



Rockland Electric Company

Rockland Electric Company
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March 25, 2022

Honorable Aida Camacho-Welch
State of New Jersey
Board of Public Utilities
44 South Clinton Avenue,
9th Floor,
PO Box 350
Trenton, New Jersey 08625-0350

Re: In the Matter of the Provision of Basic
Generation Service (BGS) for the Period
Beginning June 1, 2022
BPU Docket No. ER21030631

Dear Secretary Camacho-Welch:

Rockland Electric Company (the "Company" or "RECO") hereby submits for filing with the Board of Public Utilities (the "Board") the following tariff leaves setting forth revisions to its Schedule for Electric Service B.P.U. No. 3 – ELECTRICITY.

17th Revised Leaf No. 50
16th Revised Leaf No. 52

These leaves are issued March 25, 2022 to become effective June 1, 2022. These leaves are issued in compliance with the Board's Order dated February 9, 2022, in the above-referenced docket.

The purpose of this filing is to implement the various rate changes, effective June 1, 2022, resulting from the February 2022 Basic Generation Service ("BGS") Auction approved by the Board in its Order referenced above and the results of the bi-lateral contract for the Company's Central and Western Divisions served through the New York Independent System Operator. The winning auction prices from the statewide BGS Auction are combined with the winning price resulting from the RECO Central and Western Division procurement to arrive at the rates customers will pay for BGS Service effective June 1, 2022. A description of these changes was set forth in the RECO Company Specific addendum filed on December 2, 2021 in the above referenced docket.

Please note that the Company is making this filing solely in electronic form pursuant to the Board's directive in its Emergency Order dated March 19, 2020 in BPU Docket No. EO20030254.

Honorable Aida Camacho Welch
March 25, 2022
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Any questions regarding this filing can be directed to Cheryl Ruggiero at (212) 460-3189 or at ruggieroc@coned.com.

Very truly yours,

/s/

William A. Atzl, Jr.
Director – Rate Engineering

Attachment A

GENERAL INFORMATION

No. 31 BASIC GENERATION SERVICE (“BGS”)

- (1) Basic Generation Service – Residential Small Commercial Pricing (BGS-RSCP)
Applicable to Service Classification Nos. 1, 2, 3, 4, and 6

Applicable to Service Classification Nos. 1, 2 (Non-Demand Billed), 3, 4, and 6
Charges per kilowatthour:

<u>Service Classification</u>	<u>Summer Months*</u>	<u>Other Months</u>
1 – First 600 kWh	4.599¢	7.879¢
1 – Over 600 kWh	9.956¢	7.879¢
2 - (Non-Demand Billed) – All kWh	6.823¢	6.598¢
3 – Peak	10.497¢	10.166¢
3 – Off-Peak	5.497¢	5.890¢
4 – All kWh	6.228¢	6.170¢
6 – All kWh	6.221¢	6.150¢

Applicable to Service Classification No. 2 Demand Billed customers who do not take BGS-CIEP service in accordance with General Information Section No. 31(2):

	<u>Summer Months*</u>	<u>Other Months</u>
Demand Charges		
First 5 kW (\$/kW)	0.93	1.05
Over 5 kW (\$/kW)	3.42	2.71
Usage Charges		
All kWh (¢/kWh)	6.165¢	6.062¢

The above Basic Generation Service Charges reflect costs for Energy, Generation Capacity, and Ancillary Services (including ISO Administrative Charges).

*Definition of Summer Billing Months - June through September

(Continued)

ISSUED: March 25, 2022

EFFECTIVE: June 1, 2022

ISSUED BY: Robert Sanchez, President
Mahwah, New Jersey 07430

Filed pursuant to Order of the Board of Public Utilities, State of New Jersey, dated February 9, 2022 in Docket No. ER21030631

GENERAL INFORMATION

No. 31 BASIC GENERATION SERVICE (“BGS”) (Continued)

(2) Basic Generation Service – Commercial and Industrial Energy Pricing (BGS-CIEP)

This service is applicable to all Service Classification No. 7 customers, and Service Classification No. 2 customers who maintain a billing demand of 500 kW or greater during any two months of a calendar year, taking BGS from the Company. Service Classification No. 2 metered customers who do not meet the above criteria may elect to take BGS-CIEP service on a voluntary basis. See General Information Section No. 31(1).

BGS Energy Charges:

Charges per kilowatthour:

BGS Energy Charges are hourly and are provided at the real time PJM Load Weighted Average Residual Metered Load Aggregate Locational Marginal Prices for the Rockland Electric Transmission Zone, plus Ancillary Services (including PJM Administrative Charges) at the rate of \$0.00640 per kilowatthour, adjusted for losses and applicable taxes.

BGS Capacity Charges:

Charges per kilowatt of Capacity Obligation as determined in accordance with General Information Section No. 31(C):

Charge applicable in Summer* months.....\$ 8.4478

Charge applicable in other months.....\$ 8.4478

The above charges shall recover each customer’s share of the overall summer peak load assigned to the Rockland Electric Transmission Zone by PJM as adjusted by PJM assigned capacity related factors.

In accordance with Rider SUT, the above charges include provision for the New Jersey Sales and Use Tax. When billed to customers exempt from this tax, as set forth in Rider SUT, such charges will be reduced by the relevant amount of such tax included therein.

