

STATE OF NEW JERSEY  
BOARD OF PUBLIC UTILITIES

IN THE MATTER OF THE PROVISION  
OF BASIC GENERATION SERVICE FOR  
THE PERIOD BEGINNING JUNE 1, 2019

Docket No. ER18040356

**ROCKLAND ELECTRIC COMPANY**

**PROPOSAL FOR  
BASIC GENERATION SERVICE  
REQUIREMENTS TO BE PROCURED EFFECTIVE  
JUNE 1, 2019**

**COMPANY SPECIFIC ADDENDUM  
COMPLIANCE FILING**

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## **RECO's COMPANY SPECIFIC ADDENDUM**

### **A. Introduction to RECO's Company Specific Filing**

In its Decision and Order dated April 25, 2018 in Docket ER18040356, the New Jersey Board of Public Utilities ("Board" or "NJBPU") directed New Jersey's four investor owned electric distribution companies ("EDCs") to file proposals with the Board by no later than July 2, 2018 on the procurement of basic generation service ("BGS") for the period beginning June 1, 2019. This document constitutes the company-specific portion of the compliance filing for Rockland Electric Company ("RECO" or the "Company") mandated by the Board. RECO's filing also includes and incorporates by reference the Proposal for BGS Requirements to be Procured Effective June 1, 2019, filed by New Jersey's four EDCs on June 29, 2018 ("EDC Compliance Filing").

### **B. Use of Committed Supply**

"Committed Supply" means any and all power supplies to which the EDCs have an existing physical or financial entitlement that may extend into or through the BGS bid period. This will include Non-Utility Generation ("NUG") contracts, including any restructured replacement power contracts; any wholesale purchases previously contracted for by the EDCs, and any generation assets, or options for/calls upon assets, still owned or under contract to the EDCs. RECO has no Committed Supply.

### **C. RECO Tranche Configuration**

In its Decision and Order issued June 18, 2012 in Docket No. ER12020150, the Board lowered the threshold for the BGS-CIEP class to include all

commercial and industrial customers with a peak load share of 500 kW and greater.<sup>1</sup> RECO continues to comply with this directive and will include these customers as one tranche (at 56.0 MW of BGS-CIEP eligible load per tranche) in the BGS-CIEP Auction.

As to the BGS-RSCP Auction, RECO currently has one 36-month tranche that terminates on May 31, 2019, two 36-month tranches that terminate on May 31, 2020, and one 36-month tranche that terminates on May 31, 2021. Accordingly, since the load requirements of RECO's Eastern Division are comprised of a total of four tranches, in the BGS-RSCP Auction for the period commencing June 1, 2019, RECO will include one 36-month tranche (for the period June 1, 2019 through May 31, 2022).

#### **D. Contingency Plans**

While not every contingency can be anticipated, the following three contingencies are of particular concern:

- (a) The Auction Process fails to provide 100 percent of RECO's BGS Load (i.e., an insufficient number of bids to provide for a fully subscribed auction volume);
- (b) A default by one of the winning bidders prior to June 1, 2019; and
- (c) A default during the supply period.

The three contingencies are discussed further below:

- (a) Insufficient Number of Bids

A viable Auction Process requires a sufficient degree of competition. To encourage a sufficient degree of competition, the volume of BGS power purchased at the

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<sup>1</sup> In accordance with the Board's December 8, 2005 Decision and Order (see footnote 13, at page 16), RECO will determine all eligibility criteria by measuring when a customer's billing demand exceeds the eligibility level during any two months of a calendar year.

Auction will be finally decided after the receipt of first round bids. Provided that there are sufficient bids at the starting price, the Auction will be held for 100 percent of the BGS Load<sup>2</sup> (i.e., both BGS-RSCP and BGS-CIEP).

It is possible, however, that the amount of initial bids will not result in a competitive auction for 100 percent of the BGS Load. Any determination to reduce the percentage of BGS Load included in the Auction Process will be made by the Auction Manager, in consultation with the EDCs and the NJBPU advisor. It is also possible that none of RECO's BGS Load tranches will be bid upon even at the starting price.

In the event that the Auction Volume is reduced to less than 100 percent of BGS Load, or there are unsubscribed tranches at the end of the Auction, each EDC will implement a contingency plan for the remaining tranches. Under RECO's contingency plan, RECO currently intends to purchase that percentage of BGS Load, not met through the Auction Process, in PJM administered markets.<sup>3</sup> This purchase is a strong feature of the Auction proposal because it provides bidders a strong incentive to participate in the Auction Process.

During the 2006 BGS Auction, RECO did not receive any bids on its BGS-CIEP tranche. As a result, RECO was forced to purchase its BGS-CIEP supply from the PJM markets. In the event that RECO is not able to auction its BGS-CIEP tranche successfully in the 2019 BGS Auction, RECO proposes to employ the following procedures:

- RECO will not submit any day-ahead energy bids, rather the BGS-CIEP load will be filled from the PJM real time market.

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<sup>2</sup> Excluding the three 36-month tranches that were auctioned off successfully in the previous two BGS-RSCP Auctions.

<sup>3</sup> While RECO's current intention is to purchase from PJM administered markets, RECO reserves the right to consider other alternatives. Although unlikely, in the event that purchases from New York Independent System Operator ("NYISO") administered markets provide a more cost effective alternative to PJM, RECO reserves the right to make purchases from NYISO administered markets.

- RECO will prepare a BGS-CIEP load backcast for the previous day and submit this backcast to PJM.
- RECO will purchase capacity credits from eRPM in PJM or from bilateral purchases on a monthly and daily basis.
- RECO will purchase ancillary services on a daily basis from the real time PJM market.
- RECO will set its CIEP Standby Fee at the level determined by the Board.
- RECO will fulfill any Class I, Class II, and Solar requirements, for its unsubscribed BGS tranches, by securing the needed PJM Generation Attributes Tracking (“GATS”) system generated renewable energy certificates (“RECs”) through any available PJM market, or bilaterally. In the event RECs are not available on the market, RECO will make the necessary Alternative Compliance Payments.
- All costs and revenue (with the exception of retail margin revenue) will flow through the reconciliation account for BGS-CIEP. Costs will include the procurement of all necessary services, including energy, capacity, ancillary services, Class I, II and Solar RECs, transmission (including SECA, transmission enhancement and RMR), and any other expenses related to the implementation of RECO’s contingency plan.

(b) Defaults prior to June 1, 2019

If a winning bidder defaults prior to the commencement of the BGS service, then the open tranches may be offered to the other winning bidder(s) or these tranches will be bid out as quickly as possible. Additional costs will be assessed against the defaulting company's BGS credit security.

(c) Defaults during the Supply Period

If a default occurs during the supply period, then Tranches supplied by the defaulting party may be offered to other suppliers, bid out, or procured in PJM administered markets. If a default involves RECO's 36-month BGS-RSCP tranches, RECO only will seek replacement supply until May 31, 2020. For the remainder of the 36-month period, RECO will seek replacement supply through whatever process is implemented by the Board for the period commencing June 1, 2020.

Additional costs will be assessed against the defaulting company's BGS credit security.

**E. Accounting and Cost Recovery**

The accounting and cost recovery that RECO proposes with respect to BGS is summarized in this section.

(a) System Control Charge ("SCC")

If applicable to RECO, the SCC will be calculated initially, and then annually on a cents per kWh basis and the charge will be applied to all of the Company's electric distribution customers. This charge would be published in a separate SCC tariff leaf. This tariff leaf would be filed with the Board upon the Board's issuance of the appropriate order(s). If applicable to RECO, the SCC would be applied to all distribution customers' bills to provide recovery for appliance cycling load management costs. The charge would be set initially to recover estimated annual expenditures as approved by the Board. The SCC would be subject to deferred accounting with interest at the rate applicable to SBC deferrals.

