



# Multi Driver Approach in PJM Manuals

Michael Herman  
Sr. Engineer – Transmission Planning  
Markets & Reliability Committee  
October 1, 2015

- Document Multi Driver Approach, consistent with Final FERC Order and Rulings in PJM's 14 Series of Manuals
- Establish and document general ***principles and guidelines*** within the PJM Manuals to include New Service Requests (e.g.: Generation Interconnection) as an input to Multi Driver Approach

- **PJM Operating Agreement:**
  - **1.15B Incremental Multi-Driver Project.**
    - *“Incremental Multi-Driver Project” shall mean a Multi-Driver Project that is planned as described in Schedule 6, section 1.5.10(h) of this Agreement.*
  - **1.38.01 Proportional Multi-Driver Project:**
    - *“Proportional Multi-Driver Project” shall mean a Multi-Driver Project that is planned as described in Schedule 6, section 1.5.10(h) of this Agreement.*
  - *1.5.10(h) The Office of the Interconnection shall develop a Multi-Driver Project by identifying a more efficient or cost effective solution that uses one of the following methods: (i) combining separate solutions that address reliability, economics and/or public policy into a single transmission enhancement or expansion that incorporates separate drivers into one Multi-Driver Project (“Proportional Multi-Driver Method”); or (ii) expanding or enhancing a proposed single driver solution to include one or more additional component(s) to address a combination of reliability, economic and/or public policy drivers (“Incremental Multi-Driver Method”).*

- M14A - Generation and Transmission Interconnection Process
- M14B - PJM Regional Transmission Planning Process
- M14C – Generation and Transmission Interconnection Facility Construction
- M14D – Generator Operational Requirements
- M14E – Merchant Transmission Specific Requirements

- PJM Planning reviewed the entire 14 series of manuals to determine what changes are needed
- M14A and M14B updates to be discussed today
- M14C, M14D and M14E are not in need of an update at this time

## B.2 Scope

The RTEP encompasses two types of enhancements: Network Upgrades and Direct Connection Attachment Facilities. Network Upgrades can be required in order to accommodate the interconnection of a merchant project (generation or transmission) or to eliminate a Baseline problem as a result of system changes such as load growth, known transmission owner facility additions, etc. The PJM Cost Allocation Procedures are presented in two parts: “PJM Generation and Transmission Interconnection Cost Allocation Methodologies” discusses the cost allocation methodology for projects required for generator and transmission interconnections, below and: “Schedule 12 Cost Allocation Process for Baseline Transmission Reliability and Market Efficiency Upgrades” discusses the cost allocation process for baseline transmission reliability and market efficiency upgrade project requirements in Manual 14B. [New Service Customers, other than those proposing Merchant Network Upgrades, may participate in Multi-Driver Approach projects identified by PJM. Further information is provided in Manual 14B.](#)

## 2.1 Transmission Planning = Reliability Planning + Market Efficiency + Public Policy

Effective with the 2006 RTEP, PJM, after stakeholder review and input, expanded its RTEP Process to extend the horizon for consideration of expansion or enhancement projects to fifteen years. This enables planning to anticipate longer lead-time transmission needs on a timely basis.

Fundamentally, the Baseline reliability analysis underlies all planning analyses and recommendations. On this foundation, PJM's annual 15-year planning review now yields a regional plan that encompasses the following:

1. Baseline reliability upgrades, discussed in this Section 2;
2. Generation and transmission interconnection upgrades, discussed in Attachment [CB of this manual](#) and [Attachment B of Manual 14A](#).
3. Market efficiency driven upgrades, discussed in this Section 2.
4. Operational performance issue driven upgrades, discussed in this Section 2.
- 4.5. Public Policy Requirements based elements via State Agreement Approach

### 2.1.1 Multi-Driver Approach

In the event that a proposed project is driven by more than one of the above stated drivers, PJM can develop a Multi-Driver Approach project, as defined in Schedule 6 of PJM's Operating Agreement by identifying a more efficient or cost effective solution that follows one of the following methods:

- Proportional Multi-Driver Method: Combining separate solutions that address reliability, economics and/or public policy into a single transmission enhancement or expansion that incorporates separate drivers into one Multi-Driver Project.
- Incremental Multi-Driver Method: Expanding or enhancing a proposed single-driver solution to include one or more additional component(s) to address a combination of reliability, economic and/or public policy drivers.

## 2.1.1.1 Principles and Guidelines for New Service Requests as an input to Multi-Driver Approach

Customer-Funded upgrades, as identified in Attachment B of PJM Manual 14A may be incorporated into the Multi-Driver Approach per the Regional Transmission Expansion Plan. New Service Customers, other than those proposing Merchant Network Upgrades, have the option, but not obligation to participate in a Multi-Driver Project, at the direction of PJM. The following principles and guidelines must be adhered to for a new service request wishing to participate in a Multi-Driver Project:

1. The Multi-Driver Approach project must be more cost effective as a whole, than the sum of the individual projects
2. New Service Customer has the option, but not the obligation to participate in a Multi-Driver Approach project. The New Service Customer must execute an agreement committing to be financially responsible for its portion of the Multi-Driver Approach project, the cost of which shall not exceed the cost of the incremental upgrade required as part of the New Service Request.
3. New Service Customer's participation in the Multi-Driver Approach shall not impact the New Service Customer's Queue Position.
4. Commencement of service for the New Service Customer's Customer Facilities may be impacted by the in-service date of the Multi-Driver Approach Project.
5. The following cost allocation rules will apply to Multi-Driver Approach projects: Schedule 12 of the PJM Tariff for the component of the upgrade to be funded for reliability violations or operational performance, economic constraints and/or Public Policy Requirements; and Part VI of the PJM Tariff for the New Service Customer's portion of the Multi-Driver Approach project.

- First Read of Redline Manual language to PC – August 13, 2015
- First Read of Redline Manual language to MRC – August 27, 2015
- Seek endorsement of Manual language from PC – September 10, 2015 - Endorsed
- Seek endorsement of Manual language from MRC – October 1, 2015