

Intraday Offers
Markets Gateway Training Environment
Frequently Asked Questions

PJM Real-Time Market Operations
10/10/2017



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Accessing the Intraday Offers (IDO) Markets Gateway Train Environment

- 1) Will Market Participants be able to access Intraday Offers in the normal Markets Gateway Training environment (sandbox)?
 - a. No, because Intraday Offers will be available for approximately 10 months prior to the November 2017 go-live date, this functionality will be located in a custom Intraday Offers Training environment. See the next bullet for instructions on how to access that environment.
- 2) How do I access the Intraday Offers Markets Gateway Training environment?
 - a. The Intraday Offers Markets Gateway Training environment can be accessed via this URL: <https://marketsgatewayidotrain.pjm.com>
- 3) Will users need to request additional access to Intraday Offers Markets Gateway Training or will those who already have access to Markets Gateway Training be able to access?
 - a. Users that have Markets Gateway Training access will automatically have Intraday Offers Markets Gateway Training access.
- 4) Where can I find answers to more specific Markets Gateway questions?
 - a. The Markets Gateway Users Guide can be found at: <http://www.pjm.com/markets-and-operations/etools/markets-gateway.aspx>
- 5) Who should I contact if problems arise?
 - a. Please contact Member Support Hotline at 610-666-8980 or 866-400-8980, or at custsvc@pjm.com, and they will transfer your question or issue to the appropriate organization and ensure you receive a reply.

Market Rule Changes

- 1) How many schedules can I have (total, not just available)?
 - a. With the implementation of Intraday Offers there is no longer the need to keep a large number of schedules because a schedule can now be updated hourly. However, to allow for different fuel types and combined cycle units, users may have one Price schedule (Schedule 99), one Price PLS schedule (Schedule 79), and nine (Schedules 1-12) cost based schedules.
- 2) What do I do if I currently use schedules that aren't on the list?

- a. All Generation units, including those that opt-out of Intraday Offers, must use Intraday Offer compliant schedules listed in Question 1 above. A [Guide to Convert Schedule IDs in Markets Gateway](#) is available to allow participants to copy existing schedule information to IDO compliant schedule IDs. Schedules outside the Intraday Offer compliant schedule list cannot be viewed or made available starting with the November 1, 2017 Market Day.
- 3) I converted my non-IDO compliant schedules, how do I delete them?
 - a. There is no need to delete non-IDO compliant schedules. Beginning on the November 1 Market Day, they will be hidden from the Markets Gateway User Interface to reduce confusion.
- 4) After the Intraday Offers implementation on November 1, will I be able to view my non-IDO compliant schedules that were previously offered?
 - a. Market participants can continue to query past Market data, including non-IDO compliant schedules, for 90 days. In order to view the historical data, a Market Day prior to 11/1/2017 must be submitted via the Markets Gateway User Interface or corresponding XML query. After the 90 day window has elapsed, the data will be unavailable to participants.
- 5) What schedules need to be made available?
 - a. There are no changes to the schedule types that need to be Available each day. All units must have a cost-based schedule Available at all times. Price-based units must have one Price schedule Available. For Capacity resources, all price-based units must have a Price PLS schedule Available.
- 6) Can I change my Availability hourly?
 - a. Units that are not designated as Dual Fuel capable in Markets Gateway cannot update availability hourly. If needed, non-Dual Fuel units can change Availability during the day by using the Switch to Cost option (see #10 below). Dual Fuel units can change cost schedule availability in Real-time for any hours that are not committed. For more information, please consult slides 61 – 63 of the [September 2017 Intraday Offers Education](#) materials.
- 7) Must I have a daily offer to do hourly updates?
 - a. Yes, for those parameters that can be updated hourly, a daily offer must be in the system in order to update hourly. Daily offers will continue to roll forward to the next day, as today, but hourly updates will not have this capability.
- 8) When can I submit updates to my offer in Real-time?
 - a. Hourly updates can be submitted starting 18:30 the day prior to the Market Day and up to 65 minutes before the operating hour.
- 9) Are there rules around what updates I can make to my price or cost offers?