(b) BGS-RSCP and BGS-CIEP Reconciliation Charges

In its Decision and Order in Docket No. ER12070643, the Board approved the Company's proposal to change the BGS-RSCP and BGS-CIEP reconciliation charges from a monthly to a quarterly mechanism. RECO will track and defer separately for the BGS-RSCP and BGS-CIEP classes of customers, on a monthly basis, any differences between BGS revenue and BGS costs.

BGS costs are comprised of the following:

1. Payments made to BGS-RSCP and BGS-CIEP suppliers;
2. RECO's pro-rata share of any procurement of capacity, energy, and ancillary services, pursuant to its FERC-approved Power Supply Agreement, and other costs incurred, including hedging and costs associated with the RECO Request for Proposal ("RFP");
3. The cost of any procurement of capacity, energy, ancillary services, transmission, and other costs incurred under the Contingency Plan less any payments recovered from defaulting suppliers;
4. Costs incurred by RECO to participate in the BGS Auction as well as any costs incurred to conduct the RECO RFP, including outside attorney and consultant expenses and other costs incurred by or allocated to RECO related to the conduct of the Auction; and
5. Any incremental administrative costs, including any costs related to compliance with Renewable Portfolio Standards, associated with the provision of BGS service.

Reconciliation charges are necessary to reconcile the differences between monthly BGS supply costs and BGS revenues from customers for BGS service.

Separate BGS-RSCP and BGS-CIEP Reconciliation Charges, applicable to all BGS-RSCP and BGS-CIEP customers, respectively, will be calculated and assessed quarterly on a cents per kWh basis to reconcile previous over- or under-collections. The BGS-RSCP and BGS-CIEP Reconciliation Charges will be published in separate BGS



Reconciliation Charge tariff leaves on a quarterly basis. These tariff leaves will be filed with the Board fifteen days prior to the first day of the effective quarter.

The BGS-RSCP and BGS-CIEP Reconciliation Charges will be subject to deferred accounting with interest and will be determined individually as set forth below:

The BGS-RSCP and BGS-CIEP Reconciliation Charges will be used to true up the differences between BGS costs and BGS revenues from customers. Differences in costs and cost recovery will be computed for each month in the quarter and assessed through the BGS-RSCP and BGS-CIEP Reconciliation Charges applied to customers' bills in the following quarter. Two of these differences are as follows:

1. The difference between BGS Costs and BGS revenues for each month in the quarter.
2. The difference between the total reconciliation charge revenue intended to be recovered in each quarter and the actual reconciliation charge revenues recovered in the quarter. This difference will be driven by differences between actual kWh in the quarter in which the reconciliation charge was assessed and the kWh used to calculate the charge.

The reconciliation charges to be applied in the following quarter are calculated individually for BGS-RSCP and BGS-CIEP service as the net of the two differences described above on a monthly basis for the current quarter (plus or minus any cumulative under or over recovery from the prior quarter) divided by the forecasted BGS kWh for the following quarter.

For any given quarter, the reconciliation charges shall not exceed a charge or credit of 2.0 cents per kWh, including sales and use tax. In the event the 2.0 cents per kWh limit is imposed, any remaining over- or under-collection balance shall be included in the subsequent quarter's reconciliation charges to the extent possible within the 2.0 cents per kWh limitation.

The following table summarizes RECO's current process.

Reconciliation for the Months of:	Quarter Rate is In Effect:
February - April	June 1 - August 31
May - July	September 1 - November 30
August - October	December 1 - February 28
November - January	March 1 - May 31

Interest will be applied based on two-year constant maturity treasuries as published in the Federal Reserve Statistical Release on the first day of each month or the closest day thereafter on which rates are published, plus 60-basis points. However, the interest rate shall not exceed the Company's overall rate of return as authorized by the Board. The interest rate will be determined for each month in the quarter based on the criteria above.

**F. Description of BGS Tariff Changes**

Draft tariff leaves indicating "X.XXX" for the rates that will change as a result of the BGS-RSCP and BGS-CIEP Auctions are included in Attachment A. For the BGS rates applicable to BGS-RSCP eligible SC No. 2 demand billed customers, the Company is maintaining the 33% demand differential for the first 5 kW and above 5 kW demand that was previously approved in its filing in Docket No. ER14040370.

Final tariff leaves including the actual BGS rates and tariff provisions to become effective on June 1, 2019 will be filed with the Board upon its issuance of an appropriate Board order approving the BGS Auction Process.

**G. RECO RFP**

Rockland's Central and Western divisions are physically connected to the New York Control Area administered by the New York Independent System Operator ("NYISO"). Therefore, RECO must purchase the energy and capacity needs of its Central and Western BGS customers from markets administered by the NYISO. As explained below, RECO does not need to conduct an RFP for the 2019 BGS auction.

With regard to the purchase of energy, in the Board's November 21, 2017 Order in Docket No. ER17040335, the Board approved a Request for Proposal ("RFP") process for Rockland to solicit competitive bids from qualified bidders for fixed energy supply prices for BGS customers in Rockland's Central and Western Divisions, commencing June 1, 2018. On January 30, 2018, Rockland conducted its RFP for the period June 1, 2018 through May 31, 2021. As a result of the RFP, RECO entered into a three year Fixed for Floating Energy Swap contract with Shell Trading Risk Management, LLC. The Board approved this RFP result in its February 8, 2018 Order in ER17040335. The RFP price will be rolled into Rockland's BGS auction price to develop a weighted average BGS-RSCP price for the period June 1, 2019 through May 31, 2020. Therefore, RECO does not need to conduct an RFP for the 2019 BGS auction.

With regard to the procurement of capacity, on August 16, 2013, the Federal Energy Regulatory Commission ("FERC") approved the creation of a new capacity market zone in the Lower Hudson Valley region encompassing NYISO Load

Zones G, H, I, and J in FERC docket number ER13-1380. Lower Hudson Valley capacity is not actively traded, and the Company does not expect the above to change before the BGS Auction.<sup>4</sup> As a result of the capacity market changes at the NYISO noted above, Rockland will purchase the capacity needs of its BGS customers in its Central and Western Divisions in the NYISO capacity market and blend its forecast of those prices into the BGS-RSCP price. This is the same proposal approved by the Board in its October 31, 2016 Order in Docket number ER16040337. The impact of these capacity purchases are expected to be minimal because the Company's Central and Western Divisions constitute only about ten percent of the Company's BGS load.

## **H. BGS Rate Design Methodology**

### RECO BGS Pricing Spreadsheet

As described in the EDC Compliance Filing, the resulting charge for each BGS rate element (e.g., Service Classification No. 1 summer charge, winter charge) for BGS supply service will be based on a factor applied to the tranche weighted average of the winning BGS-RSCP bid prices adjusted for the seasonal payment factors. These factors have been developed based on the ratios of the estimated underlying market costs of each rate element (for each service classification) to the overall all-in BGS cost. The tables included in Attachment B present all of the input data, intermediate calculations, and the final results in the calculation of these factors.

Table #1 (% Usage during PJM On-Peak Period) contains the percentage of on-peak load, by month, for each service classification. The on-peak period as used

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<sup>4</sup> Such cleared products are necessary benchmarks that enable bidders to develop their bids for financial hedging contracts.

in this table (referred to as PJM periods) is defined as the 16-hour period from 7 AM to 11 PM, Monday through Friday. All remaining weekday hours and all hours on weekends and holidays recognized by the National Electric Reliability Council (“NERC”) are considered the off-peak period. This is consistent with the time periods used in the forwards market for trading of bulk power. The values in this table for each month are the average on-peak percentages from the year 2017 based on load profile information.

