

Basic Generation Service (BGS) Load

Statewide Auction Process

October 04, 2018











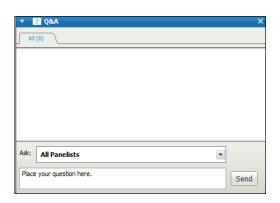
How to Ask a Question

Questions are taken in writing through the WebEx interface:

- Locate the "Q&A" on the right hand side of your screen
- Select "All Panelists" in the "Ask" box
- Type in your question including the relevant slide number
- Click "Send" to submit your question



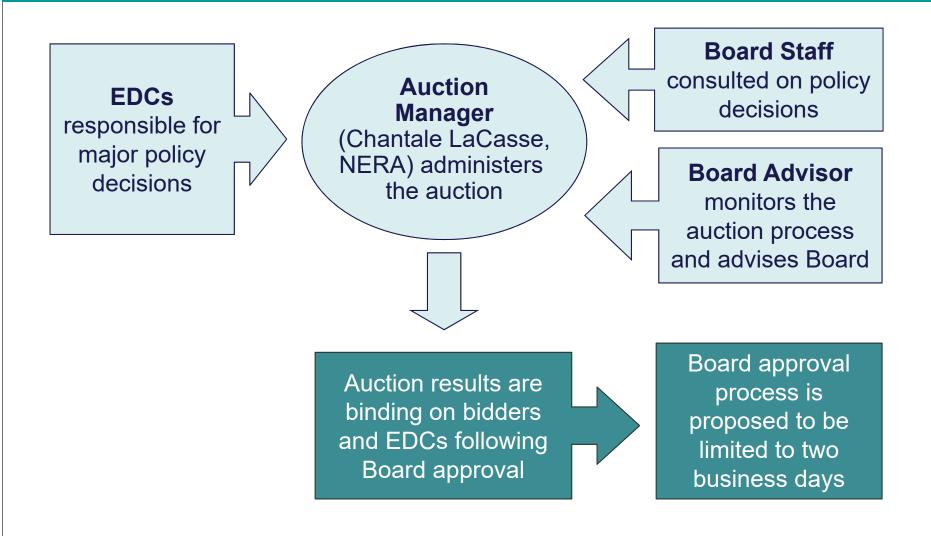
Any statements herein describing or referring to documents and agreements are summaries only, and are **qualified in their entirety** by our reference to the governing documents, which are all of the documents included in the EDCs' July Filing, posted to the *BGS Proceeding* page of the *Auction tab* on the *BGS Auction website*, www.bgs-auction.com



THE PRESENTATION WILL COVER:

- Roles
- Overview of the EDCs' Proposal (July Filing)
- Products and the Supplier's Role
- Auction Process
- Overview of Bidding in the Auctions
- Application Process
- BGS Auction Website and Other Sources of Information

ROLES



1. OVERVIEW OF JULY FILING

THE BGS AUCTION HAS BEEN IN USE SINCE 2002

Two essential goals of the Auction Process:

- To procure supply for Basic Generation Service ("BGS") customers at a cost consistent with market conditions
- To enable the participation of a broad spectrum of entities, including energy trading and marketing companies, by aggregating a portfolio of wholesale products and providing price-risk management services

BUILDING BLOCKS HAVE BEEN STABLE OVER THE YEARS

- There is a single statewide process: Offers for all BGS Load (not already procured) solicited in one process
- Products are full requirements tranches: Participants bid to provide all components of supply to serve BGS customers (energy, transmission, capacity, ancillary services, and any other services as may be required by PJM)
- Auction format is a Descending Clock Auction: Prices tick down as long as there are more bids than the supply needed
- Contingency plan: Any supply not procured at auction to be purchased through PJM-administered markets