- a. Yes, Price offers may be increased or decreased for uncommitted hours, but may only be decreased for committed hours. The offer increase will be measured with regards to the incremental offer value that existed for the unit and hour at the time the unit most recently received a commitment for that hour. Cost offers may be increased or decreased for both committed and uncommitted hours.
- 10) What does it mean to opt-out of Intraday Offers? What is required if I opt-in?
- a. Market Sellers who do not specify in a generator's Fuel Cost Policy that offers will be updated on an hourly basis will be marked as opted-out by PJM. Those resources may not opt-in to Intraday Offers unless an update is made to the Fuel Cost Policy.
 - b. The opt-out election is visible to Markets Gateway users via the Intraday Opt-out screen in Markets Gateway (Generator > Unit > Intraday Opt-out).
 - c. Opt-in is specified on a unit level, and is done on a monthly basis. Users must indicate their desire to opt-in by midnight of the 15th of the month prior to the month they want to begin the opt-in. The opt-in selection will continue until the user cancels.
 - d. If a Generator chooses to opt out of Hourly updates in accordance with their Fuel Cost Policy, certain capability is still available. Please consult slide 18 of the [September 2017 Intraday Offers Education](#) materials for details.
- 11) If my generator opted-out of Intraday Offers, can I take advantage of any of the additional flexibility introduced?
- a. Yes. Even if a Generator opts out, they may provide hourly differentiation for their DA offer, update the incremental energy offer, min run time, and no load and startup costs during the Rebid period for hours where the unit does not have a Day-Ahead commitment, update schedule based notification times (except during lockout periods) , utilize "Switch to Cost" functionality, and update Regulation and Spin MW values 65 minutes prior to the operating hour.
- 12) Can I switch to cost if my actual cost is higher than my Price?
- a. Yes, in the event that a user's actual cost becomes greater than their Price, the user may elect to switch to cost. This option is found on the Generator > Schedules > Detail Update screen in Markets Gateway, and the decision must be made at a minimum of 65 minutes before the operating hour for the current market day. The choice to switch to cost for the following market day can only be made after the close of the Reliability Assessment period (18:30). Upon reaching the chosen operating hour, the Price and Price PLS schedules will become Unavailable and the unit will be placed on the cheapest Available cost schedule and will remain on that schedule until the end of the day. This option will not roll forward to the following day. Please consult slides 57 – 59 of the [September 2017 Intraday Offers Education](#) materials for more information.
- 13) What can I change for Regulation and Synch Reserve?

- a. Regulation and Synch Reserve offers (price and MW) can differ for each hour and be updated on an hourly basis. See #7 above.
- 14) What can I change for Demand Response?
- a. See #7 above.
- 15) Are there any changes to the Three Pivotal Supplier test?
- a. There is no material change to the TPS test for Day Ahead. In Real Time, a test for online resources will be added now that offers can be updated in Real Time. This will be an hourly test for any online resource outside of its Day Ahead committed hours, or if committed in Real Time, its Minimum Run time. Mitigation rules remain the same as today. A new screen in Markets Gateway was added to reflect units that have been mitigated. For more information on TPS changes for Intraday Offers, please consult slides 65 – 78 of the [September 2017 Intraday Offers Education](#) materials.
- 16) How are self-scheduled units handled for Three Pivotal Supplier testing?
- a. All self-scheduled units will now be subject to the online Three Pivotal Supplier testing.
- 17) Will the GUCC functionality on the Availability Update Screen still be available?
- a. No, the GUCC option to update cost schedule availability will be retired and the Markets Gateway screen (Unit > Schedules > Availability Update) will be removed.
- 18) Where can I find the new XML information?
- a. All XML user information can be found in the [PJM External Interface Specification](#) posted on the Markets Gateway home page. Also, instructions and examples can be found at the end of this document.
- 19) If certain parameters in an XML submission do not support updates intraday, will I need to update my existing XML communications to only send those that can be updated?
- a. In order to avoid the need for several XML templates for different times of the day and different commitment statuses, the system will allow XML submittals to contain locked out parameters, and won't reject them as long as the value is the same as currently in the system.