Table #2 (% Usage During RECO On-Peak Billing Period) contains percentages of on-peak load, by month, for RECO BGS-RSCP service classifications that are billed on a time of use basis (Service Classification No. 3). These percentages are based on RECO’s time periods used for customer billing.

Table #3 (Class Usage @ customer) contains monthly sales forecasted for the calendar year 2019 with a migration adjustment for retail access. The values in Table #3 will be updated in January 2019 to better reflect the amount by Service Classification that could be in effect starting on June 1, 2019.

Table #4 (Forward Prices – Energy Only @ bulk system) contains the forward prices for energy, by time period and month for the BGS analysis period. These values are a weighted average forecast of PJM and NYISO energy prices as calculated in Table #18. The PJM values are the published energy on-peak forwards for the PJM West trading hub for the period of June 2019 to May 2020, and an estimate based on off/on peak LMP ratios for the off-peak periods of each month. The NYISO values are based on a combination of forward and historical prices. An adjustment to the PJM forward prices used to calculate the prices contained in Table #4 must be made to correct for the effects of the basis differential in the PJM system between the PJM

West trading hub and the RECO zone where the BGS supply will be utilized. Table #18 contains an estimate of this basis differential, by month and time period, which when multiplied by the prices at the PJM West trading hub will result in costs for power delivered into RECO's PJM zone.

Table #5 (Losses) contains the factors utilized for average system losses, including PJM losses and unaccounted for supply (net of marginal losses) that are input by service classification and voltage level. Loss factors are those in RECO's current, Board approved, Third Party Supplier Agreement. PJM losses are the average percentage PJM EHV losses plus Inadvertent Energy for the period of June 2015 to May 2018, which equals 0.4666%. Marginal losses are excluded from the loss factors based on historic de-rating factors for the period January 2015 to December 2017.

Table #6 (Summary of Average BGS Energy Only Unit Costs @ customer – PJM Time Periods) is the calculation of the energy only costs by service classification, time period and season. These values are the seasonal and time period average costs per MWh as measured at the customer billing meter (from Table #3), based on the forward prices (from Table #4) adjusted for losses (from Table #5), and monthly time period weights (from Table #1). These average costs do not include the costs associated with Ancillary Services, Renewable Portfolio Standard compliance, Generation Capacity or Transmission costs, which will be considered in subsequent calculations.

Table #7 (Summary of Average BGS Energy Only Costs @ customer – PJM Time Periods) indicates the total value, in thousands of dollars, of the average BGS energy-only costs. These are the results of the multiplication of the unit costs

from Table #6, the monthly time period weights from Table #1 and the total sales to customers from Table #3.

Since the end result of these calculations is to be utilized in the development of retail BGS rates, the rates utilizing time of use pricing must be developed based upon the time periods as defined for billing.

Table #8 (Summary of Average BGS Energy Only Units Costs @ customer – RECO Time Periods) shows the result of this adjustment for Service Classification No. 3 rates billed on a time of use basis. These values are calculated by starting with the values in Table #6. Because RECO bills fewer peak hours than the peak hours defined by PJM, the prices in Table #6 would result in a revenue shortfall when applied to RECO's Service Classification No. 3 peak and off-peak kWh consumption. To correct for this difference, the shortfall is divided by the total kWh for Service Classification No. 3 and the resulting per unit shortfall is added to both the on-peak and off-peak charges in Table #6 to arrive at the prices in Table #8. The next steps set up the values necessary for the inclusion of the costs of the Generation Capacity and Transmission.

The top portion of Table #9 (Generation & Transmission Obligations and Costs and Other Adjustments) shows the total obligations with a migration adjustment, by rate schedule, that are currently being utilized in the year 2018. The values in the top portion of Table #9 will be updated in January 2019 to better reflect the aggregate amount by rate schedule that could be in effect on June 1, 2019. The middle portion of this table shows the number of summer and winter days and months that are used in this analysis. The bottom portion of this table shows the annual cost for transmission service and the average price of generation capacity for the three relevant RPM

auctions. The cost of transmission service is equal to the rate in the PJM Open Access Transmission Tariff for network transmission service in the RECO zone. The generation capacity costs used are the relevant current wholesale market prices for capacity. The generation capacity costs are based on an estimate of the relevant current wholesale market prices in the PJM (i.e., three-year average for the period 2019 to 2022 for RECO), and NYISO zones as calculated in Table #19. Also shown is the level of blocking in the BGS charges for Service Classification (“SC”) Nos. 1 and 5, which will be utilized in the later calculations of the blocking of BGS charges for these service classifications.

An estimate of the cost of ancillary services and Renewable Portfolio Standard is included in Table #10 (Ancillary Services and Renewable Portfolio Standard). The Ancillary Services estimate is a weighted average of estimated Ancillary Services costs in RECO’s PJM zone (i.e., \$2 per MWh) and RECO’s estimate of Ancillary Services costs in RECO’s NYISO zone as calculated in Table #20. Additionally, Renewable Portfolio Standard costs estimated to be \$19.17 per MWh are included in the calculation of the BGS-RSCP rates to reflect compliance costs.

Table #11 (Summary of Obligation Costs Expressed as \$/MWh @ customer for non-demand rates only) shows the result of the allocation of both the transmission and generation costs on a per MWh basis to those service classifications under which BGS service will be billed only on a per kWh basis.

Table #12 (Summary of BGS Unit Costs @ customer) is the result of the inclusion of the transmission, generation capacity, and Ancillary Services costs to the costs shown in Table #8. The bottom portion of this table shows the total estimated



costs for BGS, based on the assumptions utilized in the above tables, and the average per unit cost, as measured at the customer meters and the bulk system meters.

Table #13 (Ratio of BGS Unit Costs @ customer to All-In Average Cost @ transmission nodes) indicates the ratio of the individual rate element costs from Table #12 to the overall all-in cost as measured at the bulk system plus constant, where applicable.

Table #14 (Summary of BGS Unit Costs Less Transmission @customer) provides the BGS unit costs as developed in Table 12, with the exception of transmission. The bottom portion of the table shows the total estimated costs for BGS less transmission costs and the average unit cost as measured at the customer meters and the bulk system.

Table #15 (Ratio of BGS Unit Costs Less Transmission @ customer to All-In Average Cost @ transmission nodes) indicates the ratio of the individual rate element costs from Table #14 to the overall all-in cost as measured at the bulk system. These ratios are used to establish the BGS prices to retail customers.

Table #16 (Summary of Total BGS Costs by Season) shows the summary of the total and percentage of costs by rate and by season. A calculation in the lower portion of this table shows the resulting average costs per MWh for the winter and summer costs and MWhs, while the ratio of these seasonal unit costs to the all-in cost (from Table #12) is shown in the lower right hand portion of this table.

Table #17 (Summary of Total BGS Costs by Season Less Transmission) shows the summary of the total and percentage of costs by rate and by season. This is similar to the values indicated in Table #16, however this table excludes the cost for transmission. A calculation in the lower portion of this table shows the resulting

average costs per MWh for the winter and summer costs and MWhs, while the ratio of these seasonal unit costs to the all-in cost (from Table #14) is shown in the lower right hand portion of this table.