ONE PROCESS, Two Auctions

- Auctions are separate but concurrent
- BGS-CIEP Auction: Larger customers on an hourly price plan
 - Auction determines a CIEP Price in \$/MW-day
 - Suppliers are paid this price on the basis of the capacity obligation
 - Suppliers are paid for energy at the real-time hourly spot price and pre-determined rates for other components of supply
 - Suppliers also paid the CIEP standby fee levied on all CIEP customers
- BGS-RSCP Auction: Smaller customers on a stable price
 - Auction determines all-in price in ¢/kWh
 - Suppliers are paid this price for every kWh of load served

EACH AUCTION HAS A SINGLE TERM AND FOUR PRODUCTS

- BGS-CIEP Auction:
 - 1-year supply period: June 1, 2019 to May 31, 2020
 - 4 products: the BGS-CIEP load for each EDC
- BGS-RSCP Auction:
 - 3-year supply period: June 1, 2019 to May 31, 2022
 - 4 products: the BGS-RSCP load for each EDC

Customer Rates Based on Auction Prices

BGS-RSCP

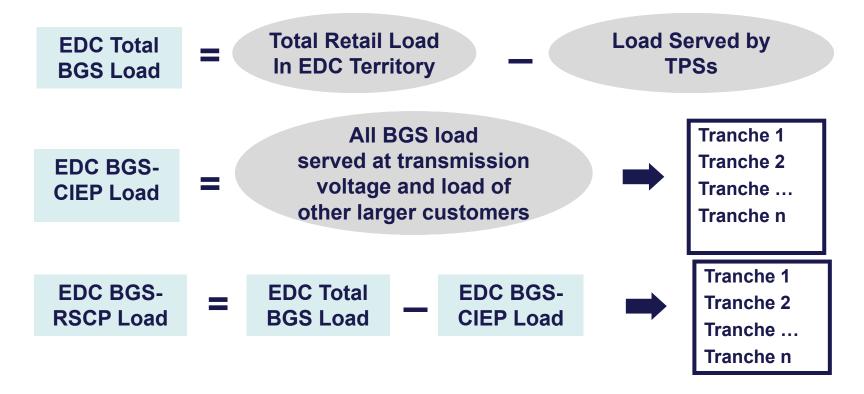
- Auction prices determine an average cost for each EDC
 - Seasonally-adjusted: average of winter and summer costs
 - Tranche-weighted: average of prices from three auctions
- Ratios translate average cost into rates:
 - All classes have seasonal rates
 - Some classes also have time-ofday rates

BGS-CIEP

- Auction determines a final CIEP price which customers pay on the basis of their capacity obligation
- Customers also pay
 - The real-time hourly spot price for energy
 - A pre-determined EDCspecific ancillary services rate
 - A pre-determined EDCspecific transmission rate
 - The option fee (CIEP standby fee)

2. PRODUCTS AND THE SUPPLIER'S ROLE

LOAD DIVIDED INTO TRANCHES



- BGS customers are free to come and go from BGS with appropriate notice to the EDC (13 days before next scheduled meter reading date)
- BGS Suppliers are Load Serving Entities for a percentage of an EDC's load with a role like a Third Party Supplier

THE BGS-CIEP PRODUCTS

- The CIEP load is expected to be about 3,000 MW on an eligible basis
- A tranche is a fixed percentage of BGS-CIEP Load for an EDC that represents approximately 75 MW on an eligible basis

Tranche Targets and Sizes (provisional)								
EDC	CIEP Peak Load Share (MW)	Tranche Size (%)	MW-Measure (MW)					
PSE&G	1,797.77	24	4.17	74.91				
JCP&L	805.89	11	9.09	73.26				
ACE	318.40	4	25.00	79.60				
RECO	56.00	1	100.00	56.00				

CIEP MIGRATION IS SUBSTANTIAL

 As of August 2018 there was substantial switching by CIEP customers to Third Party Suppliers

Migration Among CIEP Customers								
	Accounts			Load (MW)				
EDC	Total Switching %			Total	Switching	%		
PSE&G	1,939	1,381	71.22%	2,179.90	1,820.50	83.51%		
JCP&L	908	661	72.80%	818.56	708.30	86.53%		
ACE	224	190	84.82%	302.15	251.51	83.24%		
RECO	63	53	84.13%	56.80	51.60	90.85%		
Statewide	3,134	2,285	72.91%	3,357.41	2,831.91	84.35%		

