semi-conducting polyethylene jacket is also available upon request.



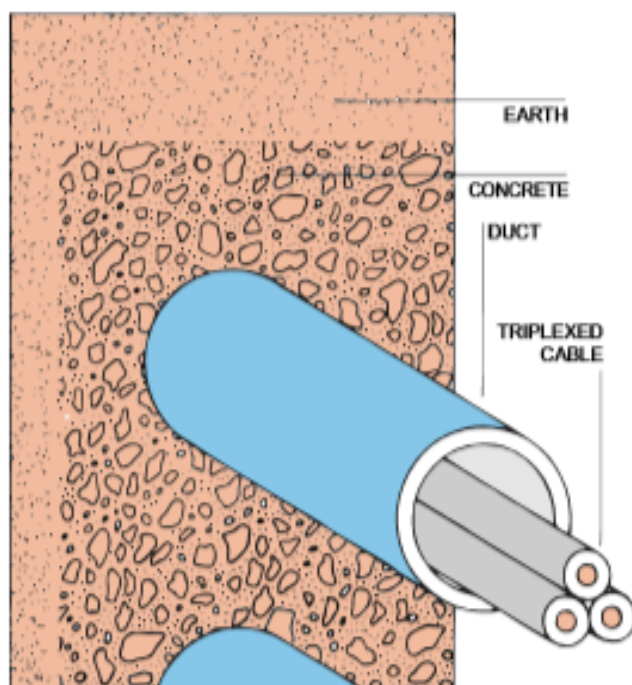
MADE
IN THE
USA

Copyright 2013, Southwire Company.
All Rights Reserved

Okonite Cables

Section 6

Ampacity Tablets



Three single or triplexed cable underground ducts

Closed shield operation. Shields bonded and grounded at multiple points. One triplexed cable or three single conductor cables in a duct. All cables equally loaded and in outside ducts only.

Earth ambient temperature 20°C

Earth thermal resistivity RHO 90

100% load factor

Depth of burial - 30" to top of duct bank with ducts on 7 1/2" centers.

One circuit — three single or triplexed conductors per duct

Table 6-10

Three single or triplexed conductors
Copper — underground ducts

Three single or triplexed conductors
Aluminum — underground ducts

Conductor Size AWG-kcmil	Non-Shielded	Shielded				Non-Shielded	Shielded			
	600-2000 Volts Ampacity	2001-5000 Volts Ampacity		5001-35000 Volts Ampacity		600-2000 Volts Ampacity	2001-5000 Volts Ampacity		5001-35000 Volts Ampacity	
	90° C (194°F)	90° C (194°F)	105°C (221°F)	90° C (194°F)	105°C (221°F)	90° C (194°F)	90° C (194°F)	105°C (221°F)	90° C (194°F)	105°C (221°F)
8	64	64	69	—	—	50	50	54	—	—
6	85	85	92	90	97	66	66	71	70	75
4	111	110	120	115	125	86	86	93	91	98
2	146	145	155	155	165	114	115	125	120	130
1	168	170	180	175	185	131	130	140	135	145
1/0	193	195	210	200	215	150	150	160	155	165
2/0	220	220	235	230	245	172	170	185	175	190
3/0	252	250	270	260	275	196	195	210	200	215
4/0	290	290	310	295	315	226	225	245	230	245
250	319	320	345	325	345	250	250	270	250	270
350	387	385	415	390	415	304	305	325	305	330
500	471	470	505	465	500	372	370	400	370	400
750	585	585	630	565	610	468	470	505	455	490
1000	670	670	720	640	690	546	545	590	525	565