Tables #18 (Forward Energy Prices), #19 (Generation Capacity Prices), and #20 (Ancillary Services and Renewable Portfolio Standard Prices) show the calculation of weighted average prices for energy, generation capacity and Ancillary Services as more fully described under “Table #4”, “Table #9” and “Table #10”. An estimate of the effects of the cost of the Renewable Portfolio Standard is included in the development of the final BGS rates. The values of \$2.00 per MWh and \$19.17 per MWh are used, respectively for ancillary services and Renewable Portfolio Standard Prices. Since the actual costs are a complex combination of many factors, this Board-approved estimate of the overall annual average value, expressed on a dollar per MWh basis, is used as a reasonable and practical alternative.

The second spreadsheet used in the calculation of the final BGS-RSCP rates is included as Attachment C. The tables in this spreadsheet calculate the weighted average winning bid price and convert it into the final BGS-RSCP rates that are charged to customers. An explanation of each of the six tables, labeled as Table A through F, is as follows:

Table A (Weighted Average Price Calculation) contains the results of the BGS (i.e., current and prior two) auctions, and the impacts of RECO’s RFP for the Central and Western Divisions.<sup>5</sup> However, upon the conclusion of the RECO RFP cost will be applied to the results of the prior two BGS auctions. From these values, the

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<sup>5</sup> The prices shown for the tranches to be secured in the 2019 auction and RFP are for illustrative purposes only, and will be replaced with actual data in determining RECO's final June 2019 BGS-RSCP rates.

weighted average total price (shown on line #25) is calculated. All of the formulas used in this table are shown in the right hand column of this table, under the head of “Notes.” To the extent the seasonal factors for the 12-month BGS period beginning June 1, 2019 (as calculated in Table #16) produce a summer payment factor less than one and a winter payment factor greater than one, the Company reserves its right to set the seasonal factors to 1.0 for both the Summer and Winter periods in any updates to the Company’s BGS Pricing Spreadsheet. Accordingly, the Company has set the seasonal factors to 1.0 for both the Summer and Winter periods.

Table B (Ratio of BGS Unit Costs Less Transmission @ Customer to All-In Average Cost @ transmission nodes) is a repeat of the values shown in Table #15 from Attachment B, the bid factors calculated based on current market conditions.

Table C (Determination of Preliminary Retail Rates to be Charged to BGS Customers) contains the preliminary customer BGS-RSCP rates as the product of the weighted average total price (from Table A), excluding the weighted average transmission rate included therein, and the Bid Factors from Table B.

Table D (Calculation of Rate Adjustment Factors) contains a comparison of the total anticipated rate revenue billed to customers based on the preliminary BGS-RSCP rates developed in Table C and the anticipated total season payments to BGS suppliers, based on the data in Table A. The calculation of the Rate Adjustment Factors is also performed in this table. These factors are equal to the seasonal dollar differences between the anticipated billed revenue and supplier payments, divided by the total anticipated seasonal billed BGS-RSCP energy related charges.

Table E (Final Retail BGS Rates) contains the final adjusted BGS-RSCP rates, which are equal to the preliminary BGS–RSCP rates shown in Table C times the seasonal Rate Adjustment Factors that were developed in Table D. The resulting rates are then adjusted to include the New Jersey Sales and Use Tax at the rate of 6.625%.

Table F (Spreadsheet Error Checking) contains a comparison of the total anticipated rate revenue billed to customers based on the final BGS-RSCP rates developed in Table E and the anticipated total season payments to BGS suppliers, based on the data in Table A.

#### **I. Transmission Charges**

The transmission charges applicable to RECO’s BGS-RSCP and BGS-CIEP customers are based on the currently effective transmission rates applicable to the RECO zone, as stated in PJM’s Open Access Transmission Tariff (“PJM Transmission Rates”). The PJM Transmission Rates will change from time to time as FERC approves changes in the PJM Open Access Transmission Tariff. Such changes in the PJM Transmission Rates, including but not limited to changes associated with the Seams Elimination Charge/Cost Adjustments/Assignments (“SECA”), Transmission Enhancement Charges (“TECs”) and Reliability Must Run (“RMR”) charges, will result in changes to RECO’s transmission rates applicable to its BGS-RSCP and BGS-CIEP customers. RECO will review and verify the basis for any transmission cost adjustment, and file supporting documentation from the PJM Transmission Rates as well as any rate translation spreadsheets used.

#### **J. Conclusion**

In connection with this filing, the Company requests that the Board issue an order making the following findings and determinations:

1. The Company's proposed treatment of its Committed Supply is approved by the Board;
2. The Company's proposed accounting for BGS is approved by the Board for purposes of accounting and BGS cost recovery;
3. There will exist a presumption of prudence with respect to the BGS Auction Plan method and the costs incurred for BGS service under the Auction Plan;
4. RECO's Contingency Plan is approved by the Board, and the costs incurred as a result of this Contingency Plan are presumptively prudent, subject to deferral, and approved for full and timely recovery;
5. The RECO-specific statewide Auction results are approved by the Board and produce BGS supply costs that are reasonable and prudent, subject to deferral, and approved for full and timely recovery;
6. The Company's proposal for its Central and Western Divisions is approved by the Board; and
7. The Company's Rate Design Methodology and Tariff Sheets are approved by the Board.

**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, 5 and 6

Applicable to Service Classification Nos. 1, 2 (Non-Demand Billed), 3, 4, 5, and 6  
 Charges per kilowatthour:

<u>Service Classification</u>	<u>Summer Months*</u>	<u>Other Months</u>
1 – First 600 kWh	x.xxx¢	x.xxx¢
1 – Over 600 kWh	x.xxx¢	x.xxx¢
2 - (Non-Demand Billed) – All kWh	x.xxx¢	x.xxx¢
3 – Peak	xx.xxx¢	xx.xxx¢
3 – Off-Peak	x.xxx¢	x.xxx¢
4 – All kWh	x.xxx¢	x.xxx¢
5 – First 600 kWh	x.xxx¢	x.xxx¢
5 – Over 600 kWh	x.xxx¢	x.xxx¢
6 – All kWh	x.xxx¢	x.xxx¢

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)	x.xx	x.xx
Over 5 kW (\$/kW)	x.xx	x.xx
Usage Charges		
All kWh (¢/kWh)	x.xxx¢	x.xxx¢

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:

EFFECTIVE:

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

**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..... \$ X.XXX

Charge applicable in other months..... \$ X.XXX

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:

EFFECTIVE:

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

**Development of BGS Cost and Bid Factors for Rates Effective June 1, 2019**

*Based on 2017 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**

	<i>Profile Meter Data</i>	<i>Profile Meter Data</i>	<i>Profile Meter Data</i>	<i>Profile Meter Data</i>	<i>--- Other Analysis ---</i>		<i>Profile Meter Data</i>
	<b><u>SC1</u></b>	<b><u>SC5</u></b>	<b><u>SC3</u></b>	<b><u>SC2 ND</u></b>	<b><u>SC4</u></b>	<b><u>SC6</u></b>	<b><u>SC2 Dem</u></b>
January	50.74%	47.37%	47.68%	51.21%	30.41%	30.41%	53.47%
February	50.20%	45.82%	48.45%	52.14%	30.61%	30.61%	53.93%
March	48.78%	44.47%	45.41%	49.42%	29.27%	29.27%	53.20%
April	49.19%	44.00%	47.68%	57.21%	28.14%	28.14%	54.44%
May	53.66%	49.88%	51.35%	61.01%	23.12%	23.12%	56.70%
June	53.74%	52.07%	51.83%	61.20%	20.62%	20.62%	55.68%
July	52.25%	51.03%	50.86%	56.12%	19.69%	19.69%	53.36%
August	57.40%	56.50%	55.93%	62.34%	22.34%	22.34%	58.01%
September	48.66%	47.23%	46.95%	56.21%	25.48%	25.48%	51.95%
October	53.81%	51.53%	52.90%	58.81%	30.52%	30.52%	57.62%
November	49.55%	43.94%	46.03%	51.83%	29.81%	29.81%	54.50%
December	45.43%	39.33%	43.79%	47.26%	27.65%	27.65%	49.36%