BGS-CIEP SUPPLIER REWARDS AND RISKS

- Supplier provides full requirements service with energy priced at the real-time market
- Supplier is paid the auction-determined CIEP price for the BGS-CIEP customers' capacity obligation, the CIEP standby fee levied on all CIEP customers at retail meter, the real-time hourly spot price for energy at the EDC zone, and pre-determined EDC-specific rates for ancillary services and transmission

Rewards

- Stable revenue on entire CIEP customer base via CIEP Standby Fee
- Ability to arbitrage day-ahead and real-time markets

Risks

- Migration / return risks
- Ancillary services cost risk

THE BGS-RSCP PRODUCTS

- The RSCP load is expected to be about 4,800 MW on an eligible basis
- A tranche is a fixed percentage of BGS-RSCP Load for an EDC that represents about 100 MW on an eligible basis

Tranche Targets and Sizes								
EDC	RSCP Peak Load Share (MW)	Tranche Target	Tranche Size (%)	MW-Measure (MW)				
PSE&G	2,517.09	28	1.18	89.90				
JCP&L	1,537.15	18	1.89	85.40				
ACE	644.95	7	4.55	92.14				
RECO	100.00	1	25.00	100.00				

RSCP MIGRATION IS ALSO SUBSTANTIAL AMONG LARGER CUSTOMERS

- Among larger RSCP customers (400-499 kW) migration is similar to CIEP
- Residential migration is approximately 15% statewide
- Switching data updated monthly in the BGS Data Room

	Accounts			Load (MW)		
EDC	Total Switching %		Total	Switching	%	
PSE&G (8/1/18)	295	237	80.34%	129.23	103.81	80.33%
JCP&L (8/31/18)	143	133	93.01%	63.83	59.26	92.84%
ACE (8/1/18)	55	51	92.73%	24.03	22.32	92.88%
RECO (8/1/18)	12	8	66.67%	5.33	3.53	66.23%
Statewide	505	429	84.95%	222.42	188.92	84.94%

BGS-RSCP Supplier Role and Risks

 Wholesale Sources include: Generation owners in PJM or in adjoining regions, wholesale marketers, financial and OTC power and gas markets, PJM markets, weather derivatives markets

Role

- Aggregate supply portfolio from wholesale sources
- Assess and price load variability, market price volatility and migration risk
- Provide price-risk management services

Risks

- Migration / return risk
- Load and weather risks
- Fuel price risk
- Longer-term changes to RSCP class composition
- Change to rate design

3. SUPPLIER MASTER AGREEMENT

BGS SUPPLIER MASTER AGREEMENT

- Contract is between BGS Supplier and EDC acting as agent for retail customers
- Final Agreements will be approved by Board prior to the Auction and will be non-negotiable
- Opportunities for comments during the regulatory proceeding

September 05, 2018	Deadline for initial comments			
September 28, 2018	Legislative-type Board Hearing			
October 12, 2018	Deadline for final comments			

COMPLIANCE WITH RPS THROUGH RECS

- BGS Suppliers are responsible for fulfilling RPS during supply period
 - Compliance with Class I and II requirements and solar must be demonstrated using RECs issued by PJM-EIS GATS
 - Suppliers must register into GATS and open a Retail LSE
 Account to be able to transfer RECs and SRECs to the EDCs
- EDCs no longer provide RECs to BGS Suppliers
- Obligations have changed through the Renewable Energy Bill (3723)
 - Increase in solar obligations
 - Increase in Class I obligations starting January 1, 2020