Markets Gateway Screen changes

There are four new screens, five updated screens and one screen will be removed.

- 1) Generator > Schedules > Detail
 - a. "Market Type" will be removed from this screen. The current options of "DA", "Balancing" or "Both" will no longer be available as schedules will be considered for both DA and Balancing in Intraday. See slides 14-15 of the [September 2017 Intraday Offers Education](#) materials for more information.

Market Day Portfolio Location Schedule

Offers **Detail** Manager Selection Availability Update Restriction Information

EXAMPLE 1 > 2016-08-02 > EXAMPLE 1a (33333333) > PRICE (99)

About

Long Name Energy Fuel Type

Limit Description Startup Fuel Type

Market Type

Use Startup No Load

2) Generator > Schedules > Selection

- a. "Market" will be removed
- b. "Use Max Gen" will be removed
- c. "Daily" will be added to the titles No Load Cost and all Start-up Costs

Market Day Portfolio Location

Offers **Detail** Manager **Selection** Availability Update Restriction Information

Location	Type	Parameter Limited	Schedule Name	Market	Availability	Use Max. Gen	No Load Cost	Cold Startup Cost	Int. Start Cost	Hot Start Cost
EXAMPLE 2 CT	Cost	True	OIL	Both	Not Available	No				
EXAMPLE 2 CT	Cost	True	SGAS	Both	Available	No				
EXAMPLE 2 CT	Cost	True	CGAS	Both	Not Available	No				
EXAMPLE 2 CT	Price	True	PLS	Both	Available	No				
EXAMPLE 2 CT	Price	False	PRICE	Both	Available	No				

3) Generator > Regulation Update

- a. The existing screen will be split into 2 separate screens – one for Reg A and one for Reg D – to accommodate the addition of the following columns: Capability Offer Price, Performance Offer Price, Capability Offer Cost, and Performance Offer Cost
- b. The Advanced Notification Time will be 65 minutes rather than 2 hours

pjm | Markets Gateway

Market Day: 1/12/2017 | Portfolio: Generation | Location: GENERATOR 1

Offers: Regulation A Updates | Regulation D Updates

PJMST >> 2017-01-12 >> GENERATOR 1 (98000001)

Location	Min. MW	Max. MW	Reg. A MW	Reg. A Self Scheduled	Reg. A Available	Spilling	Reduced Ramp Rate (%)	Reg. A Capability Price	Reg. A Performance Price	Reg. A Capability Cost	Reg. A Performance Cost

- 4) Generator > Synchronize Offer Update
 - a. A new column is added – Synchronize Offer Price
 - b. The Advanced Notification Time will be 65 minutes rather than 2 hours

pjm | Markets Gateway

Market Day: 1/12/2017 | Portfolio: Generation | Location: GENERATOR 1

Offers: Updates

Location	Offer MW	Offer Price	Condense Energy Use	Condense Startup Cost	Condense To Generate Cost	Full Heat Rate	Reduced Heat Rate	Variable Operating & Maintenance Expense Rate	Spin As Condenser	Condense Available Status
<input type="checkbox"/> GENERATOR 1									No	Not Available

- 5) Generator > Schedules > Offer Updates

- a. This is a new screen
- b. For cost-based offers, offers can be increased or decreased for both committed and uncommitted hours, outside of the lock-out periods.
- c. For price-based offers, offers can be increased or decreased for uncommitted hours, but may only be decreased for committed hours, outside of the lock-out periods.

