

**Q. Can you detail Pascoag’s power supply portfolio for 2021?**

**A. M. Kirkwood** Yes, Pascoag’s power portfolio for 2021, used in developing the Standard Offer, Transition and Transmission rate reconciliation request, is detailed in [Table 1-MRK](#), below:

<u>Pascoag Utility District 2021 Power Entitlements</u>		
Brown Bear Hydro (Miller)	2%	(Hydro)
Spruce Mountain	3%	(Wind)
Canton Wind	2%	(Wind)
NYPA (PASNY)	14%	(Hydro)
Seabrook	19%	(Nuclear)
NextEra Hedge	8%	(Nuclear based)
NextEra RISE	10%	(virtual gas-fired)
BP Energy 3-Year Hedge	<u>42%</u>	<u>(mostly fossil fuel)</u>
	100%	

The total sustainable power in this portfolio is 21%. This represents hydro power (NYPA and Brown Bear Hydro) at 16%, and two wind entitlements, Spruce Mountain and Canton Wind which are together estimated to contribute 5% of the District’s total annual purchased energy in 2021.

We note that with the creation of Block Island Utility District (BIUD) in 2019 as the second consumer owned electric system in Rhode Island, we worked with the RI Public Utilities Commission, (Rhode Island’s official agent for NYPA power) and BIUD to reallocate NYPA’s St. Lawrence and Niagara preference power entitlements, which are allocated by NYPA to New York neighboring states’ public power entities including those in Rhode Island. The Rhode Island allocation of NYPA entitlements is further allocated 82.34% to Pascoag and 17.66% to BIUD. Please see [Testimony Exhibit 1-MRK](#), which is the “Agreement for Allocation of Rhode Island Share of St. Lawrence – FDR Project Power and Energy and Niagara Project Power and Energy” and details the allocation of the NYPA entitlements intra-state, as signed by the Rhode Island Public Utilities Commission, Pascoag Utility District, and Block Island Utility District.

Pascoag’s total non-carbon based energy for 2021 is 48% of its requirements and includes a mix of the previously mentioned hydro and wind power resources, together with non-carbon based nuclear power from Pascoag’s Seabrook entitlement together with the NextEra Hedge, which is also nuclear based, and is pursuant to the confirmation with NextEra Energy Marketing, LLC (“NextEra”) for the years 2020 through 2029 (“NextEra Hedge”) as provided with last year’s testimony. This NextEra Hedge includes firm energy and Nuclear-based Emissions Free Energy Certificates (EFECs) from the Seabrook project.

The remaining 52% of Pascoag’s energy requirement is mainly a system mix of power that is fossil fuel based, sourced through a 3-year contract entered into with BP Energy Company (“BP Energy”) which commences in January 2021 and ends at the end of 2023, and a virtual gas-fired unit transaction with NextEra Energy Power Marketing (“NextEra RISE”) that began in June of 2013 and ends at the end of May, 2023. BP Energy won the bid for the 2021-2023 three year contract to fill out our hedging strategy at the excellent price of \$36.85/MWh delivered to the Rhode Island ISO-NE load zone. Please see [Testimony Exhibit 2-MRK](#) which is the confirmation for this transaction with BP Energy, fully signed by both parties on September 16, 2020.

**Q. Was Pascoag successful in obtaining a competitive supply to hedge its remaining open positions for the upcoming period based on the expiration of the term of other deals that had been in place?**

**A.** Yes. Pascoag and its power supply consultant, Energy New England, ran a solicitation for the 2021-2023 time period by seeking competitively supplied wholesale power. The hedging deal signed with BP Energy is a block-structure transaction to fill out our energy need each hour. This deal replaces the 2018-2020 load following deal with PSEG Energy and the 2020 block energy deal with Dynegy. The deal fills out close to 100% of our load curve needs for 2021 at the very competitive price of \$36.85/MWh.