CREDIT PROVISIONS

- BGS-CIEP Credit Exposure is \$70,000/tranche
- BGS-RSCP Two separate requirements
 - Mark-to-Market requirement
 - Independent credit requirement is \$2.4M/tranche at beginning of supply period and declines over the term of the contract
- Unsecured Line of Credit is on a sliding scale
 - Depend on credit rating and TNW
 - Security can be in the form of a guaranty, letter of credit, or cash
- Unsecured credit line and credit limits depend on all BGS obligations
 - Credit limit set together for RSCP Mark-to-Market and CIEP credit exposures
 - Unsecured credit line for RSCP independent credit requirement set separately

SECTION 15.9 OF THE SMAS: CHANGES IN TRANSMISSION-RELATED CHARGES

- Section 15.9 provides for the recovery of, and payment adjustment for, changes in transmission-related charges that occur over the term of the BGS contract
- Upon a transmission rate change, the EDCs file with the Board to collect any increase in transmission rates from customers for the benefit of BGS Suppliers
- The Transmission page of the Auction tab on the BGS Auction website provides the EDC filings as well as the Board Orders in this regard
- Additional information will become available including FAQs on this topic and data on rates for transmission-related charges reimbursed to BGS Suppliers

4. AUCTION PROCESS

BOARD ORDER IS FINAL WORD ON PROCESS

Approved Rules, Agreements, process and terms may be different than presented here

- Board will decide on all aspects of the EDCs' Proposal
- Board Order will determine if EDCs' Proposal is approved or how it may be amended
- Bidder is responsible for reading all final documents which will be provided on the BGS Auction website

AUCTION PROCESS CALENDAR

November 2018	Expected Board Decision on EDCs' Proposal			
Nov 14, 2018	Auction Manager announces minimum and maximum starting prices, tranche sizes and load caps			
Dec 18, 2018 by NOON	Part 1 Application deadline (to become a Qualified Bidder)			
Jan 10, 2019 by NOON	Part 2 Application deadline (to become a Registered Bidder)			
Jan 29, 2019	Auction Manager informs Bidders registered in BGS-CIEP Auction of starting prices			
Jan 30, 2019	Auction Manager informs Bidders registered in BGS-RSCP Auction of starting prices			
Feb 01, 2019	BGS-CIEP Auction starts (Friday)			
Feb 04, 2019	BGS-RSCP Auction starts (Monday)			

OPPORTUNITY TO COMMENT ON LETTERS OF CREDIT

- The Pre-Auction Letter of Credit and Post-Auction Letter of Credit to be posted to the Contract & Credit page (bidder info tab) of the BGS Auction website: http://www.bgs-auction.com/bgs.bidinfo.cc.asp
 - Each Qualified Bidder must provide a Pre-Auction Letter of Credit as financial guarantee in an amount proportional to its indicative offer at the maximum starting price with its Part 2 Application
 - Suppliers can provide a Post-Auction Letter of Credit as security under the SMA
- Previously accepted modifications that remain acceptable will be posted to BGS Auction website

LETTERS OF CREDIT COMMENT PROCESS TIMELINE

- Potential bidders are invited to propose modifications
- Comments (clearly redlined in Microsoft Word) must be submitted by email to the BGS Auction Manager at the following address: <u>BGS-Auction@nera.com</u>
- For each proposed modification, the EDCs will
 - Revise the standard form; or
 - Approve the use of the modification on an optional basis; or
 - Reject the proposed modification

October 23, 2018 by NOON	Deadline to provide comments			
November 01, 2018	Potential bidders will receive individual responses to their comments			
November 05, 2018	BGS Auction Manager will post all modifications that are acceptable on an optional basis			

ALTERNATE GUARANTY PROCESS

- For potential bidders that may have corporate policies that prevent them from using the standard form of guaranty appended to the SMA
- Potential bidders planning to participate in the alternate guaranty process must provide an expression of interest to the Auction Manager by Tuesday, October 23, 2018
 - Additional deadlines and requirements will be made available to parties that express interest
- There is a specified list of minimum requirements that any alternate form of guaranty must satisfy (http://www.bgs-auction.com/bgs.bidinfo.cc.asp)
- In particular, the alternate form of guaranty must be for unlimited liability (while the standard guaranty has a liability limit)