* June through September

(Continued)

ISSUED: March 25, 2022

EFFECTIVE: June 1, 2022

ISSUED BY: Robert Sanchez, President
Mahwah, New Jersey 07430

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Attachment B & C

Development of BGS Cost and Bid Factors for Rates Effective June 1, 2022

Based on 2021 Load Profile Information
On-Peak periods defined as the 16 hr PJM Trading period, adj for NERC holidays

Table #1 % Usage During PJM On-Peak Period

	Profile Meter Data		Profile Meter			Profile Meter
	SC1	SC3	Data	--- Other Analysis ---		Data
	SC1	SC3	SC2 ND	SC4	SC6	SC2 Dem
January	41.59%	45.26%	32.84%	49.40%	49.40%	48.29%
February	45.46%	49.35%	36.18%	53.02%	53.02%	52.03%
March	47.88%	51.28%	36.80%	55.18%	55.18%	54.31%
April	47.58%	50.33%	36.81%	54.47%	54.47%	54.26%
May	42.04%	45.50%	29.26%	48.96%	48.96%	49.18%
June	48.91%	51.24%	31.78%	54.79%	54.79%	55.34%
July	44.96%	48.54%	28.62%	50.79%	50.79%	50.83%
August	49.31%	50.69%	30.97%	53.51%	53.51%	54.00%
September	47.19%	49.58%	35.05%	53.17%	53.17%	53.26%
October	44.95%	49.29%	34.04%	51.56%	51.56%	51.15%
November	44.99%	50.55%	35.79%	52.71%	52.71%	51.59%
December	47.75%	52.82%	37.85%	54.17%	54.17%	53.61%

Table #2 % Usage During RECO On-Peak Billing Period

On-Peak periods as defined in specified rate schedule

	N/A		N/A	N/A	N/A	N/A
	SC1	SC3	SC2 ND	SC4	SC6	SC2 Dem
<i>(data rounded to nearest %)</i>						
January	----	32.6%	----	----	----	----
February	----	35.9%	----	----	----	----
March	----	33.6%	----	----	----	----
April	----	34.8%	----	----	----	----
May	----	36.0%	----	----	----	----
June	----	39.5%	----	----	----	----
July	----	41.7%	----	----	----	----
August	----	42.9%	----	----	----	----
September	----	41.8%	----	----	----	----
October	----	40.0%	----	----	----	----
November	----	37.6%	----	----	----	----
December	----	35.8%	----	----	----	----

Table #3 Class Usage @ customer

Calendar month billed sales forecasted for 2022

in MWh

	<u>SC1</u>	<u>SC3</u>	<u>SC2 ND</u>	<u>SC4</u>	<u>SC6</u>	<u>SC2 Dem</u>	<u>Total</u>
January	53,239	34	1,624	666	481	31,301	87,344
February	47,896	33	1,786	545	414	25,911	76,585
March	44,102	29	2,145	582	378	27,071	74,306
April	39,241	20	1,241	474	369	28,540	69,884
May	38,907	23	978	460	340	24,733	65,441
June	54,169	27	947	411	321	26,419	82,293
July	81,121	32	1,106	440	312	30,114	113,124
August	82,132	29	1,097	484	326	31,287	115,355
September	70,852	31	1,006	517	400	29,764	102,569
October	48,960	22	1,016	584	473	27,993	79,047
November	41,052	23	975	637	524	24,927	68,136
December	<u>49,172</u>	<u>27</u>	<u>1,490</u>	<u>674</u>	<u>529</u>	<u>27,529</u>	<u>79,421</u>
Total	650,839	330	15,411	6,471	4,863	335,590	1,013,503

Table #4 Forwards Prices - Energy Only @ bulk system

in \$/MWh (See Table 18)

	<u>On-Peak</u>	<u>Off-Peak</u>
January	67.39	53.70
February	63.57	50.74
March	44.91	35.74
April	38.50	30.98
May	37.97	30.39
June	41.35	27.63
July	48.16	32.15
August	45.14	30.17
September	42.33	28.19
October	42.53	33.17
November	44.64	35.01
December	49.08	38.62

Table #5 Losses

	<u>SC1</u>	<u>SC3</u>	<u>SC2 ND</u>	<u>SC4</u>	<u>SC6</u>	<u>SC2 Dem</u>
Expansion Factor =	1.08631	1.08631	1.08631	1.08253	1.08253	1.08631
Expansion Factor (net Marginal Losses)	1.07627	1.07627	1.07347	1.07252	1.06614	1.07627

Table #6 Summary of Average BGS Energy Only Unit Costs @ customer - PJM Time Periods
based on Forwards prices corrected for basis differential & losses
in \$/MWh

		<u>SC1</u>	<u>SC3</u>	<u>SC2 ND</u>	<u>SC4</u>	<u>SC6</u>	<u>SC2 Dem</u>
Summer - all hrs	\$	39.97	\$ 40.16	\$ 37.23	\$ 40.40	\$ 40.29	\$ 40.69
	PJM on pk	\$ 48.37	\$ 48.15	\$ 48.06	\$ 47.82	\$ 47.69	\$ 48.11
	PJM off pk	\$ 32.37	\$ 32.19	\$ 32.25	\$ 32.01	\$ 31.92	\$ 32.22
Winter - all hrs	\$	47.62	\$ 48.94	\$ 47.19	\$ 48.07	\$ 47.92	\$ 47.83
	PJM on pk	\$ 53.50	\$ 54.47	\$ 54.41	\$ 53.21	\$ 53.05	\$ 52.94
	PJM off pk	\$ 42.76	\$ 43.59	\$ 43.26	\$ 42.41	\$ 42.25	\$ 42.34
Annual	\$	44.23	\$ 45.78	\$ 44.51	\$ 45.88	\$ 45.79	\$ 45.33
System Total	\$	44.62					

