



FRR Integration Auction Stakeholder Meeting

January 19, 2010
Cleveland, OH

- ATSI Zone Capacity Market Transition Overview
- Capacity Supplier Information
- Load Serving Entity Information

ATSI Zone Capacity Market Transition Overview

2011/2012 DY

Out-of-Time FRR
Capacity Plan

FRR Integration
Auction

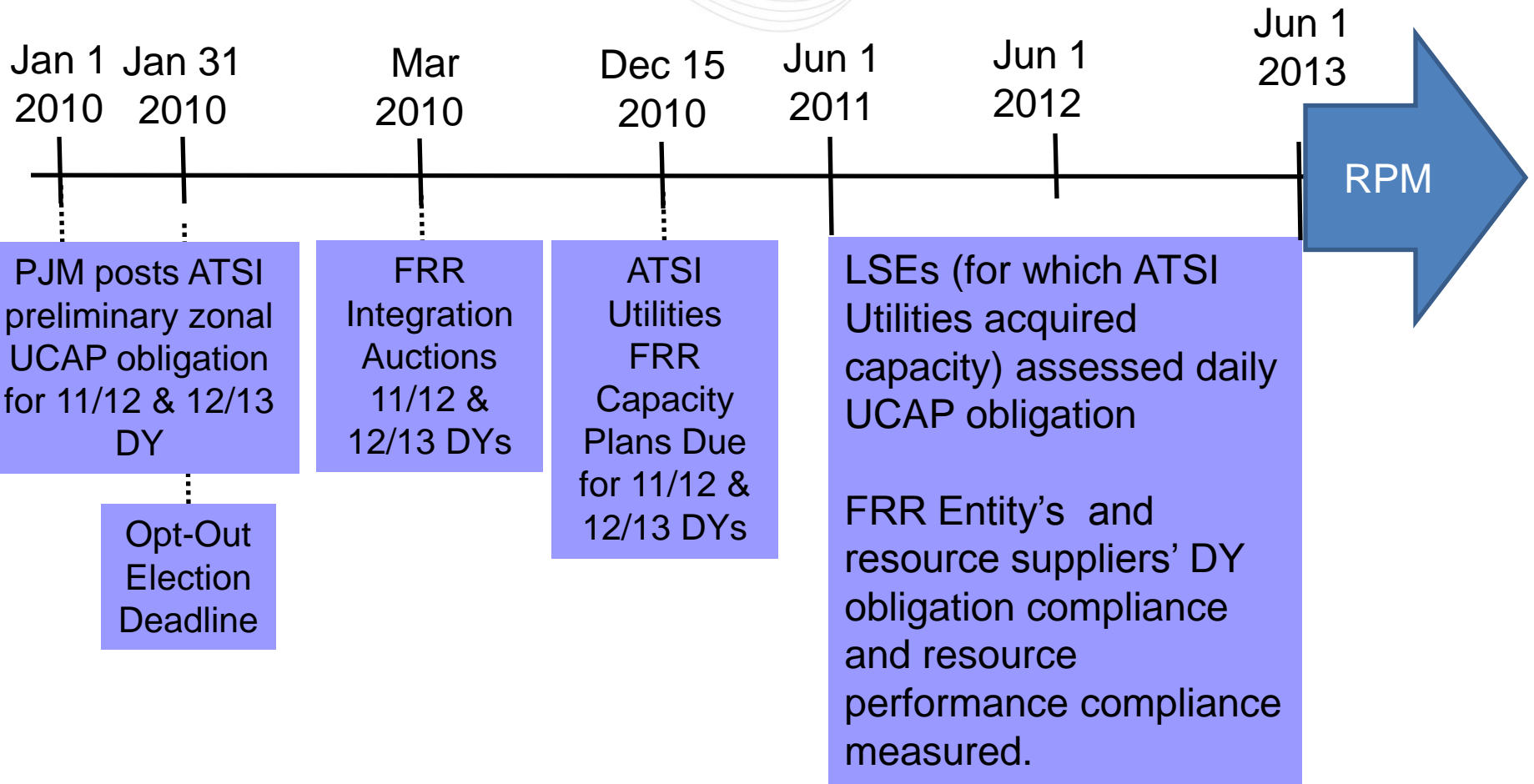
2012/2013 DY

Out-of-
Time FRR
Capacity
Plan

FRR
Integration
Auction

2013/2014 DY & beyond

ATSI Zonal
Load
considered
in RPM
Auctions

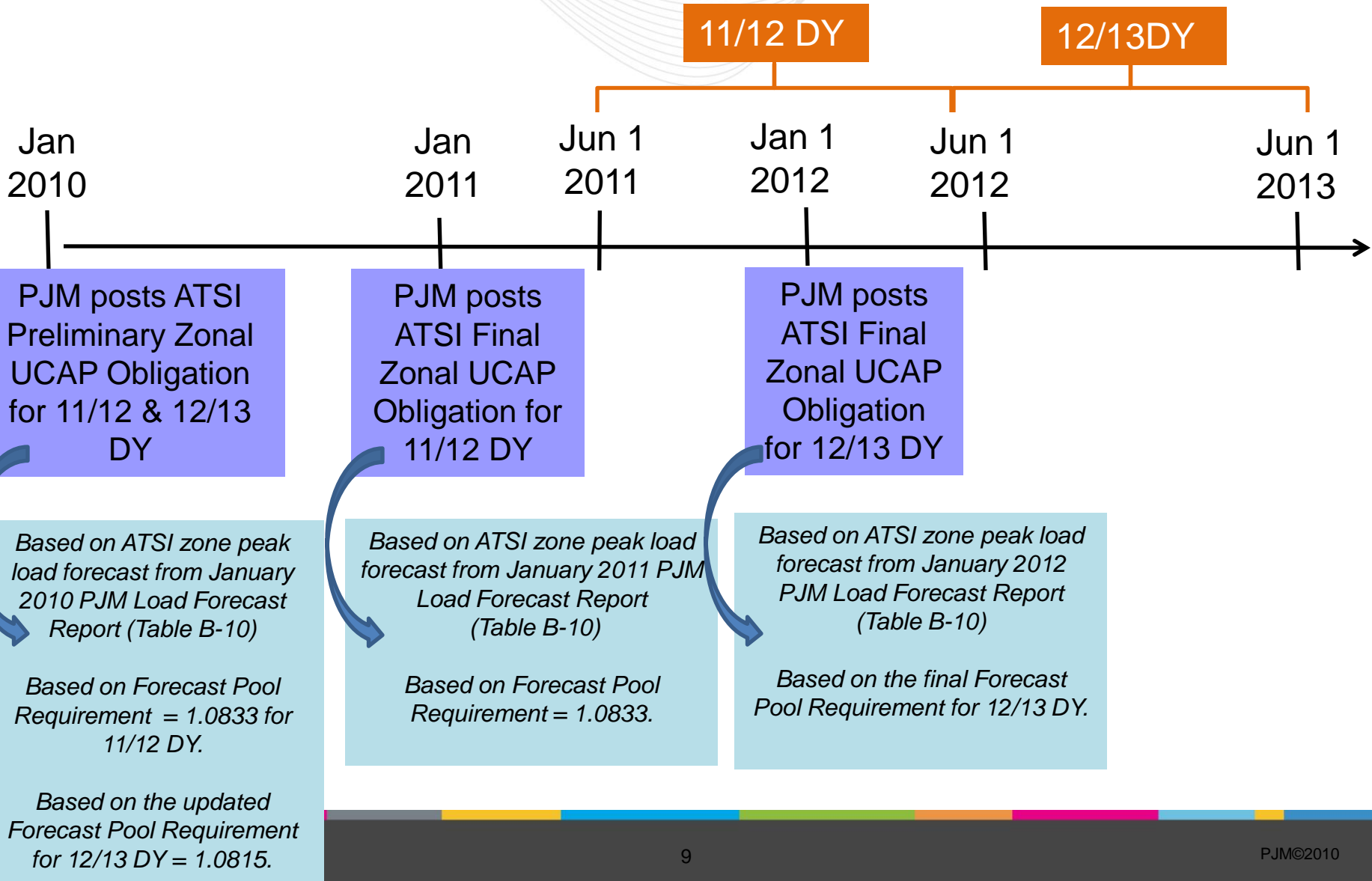


- ATSI Utilities to submit Out-of-Time FRR Capacity Plans for each DY by December 15, 2010
- ATSI Utilities to commit enough capacity to cover the preliminary UCAP obligation for the entire ATSI zone, with the exception of the UCAP obligation for any LSE that chooses to and meets the requirements to model their load as a separate FRR service area in the ATSI zone.
- Such LSEs that choose to model their load as separate area will be considered an FRR Entity for the 11/12 & 12/13 DY and must submit their own Out-Of-Time FRR Capacity Plans by February 15, 2010 to cover their preliminary UCAP obligation
- FRR Capacity Plans must be submitted via eRPM system

- Two FRR Integration Auctions, one for each DY, to be conducted in March 2010
- FRR Integration Auctions for 11/12 & 12/13 DY to be conducted at the same time
- Sell Offers submitted via eRPM system by suppliers with available capacity will establish supply curve
- Vertical Demand Curve based on the remaining amount of zonal UCAP obligation (after any opt-out load is removed)
- Each auction will be cleared to yield the lowest cost solution that satisfies the ATSI preliminary zonal UCAP obligation

- Any cleared sell offer will result in PJM entering an approved bilateral unit-specific transaction between the ATSI Utilities and the Market Seller.
- ATSI Utilities must commit this unit-specific capacity in their FRR Capacity Plans
- Each FRR Integration Auction establishes a clearing price that the ATSI Utilities will use in determining the average cost of procurement for the purpose of charging LSEs in the ATSI zone
- If Auctions do not procure sufficient capacity to meet MW amount specified in the vertical demand curve, then the ATSI Utilities will be required to satisfy any shortfalls through other bilateral arrangements.