5. OVERVIEW: BIDDING IN THE AUCTION

Proposed Auction Format Is a Clock Auction

- Multi-product design
 - Tranches for all EDCs are procured at once
- Multi-round design: bidding proceeds in rounds
 - Suppliers state how many tranches they want to supply at prices suggested by the Auction Manager
 - Prices tick down if there is excess supply
 - Suppliers can switch their bids from one EDC to another in a given Auction

BGS-RSCP

"Price" is a ¢/kWh all-in price

BGS-CIEP

"Price" is a \$/MW-day CIEP Price

RSCP Example: Prices Tick Down When There Is Excess Supply

Round 1							
EDC	Price (¢/kWh)	#bid	#to buy	Excess Supply	Oversupply Ratio		
PSE&G	15.000	78	28	50	0.714		
JCP&L	15.000	35	18	17	0.243		
ACE	15.000	9	7	2	0.036		
RECO	15.000	1	1	0	0.000		

Round 2							
EDC	Price (¢/kWh)	#bid	#to buy	Excess Supply	Oversupply Ratio		
PSE&G	14.250	60	28	32	0.533		
JCP&L	14.637	38	18	20	0.333		
ACE	14.813	9	7	2	0.036		
RECO	15.000	5	1	4	0.200		

FOUR MAIN AUCTION FEATURES

- Offers are binding: If the price on an EDC is not reduced in a round, a bidder cannot reduce the number of tranches bid on that EDC
- Total number of tranches bid cannot increase: Bidders can maintain or reduce their total number of tranches bid, but bidders cannot increase the total number of tranches bid from one round to the next
- Auction closes on all EDCs at once: Winners are determined for all EDCs at once within each auction
- Uniform price: All winners on an EDC receive the same price

TYPICAL ROUND



Bids are numbers of tranches for each EDC that suppliers are willing to serve at the going prices for the round

- Indication of excess supply in this round
- Going prices for next round

(Price for an EDC ticks down if number of tranches bid is greater than tranches needed)

ROUND 1 BID AND POSSIBLE VOLUME REDUCTION

- In round 1, a bid is a number of tranches for each EDC
- Volume is reduced if it is necessary to do so to ensure competitiveness of bidding environment
 - Whether an adjustment is necessary is decided on the basis of interest in the first round of bidding
- If volume must be reduced, it is reduced to:

[# tranches bid] / [target eligibility ratio]

Ensures sufficient tranches bid for each tranche to be procured

BIDDING IN SUBSEQUENT ROUNDS

- In response to reduced prices, bidders
 - Leave bids unchanged
 - Or if price for an EDC has ticked down, reduce the number of tranches they wish to provide for that EDC by
 - Withdrawing tranches from Auction
 - Bidding those tranches on one other or several other EDCs (switching)
- Bidders cannot increase the total number of tranches on which they bid

SAMPLE ROUND REPORT FOR BGS-CIEP

- Each bidder also gets an individual report about the bidder's own bids
- A bidder has no information about bids or eligibilities of other bidders

Round Report: Round 5	
Total Excess Supply: 76-80	
EDC	Round 6 Price \$/MW-day
PSE&G	428.99
JCP&L	443.33
ACE	407.89
RECO	409.37

AUCTION CLOSES

- Auction closes on all EDCs at once
 - Bidding must have stopped on all EDCs
 - Total excess supply is zero
- Same final price for all winners of a given EDC

Post-Auction

- Board renders a decision on auction results within two business days of close of last Auction
 - The Board has the option of rendering a decision on the results of each Auction at different times
- If Board accepts results: SMAs executed within three business days of Board decision
 - If any security is required under the creditworthiness standards of the Agreement, it is posted upon execution of the Agreement
 - Pre-auction security "expires" upon execution of the Agreement: certificate of expiration of letter of credit is returned and letter of credit is cancelled
- Power flows on June 1, 2019