Table #7 Summary of Average BGS Energy Only Costs @ customer - PJM Time Periods
based on Forwards prices corrected for basis differential & losses
in \$1000

		<u>SC1</u>	<u>SC3</u>	<u>SC2 ND</u>	<u>SC4</u>	<u>SC6</u>	<u>SC2 Dem</u>
Summer - all hrs	\$	11,522	\$ 5	\$ 155	\$ 75	\$ 55	\$ 4,784
	PJM on pk	\$ 6,622	\$ 3	\$ 63	\$ 47	\$ 34	\$ 3,015
	PJM off pk	\$ 4,900	\$ 2	\$ 92	\$ 28	\$ 20	\$ 1,769
Winter - all hrs	\$	17,265	\$ 10	\$ 531	\$ 222	\$ 168	\$ 10,427
	PJM on pk	\$ 8,774	\$ 6	\$ 216	\$ 129	\$ 98	\$ 5,976
	PJM off pk	\$ 8,491	\$ 5	\$ 315	\$ 93	\$ 70	\$ 4,451
Annual	\$	28,787	\$ 15	\$ 686	\$ 297	\$ 223	\$ 15,211
System Total	\$	45,219					

Table #8 Summary of Average BGS Energy Only Unit Costs @ customer - RECO Time Periods
based on Forwards prices corrected for basis differential & losses - RECO billing time periods in \$/MWh

		<u>SC1</u>	<u>SC3</u>	<u>SC2 ND</u>	<u>SC4</u>	<u>SC6</u>	<u>SC2 Dem</u>
Summer - all hrs	\$	39.97	\$ 40.16	\$ 37.23	\$ 40.40	\$ 40.29	\$ 40.69
			\$ 49.49				
			\$ 33.53				
Winter - all hrs	\$	47.62	\$ 48.94	\$ 47.19	\$ 48.07	\$ 47.92	\$ 47.83
			\$ 55.96				
			\$ 45.08				
Annual Average	\$	44.23	\$ 45.78	\$ 44.51	\$ 45.88	\$ 45.79	\$ 45.33
System Average	\$	44.62					

Table #9 Generation & Transmission Obligations and Costs and Other Adjustments
Obligations - annual average forecasted for 2021; costs are market estimates in MW

	<u>SC1</u>	<u>SC3</u>	<u>SC2 ND</u>	<u>SC4</u>	<u>SC6</u>	<u>SC2 Dem</u>	<u>Total FP</u>	
Gen Obl - MW	295.748	0.114	2.696	0.0	0.0	79.957	378.515	TRUE
Trans Obl - MW	311.199	0.117	2.933	0.0	0.0	86.182	400.431	TRUE
# of Months and Days used in this analysis								
		# of summer days =	122	# of summer months =		4		
		# of winter days =	243	# of winter months =		8		
				total # months =		12		
Transmission Cost*	\$ 42,548	per MW-yr	116.57					
Generation Capacity cost	summer	\$110.02	\$/MW/day	Resulting avg gen cap cost =	summer >>	\$ 40.16	per kW/yr	
(see Table 19)	winter	\$94.70	\$/MW/day		winter >>	\$ 34.57	per kW/yr	
Current residential summer BGS charges								
Current Tariff and % of total summer usage								
		----- SC1 -----						
		Charges	% usage					
Block 1 (0-600 kWh/month)		5.407 ¢/kWh	42.97%					
Block 2 (>600 kWh/m)		10.038 ¢/kWh	57.03%					
Calculated inversion =		4.631 ¢/kWh						

Table #10 Ancillary Services
forecasted overall annual average \$18.06 /MWh

Table #11 Summary of Obligation Costs Expressed as \$/MWh @ customer (for non-demand rates only)

	<u>SC1</u>	<u>SC3</u>	<u>SC2 ND</u>	<u>SC4</u>	<u>SC6</u>
Transmission Obl - all months \$	20.34 \$	15.09 \$	8.10 \$	- \$	-
Generation Obl -					
per annual MWh \$	16.56 \$	12.59 \$	6.37 \$	- \$	-
per summer MWh \$	13.77 \$	12.86 \$	8.71 \$	- \$	-
per winter MWh \$	18.77 \$	12.43 \$	5.51 \$	- \$	-

Table #12 Summary of BGS Unit Costs @ customer

NON-DEMAND RATES (includes energy, G&T obligations, and Ancillary Services - adjusted to billing time periods in \$/MWh)

	<u>SC1</u>	<u>SC3</u>	<u>SC2 ND</u>	<u>SC4</u>	<u>SC6</u>
Summer - all hrs \$	92.14 \$	86.17 \$	72.10 \$	58.46 \$	58.35
RECO On pk \$		113.60			
RECO Off pk \$		66.68			
Block 1 \$	65.73				
Block 2 \$	112.04				
Winter - all hrs \$	104.80 \$	94.52 \$	78.86 \$	66.13 \$	65.98
RECO On pk \$		124.09			
RECO Off pk \$		78.23			
Annual -all hrs \$	99.19 \$	91.51 \$	77.04 \$	63.94 \$	63.85

DEMAND RATES (includes energy and Ancillary Services, G&T obligations charged separately - adjusted to billing time periods in \$/MWh)

	<u>SC2 Dem</u>	PLUS:		
Summer - all hrs \$	58.75	<u>Gen Cost (per kW of Billed Demand/Month)</u>		
			≤ 5 kW	> 5 kW
Winter - all hrs \$	65.89	summer	\$ 0.801 \$	2.952
		winter	\$ 1.034 \$	2.682
Annual - all hrs per MWh only \$	63.39	<u>Trans cost</u>		
		all months \$	3.55	per kW of T obl /month