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

*On-Peak periods as defined in specified rate schedule*

	<i>N/A</i>	<i>N/A</i>		<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>
<i>(data rounded to nearest %)</i>	<b><u>SC1</u></b>	<b><u>SC5</u></b>	<b><u>SC3</u></b>	<b><u>SC2 ND</u></b>	<b><u>SC4</u></b>	<b><u>SC6</u></b>	<b><u>SC2 Dem</u></b>
January	----	----	34.1%	----	----	----	----
February	----	----	37.3%	----	----	----	----
March	----	----	34.5%	----	----	----	----
April	----	----	34.1%	----	----	----	----
May	----	----	35.3%	----	----	----	----
June	----	----	34.8%	----	----	----	----
July	----	----	37.7%	----	----	----	----
August	----	----	41.2%	----	----	----	----
September	----	----	39.1%	----	----	----	----
October	----	----	40.4%	----	----	----	----
November	----	----	37.5%	----	----	----	----
December	----	----	36.5%	----	----	----	----



**Table #3 Class Usage @ customer**

*Calendar month billed sales forecasted for 2019  
in MWh*

	<u>SC1</u>	<u>SC5</u>	<u>SC3</u>	<u>SC2 ND</u>	<u>SC4</u>	<u>SC6</u>	<u>SC2 Dem</u>	<u>Total</u>
January	54,663	1,534	28	2,286	504	491	28,402	87,906
February	46,445	1,410	27	2,501	437	439	27,623	78,881
March	42,590	1,217	23	2,281	433	386	27,511	74,439
April	37,962	962	22	1,703	353	414	25,296	66,710
May	40,224	830	17	1,620	330	392	27,193	70,605
June	54,363	906	19	1,447	290	389	26,799	84,212
July	76,539	1,229	24	1,942	314	390	33,069	113,506
August	79,220	1,221	22	1,823	370	342	31,334	114,330
September	66,800	1,139	17	1,764	388	454	31,807	102,368
October	44,524	925	16	1,026	447	486	24,879	72,301
November	42,309	887	18	2,235	500	514	26,450	72,913
December	<u>48,691</u>	<u>1,311</u>	<u>28</u>	<u>2,246</u>	<u>512</u>	<u>560</u>	<u>28,332</u>	<u>81,679</u>
Total	634,328	13,568	255	22,874	4,875	5,255	338,696	1,019,849

**Table #4 Forwards Prices - Energy Only @ bulk system**

*in \$/MWh (See Table 18)*

	<u>On-Peak</u>	<u>Off-Peak</u>
January	47.95	36.84
February	45.18	34.68
March	35.12	27.28
April	30.06	22.98
May	29.83	22.85
June	30.27	18.47
July	35.94	21.79
August	33.46	20.33
September	30.28	18.52
October	29.78	22.76
November	29.95	22.88
December	33.87	26.29

**Table #5 Losses**

	<u>SC1</u>	<u>SC5</u>	<u>SC3</u>	<u>SC2 ND</u>	<u>SC4</u>	<u>SC6</u>	<u>SC2 Dem</u>
Expansion Factor =	1.08493	1.08493	1.08493	1.08493	1.08115	1.08115	1.08493
Expansion Factor (net Marginal Losses)	1.07456	1.07456	1.07456	1.07456	1.07082	1.07082	1.07456

**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>SC5</u>	<u>SC3</u>	<u>SC2 ND</u>	<u>SC4</u>	<u>SC6</u>	<u>SC2 Dem</u>
Summer - all hrs	\$	29.03	\$ 28.78	\$ 28.86	\$ 29.74	\$ 24.40	\$ 24.33	\$ 29.11
	PJM on pk	\$ 35.58	\$ 35.53	\$ 35.63	\$ 35.44	\$ 34.92	\$ 34.83	\$ 35.39
	PJM off pk	\$ 21.59	\$ 21.55	\$ 21.62	\$ 21.60	\$ 21.39	\$ 21.34	\$ 21.53
Winter - all hrs	\$	34.37	\$ 34.72	\$ 34.66	\$ 34.99	\$ 32.19	\$ 31.88	\$ 34.34
	PJM on pk	\$ 38.82	\$ 39.75	\$ 39.41	\$ 39.07	\$ 38.75	\$ 38.40	\$ 38.33
	PJM off pk	\$ 29.90	\$ 30.52	\$ 30.36	\$ 30.43	\$ 29.52	\$ 29.24	\$ 29.64
Annual	\$	32.04	\$ 32.76	\$ 32.84	\$ 33.39	\$ 30.01	\$ 29.62	\$ 32.44
System Total	\$	32.19						

**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>SC5</u>	<u>SC3</u>	<u>SC2 ND</u>	<u>SC4</u>	<u>SC6</u>	<u>SC2 Dem</u>
Summer - all hrs	\$	8,039	\$ 129	\$ 2	\$ 207	\$ 33	\$ 38	\$ 3,581
	PJM on pk	\$ 5,237	\$ 83	\$ 1	\$ 145	\$ 11	\$ 12	\$ 2,381
	PJM off pk	\$ 2,801	\$ 47	\$ 1	\$ 62	\$ 23	\$ 26	\$ 1,200
Winter - all hrs	\$	12,284	\$ 315	\$ 6	\$ 556	\$ 113	\$ 117	\$ 7,407
	PJM on pk	\$ 6,953	\$ 164	\$ 3	\$ 328	\$ 39	\$ 41	\$ 4,471
	PJM off pk	\$ 5,331	\$ 151	\$ 3	\$ 229	\$ 74	\$ 77	\$ 2,936
Annual	\$	20,322	\$ 444	\$ 8	\$ 764	\$ 146	\$ 156	\$ 10,988
System Total	\$	32,829						

**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>SC5</u>		<u>SC3</u>		<u>SC2 ND</u>		<u>SC4</u>		<u>SC6</u>		<u>SC2 Dem</u>
Summer - all hrs	\$	29.03	\$	28.78	\$	28.86	\$	29.74	\$	24.40	\$	24.33	\$	29.11
RECO On pk														
RECO Off pk														
Winter - all hrs	\$	34.37	\$	34.72	\$	34.66	\$	34.99	\$	32.19	\$	31.88	\$	34.34
RECO On pk														
RECO Off pk														
Annual Average	\$	32.04	\$	32.76	\$	32.84	\$	33.39	\$	30.01	\$	29.62	\$	32.44
System Average	\$	32.19												

**Table #9 Generation & Transmission Obligations and Costs and Other Adjustments**

*Obligations - annual average forecasted for 2018; costs are market estimates in MW*

		<u>SC1</u>	<u>SC5</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		345.625	4.594	0.088	5.223	0.0	0.0	104.298	459.828
Trans Obl - MW		257.262	3.488	0.067	4.231	0.0	0.0	86.768	351.816
# of Months and Days used in this analysis									
			# of summer days =	122	# of summer months =	4			
			# of winter days =	244	# of winter months =	8			
					total # months =	12			
Transmission Cost*	\$	42,548	per MW-yr	116.57					
Generation Capacity cost (see Table 19)	summer		\$170.16 \$/MW/day		Resulting avg gen cap cost =	summer >> \$	62.11	per kW/yr	
	winter		\$145.31 \$/MW/day			winter >> \$	53.04	per kW/yr	
Current residential summer BGS charges									
Current Tariff and % of total summer usage									
		----- <u>SC1</u> -----				----- <u>SC5</u> -----			
		Charges		% usage		Chgs (¢/kWh)	Differences	% usage	
Block 1 (0-600 kWh/month)		6.748 ¢/kWh		42.10%		Block 1 (0-600 kWh/month)	7.031	61.66%	
Block 2 (>600 kWh/m)		9.620 ¢/kWh		57.90%		Block 2 (>600 kWh/m)	9.059	38.35%	
Calculated inversion =		2.872 ¢/kWh					2.028		