ATSI Zonal UCAP Obligation 11/12 & 12/13 DY



ATSI Preliminary Zonal UCAP Obligation 11/12 & 12/13 DY

- Preliminary Zonal UCAP Obligation based on Preliminary Zonal Peak Load Forecast and Forecast Pool Requirement (FPR)
- Preliminary Zonal Peak Load Forecast reduced to account for load in the ATSI Zone for which RPM capacity has already been procured in the 11/12 & 12/13 RPM Base Residual Auctions

Delivery Year	2011/2012	2012/2013
Preliminary Zonal Peak Load Forecast	12,634 MW	13,068 MW
Adjusted Preliminary Zonal Peak Load Forecast	12,459.1 MW	12,887.1 MW
Forecast Pool Requirement (FPR)	1.0833	1.0815
Preliminary Zonal UCAP Obligation	13,497 MW	13,937.4 MW

Preliminary Zonal UCAP Obligation = Adjusted Preliminary Zonal Peak Load Forecast * FPR

- Final Zonal UCAP Obligation based on Final Zonal Peak Load Forecast and Forecast Pool Requirement (FPR)
- Final Zonal Peak Load Forecast will be reduced to account for load in the ATSI Zone which was treated as non-zone load in the 11/12 & 12/13 RPM Base Residual Auctions
- Forecast Pool Requirement for 11/12 DY = 1.0833
- Final Forecast Pool Requirement for 12/13 DY will be posted by January 1, 2012

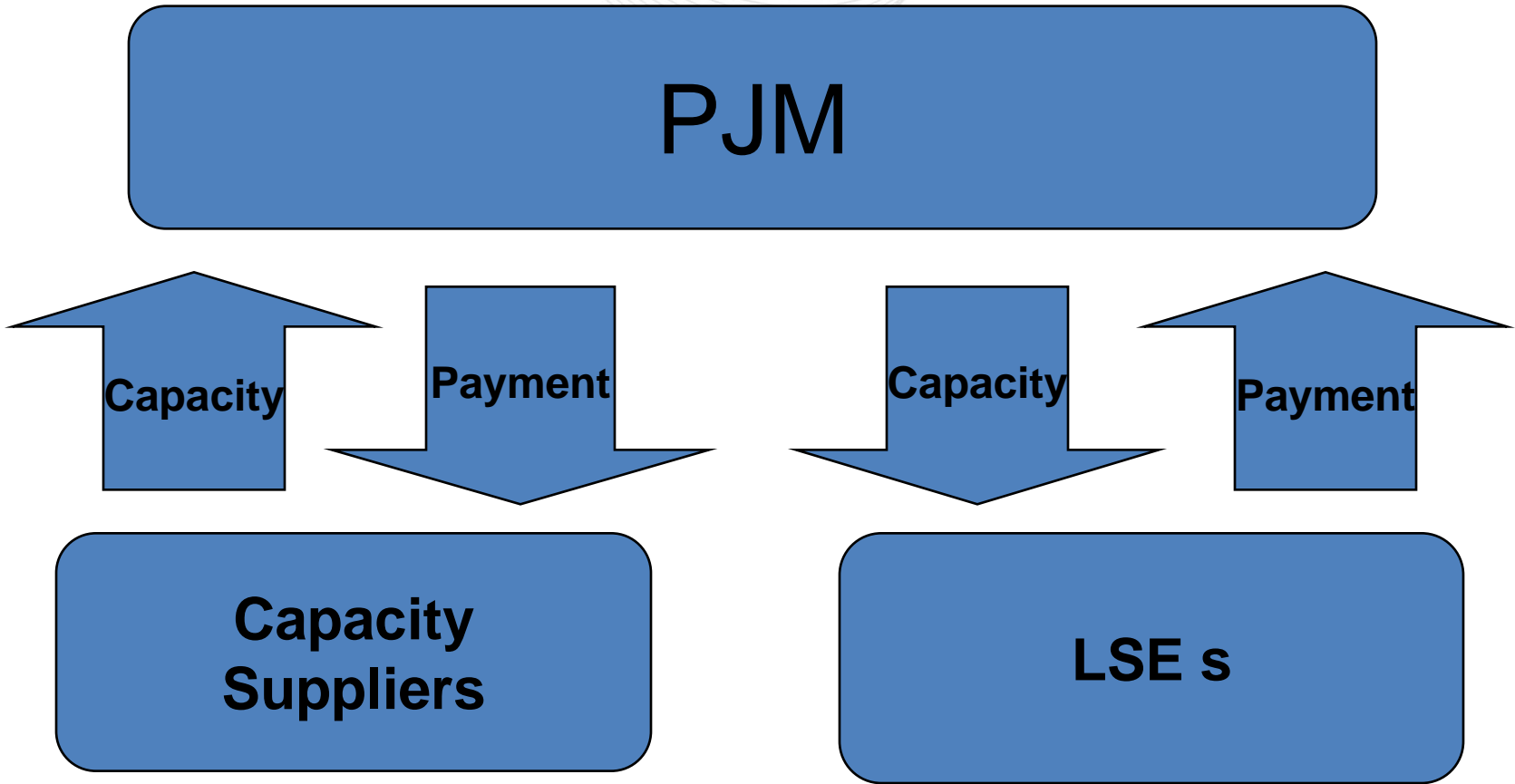
Final Zonal UCAP Obligation = Adjusted Final Zonal Peak Load Forecast * FPR

Capacity Supplier Information

The slides in the following sections contain information relevant to capacity resource owners interested in offering capacity into the FRR Integration Auctions

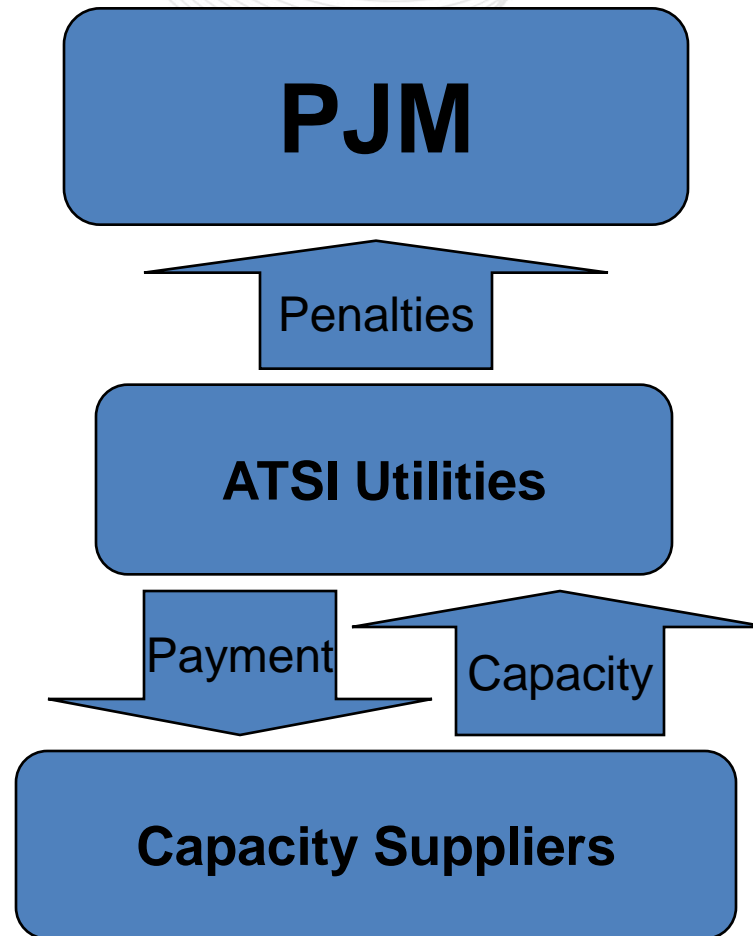
- **Criteria for Auction Design** (FirstEnergy)
- **Auction Participation and Billing Overview** (PJM)
- **Supplier Credit Requirements** (FirstEnergy)
- **Supplier Agreements** (FirstEnergy / Skadden, Arps, Slate, Meagher & Flom)

Criteria for Auction Design



No legal relationship between Capacity Suppliers and LSEs

FRR Integration Auction



Direct legal relationship between Capacity Suppliers and ATSI Utilities

1. **Transparency**- competitive procurement process is open and fair- all potential suppliers have equal access to data that is relevant to auction.
2. **Definition**- product to be procured in auction is defined precisely
3. **Evaluation**- Standardized evaluation criteria are applied equally to all bids and bidders
4. **Oversight**- independent third party designs the auction, administers the bidding, and evaluates all bids

FRR Integration Auction Designed to Satisfy the Four Criteria

1.) **Transparency**

- Auction is open to all qualified suppliers
- Auction will be noticed in trade press
- Auction Manager will send notice of auction to pool of potential suppliers
- Auction Manager administers website that provides data and information about auction
- Information sessions open to all potential suppliers

2.) **Definition**

- Product is defined clearly in Auction Rules and Supplier Agreement that is posted on Auction Manager's website.