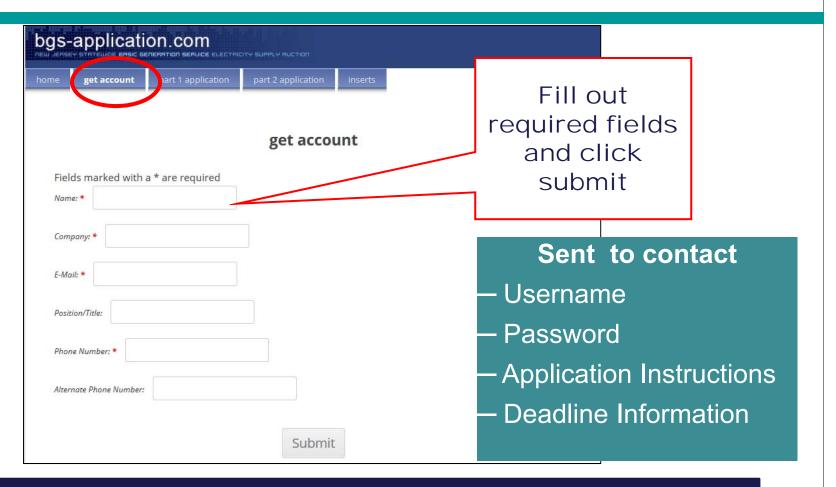
6. APPLICATION PROCESS

ONLINE APPLICATION

- Part 1 and Part 2 Applications will be submitted via two separate online forms
- Almost Completely Online
 - Provide information
 - Upload supporting documents, including "Inserts"
 - Inserts are separate forms in Microsoft Word that Applicants fill in, sign, scan, and upload to the online form
- Hardcopies only for credit instruments required by the Part 2 Application

https://www.BGS-Application.com

REQUEST AN ACCOUNT



Returning Bidders' credentials will be re-issued Contact us if your main point of contact has changed

PART 1 REQUIREMENTS ARE SIMPLE

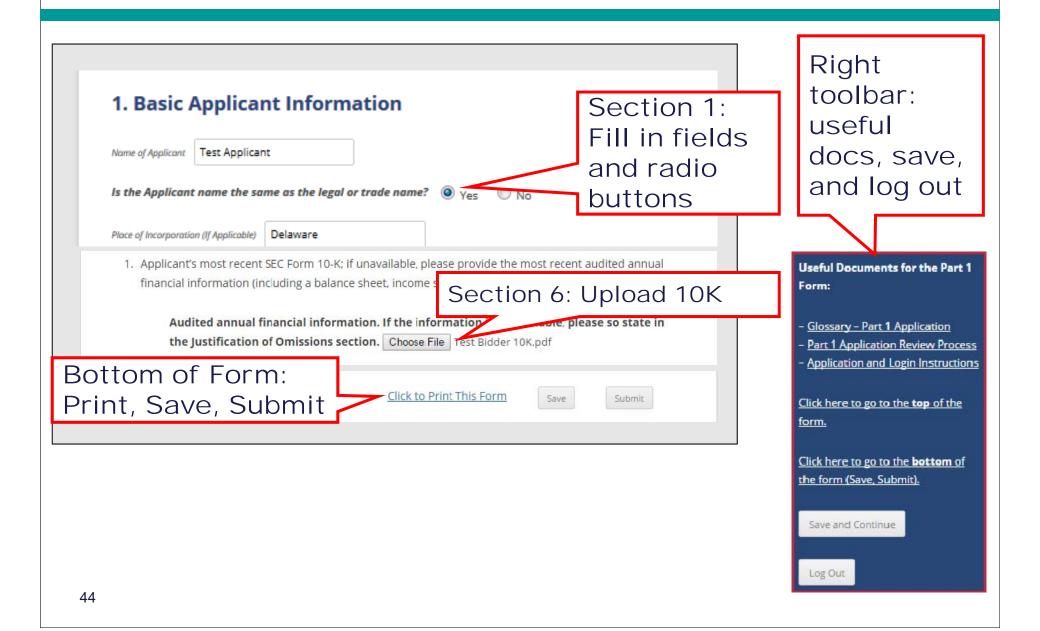
Applicant's Contact Information

- Authorized Representative and Nominees the "Bidder Team": represent the Applicant in the Auction
- All correspondence from Auction Manager is done electronically to the Bidder Team
- Legal Representative in NJ: Agrees to accept service of process
- Credit Representative: (In-house) can answer credit questions