**Table #10 Ancillary Services**

*forecasted overall annual average* \$21.13 /MWh

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

	<u>SC1</u>	<u>SC5</u>	<u>SC3</u>	<u>SC2 ND</u>	<u>SC4</u>	<u>SC6</u>
Transmission Obl - all months \$	17.26 \$	10.94 \$	11.18 \$	7.87 \$	- \$	-
Generation Obl -						
per annual MWh \$	30.63 \$	19.03 \$	19.40 \$	12.84 \$	- \$	-
per summer MWh \$	25.91 \$	21.22 \$	22.84 \$	15.54 \$	- \$	-
per winter MWh \$	34.29 \$	17.95 \$	17.83 \$	11.65 \$	- \$	-

**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>SC5</u>	<u>SC3</u>	<u>SC2 ND</u>	<u>SC4</u>	<u>SC6</u>
Summer - all hrs \$	93.32 \$	82.07 \$	84.00 \$	74.28 \$	45.53 \$	45.46
RECO On pk			\$ 129.51			
RECO Off pk			\$ 55.81			
Block 1 \$	76.70 \$	74.30				
Block 2 \$	105.42 \$	94.58				
Winter - all hrs \$	107.04 \$	84.74 \$	84.80 \$	75.63 \$	53.32 \$	53.01
RECO On pk			\$ 122.28			
RECO Off pk			\$ 63.71			
Annual -all hrs \$	101.05 \$	83.86 \$	84.55 \$	75.22 \$	51.14 \$	50.75

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

	<u>SC2 Dem</u>	<b>PLUS:</b>		
Summer - all hrs \$	50.24		<u>Gen Cost (per kW of Billed Demand/Month)</u>	
				<b>≤ 5 kW      &gt; 5 kW</b>
Winter - all hrs \$	55.47		summer \$	1.756 \$      6.096
			winter \$	1.568 \$      5.552
Annual - all hrs per MWh only \$	53.57		<u>Trans cost</u>	
			all months \$	3.55 per kW of T obl /month

**Table #12 (Continued)**

<u>Including T&amp;G Obligation \$</u>		<u>Gen Cost (per kW of Billed Demand/Month)</u>			
Summer - all hrs	\$ 81.58				
			<b>≤ 5 kW</b>	<b>&gt; 5 kW</b>	
		summer	\$ 1.756	\$ 6.096	
Winter - all hrs	\$ 87.41	winter	\$ 1.568	\$ 5.552	
Annual - including T&G Obl \$	\$ 81.78				

**ALL RATES**

Grand Total Cost in \$1000 = \$	95,196		
All-In Average cost @ customer = \$		93.34	per MWh at customer (per customer metered MWh)
All-In Average costs @ transmission nodes = \$		86.87	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>SC5</u>	<u>SC3</u>	<u>SC2 ND</u>	<u>SC4</u>	<u>SC6</u>
Summer - all hrs	1.074	0.945		0.855	0.524	0.523
RECO On pk			1.491			
RECO Off pk			0.642			
Constant Blk 1 \$	(16.63)	(7.78)				
Constant Blk 2 \$	12.09	12.50				
Winter - all hrs	1.232	0.976		0.871	0.614	0.610
RECO On pk			1.408			
RECO Off pk			0.733			
Annual - all hrs	1.163	0.965	0.973	0.866	0.589	0.584



**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>	<b>PLUS:</b>			
		<u>Gen Cost (per kW of Billed Demand/Month)</u>			
				<u>&lt; 5 kW</u>	<u>&gt; 5 kW</u>
Summer - all hrs	\$ 50.24				
Winter - all hrs	\$ 55.47	summer	\$ 1.756	\$ 6.096	
		winter	\$ 1.568	\$ 5.552	
Annual - all hrs per MWh only	\$ 53.57				
<u>Including Generation Obligation \$</u>					
Summer - all hrs	\$ 71.58				
Winter - all hrs	\$ 76.00				
Annual - including T&G Obl \$	\$ 74.40				

**ALL RATES**

Grand Total Cost in \$1000 = \$	81,417	
All-In Average cost @ customer = \$		79.83 per MWh at customer (per customer metered MWh)
All-In Average costs @ transmission nodes = \$		74.30 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>SC5</u>	<u>SC3</u>	<u>SC2 ND</u>	<u>SC4</u>	<u>SC6</u>
Summer - all hrs	1.024	0.957		0.894	0.613	0.612
RECO On pk			1.593			
RECO Off pk			0.601			
<b>Constant Blk 1 \$</b>	<b>(16.63) \$</b>	<b>(7.78)</b>				
<b>Constant Blk 2 \$</b>	<b>12.09 \$</b>	<b>12.50</b>				
Winter - all hrs	1.208	0.993		0.912	0.718	0.713
RECO On pk			1.495			
RECO Off pk			0.707			
Annual - all hrs	1.128	0.981	0.988	0.907	0.688	0.683

**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>	<b>PLUS:</b>			
			<u>Gen Cost (per kW of Billed Demand/Month)</u>			
					<u>&lt; 5 kW</u>	<u>&gt; 5 kW</u>
Summer - all hrs	0.963	(21.337)				
Winter - all hrs	1.023	(20.532)	summer	\$	1.756	\$ 6.096
			winter	\$	1.568	\$ 5.552
Annual - including T&G Obl \$	1.001					



**Table #16 Summary of Total BGS Costs by Season**

		<u>SC1</u>		<u>SC5</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	\$	25,844	\$	369	\$	7	\$	518	\$	62	\$	72	\$	9,575
Winter	\$	38,257	\$	769	\$	15	\$	1,202	\$	187	\$	195	\$	18,124
Total	\$	64,101	\$	1,138	\$	22	\$	1,721	\$	249	\$	267	\$	27,699
% of Annual Total \$ by Rate														
Summer		40%		32%		31%		30%		25%		27%		35%
Winter		60%		68%		69%		70%		75%		73%		65%
Total Costs - in \$1000														
Summer	\$	36,446												
Winter	\$	58,750												
Total	\$	95,196												
% of Annual Total \$														
Summer		38%												
Winter		62%												
If total \$ were split on a per MWh basis (on transmission node MWhs):														
Summer				\$		81.85		per MWh @ transmission nodes						<u>Ratio to All-In Cost</u> Summer <b>0.9422</b>
Winter				\$		90.31		per MWh @ transmission nodes						Winter <b>1.0396</b>

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

		<u>SC1</u>		<u>SC5</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	\$	21,065	\$	320	\$	6	\$	463	\$	62	\$	72	\$	8,345
Winter	\$	32,090	\$	670	\$	13	\$	1,077	\$	187	\$	195	\$	15,663
Total	\$	53,155	\$	989	\$	19	\$	1,541	\$	249	\$	267	\$	24,008
% of Annual Total \$ by Rate														
Summer		40%		32%		31%		30%		25%		27%		35%
Winter		60%		68%		69%		70%		75%		73%		65%
Total Costs - in \$1000														
Summer	\$	30,332												
Winter	\$	49,895												
Total	\$	80,227												
% of Annual Total \$														
Summer		38%												
Winter		62%												
If total \$ were split on a per MWh basis (on transmission node MWhs):														
Summer				\$		68.12		per MWh @ transmission nodes						<u>Ratio to All-In Cost</u> Summer <b>0.9168</b>
Winter				\$		76.70		per MWh @ transmission nodes						Winter <b>1.0323</b>