**Q. Did Pascoag participate in the recent Rhode Island second renewable energy solicitation in 2019?**

**A.** Yes, Pascoag, together with National Grid and Block Island Utility District, participated in Rhode Island’s second renewable energy solicitation, and after a long negotiation amongst all parties, Pascoag is happy to report that it signed an agreement to purchase up to 400 kW of energy and environmental attributes from a 50 MW solar project in Connecticut. The project entity is named Gravel-Pit Solar II, LLC, located in East Windsor, Connecticut. The price bid in to this solicitation by Gravel Pit Solar II for all products is \$52.95/MWh, which makes this price for renewable energy very competitive with many fossil-based power transactions. Pascoag was very happy to participate in this solicitation and negotiate a contract which is not only good for Pascoag’s ratepayers, but which will help Pascoag support Governor Raimondo’s goal to decarbonize power purchased or generated for Rhode Island rate payers by 2030. Please see [Testimony Exhibit 3-MRK](#) which is the Power Purchase Agreement between Pascoag Utility District and Gravel Pit Solar II, LLC.

**Q. Did Pascoag purchase further long-term renewable energy under a competitive solicitation?**

**A.** Yes, subsequent to the signing of the Gravel Pit Solar II deal discussed above, Pascoag was able to secure a second allocation of solar energy through a contract entity named Gravel Pit Solar III, LLC, under a solicitation run by Energy New England on behalf of several consumer-owned entities in Massachusetts and Rhode Island, including Pascoag. Pascoag is happy to report that it signed an agreement to purchase up to 670 kW of energy and environmental attributes from this similar 50 MW solar facility in Connecticut. The price bid in to this solicitation was an extremely competitive \$51.95/MWh, which makes this price for renewable energy competitive with many fossil-based power

transactions. Pascoag was very happy to participate in this offering and be able to negotiate a contract which is not only good for Pascoag's ratepayers, but which will help Pascoag support the Governor Raimondo's goal to decarbonize power purchased or generated for the benefit of Rhode Island rate payers by 2030. Please see [Testimony Exhibit 3-MRK](#) which is the Power Purchase Agreement between Pascoag Utility District and Gravel Pit Solar III, LLC.

**Q. Has Pascoag done anything else that would improve its fiscal position and rate stability?**

**A. M. Kirkwood** The District has, over the past few years, negotiated a number of EEI Master Power Purchase and Sales Agreements. Pascoag already had in place EEI Master Agreements with PSEG, Shell, TransCanada, NextEra Energy, Exelon/Constellation Energy and Macquarie Energy. In late 2017, Pascoag further broadened the list by negotiating and signing an EEI Master Agreement with Dynegy Marketing and Trade, LLC ("Dynegy") and then in November of 2019, Pascoag signed another EEI Master Agreement with BP Energy Company. This last EEI Master turned out to be important and timely, since BP Energy won the bid for our 3-year block energy solicitation (2021-2023) which we ran in September of this year. These EEI Master documents improve Pascoag's position in contract negotiations by streamlining the negotiation process with those it has signed such agreements with and by ensuring credit worthiness by both parties prior to Pascoag requesting bids. In fact, it was the use of EEI Master Agreements over the past several years which allowed the competitive solicitations that resulted in beneficial energy deals with Exelon/Constellation, Shell, TransCanada, PSEG, Dynegy, BP Energy and the NextEra Hedge deal for carbon-free nuclear power. These EEI Master Agreements allow the parties to transact quickly based on market conditions at the time the transactions are priced.

Finally by way of important information regarding Pascoag's fiscal health, Standard and Poor's increased the District's "A-" credit rating to "A" in January 2019, based on the results of their periodic review and rating of our company. Pascoag has maintained an A or A- rating with S&P from 2008 to the present, which allows us to provide proof of good credit quality in our negotiations for power supply options.