Table #12 (Continued)

Including T&G Obligation \$			Gen Cost (per kW of Billed Demand/Month)			
					≤ 5 kW	> 5 kW
Summer - all hrs	\$	80.10	summer	\$	0.801	\$ 2.952
Winter - all hrs	\$	87.73	winter	\$	1.034	\$ 2.682
Annual - including T&G Obl \$	\$	82.99				

ALL RATES

Grand Total Cost in \$1000 = \$ 94,351
 All-In Average cost @ customer = \$ 93.09 per MWh at customer (per customer metered MWh)
 All-In Average costs @ transmission nodes = \$ 86.51 per MWh at transmission nodes (per metered MWh at transmission node)

Table #13 Ratio of BGS Unit Costs @ customer to All-In Average Cost @ transmission nodes

NON-DEMAND RATES

Includes energy, G&T obligations, and Ancillary Services - adjusted to billing time periods

	<u>SC1</u>	<u>SC3</u>	<u>SC2 ND</u>	<u>SC4</u>	<u>SC6</u>
Summer - all hrs	1.065		0.833	0.676	0.675
RECO On pk		1.313			
RECO Off pk		0.771			
Constant Blk 1 \$	(26.41)				
Constant Blk 2 \$	19.90				
Winter - all hrs	1.211		0.912	0.764	0.763
RECO On pk		1.434			
RECO Off pk		0.904			
Annual - all hrs	1.147	1.058	0.891	0.739	0.738

Table #13 (Continued)

DEMAND RATES

Includes energy and Ancillary Services, G&T obligations charged separately - adjusted to billing time periods

	<u>SC2 Dem Multiplier</u>		<u>SC2 Dem Constant</u>	PLUS:			
Summer - all hrs	0.926	\$	(21.353)	<u>Gen Cost (per kW of Billed Demand/Month)</u>			
						<u>≤ 5 kW</u>	<u>> 5 kW</u>
Winter - all hrs	1.014	\$	(21.839)	summer	\$	0.80	\$ 2.95
				winter	\$	1.03	\$ 2.68
Annual - including T&G Obl \$	0.959			<u>Trans cost</u>			
				all months	\$	3.546	per kW of T obl /month

Table #14 Summary of BGS Unit Costs Less Transmission @ customer

NON-DEMAND RATES

Includes energy, generation capacity obligation, and Ancillary Services - adjusted to billing time periods. Transmission billed at retail tariff level. in \$/MWh

		<u>SC1</u>		<u>SC3</u>		<u>SC2 ND</u>		<u>SC4</u>		<u>SC6</u>
Summer - all hrs	\$	71.80	\$	71.08	\$	64.00	\$	58.46	\$	58.35
Winter - all hrs	\$	84.45	\$	79.44	\$	70.77	\$	66.13	\$	65.98
Annual -all hrs	\$	78.85	\$	76.42	\$	68.94	\$	63.94	\$	63.85

Table #14 (Continued)

DEMAND RATES

Includes energy and Ancillary Services, generation obligation charged separately - adjusted to billing time periods. Transmission billed at retail tariff level. In \$/MWh.

	<u>SC2 Dem</u>	PLUS:			
		<u>Gen Cost (per kW of Billed Demand/Month)</u>			
			<u>< 5 kW</u>	<u>> 5 kW</u>	
Summer - all hrs	\$ 58.75				
Winter - all hrs	\$ 65.89	summer	\$ 0.801	\$ 2.952	
		winter	\$ 1.034	\$ 2.682	
Annual - all hrs per MWh only	\$ 63.39				
<u>Including Generation Obligation \$</u>					
Summer - all hrs	\$ 69.70				
Winter - all hrs	\$ 76.52				
Annual - including T&G Obl \$	\$ 74.13				

ALL RATES

Grand Total Cost in \$1000 = \$	78,006	
All-In Average cost @ customer = \$		76.97 per MWh at customer (per customer metered MWh)
All-In Average costs @ transmission nodes = \$		71.52 per MWh at transmission node system (per metered MWh at transmission node)

Table #15 Ratio of BGS Unit Costs Less Transmission @ customer to All-In Average Cost @ transmission nodes

NON-DEMAND RATES

Includes energy, G&T obligations, and Ancillary Services - adjusted to billing time periods

	<u>SC1</u>	<u>SC3</u>	<u>SC2 ND</u>	<u>SC4</u>	<u>SC6</u>
Summer - all hrs	1.004		0.895	0.817	0.816
RECO On pk		1.377			
RECO Off pk		0.721			
Constant Blk 1 \$	(26.41)				
Constant Blk 2 \$	19.90				
Winter - all hrs	1.181		0.989	0.925	0.922
RECO On pk		1.524			
RECO Off pk		0.883			
Annual - all hrs	1.102	1.069	0.964	0.894	0.893

DEMAND RATES

includes energy and Ancillary Services, G&T obligations charged separately - adjusted to billing time periods

	<u>SC2 Dem Multiplier</u>	<u>SC2 Dem Constant</u>	PLUS:			
Summer - all hrs	0.975	(10.958)	<u>Gen Cost (per kW of Billed Demand/Month)</u>			
				<u>< 5 kW</u>		<u>> 5 kW</u>
Winter - all hrs	1.070	(10.625)	summer	\$ 0.801	\$	2.952
			winter	\$ 1.034	\$	2.682
Annual - including T&G Obl \$	1.036					