Okonite Cables

Section 6

Ampacity Tablets

Three circuits — three single or triplexed conductors per duct

Table 6-11

Three single or triplexed conductors
Copper — underground ducts

Three single or triplexed conductors
Aluminum — underground ducts

Conductor Size AWG-kcmil	Non-Shielded	Shielded				Non-Shielded	Shielded			
	600-2000 Volts Ampacity	2001-5000 Volts Ampacity		5001-35000 Volts Ampacity		600-2000 Volts Ampacity	2001-5000 Volts Ampacity		5001-35000 Volts Ampacity	
	90° C (194°F)	90° C (194°F)	105°C (221°F)	90° C (194°F)	105°C (221°F)	90° C (194°F)	90° C (194°F)	105°C (221°F)	90° C (194°F)	105°C (221°F)
8	56	56	60	—	—	44	44	47	—	—
6	73	73	79	77	83	57	57	61	60	65
4	95	95	100	99	105	74	74	80	77	83
2	123	125	130	130	135	96	96	105	100	105
1	141	140	150	145	155	110	110	120	110	120
1/0	161	160	175	165	175	126	125	135	125	140
2/0	183	185	195	185	200	143	145	155	145	155
3/0	208	210	225	210	225	162	160	175	165	175
4/0	237	235	255	240	255	185	185	200	185	200
250	260	260	280	260	280	203	205	220	200	220
350	313	315	335	310	330	245	245	265	245	260
500	376	375	405	370	395	297	295	320	290	315
750	461	460	495	440	475	369	370	395	355	385
1000	523	525	565	495	535	426	425	460	405	440

Six circuits — three single or triplexed conductors per duct

Table 6-12

Three single or triplexed conductors
Copper — underground ducts

Three single or triplexed conductors
Aluminum — underground ducts

Conductor Size AWG-kcmil	Non-Shielded	Shielded				Non-Shielded	Shielded			
	600-2000 Volts Ampacity	2001-5000 Volts Ampacity		5001-35000 Volts Ampacity		600-2000 Volts Ampacity	2001-5000 Volts Ampacity		5001-35000 Volts Ampacity	
	90° C (194°F)	90° C (194°F)	105°C (221°F)	90° C (194°F)	105°C (221°F)	90° C (194°F)	90° C (194°F)	105°C (221°F)	90° C (194°F)	105°C (221°F)
8	48	48	52	—	—	38	38	41	—	—
6	62	62	67	64	68	48	48	52	50	54
4	80	80	86	82	88	62	62	67	64	69
2	103	105	110	105	115	80	80	86	80	88
1	117	115	125	120	125	91	91	98	90	99
1/0	133	135	145	135	145	104	105	110	105	110
2/0	150	150	160	150	165	117	115	125	115	125
3/0	170	170	185	170	185	133	135	145	130	145
4/0	193	195	210	190	205	151	150	165	150	160
250	211	210	225	210	225	165	165	180	165	175
350	252	250	270	245	265	197	195	210	195	210
500	301	300	325	290	310	238	240	255	230	250
750	365	365	395	350	375	292	290	315	280	305
1000	412	410	445	390	415	336	335	360	320	345

AMPACITIES- BARE OH COPPER

Bare copper wire has a normal rating of 75° C which produces the ampacities shown in the Southwire cut sheet based on the parameters shown at the bottom of the sheet. Generally hard drawn copper is used for OH primary distribution as it has the most strength. Some additional charts are attached that also show an overload ampacity that some utilities allow (up to 100° C) but the danger of allowing the wire to go to the higher temperatures may start to anneal the copper which drops the rated strength significantly as shown in the first cut sheet. The sag of the conductor also has to be considered as these higher temperatures will create additional sag which may contact lower wires on the pole or trees.

Thu Mar 21 11:12:22 EDT 2013

Page 2 of 3

Bare Copper

Size (AWG)	Stranding	Stranding Class	Weight (lbs/1000 ft)	Diameter (mils)		Hard Drawn		Medium-Hard Drawn		Soft-Drawn (Annealed)		Allowable Ampacity+
				Individual Wires	Complete Conductor	Rated Strength (lbs)	DC Resistance (ohms/1000 ft) @20°C	Rated Strength (lbs)	DC Resistance (ohms/1000 ft) @20°C	Rated Strength (lbs)	DC Resistance (ohms/1000 ft) @20°C	
STRANDED												
8	7	B	51	49	146	777	.6663	810	.6629	499	.6408	95
6	7	B	81	61	184	1228	.4191	959	.4169	794	.4030	130
4	7	A, B	128.9	77	232	1938	.2636	1505	.2622	1320	.2534	170
3	7	A, B	162.5	87	260	2433	.2090	1885	.2079	1670	.2010	200
2	7	A, B	204.9	97	292	3050	.1660	2360	.1650	2110	.1578	230
1	7	A	258.4	109	328	3801	.1316	2955	.1309	2552	.1252	265
1/0	7	A, AA	326.1	123	368	4752	.1042	3705	.1037	3221	.1002	310
2/0	7	A, AA	410.9	138	414	5926	.08267	4640	.08224	4062	.07949	355
2/0	19	B	410.9	84	418	6690	.08267	4765	.08224	4024	.07949	355
3/0	7	A, AA	518.1	155	464	7366	.06556	5812	.06522	5118	.06304	410
4/0	7	A, AA	653.3	174	522	9154	.05199	7278	.05172	6459	.04999	480
4/0	19	B	653.3	106	528	9617	.05199	7479	.05172	6453	.04999	480
250	19	A	771.9	116	574	11360	.04400	8836	.04378	7627	.04231	530
250	37	B	771.9	82	575	11600	.04400	8952	.04378	7940	.04231	530
300	19	A	926.2	126	628	13510	.03667	10530	.03648	9160	.03526	590
350	19	A	1080.6	136	679	15590	.03143	12200	.03127	10680	.03022	650
500	37	A, B	1543.8	116	814	22510	.02200	17550	.02189	15240	.02116	810
600	37	A, AA	1852.5	127	891	27020	.01834	21080	.01825	18300	.01763	910
750	61	A, B	2315.6	111	998	34090	.01467	26510	.01459	22890	.01410	1040
1000	61	A, B	3087.5	128	1152	45030	.01100	35100	.01094	30500	.01058	1240

