

PJM Transmission Replacement Processes Senior Task Force

COST ALLOCATION & COST RECOVERY Educational Session

June 3, 2016

By

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OVERVIEW

Cost Allocation v. Cost Recovery

COST ALLOCATION

How costs responsibility for projects is assigned to load zones and/or Merchant Transmission Owners.

COST RECOVERY

How transmission owners and other payors recover assigned costs from end-use customers through rates.



PJM COST ALLOCATION: METHODOLOGIES

Cost Allocation Methodology

- (1) Regional Cost Allocation
- (2) TO Planning Criteria Projects
- (3) Supplemental Projects
- (4) “But For” Cost Allocation (interconnection projects)
- (5) State Agreement Approach

REGIONAL COST ALLOCATION

Scope & Applicability

- ❑ PJM RTEP Projects Allocated to One Or More Zones
- ❑ Set forth in Schedule 12 of the PJM Tariff
- ❑ Allocates Cost Regionally Based on Project Type & Voltage Level
- ❑ Carve outs, with costs automatically allocated to zone:
 - ❑ Spare Transformers; Circuit Breakers
 - ❑ Projects under \$5 Million



REGIONAL COST ALLOCATION: PROJECTS AFFECTED

COMMON COST ALLOCATION TERMINOLOGY

- ❑ **Solution-Based DFAX or Distribution Factor Analysis** determines share of cost responsibility based on benefit from (measured by relative use of) transmission facility.
- ❑ **Load Ratio Share** allocates RTEP project costs across zones based on each zone's respective non-coincident peak load. This is often referred to as cost socialization or postage stamp methodology.

RELIABILITY PROJECTS

Scope of Project Category

- ❑ Baseline (includes Open Window) Projects that address:
 - ❑ PJM Criteria
 - ❑ NERC, SERC and ReliabilityFirst Criteria
 - ❑ PJM TO Criteria (when there are other drivers for the project)

RELIABILITY PROJECTS

Cost Allocation is Based on Voltage Level:

- ❑ 345 kV (Single Circuit) or Lower (“Lower Voltage Facilities”):
 - ❑ 100% of Project Costs Allocated on Solution-based DFAX Basis
- ❑ Double Circuit 345 kV and Higher (“Regional Facilities”):
 - ❑ 50% of Projects Cost Allocated on a DFAX Basis; and
 - ❑ 50% of Project Costs Allocated on a Load Ratio Share Basis.

Note: This allocation also applies to the cost of upgrades to Lower Voltage facilities that are deemed necessary as part of the Regional RTEP Projects.

MARKET EFFICIENCY PROJECTS

- ❑ Costs for new enhancements or expansions that could relieve one or more economic constraints are:
 - ❑ If High Voltage:
 - ❑ 50% Allocated on Load Ratio Share Basis;
 - ❑ 50% Allocated to Zones that show a decrease in the net present value of Load Energy Payments.
 - ❑ If Low Voltage:
 - ❑ 100% Allocated to Zones that show a decrease in the net present value of Load Energy Payments.
 - ❑ Determined for the first 15 years of the life of the Economic Project.
 - ❑ NPV calculation assigns cost responsibility based on each zone's pro rata share of total decrease in load energy payments.
- (Different approach for accelerated project and modifications of reliability projects).



TO CRITERIA PROJECTS

DEFINITION

- ❑ Projects driven in whole or in part by criteria specific to individual transmission owners and that are captured in their Form 715 Filings at FERC.

COST ALLOCATION

- ❑ Until recently, all TO Criteria Projects were allocated like all other Baseline Reliability Projects, based on voltage level.
- ❑ **ER15-1387 - PJM TO Filing in March 2015**
 - ❑ 100% Allocation to Local TO Zone with planning criteria at issue.
 - ❑ Approved by FERC on Feb 12, 2016.
- ❑ **Scope and Applicability of New Methodology**
 - ❑ Applies to all PJM RTEP Projects solely driven by TO Local Criteria.
 - ❑ RTEP Projects driven by both TO Criteria Projects and PJM or NERC/SERC Criteria will be treated like other Baseline Reliability Projects.