Market Day Portfolio Location Schedule

Offers **Offer Updates** Detail Detail Updates Manager Selection Restriction Information

EXAMPLE 5 > 2016-08-02 > EXAMPLE 5 B (44444444) > Cost-1 Last Updated Date/Time: No Updates

<input type="checkbox"/>	Hour	MW	Price
<input type="checkbox"/>	6		
<input type="checkbox"/>	7		
<input type="checkbox"/>	8		
<input type="checkbox"/>	9		
<input type="checkbox"/>	10		
<input type="checkbox"/>	11		
<input type="checkbox"/>	12		
<input type="checkbox"/>	13		
<input type="checkbox"/>	14		
<input type="checkbox"/>	15		

6) Generator > Schedules > Detail Update

- a. This is a new screen
- b. Updates may be made outside of the lock-out periods
- c. Switch to cost option is found on this screen
- d. Unit commitment status (hourly) has been added to this screen since the GUCC Schedule Availability screen has been removed

Market Day Portfolio Location Schedule

EXAMPLE 6 > 2016-11-30 > EXAMPLE 6 F (66666666) > Cost-1

Switch To Cost Schedule Start Hour Last Updated Date/Time: No Update

<input type="checkbox"/>	Hour ^	No Load Cost	Cold Startup Cost	Intermediate Startup Cost	Hot Startup Cost	Minimum Runtime	Notification Time	Status
<input type="checkbox"/>	1							Not Committed
<input type="checkbox"/>	2							Not Committed
<input type="checkbox"/>	3							Not Committed
<input type="checkbox"/>	4							Not Committed
<input type="checkbox"/>	5							Not Committed
<input type="checkbox"/>	6							Not Committed
<input type="checkbox"/>	7							Not Committed
<input type="checkbox"/>	8							Not Committed
<input type="checkbox"/>	9							Not Committed
<input type="checkbox"/>	10							Not Committed
<input type="checkbox"/>	11							Not Committed

7) Generator > Unit > Intraday Opt Out

- a. This is a new screen
- b. Generators can opt-in to Intraday Offers hourly updates on a monthly basis
- c. Users must communicate their desire to opt-in in the month prior to the month they want to begin opting out.
- d. The option may only be selected prior to midnight of the 16th day of the current month (end of the 15th day)
- e. Opt-in continues until the user cancels
- f. User will see 5 months of information – 3 months of history, the current month and the following month (Market Day is meaningless here)
- g. PJM may override this option if the user's Fuel Cost policy contradicts this option
- h. There is no XML capability for opt-in

Market Day Portfolio Location

Hourly Updates | Detail | Energy Ramp Rates | Synchronized Reserve Ramp Rates | Wind Forecast | **IntraDay Opt Out**

<input type="checkbox"/>	Month	Opted Out	PJM Override	Notes
<input type="checkbox"/>	August 2016	No	Approved	
<input type="checkbox"/>	September 2016	No	Approved	
<input type="checkbox"/>	October 2016	No	Approved	
<input type="checkbox"/>	November 2016	Yes	Approved	
<input type="checkbox"/>	December 2016	Yes	Approved	

8) Generator > Unit > Hourly Updates

- a. To reduce confusion, Notification Time on this screen has been removed
- b. Notification Time can still be updated on the Gen > Schedules > Detail screen, and the Gen > Schedules > Detail Update screen.