3.) **Evaluation**

- Standardized evaluation criteria explained in Auction Rules.
- Standardized procedures are explained in auction rules
- Auction Manager to apply standardized evaluation criteria to all bids and bidder rules

4.) **Independent Oversight**

- PJM is Auction Manager. PJM designed auction, administers the bidding and evaluates all bids
- PJM MMU has access to all information and processes related to auction.

- Relevant documents, data and information related to the Auction are available on the Internet website <http://www.pjm.com/markets-and-operations/atsi-integration/rpm-frr-integration-auctions.aspx>. The PJM website (www.pjm.com) contains copies of the applicable PJM agreements and the PJM Manuals.
- The ATSI Utilities will not communicate with Offerors, including any of their affiliates, with regard to any Auction-related matters prior to the selection of cleared Sell Offers by the Auction Manager.
- Each Offeror must communicate exclusively with the Auction Manager in all matters related to the Auction or the Auction Rules.

Auction Participation and Billing Overview

Auction Rules

RPM 2nd IA vs. FRR Integration Auction

	RPM 2 nd Incremental Auction (Prior to 12/13 DY)	FRR Integration Auction
Purpose	For PJM to procure on behalf on LSEs any increase in UCAP obligation due to a load forecast increase	For ATSI Utilities to procure FRR capacity requirement
Demand Curve	Buy Bids submitted by PJM at the MW amount targeted for procurement for RTO/LDA. Buy bid price set equal to price corresponding to IRM on the Variable Resource Requirement curve from the BRA.	Vertical Demand Curve set at zonal UCAP Obligation (with opt-out load obligation removed). Bid price capped at 1.5*NCONE in the RTO.
Supply Curve	Sell Offers submitted by Participants	Sell Offers submitted by Participants
Generator Sell Offer EFORd Requirements	Between 0 and greater of Effective EFORd or EFORd-5	Between 0 and greater of Effective EFORd or EFORd-5
Cost of Procurement	Allocated to RPM LSEs through a Locational Reliability Charge.	Allocated to ATSI LSEs through ATSI Locational Reliability Charge

- Establish PJM membership
- Sign PJM Operating Agreement
- Submit attestation form and credit representative form
- Establish an eSuite account and acquire access to the eRPM system

What Supply Resources are Eligible to Offer in the FRR Integration Auction?

In the FRR Integration Auction, the following types of **Resources** can participate:

Planned or Existing Generation Resources

Planned or Existing Demand Resources (DR)

Planned or Existing Energy Efficiency Resources (EE)

- Participation is mandatory for resource providers with:
 - available unforced capacity from **existing generation** located within the PJM market footprint that offered into the applicable year's BRA; or
 - bilateral contracts for available unit-specific capacity resources that are **existing generation** located within the PJM market footprint that were offered into the applicable year's BRA.

Participation by all resource providers is subject to the market power mitigation rules described in Attachment DD, Section 6 of PJM Open Access Transmission Tariff.

- Subject to the PJM MMU market manipulation/anti-competitive conduct rules, participation is voluntary for resource providers with:
 - Existing generation located in the ATSI zone;
 - External generation;
 - Planned generation;
 - Existing demand resources*;
 - Planned demand resources;
 - EE resources**

*ILR will not be permitted to register in the ATSI zone

**Inclusion of EE resources in 2011/2012 is pending FERC approval

- All Existing Generation within PJM or ATSI must be pre-certified by PJM as meeting Deliverability Requirements
 - Delivery analysis has confirmed all existing generation is deliverable
- Generation that is already committed to RPM or non-ATSI FRR plans for the Auction Delivery Years is not permitted to be double offered into the ATSI Auction
- Avoidable Cost Rate data must be submitted to Independent Market Monitor if the entity wishes to avoid being offer capped to \$0/MW
- Operating and maintenance information submitted in eGADs
- Planned Generation must have an executed Interconnection Service Agreement (ISA) or equivalent (External Resources)
 - PJM requests notification of intent to offer planned generation resources be submitted to PJM by February 1, 2010

Process to Offer Generation in ATSI Zone into the FRR Integration Auction

- PJM will model all studied ATSI generation resources into eRPM
- Participants wishing to offer generation located within the ATSI zone will need to enter a Capacity Modification within eRPM
- All Capacity Modifications must be submitted and approved by PJM by the opening of the Auction Window on Monday, March 15 at 12:00 AM EPT
- Generators can submit an Offer EFORd equal to or less than the maximum of their Effective EFORd or EFORd-5

- Any Load Management Resource registered in PJM's eLoad Response System is eligible to offer as Existing, provided it has not already been committed to RPM or an FRR Entity's FRR Capacity Plan for the 11/12 or 12/13 DY
- A list of existing Load Management resources in the ATSI zone has been provided to PJM and will be eligible to offer as existing DR
- Any DR in excess of existing is considered planned DR and must meet the conditions described on the following slide.

- Participants wishing to offer DR will need to contact PJM in order to have the resources modeled
 - Planned DR must have DR Plan submitted to PJM no later than February 22, 2010 detailing any customer aggregation/marketing plans and key milestones to acquire or build new resources.
- All Demand Resource Modifications must be submitted and approved by PJM by the opening of the Auction Window on Monday, March 15 at 12:00 AM EPT.

- DR is offered on a Zonal level
 - All zones located within the existing footprint are eligible to offer
 - Specific sites are not required to be named at the time of the Auction
 - If DR is committed in the Auction, individual sites must be registered in eLoad Response by the start of the Delivery Year
(i.e. if a commitment is for 2011/2012, registrations will be due by May 31, 2011)

- EE installation must be scheduled for completion prior to DY
- EE installation is not reflected in peak load forecast posted for the BRA for the DY initially offered
- EE installation exceeds relevant standards at time of installation as known at time of commitment
- EE installation achieves load reduction during defined EE Performance Hours
- EE installation is not dispatchable
- Measurement and Verification Plan must be submitted to PJM no later than Friday, February 12, 2010

- Participants wishing to offer EE will need to contact PJM in order to have the resources modeled
 - EE resource must have Measurement and Verification documentation submitted to PJM no later than February 12, 2010
- All Energy Efficiency Modifications must be submitted and approved by PJM by the opening of the Auction Window on Monday, March 15 at 12:00 AM EPT.

- Generation, Demand Resources, or Energy Efficiency Resources with available capacity can submit offers in eRPM during the open Auction Window
 - The Auction Window will be open from Monday, March 15 at 12:00 AM EPT to Friday March 19 at 5:00 PM EPT

- Requirement for unforced capacity is met by procuring supply through FRR Integration Auction
- A vertical Demand Curve set at the ATSI Zonal Preliminary UCAP Obligation (less any Opt-Opt LSE's UCAP Obligation) and capped at a price of 1.5 times Net CONE of RTO
 - 11/12 DY: Net CONE = \$171.40/MW-day
 - 12/13 DY: Net CONE = \$276.09/MW-day
 - The price cap will be represented as a horizontal line at 1.5 times Net CONE

- Supply of unforced capacity is procured to meet the demand in the Auction clearing process.
- Supply curve is defined based on the resource-specific offers submitted by providers.
- Supply that is procured in the FRR Integration Auction clearing will go toward ensuring that sufficient resources are committed to meet the ATSI Utilities FRR unforced capacity obligation requirement.

- PJM will stack the Supply Offers from lowest to highest price to form the Supply Curve
- The Auction Clearing Price will be equal to the intersection price of the Supply Curve and the Demand Curve
- An auction results summary report similar to existing RPM auction reports will be posted publicly on the ATSI Integration page of PJM.com after 4PM on March 26, 2010.

- Upon clearing in the FRR Integration Auction, PJM will create a Unit Specific Transaction from the Seller's portfolio to the ATSI Utilities' account equal to the ICAP equivalent of the Auction commitment.
- ATSI Utilities will then commit the bilaterally transferred Unit Specific Capacity to the FRR Plan.
- Resources that clear will be required to sign the Capacity Purchase and Sale Agreement with the ATSI Utilities.
- Resources that clear in the FRR Integration Auction will not be permitted to resell any portion of their cleared capacity to RPM or another FRR plan.

