

Electronic Notifications for Economically Dispatched Demand Response Under Order 745

DRS

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- PJM currently uses emails to notify Economic DR participants when they are dispatched.
- email notifications have not been a reliable method of communication.
- Comply with Order 745 filing.

- PJM needs a more robust notification and acknowledgement method for dispatching economic DR, under Order 745.
- During this session we will update you on the progress we have made so far, solicit your feedback and answer any questions you have.

- Initially the new notification method will apply only to Economically Dispatched DR.
- In the Future the same approach could apply to Synch Reserve Events and Emergency Events as well.
- Email Notification may stay as a secondary notification method during a transition period.
- All Call will still be the default method for Emergency Event Notifications.

- A solution to replace email notifications.
- Easily implemented, reliable, scalable and platform independent.
- Polled periodically for availability.
- Message based, with embedded dispatch instructions that provide for:
 - A simple message delivery confirmation.
 - Allow confirmation of DR capabilities.
- A sample client implementation with source code.

- Message syntax is already in eLRS under events.
- Minor changes to existing Web Services “Get Events” functionality (MarketType, MarketProduct, TimeStamp, MarketParticipant, etc.)
- Implement a polling mechanism.
- Implement a simple message delivery confirmation and a feedback mechanism.

Where each Dispatch record

| Attribute | Field Name | Type | Req? | Description |
|---------------------|------------|----------|------|---|
| System Operator | SO | String | Y | Usually market operator name – eg ‘PJM’ |
| Time Stamp | TS | DateTime | Y | GMT Timestamp for dispatch – usually the modified time |
| Market Participant | MP | String | Y | Recipient – ie, CSP |
| Market Resource | MR | String | Y | String version of registration id, resource, or zone name – may depend on market and/or dispatch type |
| Market Product Type | MT | String | Y | DA, HA, RT, SS, DASR, SR, EMER, LM, REGUP, REGDN, etc] |
| Event Id | ED | Long | Y | Unique event id |
| Instruction Id | ID | Long | Y | Unique event dispatch instruction id |
| Status | ST | String | Y | Status of dispatch [SCH, ACT, END, CXD] |
| Notify Time | NX | DateTime | Y | GMT Notification time |
| Start Time | SX | DateTime | Y | GMT Start of event |
| Deploy Time | DX | DateTime | | GMT expected deployment time=start time + deployment (ramp) minutes |
| Release Time | RX | DateTime | | GMT minimum release time = start time + min down time |
| End Time | EX | DateTime | | GMT End time - release time + ramp (may not be available until end of event) |
| Set Point Amount | AMT | Float | | Base/Target/set point level usually in MW |
| Awarded Price | RATE | Float | | Awarded price rate usually in \$/MW |
| Message | MSG | String | | Optional text message |
| Test Flag | TEST | T/F | | Default=F |

Where each Response record

| Attribute | Field Name | Type | Req? | Description |
|---------------------|------------|----------|------|--|
| Market Participant | MP | String | Y | Recipient – ie, CSP |
| Time Stamp | TS | DateTime | Y | GMT Timestamp for dispatch – usually the modified time |
| System Operator | SO | String | Y | Usually market operator name – eg ‘PJM’ |
| Market Resource | MR | String | Y | String version of registration id or resource name – may depend on market and/or dispatch type |
| Market Product Type | MT | String | Y | [DA, HA, RT, SS, DASR, SR, EMER, LM, REGUP, REGDN, etc] |
| Event Id | ED | Long | Y | Unique event id |
| Instruction Id | ID | Long | | Optional event dispatch instruction id to opt out or record participation – if no id then this is a general feedback |
| Status | ST | String | Y | Status of response [ACK, AVL, SCH, ACT, OUT, OFF] |
| Start Time | SX | DateTime | | GMT Start of current event or availability |
| End Time | EX | DateTime | | GMT End of current event or availability |
| Availability Amount | AVL | Float | | Availability level usually in MW |
| Set point Amount | AMT | Float | | Current event target/set point level usually in MW |
| Generation Amount | GEN | Float | | Current generation equivalent output level if available usually in MW |
| Load Amount | LOAD | Float | | Current metered load level if available usually in MW |
| Price Rate | RATE | String | | Price rate usually in \$/MW |
| Message | MSG | String | | Optional text message |
| Test Flag | TEST | T/F | | Default=F |

- Current users of eLRS Web Services, will have minimal changes.
- New Users of eLRS should get familiar with the existing eLRS Web Services.

<http://www.pjm.com/markets-and-operations/etools/elrs/elrs-xml-docs.aspx>

- Have the infrastructure necessary to poll PJM servers periodically to ensure that you can receive Dispatch Instructions.
- PJM will make a beta version of the client as soon as feasible.

<http://www.pjm.com/markets-and-operations/etools/elrs.aspx>

For more details...eLRS

The screenshot shows the PJM website navigation menu with 'markets & operations' highlighted (1). The left sidebar has 'eTools' highlighted (2). The main content area shows the 'eLRS' page with a description of the system and a list of documents. The 'eLRS' link in the document list is highlighted (3), and the 'eLRS' document entry is highlighted (4).

Operational Data

- eTools
- eTools Information
- eTools Log In
- oDART
- eData
- eDataFeed
- EES
- eFTR
- eGADS
- eLRS
- Emergency Procedures

eLRS

eLRS allows PJM members to administer the registration, notification, meter data and settlement process for demand side response resources in the PJM markets. Note that bids into the PJM wholesale market occurs directly in oMkt for energy and ancillary services and oRPM for capacity.

[Login](#) | [Register](#)

Documentation and Training Material

| Document Name | Posting Date |
|---|--------------|
| DSR Customer Owned Meter Qualification Form (XLS) | 09.04.2009 |
| eLRS Training Presentation (PDF) | 05.27.2009 |

RELATED INFORMATION

- Frequently Asked Questions
- Committee Member Enrollment/Change Form
- Facilitator Feedback Form
- Industry Resources
- WebEx

CONTACT INFORMATION

For additional information, please contact [Member Relations](#) at 610-666-8980 or toll free at 866-400-8980.

- PJM will schedule future meetings to keep you up to date.
- email any questions to DSR_Ops@pjm.com.
- Questions ?