Market Day Portfolio Location

Hourly Updates | Detail | Energy Ramp Rates | Synchronized Reserve Ramp Rates | Wind Forecast

EXAMPLE 8 > 2016-08-03 > EXAMPLE 8 (77777777) Last Updated Date/Time: 2016-07-29 06:02:52

Emer. Min. : 44.0 Econ. Min. : 44.0 Econ. Max. : 44.0 Emer. Max. : 44.0 Commit Status : Economic Fixed Gen : No

<input type="checkbox"/>	Hour	Emer. Min. (Default)	Emer. Min. (MW)	Econ. Min. (Default)	Econ. Min. (MW)	CIR	Econ. Max. (Default)	Econ. Max. (MW)	Emer. Max. (Default)	Emer. Max. (MW)	Commit Status	Fixed Gen.?	Notification Time
<input type="checkbox"/>	1	44.0	44.0	44.0	44.0		44.0	44.0	44.0	44.0	Economic	No	
<input type="checkbox"/>	2	44.0	44.0	44.0	44.0		44.0	44.0	44.0	44.0	Economic	No	

Intraday Offers - Browserless / XML Information

Accessing Markets Gateway Sandbox Browserlessly for IDO

How do I access Markets Gateway Sandbox Browserlessly for IDO?

- a. Sandbox Web Service URLs :

<https://marketsgatewayidotrain.pjm.com/marketsgateway/xml/query> or

<https://marketsgatewayidotrain.pjm.com/marketsgateway/xml/submit> or

<https://marketsgatewayidotrain.pjm.com/marketsgateway/xml/QueryByTransaction>

- b. Detailed instructions on how to incorporate the new authentication method are available in the Java Browserless Authentication Guide: <http://www.pjm.com/~media/etools/pjm-browserless-authentication-guide.ashx> . This must be completed before you are able to call the Web service.
- c. Once authenticated and a token received, you need to incorporate that token into the service calls.
*(Example of the POST/Response below, Username/Password fields highlighted to add your own, Token field incorporation in the 2nd step of the process highlighted.)

Step 1a: Authenticate

*(For IDO Sandbox)

```
curl -X POST -H "X-OpenAM-Username: username " -H "X-OpenAM-Password: password " -H "Content-Type: application/json" -d '{} 'https://ssotrain.pjm.com/access/authenticate/'
```

Step 1b: Receive Response from PJM

*(Response format same for Sandbox & Production)

```
{  
  
"tokenId": "( TOKEN)",  
  
"successUrl": "/openam/console"  
  
}
```

Step 2: Send XML Document to Markets Gateway:

*(Note – Cookie for Sandbox = pjmauthtrain)

*(Note – url at the end of the query is the Sandbox url.)

```
curl -X POST -H "Content-Type: text/xml" -H "Cookie: pjmauthtrain= "(TOKEN)" -d '  
<Envelope xmlns="http://schemas.xmlsoap.org/soap/envelope/">  
<Body>  
<QueryRequest xmlns="http://emkt.pjm.com/emkt/xml">  
<QueryDispatchLambda day="2016-12-30">  
<LocationName>99999999</LocationName>  
</QueryDispatchLambda>  
</QueryRequest>  
</Body>  
</Envelope>'
```

```
'https://marketsgatewayidotrain.pjm.com/marketsgateway/xml/query'
```

Step 2b: Receive Response from PJM

```
<?xml version='1.0' encoding='UTF-8'?>
```

```
<Envelope xmlns="http://schemas.xmlsoap.org/soap/envelope/">
<Body>
<QueryResponse xmlns="http://emkt.pjm.com/emkt/xml">
<DispatchLambdaSet/>
</QueryResponse>
</Body>
</Envelope>
```

IDO XML Samples

1) Schedule Selection – Submittal Request

```
<?xml version='1.0' encoding='UTF-8'?>
<Envelope xmlns="http://schemas.xmlsoap.org/soap/envelope/">
<Body>
<SubmitRequest xmlns="http://emkt.pjm.com/emkt/xml">
<ScheduleSelection location="99999999" schedule="1" day="2016-12-13">
<Available>true</Available>
</ScheduleSelection>
<ScheduleSelection location="99999999" schedule="79" day="2016-12-12">
<Available>true</Available>
</ScheduleSelection>
</SubmitRequest>
</Body>
</Envelope>
```