*Ampacity based on 75°C conductor temperature; 25°C ambient temperature; 2 ft./sec. wind in sun.

BARE COPPER				
	Summer Ampacity		Winter Ampacity	
Size	Normal	Emergency	Normal	Emergency
#6 3 Str	130	160	165	185
#6 Solid	125	150	155	175
#4 3 Str	175	215	220	250
#4 Solid	165	205	210	240
#3 7 Str	200	245	250	285
#2 7 Str	230	280	290	330
#2 3 Str	235	290	300	340
#2 Solid	225	275	285	320
#1 7 Str	265	330	335	385
#1 3 Str	275	340	350	395
#1/0 7 Str	310	380	390	445
2/0 7 Str	355	440	455	520
3/0 7 Str	410	510	525	600
4/0 19 Str	480	595	615	700
250	535	665	685	785
300	595	745	770	880
350	660	825	850	970
400	715	895	925	1060
500	820	1030	1065	1220
700	1005	1270	1315	1510
1000	1240	1570	1625	1870

PARAMETERS USED TO CALCULATE AMPACITIES				
	Summer Ampacity		Winter Ampacity	
	Normal	Emergency	Normal	Emergency
Ambient Temp. (°C)	26.7	26.7	4.4	4.4
Bare Wire Conductor Temp (°C)	75	100	75	100
Covered Wire Conductor Temp (°C)	75	85	75	85
Spacer Cable Conductor Temp (°C)	75	100	75	100
Tree Wire Conductor Temp (°C)	75	90	75	90
Wind Speed (Ft/Sec)	2	2	2	2

CONVERSION ISSUES FOR DISCUSSION

- **ROTATION**

Rotation needs to be determined before the conversion on the substation and on all 6 feeders. The substation rotation needs to be confirmed immediately after the conversion and then as each circuit is picked up with proposed steps the rotation needs to be confirmed to make sure the step connections were all done correctly.

- **PHASING**

All circuit open points need to have their phasing checked after the conversion to make sure that the step connections were all done correctly.

- **STEP TRANSFORMERS**

Since conversion of the entire system at one time to a wye system would require significant resources, a set of steps could be installed on each circuit to allow it to remain a 2.4 kV delta circuit until a later date when each circuit could be converted one at a time. There are several ways to connect these steps on the source side (grounded wye, floating wye and delta) with each method having its pros and cons. The eventual decision may be based on input from a Protection & Controls (P&C) Engineer as to the best way to clear a fault downline.

- **Protection & Controls (P&C)**

The entire substation, diesel interconnection and circuits need to be evaluated by an experienced P&C engineer to make sure everything coordinates including with the National Grid protection back at the source substation. Typically, a wye system has ground trip relays that help provide better fault clearing than just phase over current protection so they will probably recommend that as a minimum.

- **Diesel Generators**

The diesel generators will need to be reconnected into a wye configuration and phased into the new system and may require additional protection systems.