**Q. The Pascoag entitlement with Brown Bear Hydro was originally to expire in May of 2016. Please describe the extension to this contract that was negotiated in order to replace this beneficial sustainable energy entitlement.**

**A. M. Kirkwood** Pascoag's energy advisor Energy New England, on behalf of Pascoag and sixteen of the consumer owned electric distribution company participants, was able to negotiate an extension to the Miller Hydro agreement, now known as Brown Bear Hydro.

The key terms of the extended contract for the going-forward period of the agreement are as follows:

Price for Facility Energy and Ancillary Services (including environmental attributes):

06/01/2020 - 05/31/2021 @ \$51.96/MWh

Pascoag was extremely pleased to be able to extend the contract from this excellent facility at low prices, especially since the project is a sustainable energy project which helps Pascoag to retain a high percentage of its portfolio mix in sustainable energy.



**Q. Has Pascoag looked at other opportunities for its power portfolio?**

**A. M. Kirkwood** Yes, Pascoag has been in discussion with several solar energy farm and wind developers during the past few years, and reached an agreement with ISM Solar Development LLC (“ISM Solar”) and National Grid in July of 2016. The agreement, together with the filing before the Rhode Island Public Utilities Commission (“PUC”), and the subsequent PUC approval in May, 2017 can all be found in Docket No. 4636. In summary, the agreement allows for ISM Solar, which is on the border of our service territory, to interconnect and sell energy directly to National Grid, in return for a monthly payment from ISM Solar to Pascoag of \$3,300 (\$39,600 annually) to compensate the Pascoag customers for lost benefits of power directly from a solar farm, namely potential reductions to transmission and capacity charges. The ISM Solar facility entered commercial operation in the third quarter of 2019 and the monthly payments to Pascoag have commenced. These payments are passed along to our customers as savings against Standard Offer costs. Pascoag continues to negotiate with other solar and wind developers for a possible future renewable facility in its service territory.

**Q. Has Pascoag entered into any other agreements that help it to deliver the most cost effective power resources to its customers?**

**A. M. Kirkwood** Yes. Pascoag has signed an energy services agreement with Ocean State BTM, LLC., a subsidiary of New England Battery Storage, to provide a very beneficial battery storage device to Pascoag, not only to help manage Pascoag’s peaks for transmission and forward capacity market purposes, but as an integral part of a non-wires alternative solution for its need to enhance its connection to National Grid and through National Grid to the rest of ISO-New England network. The background for mobilizing this alternative is that Pascoag commissioned a System Impact Study with National Grid in 2019 that determined that Pascoag was approaching and sometimes exceeding the thermal limits on the National Grid feeder lines that connect Pascoag to the outside world. After reviewing the various alternatives presented by National Grid to solve this operational issue, Pascoag began implementing the most cost-effective alternative, which includes the expansion of Pascoag’s own substation capacity, supplemented with moderate changes to the National Grid system, and the implementation of a 3 MW/9 MWh battery storage distributed energy unit to be able to manage contingency conditions when one of the feeder lines is out of service. The work on Pascoag’s substation includes “splitting the bus”, thereby allowing Pascoag to utilize both National Grid feeder lines simultaneously under normal operating conditions, thus lowering the load on each feeder line vs. using just one line with the other as a contingency back-up. Currently, Pascoag’s total load is connected to one feeder line, with the other one solely used for contingency. The new arrangement including battery storage will allow a much more efficient use of the feeder line connections, thereby saving Pascoag customers money while enhancing service reliability.

We note that the substation project was eligible for financing through the Rhode Island Infrastructure Bank due to its implementation of battery storage as part of the solution through the Efficient Building Funds statute, and that we are also eligible for a \$250,000 grant for the project from the Rhode Island Office of Energy Resources based on this being a “non-wires alternative” that is more

cost effective than standard infrastructure replacement. Please see *Testimony Exhibit 5-MRK*, which is the Energy Services Agreement with Ocean State BTM, LLC to implement the battery storage device on our system.

