

# SCHEDULE 1.1

## STATEMENT OF WORK

### SCOPE OF WORK

PJM will perform the administration of DP&L's OATT for its transmission system, and specifically, ATC calculations, OASIS administration, acceptance of transmission service reservations and security coordination.

PJM will provide tariff administration services as follows:

- Implement and operate the DP&L OASIS node and provide qualified staff and supervision with provision for 24 x 7 coverage. The staff will be based in PJM's Valley Forge, PA or Greensburg, PA offices.
- Procure, provide, and maintain the necessary telecommunications infrastructure to support the service. This infrastructure will include routers, broadband service, and other interfacing hardware and software to allow continuous and uninterrupted access to the DP&L OASIS on the Siemens PJM (ASP) infrastructure, and other applications necessary to support the service.
- Use the PJM AFC / ATC tool to calculate and post ATC values for the next 13 months to the DP&L OASIS.
- PJM will implement a DP&L Market Monitoring Plan when authority, when requested by DP&L, is granted by FERC.

### APPROACH

	<b>Tariff</b>	<b>ATC</b>	<b>OASIS</b>	<b>Market Monitoring</b>	<b>TP Approval – Tagging</b>	<b>Billing</b>
	DP&L Tariff w/ no changes	PJM calculates ATC and posts to DP&L (Siemens PJM) OASIS	PJM administers and grants service on DP&L (Siemens PJM) OASIS	After FERC grants DP&L authority, PJM will provide independent market monitoring.	DP&L will continue to perform TP Approval duties; PJM will provide this service at a date agreed upon by both parties.	DP&L Responsibility

### DP&L OBLIGATIONS

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DP&L will provide the following:

- Power system models and base cases, developed by DP&L System Planning, to facilitate analysis of transmission service requests. It is assumed that DP&L will be responsible for the maintenance of the models and cases to perform the analysis.
- Access, during normal business hours, to DP&L System Planning experts to answer questions and provide support. As well, DP&L will provide access, during normal business hours, to DP&L operations and tariff experts to answer questions and provide support as it relates to business practices and tariff administration.
- Software and hardware maintenance and support to the DP&L models, systems, and applications.
- Knowledge and insight into operational practices affecting transmission usage.
- Documentation of business processes and data flows of operational practices affecting transmission usage or assistance in developing them.
- In order to support market monitoring, DP&L will submit a FERC filing requesting inclusion of a Market Monitoring Plan in its tariff to be administered by PJM's market monitor. Once FERC authority is granted, market monitoring services as described in the attachment to this schedule will be implemented.

### **DETAILED DESCRIPTION**

#### **OASIS**

1. **Framework**

DP&L will continue to have its own OASIS, which will be hosted through PJM and Siemens; PJM will perform the tariff administration function.

2. **Transmission Provider.**

DP&L will continue to be its own Transmission Provider; PJM will administer the acceptance of reservations for transmission service.

3. **Path Selection.**

DP&L will work with PJM to determine the allowable paths.

4. **AFC/ATC.**

There will be only one AFC/ATC engine and it will be run by PJM. PJM will perform the Midwest ISO AFC/ATC coordination. ATC will be decremented using the same process as the PJM OASIS node.

5. **Losses.**

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DP&L losses will be handled under its existing OATT requirements.

### **6. Long Term Reservation.**

PJM will analyze and provide oversight to OASIS Long-Term Firm transmission service requests for DP&L, including requests for network transmission service.

### **Reliability Coordination**

PJM will have responsibility for reliability coordination ("RC") for DP&L. As the Reliability Coordinator for DP&L, PJM has the authority to direct DP&L operations, in accordance with the PJM Reliability Plan approved by the NERC Operating Committee, NERC Policy, and good utility practice in order to preserve the reliability on the interconnection.

### **Market Monitoring**

DP&L must receive approval from FERC to add market monitoring to its tariff. At that point, PJM will implement a DP&L Market Monitoring Plan.

### **ADDITIONAL MATTERS**

- PJM shall not provide any services in connection with: control area tagging and scheduling; checkouts with adjacent control areas; billing and settlement; approvals of customer credit; maintenance of historical OASIS data in accordance with FERC requirements.
- DP&L is responsible for the cost of any customer requests to audit the transmission service process.
- DP&L will report transmission outages through PJM's eDART by no later than June 30, 2003. Until such date, DP&L shall report outages via fax or email.
- The parties shall make any OASIS and ATC automation and process changes and improvements identified by PJM to comply with FERC requirements.