Table #18 Forward Energy Prices

PJM Forward Prices - Energy Only @ bulk system <i>in \$/MWh</i>	<u>On-Peak</u>	<u>Off/On Peak LMP ratio</u>	Zone to Western Hub Basis Differential <i>in \$/MWh</i>			PJM Forward Prices (incl basis differential) <i>in \$/MWh</i>	
			<u>Off-Peak</u>	<u>On-Peak</u>	<u>Off-Peak</u>	<u>On-Peak</u>	<u>Off-Peak</u>
January	48.05	0.78	37.27	95%	94%	45.49	35.01
February	45.15	0.78	35.02	95%	94%	42.75	32.90
March	36.43	0.78	28.26	95%	94%	34.49	26.55
April	31.50	0.78	24.43	95%	94%	29.82	22.95
May	31.55	0.78	24.47	95%	94%	29.87	22.99
June	32.48	0.64	20.79	93%	87%	30.27	18.13
July	38.27	0.64	24.50	93%	87%	35.66	21.37
August	35.67	0.64	22.83	93%	87%	33.24	19.91
September	32.53	0.64	20.82	93%	87%	30.31	18.16
October	31.45	0.78	24.39	95%	94%	29.78	22.91
November	31.43	0.78	24.38	95%	94%	29.76	22.90
December	34.28	0.78	26.59	95%	94%	32.45	24.98

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

	<u>On-Peak</u>	<u>Off-Peak</u>
January	68.00	51.75
February	65.00	49.25
March	40.25	33.25
April	32.00	23.25
May	29.50	21.75
June	30.25	21.25
July	38.25	25.25
August	35.25	23.75
September	30.00	21.50
October	29.75	21.50
November	31.50	22.75
December	45.50	37.00

Weighted Average Forward Prices - Energy Only @ bulk  
system (89.1% PJM - 10.9% NYISO)  
*in \$/MWh*

	<u>On-Peak</u>	<u>Off-Peak</u>	
January	47.95	36.84	89.1%
February	45.18	34.68	10.9%
March	35.12	27.28	
April	30.06	22.98	
May	29.83	22.85	
June	30.27	18.47	
July	35.94	21.79	
August	33.46	20.33	
September	30.28	18.52	
October	29.78	22.76	
November	29.95	22.88	
December	33.87	26.29	

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

	<u>PJM Base Capacity</u>	<u>PJM 89.1%</u>	<u>NYISO 10.9%</u>	<u>Weighted Average</u>
Summer	\$151.03	\$151.03	\$326.32	\$170.16
Winter	\$151.03	\$151.03	98.60	\$145.31

**Table #20 Ancillary Services**

	<u>PJM Ancillary Services</u>	<u>NYISO Ancillary Services</u>	<u>Renewable Power Cost</u>	<u>PJM 89.1%</u>	<u>NYISO 10.9%</u>	<u>Weighted Average</u>
	\$2.00	\$1.63	\$19.17	\$21.17	\$20.80	\$21.13

**Assumptions:**

- Gen Cost = \$170.16 per MW-day in summer  
\$145.31 per MW-day in winter
- Trans cost = \$ 42,548 per MW-yr
- Analysis time period = 4 summer months  
8 winter months
- Ancillary Services = \$ 21.13 /MWh
- Energy Costs = Based on Jun 2018 to May 2019 Forwards @ PJM West as of June 06, 2018  
Based on Nov 2018 to Oct 2019 Forwards @ NYISO Zone G and Lower Hudson Valley (LHV) as of June 14, 2018
- Usage patterns = Forecasted 2018 energy use by class, PJM on/off % from 2017 class load profiles,  
RECO billing on/off % from 6/17 to 5/18 actual data
- Obligations = Class totals for 2018
- 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 >>	2017 Auction 36 Month	2018 Auction 36 Month	2019 Auction 36 Month	Total	Notes:
1	Tranches	1	2	1	4	From then-current auction
2	Winning Bid Price (¢/kWh)*	8.050	8.594	8.594		(Note: 2019 Auction Price Shown for Illustrative Purposes Only)
3	Transmission (¢/kWh)	1.257	1.257	1.257		Average transmission cost included in bid
4	BGS (¢/kWh)	6.793	7.337	7.337		= (2) - (3)
5	Weighted Avg BGS	1.698	3.668	1.834	7.201	= (1) / Total Tranches * (4)
6	Weighted Avg Trans	0.314	0.629	0.314	1.257	= (1) / Total Tranches * (3)
7	Weighted Avg Total Price (¢/kWh)				<b>8.458</b>	
<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	396,708				From then-current Bid Factor Spreadsheet
11	Winter MWh	<u>579,554</u>				From then-current Bid Factor Spreadsheet
12		976,262				
<u>Total Cost</u>						
13	Summer	7,983,752	17,046,551	8,523,276	33,553,579	= (1) / Total Tranches * (2c) / 100 * (8) * (10) * 1,000
14	Winter	<u>11,663,526</u>	<u>24,903,438</u>	<u>12,451,719</u>	<u>49,018,683</u>	= (1) / Total Tranches * (2c) / 100 * (9) * (11) * 1,000
15	Total	19,647,278	41,949,989	20,974,995	82,572,262	= (13) + (14)
<u>Average Cost (NJ Statewide Auction)</u>						
16	Summer	8.458 ¢/kWh				= sum(line 13) / (10) / 1000 * 100 rounded to 3 decimal places
17	Winter	8.458 ¢/kWh				= sum(line 14) / (11) / 1000 * 100 rounded to 3 decimal places
18	Total	<b>8.458 ¢/kWh</b>				= 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	0.49		4.49	Includes RECO RFP equivalent tranches
20	Price ¢/kWh	8.458	7.127			BGS Auction from (18) Note 7.127¢ for RFP is illustrative (excludes transmission).
21	Transmission	1.257	0.000			
22	BGS	7.201	7.127			= (20) - (21)
23	Weighted Avg BGS	6.415	0.778		7.193	= (19) / Total Tranches * (22)
24	Weighted Avg Trans	1.120	0.000		1.120	= (19) / Total Tranches * (21)
25	<b>Weighted Avg Total Price</b>				<b>8.313</b>	= (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>SC5</u>	<u>SC3</u>	<u>SC2 ND</u>	<u>SC4</u>	<u>SC6</u>
Summer - all hrs	1.024	0.957		0.894	0.613	0.612
RECO On pk			1.593			
RECO Off pk			0.601			
<b>Constant Blk 1 \$</b>	<b>(16.63) \$</b>	<b>(7.78)</b>				
<b>Constant Blk 2 \$</b>	<b>12.09 \$</b>	<b>12.50</b>				
Winter - all hrs	1.208	0.993		0.912	0.718	0.713
RECO On pk			1.495			
RECO Off pk			0.707			
Annual - all hrs	1.128	0.981	0.988	0.907	0.688	0.683

**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>	<b>PLUS:</b>			
Summer - all hrs	0.963	(21.337)	<u>Gen Cost (per kW of Billed Demand/Month)</u>			
				<u>0</u>	<u>&lt; 5 kW</u>	<u>&gt; 5 kW</u>
Winter - all hrs	1.023	(20.532)	summer \$	- \$	1.756 \$	6.096
			winter \$	- \$	1.568 \$	5.552
Annual - including T&G Obl \$	1.001					