Licensing requirements

- No state licensing required
- BGS Supplier must be an LSE in PJM by start of supply period
 - Applicants that are not yet BGS Suppliers show that they are LSEs or certify using an Insert that they have no impediments to becoming an LSE in PJM

PART 1 APPLICATION – ARCHITECTURE OF FORM



THE REQUIREMENTS HAVE NOT CHANGED

Financial Information

Credit and Application Team uses financial info to determine amount of pre-auction security required in Part 2 Application

- Annual and quarterly financial information
- Senior unsecured debt ratings
- Additional information for entities not incorporated or otherwise formed under the laws of the United States

Certifications

- Agree to terms of applicable Supplier Master Agreement
- Agree to applicable Auction Rules
- Agree to confidentiality of list of Qualified Bidders
- Agree not to assign rights as a Qualified Bidder

PART 2 FORM WILL BE AVAILABLE WHEN PART 1 CLOSES



- Architecture same as Part 1 Form:
 - Fields/radio buttons
 - Uploads for Inserts (download from "Inserts" page)
 - Toolbar with useful documents
 - Basic functionality (print, save, submit)
- Illustrative forms will be posted to the BGS Auction website

REQUIREMENTS TO BE REGISTERED AS A BIDDER

In the Part 2 Application, Qualified Bidders:

- Make certifications regarding associations and their handling of confidential information
- Provide an indicative offer (number of tranches at the maximum and minimum starting price)
- Provide a financial guarantee proportional to indicative offer at maximum starting price

BGS-RSCP

Financial Guarantee:

- All Qualified Bidders: Letter of credit of \$500,000 per tranche
- Some Qualified Bidders provide additional security: Letter of Reference or Letter of Intent to Provide a Guaranty

BGS-CIEP

Financial Guarantee:

- All Qualified Bidders: Letter of credit of \$375,000 per tranche
- No other pre-auction security

7. AND OTHER SOURCES OF INFORMATION

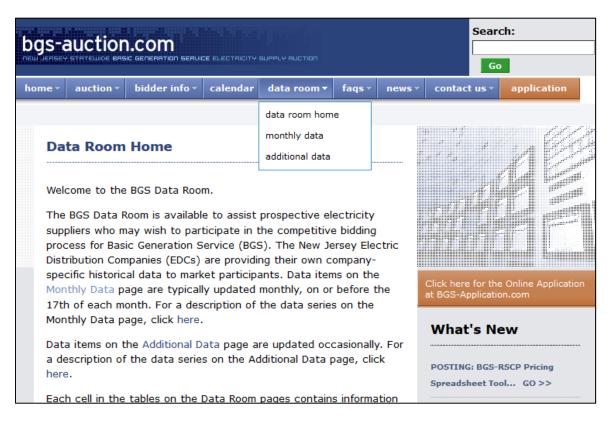
BGS AUCTION WEBSITE FEATURES

- BGS Auction website: www.bgs-auction.com
- Search capability and site map
- Announcements, including alerts to upcoming deadlines and events
- Frequently Asked Questions
- Auction documents
 - Auction Rules
 - Supplier Master Agreements
 - Bidder Materials and presentation
- BGS Data Room

BIDDER QUESTIONS

- Questions may be submitted to the Auction Manager
 - Via web form at:http://www.bgs-auction.com/bgs.contactus.asp
 - By email: <u>BGS-Auction@nera.com</u>
- When needed, the Auction Manager will direct questions to appropriate EDC representatives (e.g., data questions)
- Answers will be routed back through the Auction Manager
- Questions and answers are posted to BGS Auction website