- Final EFORds for 2011/2012 and 2012/2013 will not be calculated until November 30, 2010 and November 30, 2011 respectively
- Upon calculation of Final EFORds, Unit Specific Transaction MW amounts will be updated by PJM such that the ATSI Utilities will only receive the ICAP equivalent of the Auction Commitment
- In the event a generator's Auction Offer EFORd is less than the unit's Final EFORd:
 - The UCAP transferred to ATSI will be less than the Auction commitment
 - The Seller will be responsible for transferring alternative capacity to ATSI to cover the shortfall

Delivery Year Requirements for Resources that Clear in FRR Integration Auction

- Must offer into PJM's Day Ahead Energy Market
- All existing Resource Performance Compliance will be applicable:
 - Commitment Compliance
 - Peak-Hour Period Availability
 - Summer/Winter Capability Testing
 - Peak Season Maintenance
 - Load Management Event Compliance
 - Load Management Test Compliance

- Details regarding resource performance assessments, calculation of shortfalls, associated penalties, and allocation of penalties are provided in Manual 18, Section 8.
- Non-performance by resources cleared in the auction will result in the associated penalties applied to the ATSI Utilities as the FRR Entity.
 - The ATSI Utilities will assess these charges on the ATSI Utilities' invoice for the capacity suppliers whose resources contributed to the charge

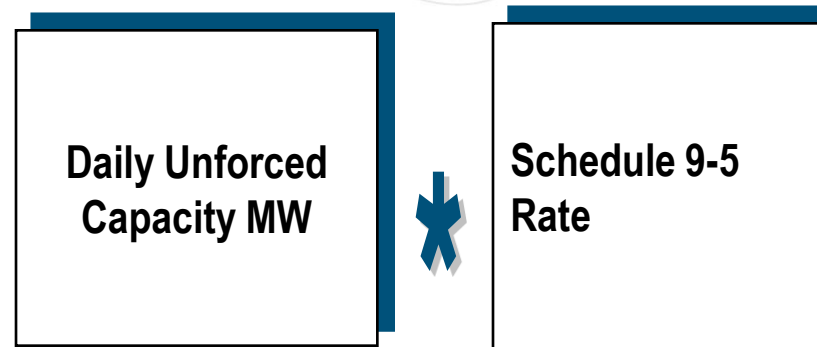
- Compliance Penalties can be avoided or mitigated by specifying replacement capacity through updates to the ATSI FRR Capacity Plan
 - Update the amount of ICAP committed on a committed resource (if resource has remaining available capacity)
 - Commit additional ICAP from another resource with available or unoffered capacity
 - Requires cleared capacity supplier to transfer additional ICAP to ATSI through unit-specific transactions for use in the updated ATSI FRR Capacity Plan
- FRR commitments cannot be replaced using buy bids cleared in an RPM Incremental Auction, Excess ILR Credits, or Excess Commitment Credits

FRR Integration Auction Credit =



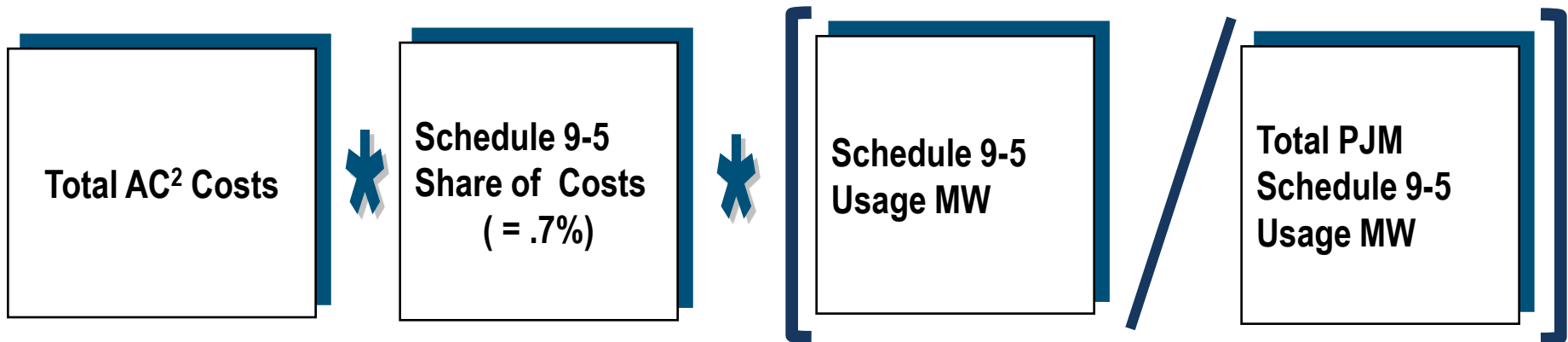
- If cleared Sell Offer in an FRR Auction, Market Seller will receive an Auction Credit
- All billing for suppliers will be performed by the ATSI Utilities

Schedule 9-5 Charge =



- Applies to all cleared capacity MW
- Collected based on
 - Capacity Resource Owner's Unforced Capacity MW

Schedule 9-6 Charge (portion related to capacity market activity) =



- Applies to all cleared capacity MW
- Collected across all users of Schedules 9-1 through 9-5

Contacting the MMU for ATSI Auction Issues

- For high-level issues requiring Market Monitor:
 - Joseph Bowring, Market Monitor
 - 610-271-8051, joseph.bowring@monitoringanalytics.com
 - Jeffrey Mayes, Monitoring Analytics General Counsel
 - 610-271-8053, jeffrey.mayes@monitoringanalytics.com
- For RPM/ACR business rules:
 - Alexandra Salaneck
 - 610-271-8050 x121, alexandra.salaneck@monitoringanalytics.com
- For Net Revenue calculations:
 - John Webster
 - 610-271-8050 x114, john.webster@monitoringanalytics.com
 - RPMNetRevenue@monitoringanalytics.com
- For RPM/ACR system administration & accounts:
 - Carl Smith
 - 610-271-8050 x117, carl.smith@monitoringanalytics.com

- Go to Monitoring Analytics web site, “Tools” page:
 - <http://www.monitoringanalytics.com/tools/tools.shtml>
- Contents include:
 - Link to Login Page for RPM/ACR Tool
 - RPM/ACR User Manual
 - Provides functional explanation of RPM/ACR system
 - RPM/ACR Registration Instructions and Form
 - To request an account for the RPM/ACR system
 - RPM/ACR Template Version 10
 - Spreadsheet input to calculate ACR for a unit, can be imported into RPM/ACR system
 - RPM/ACR Template Version 10 Instructions
 - Instructions on how to use the ACR calculation template
 - Updated Default ACR Values
 - Table of the Default ACR values applicable to the current auctions
 - Instructions for Using Offer Cap Data Screen
 - Participants will proactively affirm offer caps in the RPM/ACR system – this document describes the process.

Supplier Credit Requirements



Supplier Credit Requirements Agenda

Pre-Bid Security Process

Performance Assurance

Credit and Financial Information

FRR Integration Auction Rules – Article V

- 1) No Pre-Bid Security required if assessed an Internal Credit Risk Rating 1 – 4 (investment grade) based on the Offeror’s S&P and Moody’s credit risk rating or on the Offeror’s audited financial statements
- 2) Pre-Bid Security required if assessed an Internal Credit Risk Rating 5 – 7 (non-investment grade) based on the Offeror’s S&P and Moody’s credit risk rating or on the Offeror’s audited financial statements
 - Submit an executed Pre-Bid LOC (Appendix 4) or cash deposit (\$500,000) to the ATSI Utilities

NOTE: Offeror that is Bankrupt may not bid or otherwise participate in the Auction

FirstEnergy Internal Credit Risk Rating	S&P	Moody’s	Not Rated
1 – 4	AAA – BBB-	Aaa – Baa3	Credit Review
5 – 7	BB+ - CCC	Ba1 - Ca	Credit Review

Capacity Purchase and Sale Agreement – Article 6

Performance Assurance amount posted with the ATSI Utilities during the term of the agreement will depend upon the following calculation:

- Capacity Supplier's Capacity Resource Amount (in Megawatts or MW) multiplied by the Price (MW/day) multiplied by 21 days multiplied by 1.2
- Must be posted within 1 Business Day of the Effective Date of the Capacity Purchase & Sale Agreement

Acceptable Form of Security

- Cash
- Letter of Credit (Appendix D of Capacity Purchase & Sale Agreement)

FRR Integration Auction Rules – Appendix 2

From Offeror:

Financial statements (SEC Form 10-K, 10-Q, 8-K) or if unavailable, the most recent audited annual (last 2 years) and quarterly financial information

A debt rating from two of the following rating agencies (if available): S&P and Moody's (with supporting documentation)

Contact information for the Offeror's credit representative to answer questions on the documentation provided

Supplier Agreements

- The Capacity Purchase and Sale Agreement establishes the terms and conditions pursuant to which each Capacity Supplier will supply to the ATSI Utilities the Capacity cleared in the FRR Integration Auction at the auction clearing price established in the FRR Integration Auction.
- There will be a separate Capacity Purchase and Sale Agreement for each Delivery Year.

