D. RSCP SUPPLIER PAYMENTS AND CUSTOMER RATES

This summary is provided for bidder convenience only. Any statements herein describing BGS-RSCP rates or supplier payments are summaries only and are qualified in their entirety by each EDC's Company Specific Addendum and accompanying attachments, as well as the BGS-RSCP Supplier Master Agreement posted to the <u>BGS Proceeding</u> page of the BGS Auction website. Bidders bear full responsibility for reviewing each EDC's Company Specific Addendum and accompanying attachments, as well as the BGS-RSCP Supplier Master Agreement.

The EDCs are Public Service Electric and Gas Company ("PSE&G"), Jersey Central Power & Light Company ("JCP&L"), Atlantic City Electric Company ("ACE"), and Rockland Electric Company ("RECO").

D.1. Overview

The BGS-RSCP Auction is a rolling procurement that each year aims to contract approximately one-third of the needed BGS-RSCP Load for three years. For the period June 1, 2018 to May 31, 2019, BGS-RSCP Load would be supplied by the winners of three (3) BGS-RSCP Auctions: winners with a three-year contract ending on May 31, 2019, winners with a three-year contract ending May 31, 2020, and winners with a three-year contract from the upcoming Auction that would end May 31, 2021.

The EDCs propose that BGS-RSCP customers pay rates that are determined on the basis of the weighted average cost of supply for all three (3) Auctions used for supply at a given point in time and on the basis of conversion factors specific to each rate class. The EDCs propose to pay winners of a BGS-RSCP Auction for an EDC the final auction price for that EDC times a seasonal billing factor.

Details of customer rates, determination of the seasonal billing factor, and supplier payments are provided below.

D.2. Retail Customer Rates

Throughout this section, we will rely on the number of tranches and the seasonal billing factors for PSE&G as an example. These are provided below. The seasonal billing factors for the 2018 Auction are those proposed in the EDCs' filing. The price for the 2018 Auction is purely illustrative.



Auction	Product	Number of Tranches	Final Auction Price (¢/kWh)	Seasonal Billing Factors	
2018	3-year term	29	9.858		
2017	3-year term (2 years remaining)	28	9.078	Summer – 1.0000 Winter – 1.0000	
2016	3-year term (1 year remaining)	28	9.638		

Table D-1. Example Composition of BGS-RSCP Supply for PSE&G, 2018/2019

Rates for each rate class of an EDC for June 1, 2018 through May 31, 2019 will be determined by multiplying the weighted average cost of supply by conversion factors for each rate class.

D.2.a. Weighted Average Cost of Supply

The weighted average cost of supply would be calculated as follows. (Table D-2 illustrates each step for PSE&G assuming, purely for illustrative purposes, a final auction price in 2018 of 9.858 e/kWh.) For each component auction product and for each season, the clearing price is multiplied by the seasonal billing factor and by the number of tranches. The sum is taken for each season and is divided by the total number of tranches. The result is a price for each season. These prices are weighted by the proportion of BGS-RSCP energy at the bulk system level¹ projected to occur in each season to obtain a single value – a seasonally-adjusted weighted price. This seasonally-adjusted weighted price is the weighted average cost of supply for all the component auction products used to serve load for the June 1, 2018 to May 31, 2019 period.

¹ Energy at the bulk system level is the forecast energy de-rated pursuant to PJM's marginal loss implementation.

Tranches		Seasonal Factor		Final Auction Price		Total
29	х	1.0000	Х	9.858	=	285.882
28	х	1.0000	Х	9.078	=	254.184
28	х	1.0000	Х	9.638	=	269.864
				Total	=	809.930
				Divided by total tranches (85)	=	9.529¢/kWh

Table D-2. Example CalculationSummer

Winter						
Tranches		Seasonal Factor		Final Auction Price		Total
29	х	1.0000	Х	9.858	=	285.882
28	х	1.0000	Х	9.078	=	254.185
28	х	1.0000	Х	9.638	=	269.864
				Total	=	809.930
				Divided by total tranches (85)	=	9.529¢/kWh

Average					
	Energy, GWh		Tranche- weighted Price		Total
Summer	10,178	Х	9.529	=	96,986
Winter	15,498	Х	9.529	=	147,680
Totals	25,679	-		=	244,666
		Seas	onally-adjusted weighted price	=	9.529¢/kWh



D.2.b. Conversion Factors

Rates for each rate class of an EDC for June 1, 2018 through May 31, 2019 will be determined by multiplying the weighted average cost of supply by conversion factors for each rate class. The conversion factors are developed using the EDCs' rate design methodologies as provided in each EDC's Company Specific Addendum. Under this approach, a customer class that is more expensive to serve than the system on average would have a higher rate for electricity. The BGS-RSCP rate design is subject to Board approval. If it is approved by the Board, it would be approved for one year and could be subject to change after May 31, 2019.