2) Regulation Hourly Update – Submittal Request

```
<?xml version='1.0' encoding='UTF-8'?>
<Envelope xmlns="http://schemas.xmlsoap.org/soap/envelope/">
<Body>
<SubmitRequest xmlns="http://emkt.pjm.com/emkt/xml">
<RegulationUpdate location="99999999" day="2016-12-20">
<RegulationUpdateHourly hour="1">
<MW>3</MW>
<RegulationLimits minMW="4" maxMW="8"/>
<Unavailable>>false</Unavailable>
<SelfScheduled>>false</SelfScheduled>
<Spilling>>false</Spilling>
<RegDUnavailable>>false</RegDUnavailable>
<RegDSelfScheduled>>false</RegDSelfScheduled>
<ReducedRampRatePct>0</ReducedRampRatePct>
<RegAOfferPrice>5</RegAOfferPrice>
<RegAOfferCost>1</RegAOfferCost>
<RegAPerformanceOfferPrice>3.5</RegAPerformanceOfferPrice>
<RegAPerformanceOfferCost>0</RegAPerformanceOfferCost>
</RegulationUpdateHourly>
</RegulationUpdate>
</SubmitRequest>
</Body>
```

</Envelope>

3) Regulation Hourly Update – Query Requests

```
<?xml version='1.0' encoding='UTF-8'?>
<Envelope xmlns="http://schemas.xmlsoap.org/soap/envelope/">
<Body>
  <QueryRequest xmlns="http://emkt.pjm.com/emkt/xml">
    <QueryRegulationUpdate day="2016-12-20">
      <LocationName>99999999</LocationName>
    </QueryRegulationUpdate>
  </QueryRequest>
</Body>
</Envelope>
```

```
<?xml version='1.0' encoding='UTF-8'?>
<Envelope xmlns="http://schemas.xmlsoap.org/soap/envelope/">
<Body>
  <QueryRequest xmlns="http://emkt.pjm.com/emkt/xml">
    <QueryRegulationUpdate day="2016-12-30">
      <PortfolioName>YourPortfolio</PortfolioName>
    </QueryRegulationUpdate>
  </QueryRequest>
</Body>
</Envelope>
```

```
<?xml version='1.0' encoding='UTF-8'?>
<Envelope xmlns="http://schemas.xmlsoap.org/soap/envelope/">
<Body>
  <QueryRequest xmlns="http://emkt.pjm.com/emkt/xml">
    <QueryRegulationUpdate day="2016-12-20">
      <All/>
    </QueryRegulationUpdate>
  </QueryRequest>
</Body>
</Envelope>
```

4) Schedule Hourly Detail – Submittal Request

```
<?xml version="1.0" encoding="utf-8"?>
<env:Envelope xmlns:env="http://schemas.xmlsoap.org/soap/envelope/">
<env:Body>
  <SubmitRequest xmlns="http://emkt.pjm.com/emkt/xml">
    <ScheduleDetailUpdate location="99999999" schedule="99" day="2016-12-20">
      <ScheduleDetailUpdateHourly hour="01">
        <MinimumRuntime>4</MinimumRuntime>
        <NotificationTime>1</NotificationTime>
        <StartupCosts>
          <NoLoadCost>55.50</NoLoadCost>
          <ColdStartupCost>60.5</ColdStartupCost>
        </StartupCosts>
      </ScheduleDetailUpdateHourly>
    </ScheduleDetailUpdate>
  </SubmitRequest>
</env:Body>
</env:Envelope>
```

```
<IntermediateStartupCost>40.5</IntermediateStartupCost>
<HotStartupCost>30.5</HotStartupCost>
</StartupCosts>
</ScheduleDetailUpdateHourly>
</ScheduleDetailUpdate>
</SubmitRequest>
</env:Body>
</env:Envelope>
```