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

All-In Average costs @ Trans node =	\$ 83.13 /MWh*
Less Transmission	\$ (11.20) /MWh**
BGS Cost	\$ 71.93 /MWh

\* Price from Table A (which does not include transmission for the Central/Western Division).  
 \*\* RECO average transmission rate of 12.57 minus Central/West transmission contribution to weighted average rate 0.490/4.490 \*\$12.57 per MWh). \$1.37

Retail BGS Rates (excl SUT) (¢/kWh)

	<u>SC1</u>	<u>SC5</u>	<u>SC3</u>	<u>SC2 ND</u>	<u>SC4</u>	<u>SC6</u>	<u>SC2 Dem</u>
<u>Summer</u>							
All kWh (¢/kWh)	7.365	6.883		6.430	4.409	4.402	4.793
Peak kWh (¢/kWh)			11.458				
Off-Peak kWh (¢/kWh)			4.323				
Block1	5.702	6.106					
Block2	8.574	8.134					
Demand Charge (\$/kW) 1st 5kW							1.756
Demand Charge (\$/kW) > 5 kW							6.096
<u>Winter</u>							
All kWh (¢/kWh)	8.689	7.142		6.560	5.164	5.128	5.305
Peak kWh (¢/kWh)			10.753				
Off-Peak kWh (¢/kWh)			5.085				
Demand Charge (\$/kW) 1st 5kW							1.568
Demand Charge (\$/kW) > 5 kW							5.552

**Table D Calculation of Rate Adjustment Factors**

	<u>SC1</u>	<u>SC5</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	\$ 20,395	\$ 309	\$ 6	\$ 449	\$ 60	\$ 69	\$ 8,520
Winter	\$ 31,055	\$ 648	\$ 12	\$ 1,043	\$ 181	\$ 189	\$ 15,871
Total	\$ 51,450	\$ 957	\$ 18	\$ 1,492	\$ 241	\$ 258	\$ 24,391
Total							
Summer	\$ 29,808						
Winter	\$ 48,999						
Total	\$ 78,807						
<u>Total Supplier Payments - in \$1000</u>							
Eastern Division	<u>Total</u>	<u>Transmission</u>	<u>Net BGS</u>				
Summer	\$ 33,554	\$ 4,445	\$ 29,109				
Winter	\$ 49,019	\$ 8,890	\$ 40,129				
Total	\$ 82,572	\$ 13,335	\$ 69,237				
Central/Western Division	<u>Total</u>	<u>Transmission</u>	<u>Net BGS</u>				
Summer	\$ 3,497	\$ -	\$ 3,497				
Winter	\$ 5,060	\$ -	\$ 5,060				
Total	\$ 8,557	\$ -	\$ 8,557				
Total RECO FP	<u>Total</u>	<u>Transmission</u>	<u>Net BGS</u>				
Summer	\$ 37,051	\$ 4,445	\$ 32,606				
Winter	\$ 54,079	\$ 8,890	\$ 45,189				
Total	\$ 91,129	\$ 13,335	\$ 77,794				
Differences	<u>BGS Revenue</u>	<u>BGS Costs</u>	<u>Difference</u>		<u>Rate Adjustment Factors</u>		
Summer	\$ 29,808	\$ 32,606	\$ 2,798		<b>1.09385</b>		
Winter	\$ 48,999	\$ 45,189	\$ (3,810)		<b>0.92224</b>		
Total	\$ 78,807	\$ 77,794	\$ (1,013)				

**Table E Final Retail BGS Rates (¢/kWh)**

**Rates Excluding SUT:**

	<u>SC1</u>	<u>SC5</u>	<u>SC3</u>	<u>SC2 ND</u>	<u>SC4</u>	<u>SC6</u>	<u>SC2 Dem</u>
<u>Summer</u>							
All kWh (¢/kWh)	8.056	7.529		7.033	4.823	4.815	5.243
Peak kWh (¢/kWh)			12.533				
Off-Peak kWh (¢/kWh)			4.729				
Block1	6.237	6.679					
Block2	9.379	8.897					
Demand Charge (\$/kW) 1st 5kW							1.921
Demand Charge (\$/kW) > 5 kW							6.668
<u>Winter</u>							
All kWh (¢/kWh)	8.013	6.587		6.050	4.762	4.729	4.892
Peak kWh (¢/kWh)			9.917				
Off-Peak kWh (¢/kWh)			4.690				
Demand Charge (\$/kW) 1st 5kW							1.446
Demand Charge (\$/kW) > 5 kW							5.120

**Rates Including SUT:**

	SUT @		6.625%				
	<u>SC1</u>	<u>SC5</u>	<u>SC3</u>	<u>SC2 ND</u>	<u>SC4</u>	<u>SC6</u>	<u>SC2 Dem</u>
<u>Summer</u>							
All kWh (¢/kWh)				7.499	5.143	5.134	5.590
Peak kWh (¢/kWh)			13.363				
Off-Peak kWh (¢/kWh)			5.042				
Block1	6.650	7.121					
Block2	10.000	9.486					
Demand Charge (\$/kW) 1st 5kW							2.0500
Demand Charge (\$/kW) > 5 kW							7.1100
<u>Winter</u>							
All kWh (¢/kWh)	8.544	7.023		6.451	5.077	5.042	5.216
Peak kWh (¢/kWh)			10.574				
Off-Peak kWh (¢/kWh)			5.001				
Demand Charge (\$/kW) 1st 5kW							1.5400
Demand Charge (\$/kW) > 5 kW							5.4600



**Table F Spreadsheet Error Checking**

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

	<u>SC1</u>	<u>SC5</u>	<u>SC3</u>	<u>SC2 ND</u>	<u>SC4</u>	<u>SC6</u>	<u>SC2 Dem</u>
Summer	\$ 22,309	\$ 338	\$ 6	\$ 491	\$ 66	\$ 76	\$ 9,320
Winter	\$ 28,639	\$ 598	\$ 12	\$ 962	\$ 167	\$ 174	\$ 14,635
Total	\$ 50,948	\$ 936	\$ 18	\$ 1,453	\$ 233	\$ 250	\$ 23,955
Total Summer	\$ 32,606						
Winter	\$ 45,187						
Total	\$ 77,793						

Supplier Payments - in \$1000

Eastern Division

	<u>Total</u>	<u>Transmission</u>	<u>Net BGS</u>
Summer	\$ 33,554	\$ 4,445	\$ 29,109
Winter	\$ 49,019	\$ 8,890	\$ 40,129
Total	\$ 82,572	\$ 13,335	\$ 69,237

Central/Western Division

	<u>Total</u>	<u>Transmission</u>	<u>Net BGS</u>
Summer	\$ 3,497	\$ -	\$ 3,497
Winter	\$ 5,060	\$ -	\$ 5,060
Total	\$ 8,557	\$ -	\$ 8,557

Total RECO FP

	<u>Total</u>	<u>Transmission</u>	<u>Net BGS</u>
Summer	\$ 37,051	\$ 4,445	\$ 32,606
Winter	\$ 54,079	\$ 8,890	\$ 45,189
Total	\$ 91,129	\$ 13,335	\$ 77,794

Differences

	<u>BGS Revenue</u>	<u>BGS Costs</u>	<u>Difference</u>
Summer	\$ 32,606	\$ 32,606	\$ (0)
Winter	\$ 45,187	\$ 45,189	\$ 2
Total	\$ 77,793	\$ 77,794	\$ 1