- Each Capacity Supplier shall deliver Capacity to the ATSI Utilities on a firm and continuing basis from specified Capacity Resources during the Delivery Year.
- ATSI Utilities will pay Capacity Suppliers for such Capacity cleared in the FRR Integration Auction at the auction clearing price for Capacity established in the FRR Integration Auction.
- Capacity Resources must meet all the applicable requirements set forth in the PJM Agreements.
- For Capacity Resources located outside of PJM, Capacity Suppliers must demonstrate deliverability to PJM through firm point-to-point transmission service or through Network External Designated Transmission Service.

- In the event of a payment default by the ATSI Utilities, each Capacity Supplier will be entitled to default damages and may exercise all other rights and remedies available under law.
- In the event of an Event of Default by a Capacity Supplier (including the failure to deliver Capacity), the ATSI Utilities may (i) suspend performance, (ii) receive default damages (including the cost of procuring Capacity from third-parties), (iii) draw down or retain Performance Assurance, (iv) set-off amounts due to Capacity Suppliers and/or (v) terminate the agreement.
- If ATSI Utilities terminate the Agreement due to an Event of Default of a Capacity Supplier, the defaulting Capacity Supplier may have to pay a termination payment.

As part of the Sell Offer Package, Offerors must submit to the Auction Manager the following:

1. Attestation Form by 2/15/10.
 - Offeror designates Authorized Representative(s), provides certifications to ensure that all Offerors act in a fair and compliant manner, abide by the Auction Rules, (including the confidentiality provisions) and agree to execute the CPSA and provide Performance Assurance.
2. Credit Representative and Information Form by 2/15/10.
 - Offeror identifies and provides information regarding the Offeror's Credit Representative who will answer questions or provide information regarding the Offeror's Pre-Bid Security requirements, if applicable and Performance Assurance requirements.
3. If required, Pre-Bid Security.
 - The Offeror must post the Pre-Bid Security for each Delivery Year at least one (1) week prior to the beginning of the Auction.

End of Capacity Supplier Information Section

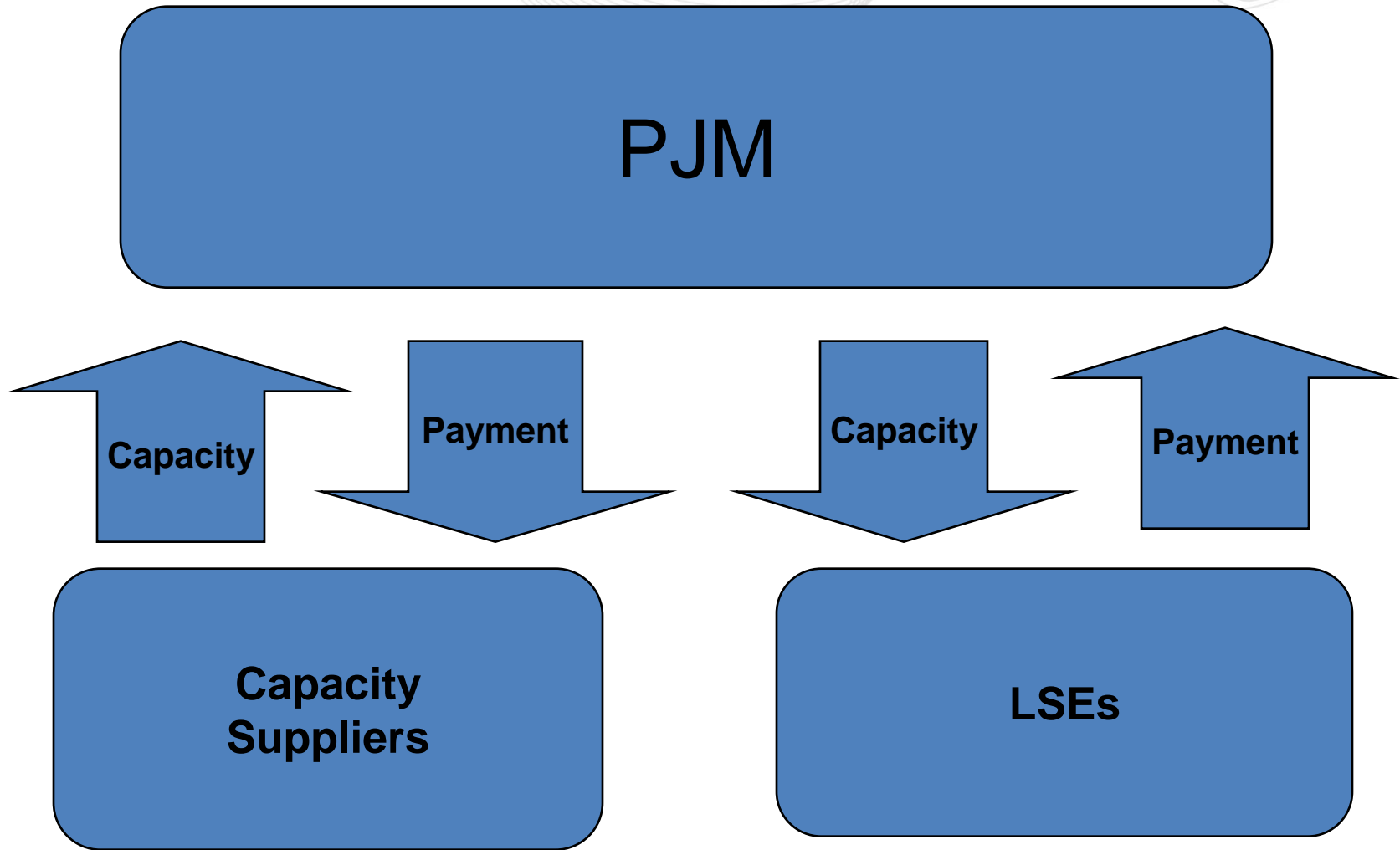
Additional Questions?

Load Serving Entity (LSE) Information

The slides in the following sections contain information relevant to load serving entities serving load in the ATSI zone

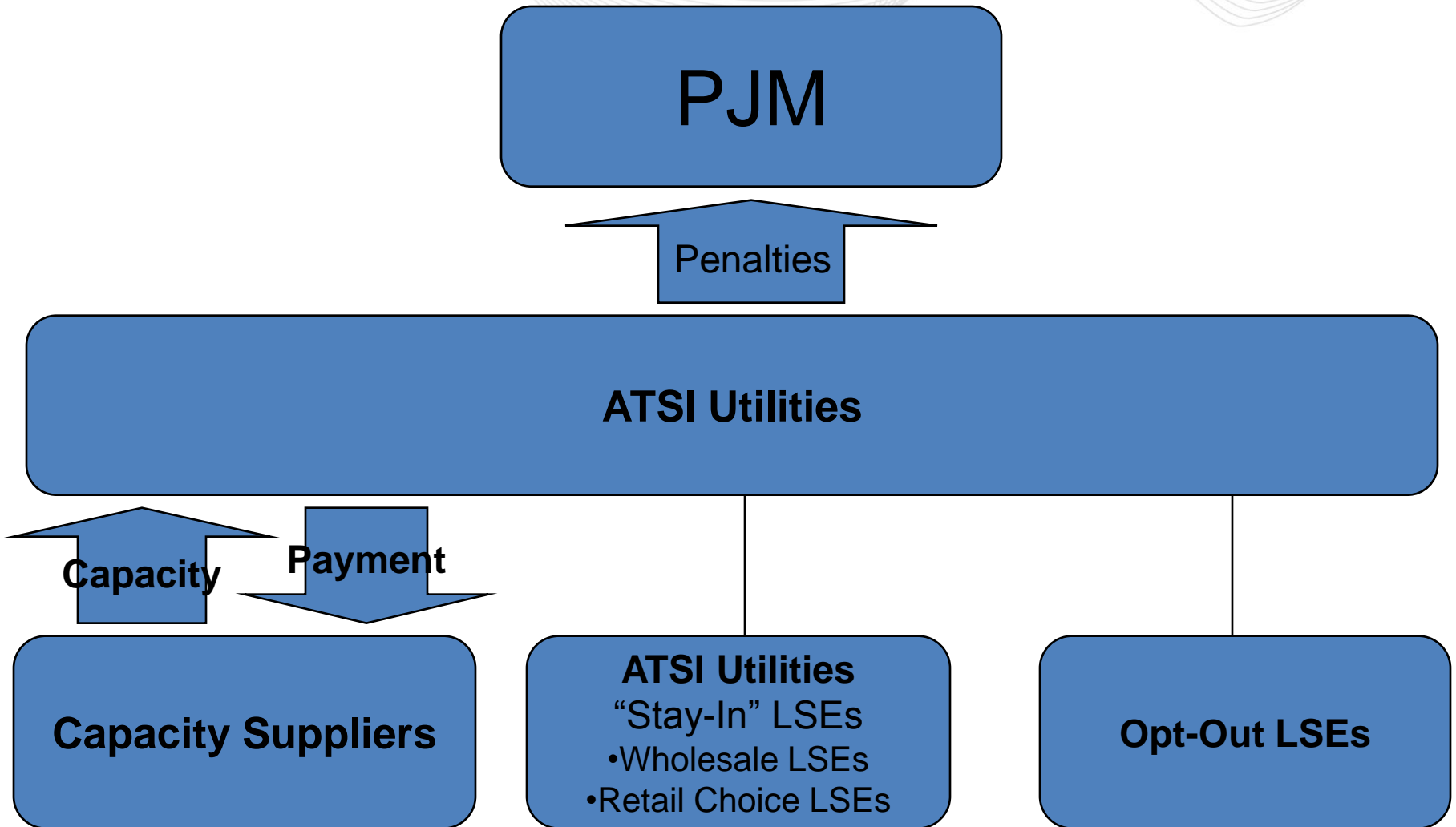
- FRR Plan Roles and Relationships (FirstEnergy)
- LSE Options and Billing Overview (PJM)
- LSE Credit Requirements (FirstEnergy)
- LSE Agreements (FirstEnergy / Skadden, Arps, Slate, Meagher & Flom)