Table #16 Summary of Total BGS Costs by Season

	<u>SC1</u>	<u>SC3</u>	<u>SC2 ND</u>	<u>SC4</u>	<u>SC6</u>	<u>SC2 Dem</u>		
Total Costs by Rate - in \$1000								
Summer	\$ 26,562	\$ 10	\$ 300	\$ 108	\$ 79	\$ 9,203		
Winter	\$ 37,995	\$ 20	\$ 888	\$ 305	\$ 231	\$ 18,649		
Total	\$ 64,558	\$ 30	\$ 1,187	\$ 414	\$ 310	\$ 27,852		
% of Annual Total \$ by Rate								
Summer	41%	34%	25%	26%	26%	33%		
Winter	59%	66%	75%	74%	74%	67%		
Total Costs - in \$1000								
Summer	\$ 36,263							
Winter	\$ 58,088							
Total	\$ 94,351							
% of Annual Total \$								
Summer	38%							
Winter	62%							
			If total \$ were split on a per MWh basis (on transmission node MWhs):					<u>Ratio to All-In Cost</u>
			\$ 81.52	per MWh @ transmission nodes			Summer	0.9424
			\$ 89.94	per MWh @ transmission nodes			Winter	1.0397

Table #17 Summary of Total BGS Costs by Season - Less Transmission

	<u>SC1</u>	<u>SC3</u>	<u>SC2 ND</u>	<u>SC4</u>	<u>SC6</u>	<u>SC2 Dem</u>		
Total Costs by Rate - in \$1000								
Summer	\$ 20,698	\$ 8	\$ 266	\$ 108	\$ 79	\$ 7,981		
Winter	\$ 30,619	\$ 17	\$ 796	\$ 305	\$ 231	\$ 16,204		
Total	\$ 51,317	\$ 25	\$ 1,062	\$ 414	\$ 310	\$ 24,185		
% of Annual Total \$ by Rate								
Summer	40%	34%	25%	26%	26%	33%		
Winter	60%	66%	75%	74%	74%	67%		
Total Costs - in \$1000								
Summer	\$ 29,140							
Winter	\$ 48,173							
Total	\$ 77,314							
% of Annual Total \$								
Summer	38%							
Winter	62%							
			If total \$ were split on a per MWh basis (on transmission node MWhs):					<u>Ratio to All-In Cost</u>
			\$ 65.51	per MWh @ transmission nodes			Summer	0.9159
			\$ 74.59	per MWh @ transmission nodes			Winter	1.0429

Table #18 Forward Energy Prices

PJM Forward Prices - Energy Only @ bulk system in \$/MWh			Zone to Western Hub Basis Differential in \$/MWh			PJM Forward Prices (incl basis differential) in \$/MWh	
	<u>On-Peak</u>	<u>Off/On Peak LMP ratio</u>	<u>Off-Peak</u>	<u>On-Peak</u>	<u>Off-Peak</u>	<u>On-Peak</u>	<u>Off-Peak</u>
January	67.20	0.7717	51.86	94%	96%	63.17	49.79
February	63.00	0.7717	48.62	94%	96%	59.22	46.68
March	45.20	0.7717	34.88	94%	96%	42.49	33.48
April	40.80	0.7717	31.49	94%	96%	38.35	30.23
May	40.90	0.7717	31.56	94%	96%	38.45	30.30
June	44.35	0.6684	29.64	93%	91%	41.25	26.97
July	50.80	0.6684	33.95	93%	91%	47.24	30.89
August	47.55	0.6684	31.78	93%	91%	44.22	28.92
September	45.45	0.6684	30.38	93%	91%	42.27	27.65
October	45.05	0.7717	34.77	94%	96%	42.35	33.38
November	46.60	0.7717	35.96	94%	96%	43.80	34.52
December	48.90	0.7717	37.74	94%	96%	45.97	36.23

NYISO Forward Prices - Energy Only @ bulk system
in \$/MWh

	<u>On-Peak</u>	<u>Off-Peak</u>
January	95.50	79.75
February	92.50	77.75
March	61.00	50.75
April	39.50	36.00
May	34.75	31.00
June	42.00	32.00
July	54.25	40.50
August	51.25	38.50
September	42.75	31.75
October	43.75	31.75
November	50.25	38.25
December	69.75	54.50

Weighted Average Forward Prices - Energy Only @ bulk
system (86.9% PJM - 13.1% NYISO)
in \$/MWh

	<u>On-Peak</u>	<u>Off-Peak</u>
January	67.39	53.70
February	63.57	50.74
March	44.91	35.74
April	38.50	30.98
May	37.97	30.39
June	41.35	27.63
July	48.16	32.15
August	45.14	30.17
September	42.33	28.19
October	42.53	33.17
November	44.64	35.01
December	49.08	38.62

Table #19 Generation Capacity Prices (\$/MW/Day)

	<u>PJM Base Capacity</u>	<u>PJM 86.9%</u>	<u>NYISO 13.1%</u>	<u>Weighted Average</u>
Summer	\$101.28	\$101.28	\$168.22	\$110.02
Winter	\$101.28	\$101.28	50.87	\$94.70

Table #20 Ancillary Services

	<u>PJM Ancillary Services</u>	<u>NYISO Ancillary Services</u>	<u>Renewable Power Cost</u>	<u>PJM 86.9%</u>	<u>NYISO 13.1%</u>	<u>Weighted Average</u>
	\$2.00	\$1.77	\$16.09	\$18.09	\$17.86	\$18.06

Assumptions:

- Gen Cost = \$110.02 per MW-day in summer
\$94.70 per MW-day in winter
- Trans cost = \$ 42,548 per MW-yr
- Analysis time period = 4 summer months
8 winter months
- Ancillary Services = \$ 18.06 /MWh
- Energy Costs = Based on Jun 2022 to May 2023 Forwards @ PJM West as of January 04, 2022
Based on Jun 2023 to May 2024 Forwards @ NYISO Zone G and Lower Hudson Valley (LHV) as of January 10, 2022
- Usage patterns = Forecasted 2021 energy use by class, PJM on/off % from 2020 class load profiles,
RECO billing on/off % from 6/20 to 5/21 actual data
- Obligations = Class totals for 2021
- Losses = Per RECO's Third Party Supplier Agreement adjusted for PJM 500kV losses and inadvertent energy.
- PJM Time Periods = PJM trading time periods - 7 AM to 11 PM weekdays, local time, x NERC
Holidays - New Year's, Memorial, 4th of July, Labor Day, Thanksgiving & Christmas
- RECO Billing time periods = as per specific rate schedule

Table A Weighted Average Price Calculation

Line #	Specific BGS-FP Auction >>	2020 Auction 36 Month	2021 Auction 36 Month	2022 Auction 36 Month	Total	Notes:
1	Tranches	2	1	1	4	From then-current auction
2(a)	Winning Bid Price (¢/kWh)*	8.242	6.692	8.206		Winning Auction Prices
2(b)	Capacity Proxy Price True-up - in (¢/kWh)*	-0.789	-0.789	0.000		Entered after 2022 auction
2(C)	Winning Bid Price (¢/kWh)*	7.453	5.903	8.206		= 2(a) + 2(b)
3	Transmission (¢/kWh)	1.327	0.000	0.000		Average transmission cost included in bid for existing tranches only
4	BGS (¢/kWh)	6.126	5.903	8.206		=(2) - (3)
5	Weighted Avg BGS	3.063	1.476	2.052	6.590	= (1) / Total Tranches * (4)
6	Weighted Avg Trans	0.664	0.000	0.000	0.664	= (1) / Total Tranches * (3)
7	Weighted Avg Total Price (¢/kWh)				7.254	
<u>Seasonal Payment Factors</u>						
8	Summer	1.0000	1.0000	1.0000 **		From then-current Bid Factor Spreadsheet
9	Winter	1.0000	1.0000	1.0000 **		From then-current Bid Factor Spreadsheet
<u>Applicable Customer Usage @ transmission nodes</u> (Eastern Division)						
10	Summer MWh	386,727				From then-current Bid Factor Spreadsheet
11	Winter MWh	<u>561,490</u>				From then-current Bid Factor Spreadsheet
12		948,217				
<u>Total Cost</u>						
13	Summer	11,845,462	5,707,130	7,933,713	25,486,305	= (1) / Total Tranches * (2C-3) / 100 * (8) * (10) * 1,000
14	Winter	<u>17,198,439</u>	<u>8,286,189</u>	<u>11,518,967</u>	<u>37,003,595</u>	= (1) / Total Tranches * (2C-3) / 100 * (9) * (11) * 1,000
15	Total	29,043,901	13,993,319	19,452,680	62,489,900	= (13) + (14)
<u>Average Cost (NJ Statewide Auction)</u>						
16	Summer	6.590 ¢/kWh				= sum(line 13) / (10) / 1000 * 100 rounded to 3 decimal places
17	Winter	6.590 ¢/kWh				= sum(line 14) / (11) / 1000 * 100 rounded to 3 decimal places
18	Total	6.590 ¢/kWh				= sum(line 15) / (12) / 1000 * 100 rounded to 3 decimal places
<u>Average Cost (Including RECO RFP)</u>						
		BGS Auction	RECO RFP		Total	
19	Tranches	4	0.601		4.601	Includes RECO RFP equivalent tranches
20	Price ¢/kWh	6.590	6.590			BGS Auction from (18) (excludes transmission).
21	Transmission	0.000	0.000			
22	BGS	6.590	6.59			= (20) - (21)
23	Weighted Avg BGS	5.729	0.861		6.590	= (19) / Total Tranches * (22)
24	Weighted Avg Trans	0.000	0.000		0.000	= (19) / Total Tranches * (21)
25	Weighted Avg Total Price				6.590	= (23) + (24)

* Includes Impact of PJM Marginal Losses

** Auction results set to 1.0 to avoid using an atypical result from the current 12-month forward prices.

Table B Ratio of BGS Unit Costs Less Transmission @ customer to All-In Average Cost @ transmission nodes
 (from Table 15 of Bid Factor Spreadsheet)

NON-DEMAND RATES

includes energy, G&T obligations, and Ancillary Services - adjusted to billing time periods

	<u>SC1</u>	<u>SC3</u>	<u>SC2 ND</u>	<u>SC4</u>	<u>SC6</u>
Summer - all hrs	1.004		0.895	0.817	0.816
RECO On pk		1.377			
RECO Off pk		0.721			
Constant Blk 1 \$	(26.41)				
Constant Blk 2 \$	19.90				
Winter - all hrs	1.181		0.989	0.925	0.922
RECO On pk		1.524			
RECO Off pk		0.883			
Annual - all hrs	1.102	1.069	0.964	0.894	0.893

DEMAND RATES

includes energy and Ancillary Services, G&T obligations charged separately - adjusted to billing time periods

	<u>SC2 Dem Multiplier</u>	<u>SC2 Dem Constant</u>	PLUS:			
			<u>Gen Cost (per kW of Billed Demand/Month)</u>			
			<u>0</u>	<u>< 5 kW</u>	<u>> 5 kW</u>	
Summer - all hrs	0.975	(10.958)				
Winter - all hrs	1.070	(10.625)				
Annual - including T&G Obl \$	1.036					
			summer \$	- \$	0.801 \$	2.952
			winter \$	- \$	1.034 \$	2.682

