

STATE OF RHODE ISLAND
PUBLIC UTILITIES COMMISSION

IN RE: BLOCK ISLAND UTILITY DISTRICT :
ANNUAL RECONCILIATION OF LAST RESORT : DOCKET NO. 5245
SERVICE AND TRANSMISSION EXPENSE :

BLOCK ISLAND UTILITY DISTRICT'S RESPONSES TO
PUBLIC UTILITY COMMISSION'S SECOND SET OF DATA REQUESTS
(Issued April 27, 2022)

- 2-1. Referencing PUC 1-6, please confirm that the pie chart shows the following supply contract percentages:
- Bilateral purchase: 69%
 - ISO Adjusted net interchange: 11%
 - NYPA purchase: 10%
 - Cabot/Turners: 8%
 - BIUD solar: 0.7%
 - Gravel pit solar III: 0.5%
 - Gravel pit solar II: 0.4%

Response:

Yes, those are the percentages from the pie chart.

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- 2-2. Referencing BIUD's response to PUC 1-7, please explain the following:
- a) Please clarify what the MWH column represents. Please explain how BIUD calculated the monthly values in the MWH column. If it is not the number of MWH that would need to be replaced each month due to the Gravel Pit delays, please explain.
 - b) Please confirm that the \$/MWH column represents a projection of the replacement power and not the incremental cost per MWH;
 - c) Please clarify what the Replacement Costs represent and their unit (\$/MWH, or something else). In your response, confirm whether or not they are the same as the spot market price.
 - d) Please explain how BIUD calculated the Replacement Cost estimates. In your response, clarify whether the estimates represent a weighted or unweighted average. If it is weighted, please describe the weighting process.
 - e) Please identify the documentary source from which the projected replacement power cost was calculated.
 - f) Please provide an updated table that includes the following: additional rows to cover the period June 2023 through December 2023; an additional column showing the total amount (in dollars) of the projected Replacement Costs for each month, through May 2023, and, an additional column showing the difference between the total monthly supply costs included in the current filing vs. the total monthly supply costs included in the current filing plus the additional Replacement Costs, through May 2023.

Response:

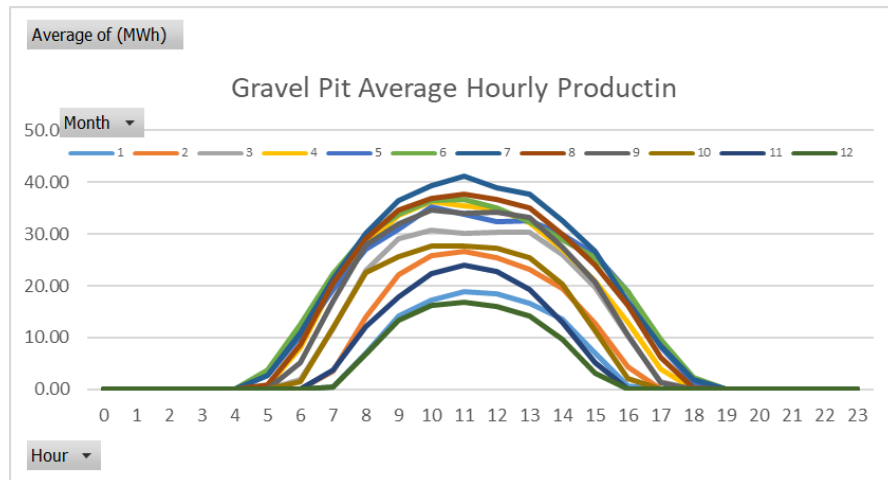
- a) The MWH column represents the estimated BIUD share of the Gravel Pit II and III projects.
- b) This value represents replacement cost and not incremental cost.
- c) Replacement cost is in \$/MWh and are the same as the spot market price for the Sunday through Saturday for Hour Ending 0800 through Hour Ending 2300.

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- d) Where the solar output is variable based on the cloud cover and time of year, we used an estimate for the Sunday through Saturday for Hour Ending 0800 through Hour Ending 2300 time period based on the fact that most of the MWh occur during these hours.



- e) We used the Forward Curve as developed by Energy New England which are based off a broker end of the day market report for On Peak and Off Peak Power of ISO-NE Mass Hub.
- f) Below is an updated table through December 2023.

Month	Gravel Pit MWh	Approx % of BIUD Load	Replacement Cost (\$/MWh)	Incremental Cost (\$/MWh)	Incremental Cost (Dollars)
Jan-23	22.05	2.1%	\$221.10	\$168.72	\$3,721
Feb-23	28.22	3.2%	\$222.20	\$169.82	\$4,792
Mar-23	40.87	4.4%	\$106.95	\$54.57	\$2,231
Apr-23	50.88	5.8%	\$52.65	\$0.27	\$14
May-23	45.26	4.3%	\$43.80	\$(8.58)	\$(388)
Jun-23	51.21	3.5%	\$46.00	\$(6.38)	\$(326)
Jul-23	55.26	2.2%	\$56.10	\$3.72	\$206
Aug-23	54.66	2.1%	\$57.50	\$5.12	\$280
Sep-23	43.14	2.6%	\$44.35	\$(8.03)	\$(346)
Oct-23	24.62	2.3%	\$50.45	\$(1.93)	\$(47)

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Nov-23	22.93	2.4%	\$75.35	\$22.97	\$527
Dec-23	14.24	1.4%	\$112.10	\$59.72	\$850

- Replacement Costs is based on April 29, 2022 forward curve. ENE takes the On Peak and Off Peak prices to establish the Sunday-Saturday HE0800-HE2300 Price.
- Incremental Cost equals Replacement Cost minus Average Gravel Pit II & III contract price.