FRR Plan Roles and Relationships



No legal relationship between Capacity Suppliers and LSEs

FRR PLAN



ATSI Utilities responsible to PJM 129 FERC ¶61,249 at P.93

LSE Options and Billing Overview

	(1) Independent FRR Entity	(2) Opt-Out LSE	(3) ALL Other LSEs
Load Treatment in FRR Integration Auction	Load removed from FRR Integration Auction	Load removed from FRR Integration Auction	Load is not removed from FRR Integration Auction
Capacity Plan Requirements	Submit Independent FRR Capacity Plan directly to PJM	Submit Resource Plan to ATSI Utilities for inclusion in ATSI Utilities FRR Capacity Plan	ATSI Utilities procuring capacity on LSE's behalf in FRR Integration Auction and bilaterally (if required)
ATSI Zone Locational Reliability Charges	Not assessed	Assessed ATSI Zone Locational Reliability Charge in PJM bill Receive Non-Unit Specific Capacity Credit for UCAP committed to ATSI Utilities FRR Plan times the weighted average cost of procurement in PJM bill	Assessed ATSI Zone Locational Reliability Charge in PJM bill
Resource Performance Compliance Charges/Credits	Assessed compliance charges/credits by PJM	Assessed allocation of certain compliance credits received by ATSI Utilities as FRR Entity in PJM bill Assessed any compliance charges /credits for resources in Capacity Plan via PJM billing statement	Assessed allocation of certain compliance credits received by ATSI Utilities as FRR Entity in PJM bill
Option Eligibility	Only wholesale metered load is eligible. LSE must serve entire load in an FRR Service Area.	All LSEs serving load in the ATSI zone are eligible	All LSEs serving load in the ATSI zone are eligible

Independent FRR Entity must opt-out the entire load for a FRR Service Area. LSEs may elect to opt-out a portion of their load under option (2) and serve the remainder of their load subject to the conditions of option (3).

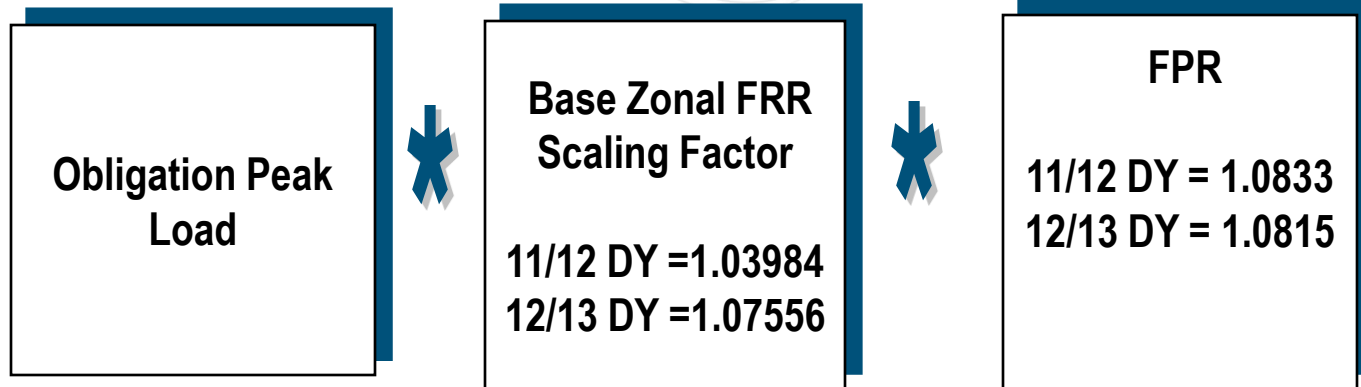


LSE Requirements & Deadlines

Requirement	Independent FRR Entity	Opt-Out LSE	All Other LSEs
Notice of Intent to Opt-Out	Submit to ATSI Utilities and PJM by January 31, 2010	Submit to ATSI Utilities by January 31, 2010	Not Applicable
Capacity Plan	Independent FRR Capacity Plan submitted in eRPM by February 15, 2010.	Resource Plan submitted to ATSI Utilities by February 15, 2010. Submit unit-specific capacity transactions transferring capacity listed in Capacity Plan to ATSI Utilities for inclusion in ATSI Utilities FRR Capacity Plan by March 5, 2010.	Not Applicable
Execute Agreements with ATSI	Not Applicable	Execute Opt-Out Agreement with by March 5, 2010.	Execute Capacity Payment Agreement by March 5, 2010.
PJM Membership & Signatory to PJM OA	Establish prior to FRR Capacity Plan submittal	Establish prior to Delivery Year	Establish prior to FRR Integration Auction (if want to self-schedule resources into FRR Integration Auction by offering at \$0/MW-day) or prior to Delivery Year
Signatory to PJM RAA	Sign prior to FRR Capacity Plan submittal	By Delivery Year	By Delivery Year
Establish an eSuite account and acquire access to eRPM system	Establish prior to FRR Capacity Plan submittal	By Delivery Year	Establish prior to FRR Integration Auction (if self-schedule) or prior to Delivery Year

LSE Preliminary UCAP Obligation for Wholesale Area Load

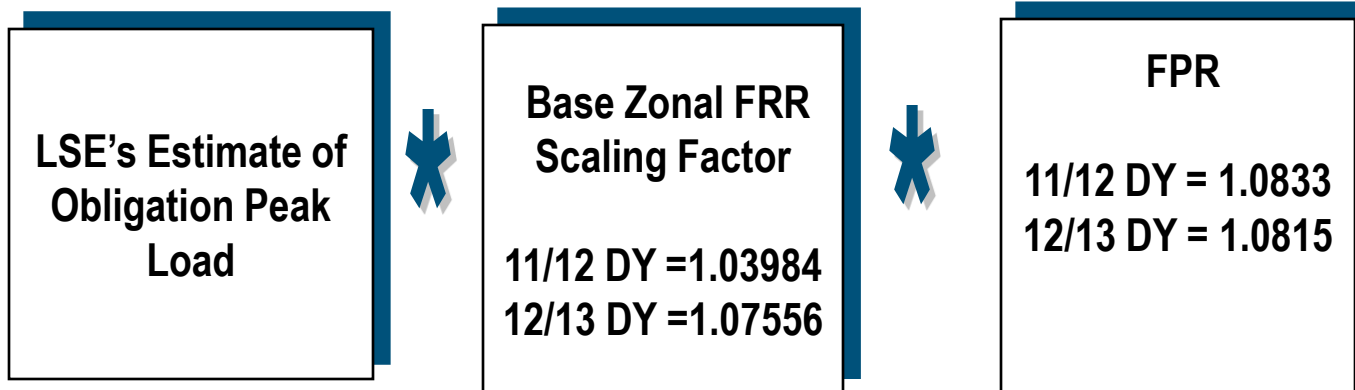
LSE Preliminary UCAP Obligation for Wholesale Area =



- Obligation Peak Load = Area's share of 2009 ATSI Zone Weather Normalized Summer Peak Load of 12,150 MW.
- Base Zonal FRR Scaling Factor = Preliminary Zonal Peak Load Forecast/2009 Summer Weather Normalized Zonal Peak Load
- ATSI Utilities to determine Obligation Peak Load for wholesale areas in ATSI zone by January 15, 2010.