- **NEUTRAL**

National Grid will bring a neutral from their substation into the BIPCO substation where it will need to be tied into the substation ground grid (assumes there is an existing ground grid). The substation fence should be tied into the ground grid and it's a common practice to have a buried ground wire outside the fence approximately 3 feet to provide an equipotential zone in case someone is outside and touching the fence during a fault event. As each circuit is converted a neutral will need to be run from the substation for all three phase portions of the circuit. If two circuits share the same pole line they can share the same neutral until they split and then a separate neutral is required for each circuit. During the initial visit it appears that there may

already be extra wires that can be used for a neutral but they were generally not in the typical lower position on the pole so a way to consistently identify which conductor is the neutral needs to be determined so line crews always know which wire is the neutral. For all existing single phase taps there is no need for any additional wires but one of two wires will have to be the designated neutral and identified as such. It could either be moved down on the pole or left on the cross arm with some sort of identification. As each circuit is converted from a delta to a wye, each transformer needs to have the H2 tap moved to the neutral. If there is a cutout/LA on this tap it needs to be removed.

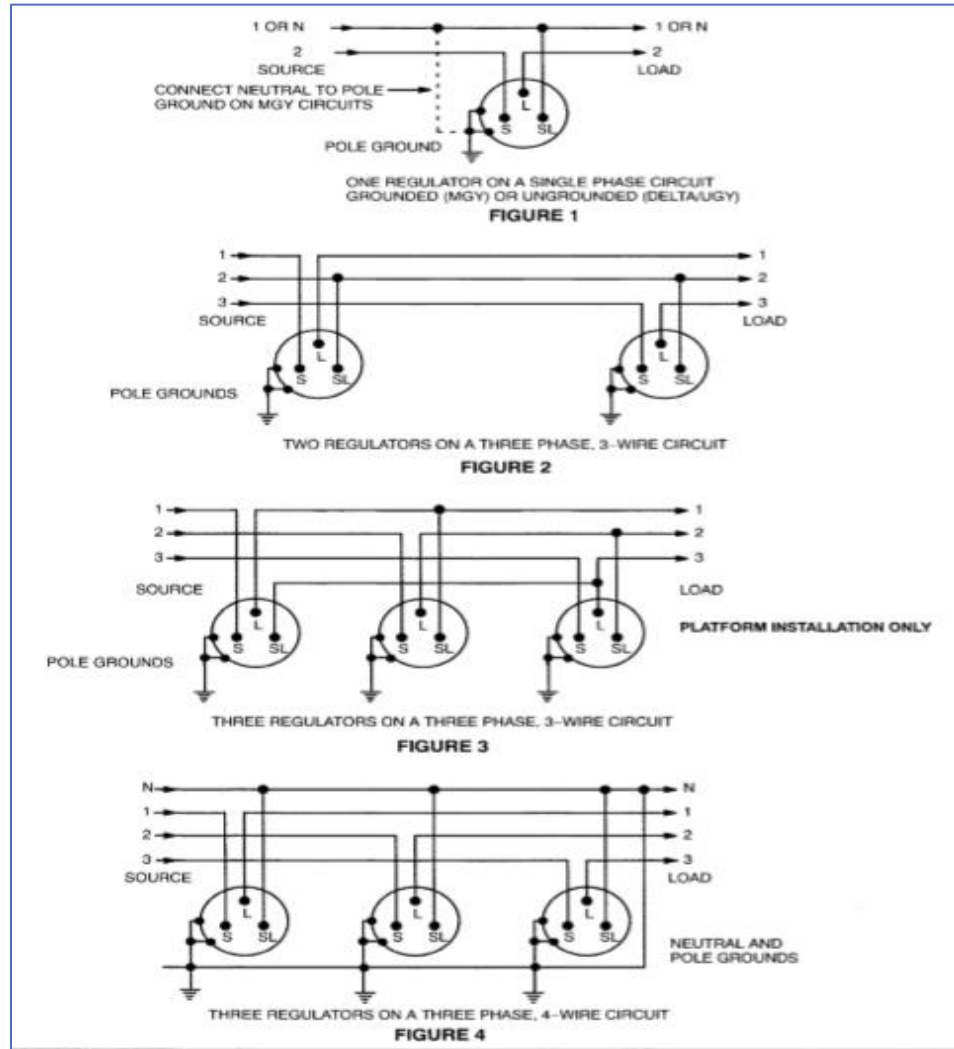
- **CIRCUIT GROUNDING**

All equipment, racks, cable grounds, riser poles, controls, etc, will need to have an 8' driven ground at that pole location (controls and LB switch locations should have a second ground rod driven at that location 8' from the first ground rod or a ground mat installed for worker safety). Also, the NESC requires a minimum of 4 pole grounds per mile to tie the neutral to ground so if there is not enough equipment in a given mile then additional grounds need to be driven to satisfy the NESC. All guy wires also need to get tied into the neutral.