SUPPLEMENTAL PROJECTS

❑ **Project Category Definition**

- ❑ Projects implemented by the PJM TOs that are not required to satisfy regional RTEP requirements (e.g. PJM criteria, NERC, SERC or ReliabilityFirst criteria or TO criteria).
 - ❑ E.g., projects identified pursuant to TO-specific operations, maintenance and asset management programs.

❑ **Treatment in the RTEP Model**

- ❑ Included in RTEP for assessment of reliability impact.
- ❑ Not approved by the PJM Board.

❑ **Cost Allocation Methodology**

- ❑ 100% Allocation to Local TO Zone.



END OF LIFE PROJECTS

❑ TWO PROJECT CATEGORIES

❑ TO Criteria Projects

- ❑ Included as part of Form 715 Filings for several PJM transmission owners. E.g. Dominion and PSE&G.
- ❑ Cost Allocation before *TO Criteria Order*: costs allocated based on voltage level, 100% DFAX for Lower Voltage Facilities, 50% DFAX and 50% Load Ratio Share for Regional Facilities.
- ❑ Cost Allocation after: costs are 100% allocated to local TO zone.*

* Assumes that projects are solely driven by TO Criteria.

❑ Supplemental Projects

- ❑ Most transmission owners have included some type of replacement of facilities at their end of life as part of Supplemental Projects.
- ❑ Cost Allocation: 100% allocated to local TO zone proposing project.



COST ALLOCATION IMPACT - SUMMARY

| | Costs Socialized? | Level of Socialization | |
|---|-------------------|------------------------|----------|
| | | Lower Voltage | Regional |
| Baseline Reliability/ PJM Criteria | YES | 0% | 50% |
| TO Criteria* | NO | 0% | 0% |
| Supplemental | NO | 0% | 0% |

*Assumes RTEP Project is solely driven by TO Criteria.



COST ALLOCATION IMPACT - EXAMPLE

- ❑ **ER15-1344 – Dominion Project - Elmont - Cunningham 500 kV Line - \$106.1 million project cost**
 - ❑ **PJM original cost allocation filing:**
 - ❑ **Total allocated to Dominion Zone: \$ 49.9 million**
Load Ratio Share: 12.42 % of \$53.05 m = \$6.5881 million
DFAX: 81.64% of \$53.05 m = \$43.31 million
 - ❑ **Total allocated to other Zones: \$ 56.2 million**
 - ❑ **February 12, 2016 Order – Adopted TO Local Criteria Order:**
 - ❑ **100% to Dominion Zone: \$ 106.1 million**

COST RECOVERY

❑ TWO MECHANISMS

❑ Formula Rate Tariffs

- ❑ Most PJM TOs have formula rates which means that their rates are based on a formula that permit the recovery of the costs to provide transmission service. The formula rates are updated annually to reflect changes in expenses (including O&M) and the addition of new transmission investments, etc.
- ❑ Formula rates include protocols that provide for transparency and interaction with affected customers.

❑ Fixed / Stated Rates

- ❑ A few PJM TOs have fixed or stated rates which means that rates remain the same until they are changed through a cost-based rate filing at the FERC with cost support.

COST RECOVERY

❑ Billing and Collection

- ❑ PJM manages the settlement of costs via the monthly PJM bill for all PJM transmission customers.
 - ❑ Network Integration Transmission Charges.
 - ❑ Transmission Enhancement Charges (credited against NITS charges).
- ❑ PJM EDCs and/or TPSs pass through transmission charges to end use customers through ratepayer bills.
 - ❑ New Jersey Retail Access Example:
 - Third Party Suppliers bill their retail customers directly.
 - EDCs, served by BGS suppliers, recover transmission service charges as component of retail bill.





QUESTIONS?