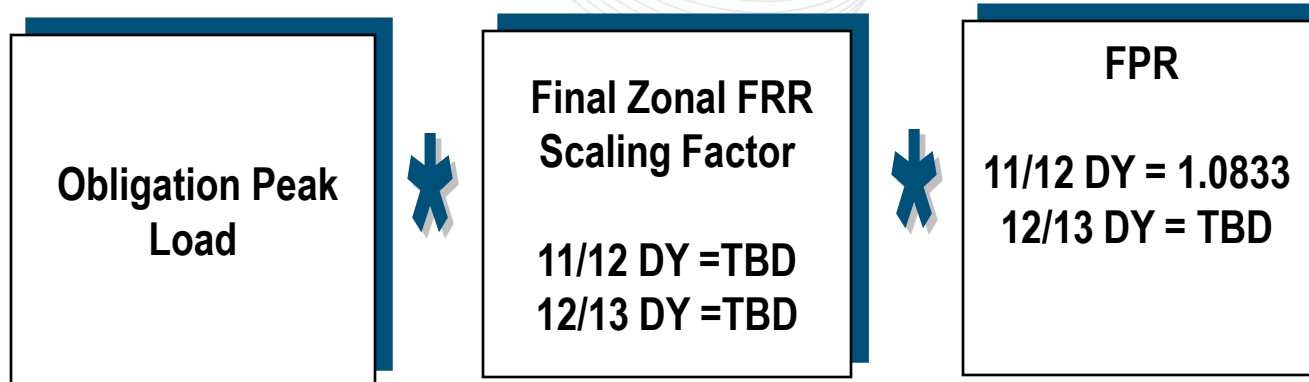
LSE Preliminary UCAP Obligation for Retail Choice Load

LSE Preliminary UCAP Obligation for Retail Choice Load =



- Neither PJM nor ATSI Utilities is responsible for calculating or estimating the LSE's Obligation Peak Load
- An Opt-Out retail choice LSE bears all the risk that its actual load in the DY may differ from the amount of UCAP that such LSE committed to ATSI FRR Capacity Plan

LSE Final Daily UCAP Obligation =



- Obligation Peak Load = LSE's share of Weather Normalized Zonal Peak for Summer prior to DY
- ATSI Utilities to provide Obligation Peak Load values for wholesale areas via eRPM system by December 31 prior to DY
- Obligation Peak Load values for wholesale areas are constant for entire DY
- No later than 36 hours prior to the delivery day, ATSI Utilities to upload the Retail Choice LSE's obligation peak load values via eRPM system
- Retail Choice LSE Obligation Peak Load values may vary daily during the DY due to load shifting
- Final Zonal FRR Scaling Factor = Final Zonal Peak Load Forecast/Weather Normalized Zonal Peak Load for Summer prior to DY

Daily ATSI Locational Reliability Charge =

**LSE Daily
UCAP
Obligation**



**Weighted
Average Cost of
Procurement**

- LSEs in the ATSI zone must pay a Daily ATSI Locational Reliability Charge for load served during the DY (excludes LSEs that choose Independent FRR Entity option)
- Weighted Average Cost of Procurement = [(Total MWs procured in FRR Integration Auction * Auction Clearing Price) + Σ(Capacity procured bilaterally * bilateral price)] / Total capacity procured in FRR Integration Auction and bilaterally
- Charges calculated daily and billed weekly during Delivery Year by PJM
- All charges collected will be distributed to ATSI Utilities
- If any LSE fails to pay the charge, PJM will simply not credit the ATSI Utilities the associated amount.
- PJM's normal default procedures do not apply to billing associated with the FRR Integration Auctions

Non-Unit Specific Capacity Credit =

**LSE's UCAP
MW Committed
to ATSI Utilities'
FRR Plan**



**Weighted
Average Cost of
Procurement**

- All Opt-Out LSEs will receive a Non-Unit Specific Capacity Credit
- ATSI Utilities will receive a corresponding Non-Unit Specific Capacity Charge
- Charges/credits calculated daily and billed weekly during Delivery Year.

Example 1:

UCAP Committed in ATSI FRR Capacity Plan = UCAP Obligation on Delivery Day

UCAP Committed in ATSI FRR Capacity Plan = 500 MW
 UCAP Obligation on Delivery Day = 500 MW
 Weighted Average Cost of Procurement = \$100/MW-day

Daily Charge/Credit	\$/Day
ATSI Locational Reliability Charge	\$50,000
Non-Unit Specific Capacity Credit	(\$50,000)
Net Charge/Credit	\$0

Example 2:

UCAP Committed in ATSI FRR Capacity Plan > UCAP Obligation on Delivery Day

UCAP Committed in ATSI FRR Capacity Plan = 500 MW
 UCAP Obligation on Delivery Day = 300 MW
 Weighted Average Cost of Procurement = \$100/MW-day

Daily Charge/Credit	\$/Day
ATSI Locational Reliability Charge	\$30,000
Non-Unit Specific Capacity Credit	(\$50,000)
Net Credit	\$20,000

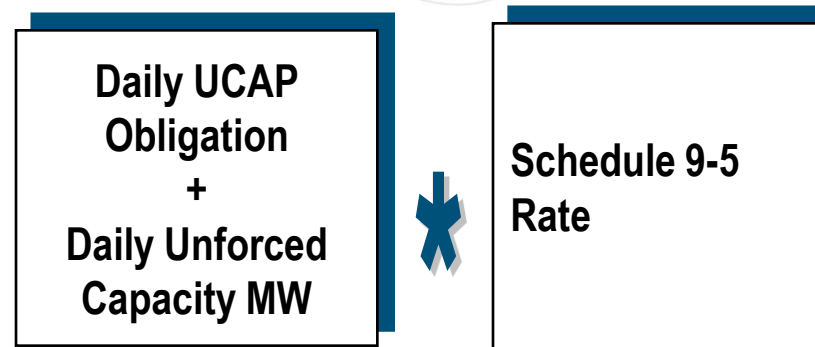
Example 3:

UCAP Committed in ATSI FRR Capacity Plan < UCAP Obligation on Delivery Day

UCAP Committed in ATSI FRR Capacity Plan = 500 MW
 UCAP Obligation on Delivery Day = 600 MW
 Weighted Average Cost of Procurement = \$100/MW-day

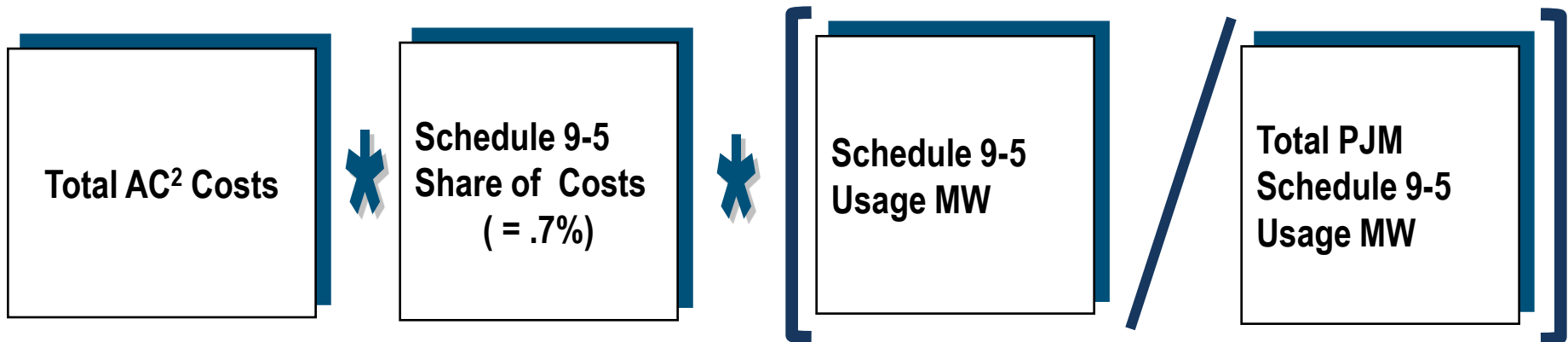
Daily Charge/Credit	\$/Day
ATSI Locational Reliability Charge	\$60,000
Non-Unit Specific Capacity Credit	(\$50,000)
Net Charge	\$10,000

Schedule 9-5 Charge =



- Applies to all LSEs
- Collected based on
 - Load-Serving Entity's daily UCAP obligation, including FRR obligations
 - Capacity Resource Owner's Unforced Capacity MW, including capacity committed to FRR plans
- All Opt Out LSEs and Independent FRR entities will be charged based on daily UCAP obligation as well as capacity committed to FRR plan

Schedule 9-6 Charge (portion related to capacity market activity) =



- Applies to all LSEs
- Collected across all users of Schedules 9-1 through 9-5

- **Obligation Compliance**
 - Daily Obligation Compliance during DY
- **Resource Performance Compliance**
 - Peak Hour Period Availability
 - Summer/Winter Capability Testing
 - PSM Compliance
 - Load Management Event Compliance
 - Load Management Test Compliance

- FRR Entity must maintain enough unforced capacity in their FRR Capacity Plan to satisfy their Final Unforced Capacity Obligation for the Delivery Year
- FRR Entity may need to procure and commit additional resources to meet any increase in obligation from the preliminary unforced capacity obligation and any decreases in the unforced capacity value of committed resources in their FRR Plan.
 - Wholesale Opt-Out LSEs that elect to remove their entire load from the auction are responsible for submitting updated resource plans prior to the Delivery Year to meet any increase from their Preliminary UCAP to their Final UCAP Obligation
- FRR Entities that fail to maintain enough daily unforced capacity in their FRR Capacity Plan during the DY to satisfy their Final Daily UCAP Obligation will be assessed a Daily FRR Capacity Resource Deficiency Charge for any daily shortfall.

Daily FRR Capacity Resource Deficiency Charge =

**Daily Shortfall
(MWs)**



**Integration Auction
Clearing Price +
Greater of (.2 *
Auction Clearing
Price , \$20/MW-day)**

- Only ATSI Utilities and Independent FRR Entities are subject to Daily FRR Capacity Resource Deficiency Charge.
- PJM will bill an Opt-Out LSE for any of the Opt-Out LSE's resources that contributed to any shortfall in the ATSI Utilities' portfolio.
- Charges are allocated pro-rata to RPM LSEs based on their unforced capacity obligation.
- Charges/credits calculated daily and billed weekly by PJM during Delivery Year.