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- 2-3. Assume for purposes of this question that the Gravel Pit project is delayed through the end of 2023. Please estimate the lost revenue (in dollars) from Gravel Pit RECs that BIUD would have otherwise resold had there been no project delay. In your response, please break out the lost revenue by month.

Response:

Based on today's current market, BIUD expected revenue from the sale of the RECs from both the Gravel Pit II and III would have been around \$8,000 through 12/31/2023. Gravel Pit II would have produced and minted approximately 99 RECs while the Gravel Pit III would have produced approximately 133 RECs.

There is a lag between generation of MWh and minted RECs. For example, generation during the first quarter of the year are not minted until July 15 of that year.

To come up with this number we took the average bid price of three brokers and discounted that number by \$1.00/REC to arrive at the above approximate value.

MA Class 1				
Year	Amerex	ICAP	Trident	Mid
2022	\$ 38.50	\$ 37.00	\$ 37.25	\$ 37.58
2023	\$ 36.00	\$ 35.10	\$ 35.50	\$ 35.53
Average May-22 through April 23				\$ 36.90

Please note that since the first quarter RECs would not be minted until July 2023, they have not been factored into Attachment 1. The loss of revenue on the RECs thus would have not any impact to the project rates for period ending April 2023.

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2-4. Referencing PUC 1-10, BIUD provided a narrative around the increase in the ISO Net position charges, but did not provide supporting evidence/documentation. Please provide schedules and any other relevant documentation to support the numbers included in the narrative.

Response:

Below is the supporting documentation that went into the determination of the ISO Net Position value of \$154,156. We took the forecasted load and then subtracted out the total purchases to come up with the ISO Net Position MWh. We then apply the forward curve as of 3/15/2022 to come up with the ISO Net Position Dollars. We have included the forward curve from March 15, 2022 that ENE used to calculate the ISO Net Position Dollars. The figure utilizes both on and off peak prices to come up with the forecasted figure.

Year	2022	2022	2022	2022	2022	2022	2022	2022	2022	2023	2023	2023	2023
Purchase Power Projections													
	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	
Load	1,052	1,477	2,525	2,647	1,642	1,077	958	995	1,070	876	937	882	
MWH													
Bilateral Purchase	621	1,152	1,969	2,065	1,281	635	565	587	631	517	553	520	
Solar Project	4	4	4	4	4	4	4	4	4	4	4	4	
Gravel Pit Solar II	-	-	-	-	-	-	-	-	10	12	17	21	
Gravel Pit Solar III	-	-	-	-	-	-	-	-	12	16	24	30	
Cabot/Tuners	161	124	95	81	67	113	134	141	100	79	108	123	
NYP&A Power Purchase	128	136	144	156	144	133	125	117	137	131	139	146	
Total Purchases MWH	914	1,415	2,212	2,306	1,496	885	829	848	894	760	844	844	
ISO Net Position	138	61	312	341	146	192	129	147	176	117	93	38	
ISO Net Position	\$ 5,284	\$ 2,219	\$ 16,757	\$ 19,131	\$ 6,284	\$ 9,401	\$ 9,837	\$ 23,308	\$ 32,067	\$ 20,544	\$ 8,302	\$ 1,023	
Average ISO Net Price	\$ 38.40	\$ 36.17	\$ 53.64	\$ 56.07	\$ 43.11	\$ 48.97	\$ 76.04	\$ 159.06	\$ 182.01	\$ 176.01	\$ 89.50	\$ 26.57	

ENE forward Price Curve

COB Marks/Archive date --> 3/15/22 end of day mid mkt prices
 Today's date --> 3/15/22
 ZE Settle Date--> 3/15/22
 Save Path: must be in B6 --> F:\wholesale services\trading analysis\forward prices\2022\