Table C Determination of Preliminary Retail Rates to be Charged to BGS Customers

All-In Average costs @ Trans node =	\$	65.90 /MWh*	* Price from Table A (which does not include
Less Transmission	\$	- /MWh**	transmission for the Central/Western Division).
BGS Cost	\$	65.90 /MWh	** RECO average transmission rate of 14.99 minus
			Central/West transmission contribution to weighted
			average rate 0.601/4.601 *\$14.99 per MWh). \$1.96

Retail BGS Rates (excl SUT) (¢/kWh)

	<u>SC1</u>	<u>SC3</u>	<u>SC2 ND</u>	<u>SC4</u>	<u>SC6</u>	<u>SC2 Dem</u>
<u>Summer</u>						
All kWh (¢/kWh)	6.616		5.898	5.384	5.377	5.329
Peak kWh (¢/kWh)		9.074				
Off-Peak kWh (¢/kWh)		4.751				
Block1	3.975					
Block2	8.606					
Demand Charge (\$/kW) 1st 5kW						0.801
Demand Charge (\$/kW) > 5 kW						2.952
<u>Winter</u>						
All kWh (¢/kWh)	7.783		6.518	6.096	6.076	5.989
Peak kWh (¢/kWh)		10.043				
Off-Peak kWh (¢/kWh)		5.819				
Demand Charge (\$/kW) 1st 5kW						1.034
Demand Charge (\$/kW) > 5 kW						2.682

Table D Calculation of Rate Adjustment Factors

	<u>SC1</u>	<u>SC3</u>	<u>SC2 ND</u>	<u>SC4</u>	<u>SC6</u>	<u>SC2 Dem</u>
<u>Total BGS Revenue (Excl SUT) - in \$1000</u>						
Summer	\$ 19,072	\$ 8	\$ 245	\$ 100	\$ 73	\$ 7,555
Winter	\$ 28,219	\$ 15	\$ 734	\$ 282	\$ 213	\$ 15,373
Total	\$ 47,291	\$ 23	\$ 979	\$ 382	\$ 286	\$ 22,928
Total						
Summer	\$ 27,053					
Winter	\$ 44,836					
Total	\$ 71,889					
<u>Total Supplier Payments - in \$1000</u>						
Eastern Division						
	<u>Total</u>	<u>Transmission</u>	<u>Net BGS</u>			
Summer	\$ 25,486		\$ 25,486		4,937.00	
Winter	\$ 37,004		\$ 37,004		9,875.00	
Total	\$ 62,490	\$ -	\$ 62,490			
Central/Western Division						
	<u>Total</u>	<u>Transmission</u>	<u>Net BGS</u>			
Summer	\$ 3,865	\$ -	\$ 3,865			
Winter	\$ 5,560	\$ -	\$ 5,560			
Total	\$ 9,425	\$ -	\$ 9,425			
Total RECO FP						
	<u>Total</u>	<u>Transmission</u>	<u>Net BGS</u>			
Summer	\$ 29,351	\$ -	\$ 29,351			
Winter	\$ 42,564	\$ -	\$ 42,564			
Total	\$ 71,915	\$ -	\$ 71,915			
Differences						
	<u>BGS Revenue</u>	<u>BGS Costs</u>	<u>Difference</u>		<u>Rate Adjustment Factors</u>	
Summer	\$ 27,053	\$ 29,351	\$ 2,298		1.08496	
Winter	\$ 44,836	\$ 42,564	\$ (2,272)		0.94932	
Total	\$ 71,889	\$ 71,915	\$ 26			

Table E Final Retail BGS Rates (¢/kWh)

Rates Excluding SUT:

	<u>SC1</u>	<u>SC3</u>	<u>SC2 ND</u>	<u>SC4</u>	<u>SC6</u>	<u>SC2 Dem</u>
<u>Summer</u>						
All kWh (¢/kWh)	7.178		6.399	5.841	5.834	5.782
Peak kWh (¢/kWh)		9.845				
Off-Peak kWh (¢/kWh)		5.155				
Block1	4.313					
Block2	9.337					
Demand Charge (\$/kW) 1st 5kW						0.869
Demand Charge (\$/kW) > 5 kW						3.203
<u>Winter</u>						
All kWh (¢/kWh)	7.389		6.188	5.787	5.768	5.685
Peak kWh (¢/kWh)		9.534				
Off-Peak kWh (¢/kWh)		5.524				
Demand Charge (\$/kW) 1st 5kW						0.982
Demand Charge (\$/kW) > 5 kW						2.546

Rates Including SUT:

	SUT @					
	<u>SC1</u>	<u>SC3</u>	<u>SC2 ND</u>	<u>SC4</u>	<u>SC6</u>	<u>SC2 Dem</u>
<u>Summer</u>						
All kWh (¢/kWh)			6.823	6.228	6.221	6.165
Peak kWh (¢/kWh)		10.497				
Off-Peak kWh (¢/kWh)		5.497				
Block1	4.599					
Block2	9.956					
Demand Charge (\$/kW) 1st 5kW						0.9300
Demand Charge (\$/kW) > 5 kW						3.4200
<u>Winter</u>						
All kWh (¢/kWh)	7.879		6.598	6.170	6.150	6.062
Peak kWh (¢/kWh)		10.166				
Off-Peak kWh (¢/kWh)		5.890				
Demand Charge (\$/kW) 1st 5kW						1.0500
Demand Charge (\$/kW) > 5 kW						2.7100