- Details regarding resource performance assessments, calculation of shortfalls, associated penalties, and allocation of penalties are provided in Manual 18, Section 8.
- Non-performance by resources committed in an FRR Entity's FRR Capacity Plan will result in the associated penalties applied to the FRR Entity.
 - PJM will apply these charges to the bill of the Opt-Out LSE that contributed the underperforming resources to the ATSI Utilities' FRR plan
- In cases where the penalty rate is based on "weighted average of resource clearing prices across all DY RPM Auctions for the LDA encompassing the zone of the FRR Entity", the penalty rate will be based on DY FRR Integration Auction clearing price.

- FRR Entities as LSEs shall receive an allocation of Peak-Hour Period Availability Charges or LM Event Compliance Charges if any balance remains after crediting over-performing Resource Providers.
- Any allocation of such charges to ATSI Utilities will be credited to LSEs in the ATSI zone (excludes Independent FRR Entities)
- Opt-Out LSEs will receive a Performance Compliance Credit on their PJM bill

Charge / Credit Type	(1) Independent FRR Entity	(2) Opt-Out LSE	(3) ALL Other LSEs
ATSI Locational Reliability Charges	N/A	Billed by PJM	Billed by PJM
Non-Unit Specific Capacity Credits	N/A	Billed by PJM	N/A
Schedule 9-5 and Schedule 9-6 Charges	Billed by PJM	Billed by PJM	Billed by PJM
Capacity Resource Deficiency Charge	Billed by PJM	Billed by PJM	N/A
Performance Compliance Charges	Billed by PJM	Billed by PJM	N/A
Performance Compliance Charge Allocations	Billed by PJM	Billed by PJM	Billed by PJM

LSE Credit Requirements



Participating & Opt-Out Load Serving Entities Required Information & Credit Requirement

Required Information:

- Contact information for the LSE's credit representative to answer questions on the documentation provided

Credit Requirements in Agreement:

Performance Assurance amount posted to the ATSI Utilities during the term of the agreement will depend upon the LSE's Capacity Obligation:

- If LSE's Capacity Obligation is 100 Megawatts or greater as calculated prior to the auction, then the Performance Assurance will be \$1,000,000. If LSE's Capacity Obligation is less than 100 Megawatts as calculated prior to the auction, then the Performance Assurance will be \$500,000
- Must be posted within 1 Business Day of the Effective Date of the agreement

Acceptable Form of Security

- Cash
- Letter of Credit (Appendix C of Participating & Opt-Out LSE Agreements)

LSE Agreements

Capacity Payment Agreement and Opt-Out Agreement

- The Capacity Payment Agreement establishes the terms and conditions pursuant to which LSEs in the ATSI Load Zone, which do not elect to opt-out of the FRR Integration Auction or submit their own FRR Plan to PJM, reimburse the ATSI Utilities for Capacity procured on their behalf.
- There will be a separate Capacity Purchase Agreement for each Delivery Year.
- The ATSI Utilities will procure and manage the Capacity necessary to serve each LSE's load at all times during the Delivery Year.
- The LSEs shall pay the ATSI Utilities for all costs, expenses and PJM charges in connection with the ATSI Utilities' procurement and management of such Capacity.
- Each LSE shall, among other things, be a member in good standing of PJM, have obtained all necessary regulatory approvals and adhere at all times to the PJM Agreements, manuals and protocols (see Article 2).

Purpose and Core Obligations in the Opt-Out Agreement

- The Opt-Out Agreement establishes the terms and conditions pursuant to which LSEs in the ATSI Load Zone, which have elected to opt-out of the FRR Integration Auction, indemnify the ATSI Utilities in the event PJM holds the ATSI Utilities responsible for (i) such LSE's failure to procure Capacity to serve its Load and (ii) PJM charges attributable to such LSE.
- Each Opt-Out LSE shall indemnify the ATSI Utilities for all costs, expenses and charges in connection with such Opt-Out LSE's failure to procure Capacity.
- Each Opt-Out LSE shall have provided to the ATSI Utilities a Resource Plan which describes such LSE's plan to procure Capacity to meet its Capacity obligation.
- Each Opt-Out LSE shall, among other things, be a member in good standing of PJM, have obtained all necessary regulatory approvals to deliver Capacity and adhere at all times to PJM Agreements, manuals and protocols (see Article 2).

Material Legal Rights and Remedies in CPA and Opt-Out Agreement

- In the event of a default under the agreements the ATSI Utilities may draw down or retain Performance Assurance or exercise any other remedies at law or in equity.
- In addition, the agreements contain a Confession of Judgment provision whereby in the event of a payment default by an LSE, the ATSI Utilities may seek enforcement in the courts and the LSE waives certain rights to defend such action.

End of LSE Information Section

Additional Questions?

Appendix

This section includes additional slides that provide additional detail behind some of the concepts covered in this presentation



Qualifications for Offering Generation Resources

Qualification	Existing Internal *Includes ATSI and PJM resources	Existing External	Planned Internal (includes upgrades to existing units)	Planned External (includes upgrades to existing units)
Deliverability	Pre-certified by PJM as meeting generation deliverability test.	<p>Indication of intended ATC path to deliver external capacity is provided at time of offer.</p> <p>Firm transmission service from unit to border of PJM needs to be obtained by start of DY.</p> <p>Deliverability demonstrated prior to start of DY by either (1) obtaining firm PTP transmission service on PJM OASIS from border into PJM; or (2) obtaining "Network External Designated" transmission. Either option (1) or (2) may require transmission upgrades to be completed prior to June 1st of DY.</p>	<p>Unit is participating in RTEPP.</p> <p>Start date of Interconnection Service is on or before start of DY.</p> <p>Interconnection Service Agreement (ISA) executed for unit to participate in FRR Integration Auction.</p>	<p>Same deliverability requirements as "Existing External" generation.</p> <p>Start date of Interconnection Service is on or before start of DY.</p> <p>Functionally equivalent Interconnection Service Agreement (ISA) executed for unit to participate in FRR Integration Auction.</p>



Qualifications for Offering Generation Resources (Cont'd)

Qualification	Existing Internal	Existing External	Planned Internal (includes upgrades to existing units)	Planned External (includes upgrades to existing units)
Letter of Non-recallability	NA	X	NA	X
Unit resides in eRPM resource portfolio of a signatory of PJM Operating Agreement	Accomplished through a "Approved" CAP MOD or unit-specific bilateral transaction.	Accomplished through a "Provisionally Approved" unit-specific transaction with "External Party" as Seller. ("Approved" status granted when all generation deliverability requirements satisfied.)	Accomplished through a "Provisionally Approved" CAP MOD. ("Approved" status granted once unit or upgrade is commercial.)	Same requirements as "Existing External" generation.
Relevant portion of unit not specified in FRR Capacity Plan for DY.	X	X	X	X
Historical NERC/GADS unit performance data is provided in PJM format	PJM already has data in eGADs to establish EFORd & EFORd-5 yr.	5 years of historical data is requested.	Class average data or 5 yrs of historical data (if upgrade) will be used to establish EFORd & EFORd-5 yr.	Class average data or 5 yrs of historical data (if upgrade) will be used to establish EFORd & EFORd-5 yr.



Qualifications for Offering Generation Resources (Cont'd)

Qualification	Existing Internal	Existing External	Planned Internal (includes upgrades to existing units)	Planned External (includes upgrades to existing units)
Operating and maintenance information submitted in eDART and eGADs.	X	X	X (once operational)	X (once operational)
Owner/operator performs summer and winter net capability tests.	X	X	X (once operational)	X (once operational)
Communication path is established between PJM dispatchers and unit operator.	X	X	X (once operational)	X (once operational)

Load Management Products must be:

- Interruptible by PJM for 10 times during planning period (mandatory performance from June 1 through September 30)
- Interruptible for up to 6 consecutive hours from 12:00 to 20:00 on non-holiday weekdays
- Able to be implemented within 2 hours
- Able to reduce load upon request of PJM, without additional approvals being required
- Able to receive the PJM All Call for notification of Emergency Events
- Registered and approved as an Emergency Load Response product in the PJM Load Response system.

**Following a Load Management Event,
CSP/LSEs supply event compliance data to PJM
in the Load Response System.**

Assessment	Purpose
Peak-Hour Period Availability	Measures if generation resource was available during critical peak-hour periods during DY
Summer/Winter Capability Testing	Determines if generation resource demonstrated its ICAP commitment amount through summer and winter testing
PSM Compliance	Determines if generation resource took an unapproved planned or maintenance outage during peak season period.
Load Management Event Compliance	Determines if committed demand resource or certified ILR resource reduced load during an emergency event that occurs during June – Sept
Load Management Test Compliance	In the absence of a PJM-initiated LM event, this assessment determines if committed demand resource or certified ILR resource reduced load during a CSP-initiated test that occurs during June-Sept