**Q.** **Would you provide a graphical representation of Pascoag's power supply portfolio for 2021?**

**A. M. Kirkwood** Yes. *Testimony Exhibit 6-MRK* highlights the total mix of resources for 2021 in graphical form.

**Q.** **Does this conclude your portion of the testimony?**

**A. M. Kirkwood** Yes it does.

**Agreement for Allocation of Rhode Island Share  
of St. Lawrence – FDR Project Power and Energy  
and Niagara Project Power and Energy**

AGREEMENT FOR ALLOCATION OF RHODE ISLAND SHARE OF  
ST. LAWRENCE – FDR PROJECT POWER AND ENERGY AND  
NIAGARA PROJECT POWER AND ENERGY

This Agreement is made by and among the Rhode Island Public Utilities Commission (RIPUC) (Seller), a state agency established under R.I. Gen. Laws § 39-1-3, Pascoag Utility District (PUD) and Block Island Utility District (BIUD), collectively the Purchasers, Energy New England, LLC (ENE or the Agent), and Massachusetts Municipal Wholesale Electric Company (MMWEC or the Resource Lead Participant).

WHEREAS, the Seller has executed an agreement with the New York Power Authority (NYPA) (December 2017) for the purchase of St. Lawrence – FDR Project Power and Energy through April 30, 2032; and

WHEREAS, the Seller has executed an agreement with the New York Power Authority (NYPA) (August 2005) for the purchase of Niagara Project Power and Energy through August 30, 2025; and

WHEREAS, the Seller has appointed ENE, an energy service company and municipal light plant cooperative formed under the provisions of Massachusetts General Laws, Chapter 164, to be its agent with respect to the allocation and sale of the Project Power to the Purchasers; and

WHEREAS, the Seller proposes to sell to the Purchasers and the Purchasers propose to purchase from the Seller on the terms set forth below, a portion of the Seller's entitlement in Project Power;

NOW, THEREFORE, In consideration of the premises and of the mutual benefits and covenants hereinafter set forth, the sufficiency of which is hereby acknowledged by each party hereto, it is agreed:

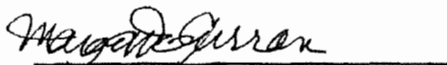
1. COMMENCEMENT DATE – This Agreement shall go into effect on September 1<sup>st</sup>, 2019.
2. PURCHASER'S PERCENTAGE - The Seller hereby sells to the Purchasers and the Purchasers hereby purchase from the Seller a percentage of the Seller's entitlements. For purposes of this Agreement, the term "Purchaser's Percentage" shall mean the Purchaser's percent of the Seller's entitlement of the Project Power, as set forth in Exhibit A hereto, as said exhibit will be modified biannually, without the requirement to amend the Agreement and in accordance with this Agreement. For purpose of this Agreement, Purchasers' Percentage means the aggregate of the Purchaser's Percentage for all Purchasers.
3. ISO SCHEDULING –(a) Pursuant to that certain Agreement for Scheduling and Tagging Services for NYPA Entitlements, dated as of October 7, 2008, between PUD and MMWEC (the "PUD-MMWEC Agreement"), MMWEC receives the Rhode Island allocation of NYPA Power for purposes of scheduling to its ISO participant account (ISO # 76). A copy of the PUD-MMWEC Agreement is attached hereto for ease of reference. (b) BIUD and PUD authorize and direct MMWEC to allocate the Rhode Island allocation of NYPA Power currently received and scheduled by MMWEC under the PUD-MMWEC Agreement to PUD (ISO # 116) and BIUD (ISO # 133042) based on the calculated Purchaser's Percentage found in Exhibit B. (f) MMWEC does not assume any liabilities with respect to the import of capacity and energy by BIUD pursuant to the contractual arrangements with RIPUC and ENE, as referenced in this Agreement. (g) BIUD agrees to reimburse MMWEC for any direct costs incurred by MMWEC for the performance of services pursuant to this Agreement within thirty (30) days of receipt of an invoice for such costs, which invoice shall include reasonable documentation regarding the cost calculation. (h)