	2022		
grey is lookup to daily price	5x16	5x8, 2x24	7x24
green is hard-coded	OnPK	OffPK	ATC
Mar-22	\$ 80.75	\$ 69.75	\$ 75.20
Apr-22	\$ 52.75	\$ 45.65	\$ 48.95
May-22	\$ 47.35	\$ 39.35	\$ 42.95
Jun-22	\$ 52.00	\$ 40.75	\$ 46.25
Jul-22	\$ 66.50	\$ 48.70	\$ 56.35
Aug-22	\$ 66.50	\$ 48.70	\$ 57.50
Sep-22	\$ 53.25	\$ 41.65	\$ 47.05
Oct-22	\$ 55.60	\$ 47.60	\$ 51.20
Nov-22	\$ 84.50	\$ 75.00	\$ 79.45
Dec-22	\$ 168.25	\$ 149.25	\$ 157.85
Jan-23	\$ 200.25	\$ 171.25	\$ 184.35
Feb-23	\$ 200.25	\$ 171.25	\$ 185.05
Mar-23	\$ 98.75	\$ 93.25	\$ 95.95
Apr-23	\$ 52.50	\$ 41.65	\$ 46.45
May-23	\$ 43.25	\$ 32.75	\$ 37.70

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- 2-5. In response to PUC 1-10, BIUD wrote “the load following contract BIUD has with Shell is a lower percentage to accommodate the intermittent renewable FirstLight PPA. This has resulted in certain times of the year, BUID is relying more on the spot ISO-NE market for its electricity.” Please explain in greater detail how the downward adjustment to the Shell contract to accommodate the FirstLight PPA has resulted in greater exposure to the spot market. In your response, please clarify how actual output from the FirstLight facility has compared to expected output levels.

Response:

Intermittent renewable resources increase the hourly variability of generation. With this increases in variability comes a potential greater reliance on the spot ISO-NE market when those intermittent resources are delivering less than anticipated. In January 2022, FirstLight PPA was budgeted/forecasted to deliver 138.478 MWh, however, it actually delivered 105.546 MWh. This meant that BIUD was relying on the ISO-NE spot market to make up for this difference. Conversely, in February 2022, FirstLight delivered slightly more MWh than forecasted 110.207 MWh vs. 106.330 MWh.

Complicating matters was that the forecasted load increased from the time that the Shell contract was negotiated to the current forecasted load. When we went out to procure the Shell contract, the load was forecasted for January at 956 MWh while actuals came in at 1097 MWh. That increase left 58 MWh open to the spot ISO-NE market after the Shell load following contract.

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- 2-6. Referencing BIUD's responses to PUC 1-8, 1-15 and 1-16, please provide a consolidated set of schedules to incorporate all changes.

Response:

The BIUD's responses to PUC 1-8, 1-15 and 1-16 along with actual fuel costs for the National Grid outage, a refund from National Grid's overcharge of the cable surcharge and a Division provided a correction have been incorporated into a consolidated set of schedules in the Supplemental Testimony to provide a consolidated set of schedules.

The actual fuel costs for the National Grid outage were detailed in the response to PUC 1-12. The refund from National Grid's overcharge of the cable surcharge was briefly discussed in the response to PUC 1-13b. Lastly, the Division provided a correction to attachment 9 on page 3 of 5. The entry for Invoice #397061 for December 2021 was originally entered as \$117.32. The correct amount was \$1,117.31.

Please see the Supplemental Testimony and supporting schedules which is a consolidated set of schedules to incorporate all changes.

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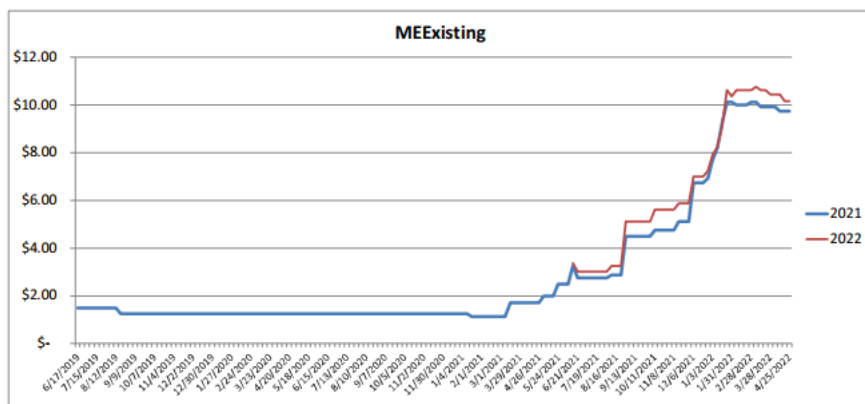
2-7. Referencing PUC 1-9, please provide the source of the evidence to develop the “conservative estimate” of REC prices.

Response:

Typically we would use an average of the bid prices from three different REC brokers as the basis and then discount it slightly to reflect the historical volatility to come up with the reference price. However, this past year we have seen prices for the Maine Class II RECs increase significantly as shown by the graph below. Prices have risen from below \$2.00 per REC to right around \$10.00 per REC over the last twelve months. There are several factors that have caused these prices to rise over that last twelve months.

1. Hydroelectric production that generates Maine Class II RECs are down over 7% from the previous three year average – nearly 900,000 RECs.
2. Increase demand from entities beyond the Maine RPS requirement.

Should production return to the levels we saw in 2018-2020, there could be some increase pressure on prices. For that reason, we concluded that using \$5.00 per REC would be a “conservative” value to use when forecasting the REC revenue for May 2022 through April 2023.



Prepared by: Jeffery M. Wright and Ken Stambler (ENE)