BGS DATA ROOM OVERVIEW



- Separated into two pages:
 - Monthly Data room updated monthly on or before 17th
 - Additional Data room updated less frequently

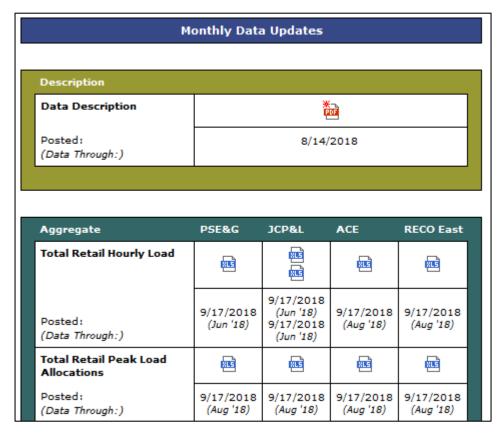
"Data Description" documents can be found at the top of both the Monthly and Additional Data Rooms

MONTHLY DATA ROOM

The **Monthly Data** room contains data in Aggregate, for BGS-CIEP, and for BGS-RSCP, broken out by EDC,

including:

- Eligible Hourly Load
- Eligible Peak Load Allocation
- Hourly Load
- Peak Load Allocations
- Switching Statistics



DATA METHODOLOGY GENERALLY CONSISTENT ACROSS EDCs

- JCP&L provides excess generation data for hourly load files (retail load, BGS, and CIEP)
 - When load data from the BGS Data Room is summed with excess generation, the result is consistent with data reported to PJM
 - This process nets out excess generation from customers that have on-site generation

Capacity and Transmission PLAs

 PSE&G, ACE and RECO provide unscaled Capacity PLA data with the applicable Daily Zonal Scaling Factors as well as Transmission PLA data that is already scaled

JCP&L

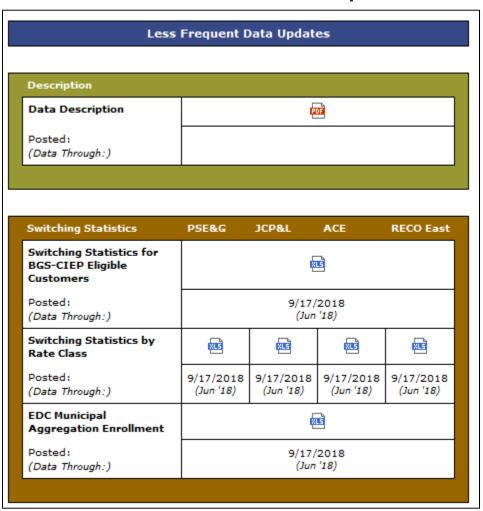
- Prior to June 1, 2017, Capacity and Transmission PLA data is already scaled
- Starting June 1, 2017, Capacity and Transmission PLA data is unscaled, applicable Daily Zonal Scaling Factors are provided

ADDITIONAL DATA ROOM

Data series in the **Additional Data** room have been updated:

- Switching Statistics
- Hourly Data by Customer Groupings
- Additional Data by Customer Groupings
- Retail Rates
- Miscellaneous

Additional Data prior to June 2015 is now archived at the bottom of the page.



ALSO MADE AVAILABLE TO BIDDERS

- Rates for transmission-related charges paid to BGS Suppliers (to be posted later this month)
- The EDCs make available a list of municipalities that have completed enrollment in a municipal aggregation program
 - Files have been updated with the latest data update
 - An additional update will occur in January 2019
- BGS-RSCP Pricing Spreadsheet tool intended for bidders to translate possible auction prices into BGS-RSCP retail rates for each EDC

PJM Website Important Source of Information

- Home page: http://www.pjm.com/
- Reliability Pricing Model <u>http://www.pjm.com/markets-and-operations/rpm.aspx</u>
- PJM OASIS
 http://www.pjm.com/markets-and-operations/etools/oasis.aspx
- PJM-EIS GATS http://www.pjm-eis.com

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