### **STAFFING**

PJM expects to staff this service with a combination of transmission engineers and analysts from new or existing PJM staff, possibly supplemented with contractors. It is expected that staff will work at the existing PJM offices in Valley Forge, PA or Greensburg, PA. The total number of full-time dedicated personnel for this effort is expected to be one (1), who will work normal

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business hours. PJM will arrange for after-hours coverage from its existing staff in the Valley Forge, PA office.

The PJM staff will be responsible for the receipt, analysis, and granting / rejection of transmission service requests on the DP&L OASIS node. The staff will also post AFCs / ATCs to this node. The DP&L OASIS will be operated in accordance with current FERC requirements and DP&L's OATT.

DP&L will assist PJM to familiarize PJM with all-applicable internal procedures and requirements that may pertain to the DP&L OASIS. PJM will review all pertinent DP&L documentation that is provided and inform DP&L whether PJM has the ability to comply with any unique or additional requirements of DP&L. DP&L will also ensure that the DP&L employees who perform this service prior to the Effective Date will be available to and cooperate with PJM during the transition period until 30 days after the Effective Date.

### **INFRASTRUCTURE**

PJM will arrange for the installation and testing of the communications facilities that will be required to initiate the service. The facilities will include a communications infrastructure connecting Dayton, Siemens at Minneapolis, and the PJM offices in Valley Forge, PA. It will also include the associated hardware (PCs and workstations) in the PJM offices. All facilities will be maintained and supported by PJM as part of the service. DP&L will be responsible for all facilities at DP&L.

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## Schedule 1.1 -- Appendix

### Potential PJM Market Monitoring Services

Upon the FERC granting DP&L authority to allow market monitoring, PJM will provide market monitoring services to DP&L using the following metrics and data requirements

#### A. METRICS:

1. ATC Utilization

Monitor ATC utilization efficiency. This analysis includes evaluation of individual participant behaviors.

2. TLR Tracking

Monitor TLR activity in each region. Compile highest level reached during event, priorities of contracts curtailed and curtailed contract volumes. Source of data will be TLR procedure summaries from the NERC website.

3. Regional Impact of TLRs

Using DFAX, identify geographic regions affected by TLRs.

4. Merit Order Dispatch During TLRs

During TLR events, collect unit loadings, their respective merit orders and Generation Shift Response Factors (GSRFs). If units are deemed to have loaded out of merit order, compare these units to their respective GSRF using Spearman rank order correlation analysis to determine if intent was to affect congestion. Source of unit loadings, GSRFs and merit order will be from TPs. GSRFs can be independently verified by PJM using PSS/E.

5. OASIS Service Refusal Rates

Gather information describing the requests for service that are accepted, withdrawn or refused. Source of data will be TPs OASIS systems.

6. Service Request Processing Time

Collect descriptive statistics on OASIS Firm Service request processing time. This information will be collected from TP's OASIS systems.

7. Transmission Outages Affecting Constraints

Gather DFAX for outages concurrent with TLRs. Seek to identify causal relationships between outages and TLR events/severity.

8. Generation Outages Affecting Constraints

Gather DFAX for outages concurrent with TLRs. Seek to identify causal relationships between outages and TLR events/severity.

9. DP&L Wholesale Sales Behavior

PJM will examine prices charged by DP&L into congested regions and during TLR events.

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## **B. Data Requirements**

1. The OASIS reservation data will be available through PJM's management of the DP&L OASIS system. PJM will need access to the tagging data via OATI.
2. TLR tracking data is already available to PJM.
3. To assess the regional impact of TLRs, PJM will need the DFAX for the congested flowgates from DP&L.
4. To evaluate the merit order dispatch of generation during TLRs, PJM will need hourly generation values for DP&L's units, their merit order and DP&L hourly load. To verify merit order, PJM will also need unit heat rates and fuel costs. PJM will also need the generation shift response factors (GSRFs) of the units on the constrained facilities.
5. To evaluate OASIS refusal rates PJM will need the OASIS reservation data that will be available through PJM's management of the DP&L OASIS system.
6. Service request processing time can be performed with data that will be available through PJM's management of the DP&L OASIS system.
7. To evaluate transmission outages affecting constraints, PJM will need DP&L's transmission outage schedule data and the outage transfer distribution factors (ODTFs) of these facilities on constraints.
8. To evaluate generation outages affecting constraints, PJM will need DP&L's generation outage schedule data and the generation shift response factors (GSRFs) of these facilities on constraints.
9. To evaluate DP&L's wholesale sales behaviors, PJM will need daily transaction data summarizing the volume and cost of sales by region, broken into peak and off peak time periods. PJM will provide a template for this data.