The methodology for developing the conversion factors to translate the seasonallyadjusted weighted price to customer rates begins by estimating the average cost per unit associated with supplying all customers eligible for BGS-RSCP. This "system average cost" is a simple and rough estimate that includes only factors easily determined from market and load data and excludes any estimate of uncertainty or risk. This system average cost is then compared to the cost for individual customer classes. This comparison becomes the basis for deriving the conversion factor for each customer class.

All the EDCs estimate system costs using the same approach. Costs including energy, capacity and transmission, are derived using inputs including:

- Load by rate class;
- Forward energy market prices;
- Off-peak price ratios by season, based on historical market prices;
- Congestion price ratios by EDC zone and by season, based on historical market price analysis;
- RPM capacity prices;
- Network transmission cost from the PJM OATT; and
- Estimated ancillary services and Compliance cost of the Renewable Portfolio Standards.

Inputs used by the EDCs are provided in the following two tables. (RECO used a weighting of PJM Western hub prices with NYISO forward prices, with NYISO prices receiving a 10.9% weighting. Please see RECO's Company Specific Addendum available on the <u>BGS Proceeding</u> page of the BGS Auction website for details.)



Month	June	July	Aug.	Sept.	Oct.	Nov.
On-Peak (\$/MWh)	33.55	41.74	37.88	32.12	31.00	30.88
Month	Dec.	Jan.	Feb.	March	April	May
On-Peak (\$/MWh)	33.90	50.45	47.55	35.13	30.38	31.55

 Table D-3.
 PJM Western Hub Forward Prices as of June 2017

Table D-4. BGS-RSCP Pricing Inputs

		PSE&G	JCP&L	ACE	RECO ²		
Off-peak/peak price	Summer	0.6328					
ratio	Winter	0.7318					
Peak zone congestion	Summer	0.94	0.93	0.96	0.93		
factor	Winter	1.00	0.96	0.96	1.00		
Off-peak zone	Summer	0.88	0.86	0.89	0.88		
congestion factor	Winter	0.98	0.95	0.95	0.97		
Capacity cost ³	Summer	168.47	216.11	168.39	168.39		
(\$/MW-day)	Winter	168.47	216.11	168.39	168.39		
Ancillary services and renewables (\$/MWh)		10.40					
Network Transmission (\$/MW-year)		88,355.75	**4	48,427	49,695		

These costs and factors are used to estimate annual and seasonal bulk system costs based on projected customer usage (grossed up to account for losses adjusted for de-ration factors pursuant to PJM's marginal loss implementation), and transmission and capacity obligations by rate class.

² RECO's capacity and ancillary services cost estimates include a 10.9% weighting of corresponding NYISO estimated costs.

³ For PSE&G, ACE, and RECO this capacity cost figure represents the three-year average RPM cost from June 1, 2018 to May 31, 2021, net of Capacity Transfer Rights ("CTRs"). JCP&L accounts for BGS costs on an individual year basis and this capacity cost figure represents the June 1, 2018 to May 31, 2019 RPM cost.

⁴ JCP&L accounts for transmission cost by applying the applicable tariff rates by rate class. The other EDCs apply a constant rate to the transmission obligation.

Bulk system level costs are calculated for each rate class and compared to the system average cost. Some customers have a single all-hour energy rate; others have rate components such as time of use rates, demand charge, capacity obligation charge, and block rates by volume of usage.

The conversion factors are derived by comparing the system average cost to the bulk system level costs for each rate class. In general, the conversion factor for a given customer class is the ratio of the bulk system level costs for the rate class to the system average cost. If this factor is, for example, 1.2, it indicates that the class is 1.2 times more expensive to serve than the system as a whole. Thus, the retail rate to be paid by the class will be set at 1.2 times the weighted average cost of supply.

The Company Specific Addenda to the June 30, 2017 filing describe the specific rate design methodologies in detail. Additionally, each Company Specific Addendum contains a rate design spreadsheet that includes information on billing determinants by rate class and rate component, and draft tariff sheets. These spreadsheets, the "BGS-RSCP Pricing Factors spreadsheets", are the same spreadsheets used to develop the seasonal billing factors. They are posted to both the <u>BGS Proceeding</u> page and the <u>BGS Additional Data</u> page of the BGS Auction website.