5) Schedule Hourly Detail – Query Request

```
<?xml version="1.0" encoding="utf-8"?>
<env:Envelope xmlns:env="http://schemas.xmlsoap.org/soap/envelope/">
  <env:Body>
    <QueryRequest xmlns="http://emkt.pjm.com/emkt/xml">
      <QueryScheduleDetailUpdate location="99999999" schedule = "99" day="2016-12-30"/>
    </QueryRequest>
  </env:Body>
</env:Envelope>
```

6) Schedule Hourly Offer – Submittal Request

```
<?xml version="1.0" encoding="utf-8"?>
<env:Envelope xmlns:env="http://schemas.xmlsoap.org/soap/envelope/">
  <env:Body>
    <SubmitRequest xmlns="http://emkt.pjm.com/emkt/xml">
      <ScheduleOfferUpdate location="99999999" schedule="99" day="2016-12-20">
        <ScheduleOfferUpdateHourly hour="02">
          <OfferSegment MW="30.5" price="30.5"/>
        </ScheduleOfferUpdateHourly>
      </ScheduleOfferUpdate>
    </SubmitRequest>
  </env:Body>
</env:Envelope>
```

7) Schedule Hourly Offer – Query Request

```
<?xml version="1.0" encoding="utf-8"?>
<env:Envelope xmlns:env="http://schemas.xmlsoap.org/soap/envelope/">
  <env:Body>
    <QueryRequest xmlns="http://emkt.pjm.com/emkt/xml">
      <QueryScheduleUpdate location="99999999" schedule="99" day="2016-12-20"/>
    </QueryRequest>
  </env:Body>
</env:Envelope>
```

8) Spin Hourly Offer – Submittal Request

```
<?xml version='1.0' encoding='UTF-8'?>
<Envelope xmlns="http://schemas.xmlsoap.org/soap/envelope/">
<Body>
  <SubmitRequest xmlns="http://emkt.pjm.com/emkt/xml">
    <SpinningReserveUpdate location="99999999" day="2016-12-10">
      <SpinningReserveUpdateHourly hour="13">
        <OfferMW>6</OfferMW>
        <OfferPrice>11</OfferPrice>
        <SpinMAX>16</SpinMAX>
        <Unavailable>>false</Unavailable>
        <SelfScheduledMW>2</SelfScheduledMW>
      </SpinningReserveUpdateHourly>
    </SpinningReserveUpdate>
  </SubmitRequest>
</Body>
</Envelope>
```

9) Spin Hourly Offer – Query Request

```
<?xml version='1.0' encoding='UTF-8'?>
<Envelope xmlns="http://schemas.xmlsoap.org/soap/envelope/">
<Body>
  <QueryRequest xmlns="http://emkt.pjm.com/emkt/xml">
    <QuerySpinningReserveUpdate day="2016-12-20">
      <LocationName>99999999</LocationName>
    </QuerySpinningReserveUpdate>
  </QueryRequest>
</Body>
</Envelope>
```

10) Switch To Cost – Submittal Request

```
<?xml version='1.0' encoding='UTF-8'?>
<Envelope xmlns="http://schemas.xmlsoap.org/soap/envelope/">
<Body>
  <SubmitRequest xmlns="http://emkt.pjm.com/emkt/xml">
    <ScheduleSwitch day="2016-12-20" location="99999999">
      <StartingHour>16</StartingHour>
      <ToCostBased>>true</ToCostBased>
    </ScheduleSwitch>
  </SubmitRequest>
</Body>
</Envelope>
```


11) Switch To Cost – Query Request

```
<?xml version='1.0' encoding='UTF-8'?>
<Envelope xmlns="http://schemas.xmlsoap.org/soap/envelope/">
<Body>
  <QueryRequest xmlns="http://emkt.pjm.com/emkt/xml">
    <QueryScheduleSwitch day="2016-12-20">
      <LocationName>99999999</LocationName>
    </QueryScheduleSwitch>
  </QueryRequest>
</Body>
</Envelope>
```