Table F Spreadsheet Error Checking

Total BGS Revenue (Excl SUT) - in \$1000

		<u>SC1</u>		<u>SC3</u>		<u>SC2 ND</u>		<u>SC4</u>		<u>SC6</u>		<u>SC2 Dem</u>
Summer	\$	20,692	\$	8	\$	266	\$	108	\$	79	\$	8,197
Winter	\$	26,790	\$	15	\$	696	\$	267	\$	202	\$	14,593
Total	\$	47,482	\$	23	\$	962	\$	375	\$	281	\$	22,790
Total												
Summer	\$	29,350										
Winter	\$	42,563										
Total	\$	71,913										

Supplier Payments - in \$1000

Eastern Division

		<u>Total</u>	<u>Transmission</u>	<u>Net BGS</u>	
Summer	\$	25,486	\$ -	\$ 25,486	4937
Winter	\$	37,004	\$ -	\$ 37,004	9875
Total	\$	62,490	\$ -	\$ 62,490	

Central/Western Division

		<u>Total</u>	<u>Transmission</u>	<u>Net BGS</u>
Summer	\$	3,865	\$ -	\$ 3,865
Winter	\$	5,560	\$ -	\$ 5,560
Total	\$	9,425	\$ -	\$ 9,425

Total RECO FP

		<u>Total</u>	<u>Transmission</u>	<u>Net BGS</u>
Summer	\$	29,351	\$ -	\$ 29,351
Winter	\$	42,564	\$ -	\$ 42,564
Total	\$	71,915	\$ -	\$ 71,915

Differences

		<u>BGS Revenue</u>	<u>BGS Costs</u>	<u>Difference</u>
Summer	\$	29,350	\$ 29,351	\$ 1
Winter	\$	42,563	\$ 42,564	\$ 1
Total	\$	71,913	\$ 71,915	\$ 2

Attachment D

**Development of Capacity Proxy Price True-Up - \$/MWh
2022/2023 Delivery Year**

	2022/23 Delivery Year	<i>Notes:</i>
1 Zonal Capacity Price (\$/MW-day)	\$97.93	Final Zonal Net Load Price per Board Orders dated 11/13/2019 and 11/18/2020
2 Capacity Proxy Price (\$/MW-day)	<u>\$152.06</u>	
3 Capacity Proxy Price True-Up - \$/MW-day	-\$54.13	= line 1 - line 2
4 BGS-RSCP Gen Obl - MW	378.5	
5 Days in Year	365	
6 Capacity Proxy Price True-Up Annual Cost	<u>-\$7,478,491.19</u>	= line 3 * line 4 * line 5
7 Eligible Tranches	1	from Table A
8 Total Tranches	4	from Table A
9 % of tranches eligible for payment	<u>25.00%</u>	= line 7 / line 8
10 Capacity Proxy Price True-Up Cost	-\$1,869,623	= line 6 * line 9
11 Total Applicable Customer Usage @ transmission nodes - <i>in MWh</i>	948,217	
12 Eligible Customer Usage @ transmission nodes - <i>in MWh</i>	<u>237,054</u>	= line 9 * line 11
13 Capacity Proxy Price True-Up - \$/MWh	<u><u>-\$7.89</u></u>	= line 10/ line 12 - rounded to 2 decimal places

2022/2023 Final Zonal Scaling Factors, UCAP Obligations, Zonal Capacity Prices, & Zonal CTR Credit Rates

3/11/2022

Final Forecast Pool Requirement =		1.0906			
Zone	Final Zonal RPM Scaling Factor	Final Zonal UCAP Obligation, MW	Final Zonal Capacity Price (\$/MW-day)	Final Zonal CTR Credit Rate (\$/MW-UCAP Obligation-day)	Final Zonal Net Load Price (\$/MW-day)
AE	1.08230	2,868.3	\$98.19	\$0.27	\$97.93
AEP	1.10811	13,132.8	\$50.05	\$0.00	\$50.05
APS	1.09557	10,084.4	\$50.05	\$0.00	\$50.05
ATSI	1.09906	14,215.8	\$50.05	\$0.00	\$50.05
BGE	1.10651	7,457.7	\$125.12	\$16.90	\$108.22
COMED	1.08750	24,064.5	\$67.40	\$1.17	\$66.23
DAYTON	1.09500	3,761.8	\$50.05	\$0.00	\$50.05
DEOK	1.10685	5,090.6	\$72.58	\$12.84	\$59.75
DLCO	1.08891	3,158.9	\$50.05	\$0.00	\$50.05
DOM	1.12168	3,522.1	\$50.05	\$0.00	\$50.05
DPL	1.09587	4,493.8	\$98.19	\$0.27	\$97.93
EKPC	1.11879	2,791.2	\$50.05	\$0.00	\$50.05
JCPL	1.08789	6,762.8	\$98.19	\$0.27	\$97.93
METED	1.08156	3,408.9	\$96.61	\$0.00	\$96.61
OVEC	1.09674	83.7	\$50.05	\$0.00	\$50.05
PECO	1.09418	9,713.6	\$98.19	\$0.27	\$97.93
PENLC	1.07189	3,249.8	\$96.61	\$0.00	\$96.61
PEPCO	1.09560	6,870.5	\$96.15	\$0.00	\$96.15
PL	1.08962	8,413.4	\$96.61	\$0.00	\$96.61
PS	1.09781	11,098.7	\$98.19	\$0.27	\$97.93
RECO	1.08809	450.9	\$98.19	\$0.27	\$97.93
		144,694.3			