- **REGULATORS**

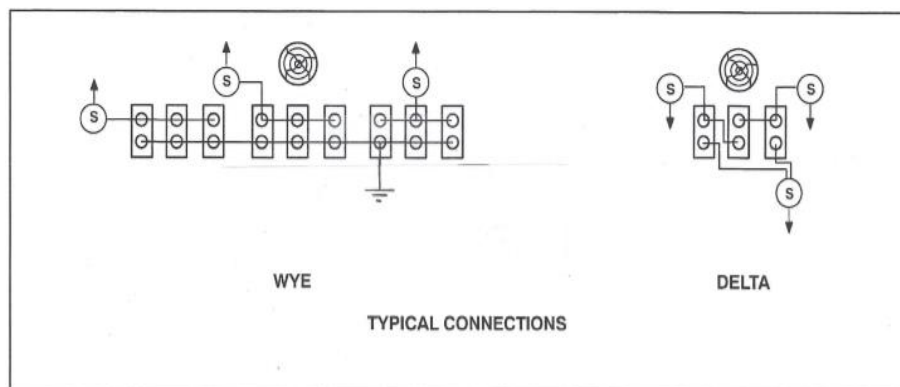
Regulators that are currently connected in a delta connection (figure 3 below) will need to be reconnected into a wye (figure 4 below).

AGENDA ITEM 11
BROADLEAF SOLAR PPA



■ **CAPACITOR BANKS**

If there are any capacitor banks on the system, they will also need to be reconnected from a delta to a wye connection.



Block Island Utility District
2400V Delta – 4,160 Wye Voltage Conversion Plan
Step Transformer Locations



Jeff Wright
Block Island Utility District
President
e-mail: jwright@blockislandutilitydistrict.com
802-730-4233

Tom Durden
Block Island Utility District
Distribution Operations
t2blockisland@aol.com
401-529-0837

Ken Tripp
Tripp Utility Consulting and Project Management
On-Island Director of Capital Projects
Future e-mail: ktripp@blockislandutilitydistrict.com
Current e-mail: ktripp1130@gmail.com
802-487-5177

Barry Donovan
WSSI
Project Manager
e-mail: barry@workplacesolutions.com
802-558-7511

Control Point
Relay/P&C
e-mail: _____
Cell: _____

Jim Eilenberger
WSSI
Engineering
e-mail: jeilenberger@power-sales.com
Cell: _____

Greg Horne
3Phase Line Construction
Distribution General Foreman
hornestew@aol.com
802-673-7447

Panos Tokadjian
New England Power Consulting
Substation/SCADA Construction
panos@newenglandpowerconsulting.com
781-706-6735

ENE AND BIUD MANAGEMENT RECOMMENDATION

This project would add another renewable resource to our growing portfolio. The solar production curve matches our summer-time load profile well and there we have more room for additional solar resources because of this correlation. It is also aligned with our Power Supply Procurement Plan approved by the RI-PUC in June of 2021.

The project is priced slightly above the price point for the Gravel Pit PPAs but is still reasonable given today's market. It is long term and includes Class I Renewable Energy Credits which are priced today between \$10-\$35. After consultation with Energy New England, I am recommending that the BIUD BOD authorize me to execute a power purchase agreement with DESRI for 580-630 MWh at a FIXED price of \$57.50 for 25 years.

The contract is similar to the Gravel Pit contract, it will be reviewed by our power supply lawyer John Coyle of Duncan and Allen and will include the stipulation that it requires all the necessary RI regulatory approvals.