To the extent permitted by law, BIUD shall release, defend, hold harmless and indemnify MMWEC (and MMWEC's officers, directors, members, participants, attorneys, agents and employees), from and against any and all damages, losses, liabilities, obligations, claims, demands, suits, proceedings, recoveries, judgments, settlements, costs and expenses, court costs, attorneys fees and all other obligations resulting from, arising out of or related to MMWEC's performance of services for BIUD under this Agreement. (i) Except to the extent modified by the allocation described in paragraph 3(b), the scheduling and tagging terms of the PUD-MMWEC Agreement are not modified or amended and remain in full force and effect and are agreed include BIUD and the allocations set forth in Exhibit B.

4. ISO CAPACITY SCHEDULING – Since the NYPA Capacity is designated as a Rest of Pool resource, the opportunity to self-supply the capacity value for Rhode Island is not available. MMWEC, as the Lead Market Participant for the Resource, will receive the Capacity value in its ISO-NE settlement account. MMWEC will then distribute to [PUD and BIUD] [ the Rhode Island participants] its allocation of the monthly capacity value.
5. INVOICING – ENE, as the agent, will receive all invoices from NYPA for the Project Power from the two contracts listed above for the RIPUC. ENE will allocate the charges from the Invoices based on the Purchaser's Percentage for PUD and BIUD. ENE will invoice the Purchasers their allocated cost and issue one payment to the NYPA.
6. PAYMENT OBLIGATIONS – The obligation of the Purchasers to make payments under this agreement shall be absolute and unconditional irrespective of the operational value of the services performed by the Seller or any rights of counterclaim or setoff the Purchasers might otherwise have against Seller or any other person; and the Purchaser shall not fail or refuse to make such payment.
7. COUNTERPARTS - This Agreement may be executed in multiple counterparts, which may be executed and/or transmitted electronically (via facsimile, portable document format (.pdf) or other electronic means), each of which shall be deemed an original, and all of which together shall constitute one and the same agreement.
8. EXECUTION – By executing this Agreement, each party hereto agrees to be bound by such provisions of this Agreement that are specifically applicable to it.

In witness whereof, the said parties hereto have executed this Agreement by their duly authorized representatives.

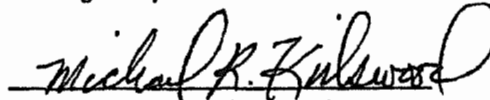
Rhode Island Public Utilities Commission



By: Margaret E. Curran, Chairperson

Date: September 11, 2019

Pascoag Utility District

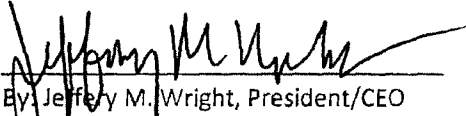


By: Michael Kirkwood, General Manager

Date:



Block Island Utility District

  
By: Jeffrey M. Wright, President/CEO  
Date:

Massachusetts Municipal Wholesale Electric  
Company

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By:  
Date:

Energy New England, LLC

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By: Timothy J Hebert, Chief Operating  
Officer  
Date:

Block Island Utility District

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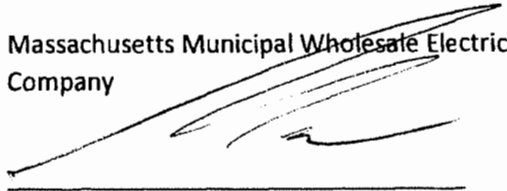
By: Jeffery M. Wright, President/CEO  
Date:

Energy New England, LLC

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By: Timothy J Hebert, Chief Operating  
Officer  
Date:

Massachusetts Municipal Wholesale Electric  
Company



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By: Ronald C. DeCurzio, Chief Executive  
Officer  
Date: September 12, 2019

**Block Island Utility District**

**Massachusetts Municipal Wholesale Electric  
Company**

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By: Jeffery M. Wright, President/CEO  
Date:

\_\_\_\_\_  
By:  
Date:

**Energy New England, LLC**

*Timothy J. Hebert*  
\_\_\_\_\_  
By: Timothy J Hebert, Chief Operating  
Officer  
Date: 8/29/19

# EXHIBIT A

## Formula to Derive Purchaser's Percentage

The determination of each Purchaser's Percentage shall be made biannually in the manner below:

The individual Purchaser's Percentage shall be computed as 100 multiplied by the numerical average (to four significant places) of the results of the following two individual calculations:

1. A "pro rata" decimal (five significant places) determined by the number of residential (domestic and rural) electric customers (by dwelling units) served by the electric system of each Purchaser divided by the sum total of the residential customers of both Pascoag Utility District and Block Island Utility District; and
2. A "pro rata" decimal (five significant places) determined by the number of kilowatt-hours of residential (domestic and rural) sales of each Purchaser's system divided by the sum total of the residential sales of both Pascoag Utility District and Block Island Utility District.

The total of the respective pro rata decimal and the Purchaser's Percentage shall totalize to 1.0000 and 100% respectively and the pro rata decimals and individual Purchaser's Percentages may be rounded (up or down) to accomplish such total.

In the event other billing, scheduling or delivery requirements dictate adjustments to the Purchaser's Percentage (if the firm and peaking power is delivered separately) to result in minimum quantities or even increments of delivered power, they shall be done equitably over the term of the contract.

The required customer and consumption data, to the extent possible, shall be based upon data or statistics from the Utility's Schedule B submitted monthly to the Rhode Island Public Utility Commission. Adjustments to the filed data to correct for uncounted dwelling units and/or residential consumption may be accepted and utilized if in writing and certified by the system's manager.

The results of the formula above using the available information for 2017-2018. The next update to Table 1 will be performed in May 2021, and go in effect for July 1, 2021.

**Table 1**

	Residential Customer Summary				Residential KWH Sales Summary				Average of Both Pro Rata Decimals	New Individual Purchase's %			
	2018	2017	2016	Residential Customer Summation 2018 - 2016	Residential Customer Pro Rata Decimal	2018	2017	2016			KWH Sales Summation 2018 - 2016	KWH Sale Pro Rata Decimal	
Block Island	1,320	1,341		2,661	0.24073	Block Island	4,209,687	4,073,673		8,283,360	0.11243	0.17658	17.66%
Pascoag	4,242	4,151		8,393	0.75927	Pascoag	33,917,350	31,476,866		65,394,216	0.88757	0.82342	82.34%
Annual Total	5,562	5,492		11,054	1.00000	Annual Total	38,127,037	35,550,539		73,627,576	1.00000	1.00000	100.00%

# EXHIBIT B

## Resulting Purchaser's Percentage

<b>Rhode Island NYPA Contract Details</b>		
<b>Contract</b>	<b>Firm KW</b>	<b>Peaking KW</b>
Niagara	600	100
St. Lawrence	1,000	
<b>TOTAL</b>	<b>1,600</b>	<b>100</b>

<b>TOWN</b>	<b>PURCHASER'S %</b>	<b>KILOWATTS FIRM</b>	<b>KILOWATTS PEAKING</b>
BLOCK ISLAND	17.66	282.56	17.66
PASCOAG	82.34	1,317.44	82.34
<b>TOTALS</b>	<b>100.00</b>	<b>1,600.00</b>	<b>100.00</b>



**Power Forward Confirmation between  
Pascoag Utility District and  
BP Energy Company**

(Redacted for public due to market confidentiality)

*Testimony Exhibit 3-MRK*

**Power Purchase Agreement between  
Pascoag Utility District and  
Gravel Pit Solar II, LLC**

(Redacted for public due to market confidentiality)

**Power Purchase Agreement between  
Pascoag Utility District and  
Gravel Pit Solar III, LLC**

(Redacted for public due to market confidentiality)

**Energy Services Agreement between  
Pascoag Utility District and  
Ocean State BTM, LLC**

(Redacted for public due to market confidentiality)