D.2.c. Rate Adjustment Factors

For PSE&G, ACE, and RECO, there are additional factors called Rate Adjustment Factors used to determine retail rates. The Rate Adjustment Factors are equal to the dollar differences between the anticipated billed revenue and supplier payments in a season, divided by the total anticipated billed BGS-RSCP energy-related charges in that season. (Note that RECO includes demand charges for its SC2 rate class when calculating SC2 anticipated billed revenue.) A difference arises between anticipated revenue and anticipated supplier payments because rate conversion factors for these three EDCs (and the seasonal billing factors for the Auction) are based on one year of cost data while the payments made to suppliers reflect seasonal billing factors from three different Auctions and three years of cost data. The Company Specific Addenda to the June 30, 2017 filing describe these rate adjustment factors in more detail. They are posted to the BGS Proceeding page of the BGS Auction website.

D.2.d. JCP&L Variation

The methodology used by JCP&L to derive conversion factors is slightly different from that used by the other EDCs. PSE&G, ACE, and RECO derive conversion factors using the cost inputs for the coming supply year only. For these three EDCs, the Rate Adjustment Factor is then used so that seasonal revenue and seasonal supplier payments

correspond. JCP&L derives conversion factors by incorporating cost information from component products from all three Auctions used to supply the BGS-RSCP Load for the coming year. (See the description of Table C7 of the BGS-RSCP Pricing Factors spreadsheet in JCP&L's Company Specific Addendum available on the <u>BGS Proceeding</u> page of the BGS Auction website.) As a result, JCP&L does not require a specific Rate Adjustment Factor.

All EDCs use the same approach to calculate the seasonal billing factors that are used for supplier payments.

D.3. Retail Rate Comparisons

Draft tariff sheets have been posted to the <u>BGS Proceeding</u> page of the BGS Auction website as part of the June 30, 2017 filing.

After the BGS Auctions, the EDCs post on their own websites draft tariff sheets to become effective June 1 upon approval by the Board. Current tariff sheets are available at the following links:

PSE&G:

http://www.pseg.com/family/pseandg/tariffs/electric/index.jsp

JCP&L:

https://www.firstenergycorp.com/customer_choice/new_jersey/new_jersey_tariffs.html

ACE:

http://www.atlanticcityelectric.com/Tariffs.aspx

RECO:

https://www.oru.com/en/rates-tariffs

D.4. Supplier Payment

Each EDC pays its BGS-RSCP Suppliers the final auction price for that EDC times an EDC-specific seasonal billing factor. An EDC pays each BGS-RSCP Supplier for the portion of the EDC's BGS-RSCP Load represented by the number of tranches it has won at the Auction. The EDC issues a statement for each billing month and pays its BGS-RSCP Suppliers according to a preliminary allocation of BGS-RSCP energy. The Tranche Fee is assessed on the first invoice of the supply period. A final energy allocation for each month will be produced subsequently and compared to the preliminary allocation. Any differences will be reflected in a billing adjustment on future statements. If there are corrections or adjustments that would have resulted in changes in the PJM settlement, but the deadline for settlement has passed, the EDC will settle the difference



directly with the BGS-RSCP Supplier. BGS-RSCP Suppliers are paid based on energy volumes that PJM has de-rated for losses as part of marginal loss implementation procedures. The energy volume for which BGS-RSCP Suppliers will be paid will be equal to the energy volume for which they settle with PJM.

For each EDC, there is one seasonal billing factor for the summer (June 1 to September 30) and one for the remaining winter months. An EDC's seasonal billing factor is calculated by taking the ratio of the projected per-MWh seasonal cost⁵ to the projected per-MWh annual cost. The derivation is based on estimating the bulk system energy and cost for serving BGS-RSCP eligible load, including costs related to the Supplement. All inputs to and the calculation of seasonal billing factors are visible in their entirety in the BGS-RSCP Pricing Factors spreadsheets filed on June 30, 2017, and the inputs are summarized earlier in this section. BGS-RSCP Pricing Factors spreadsheets are also available on the BGS Additional Data page of the BGS Data Room as well as the BGS Proceeding page of the BGS Auction website. Seasonal factors for recent BGS-RSCP Auctions have been set at 1 as a result of the methodology described in each EDC's Company Specific Addendum.

The proposed BGS Supplier Master Agreements specify the full details of the proposed payments. They are available on the <u>Contract and Credit</u> page of the BGS Auction website.

⁵ Projections reflect then-current market prices and include no allowance for risk, administration costs, or other relevant factors. The sole purpose of these EDC projections is the determination of customer rates and seasonal billing factors. Bidders are not to rely on these projections whatsoever and bidders bear the entire responsibility of making any projections relevant to preparing theirs bids.