PROJECT DETAILS

Project Name: Broadleaf Solar

Developer: DESRI (DE Shaw Renewable Investments)

Project Location: Currently being developed around East Granby, CT

(The developer has requested flexibility in determining the where the project will be located. We have limited their flexibility to the Connecticut River Valley transmission corridor in the Connecticut Load Zone, Western/Central Massachusetts Load Zone or the New Hampshire Load Zone)

Project Interconnect Point: TBD

ISO-NE Queue Position: (Queue will be known once the location is finalized)

Technology: Solar PV (the developer will be utilizing single axis tracker panels for some of the array)

Project Size: 100 MW AC

Approximate Annual Production: 182,000 MWh

Contract Term: 25 Years

Estimated Commercial Operation Date: 4th Quarter 2024

BLOCK ISLAND'S ALLOCATION

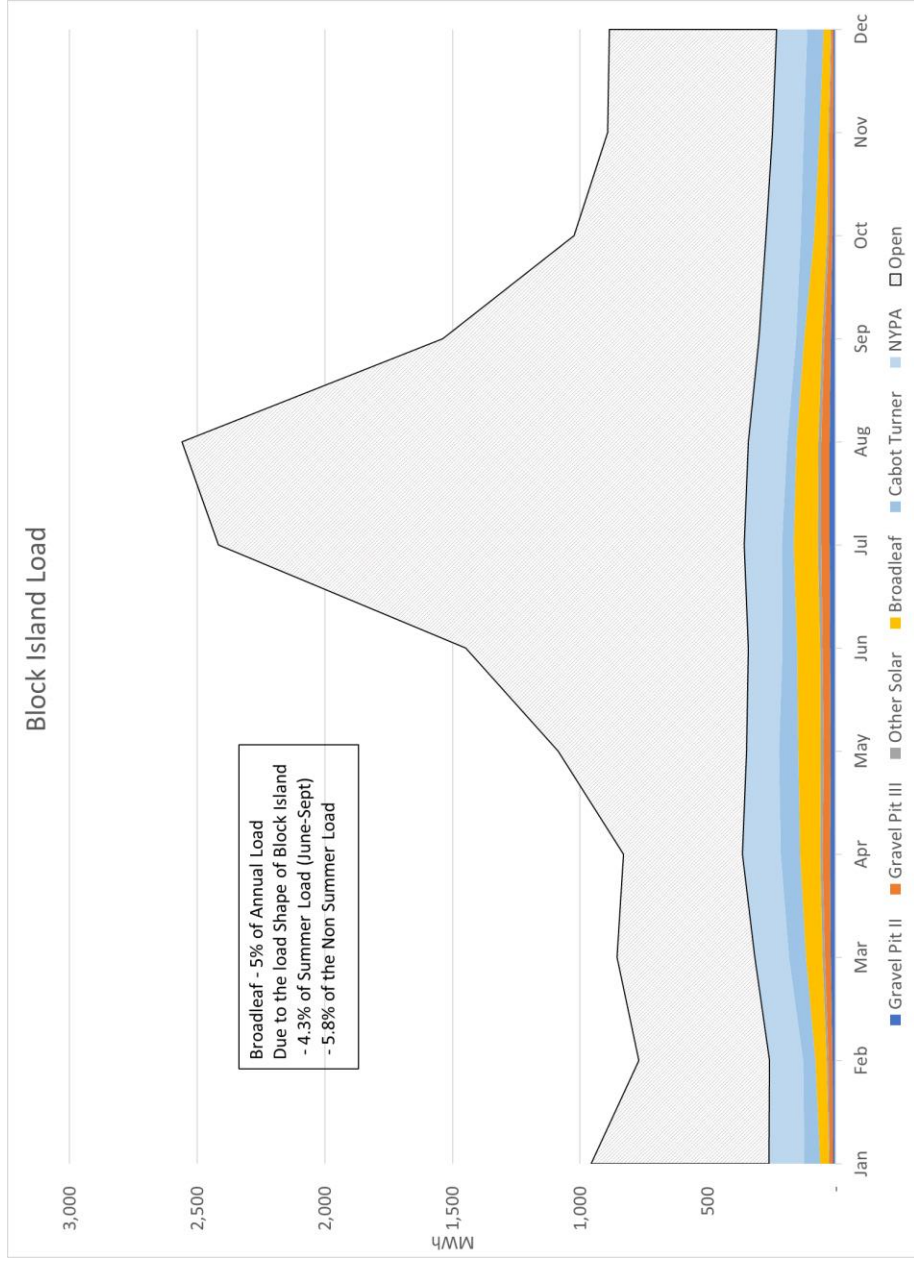
Percentage of Project: 0.32 to 0.36% of the project

MW (equivalent): 0.32 to 0.36 MW

MWh: 580 to 630 MWh

% Block Island Resource Needs in 2024: 3.8% to 4.3%

Impact of Broadleaf



Renewable Resource

