Improvements to PJM Manual 14 Series

Revised 14A: “New Services Request Process”
New 14G: “Generation Interconnection Requests”

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Presented to Planning Committee
July 12, 2018
Current Manual 14A mixes the process for application as a new service customer for any customer type with specific ‘generator’ customer interconnection requirements.


No separate PJM Manual exists for the ‘generator’ customers specifically.
Revise 14A: “New Services Request Process”
General application, study, and agreement process for interconnecting any customer type.

Create New M14G: “Generation Interconnection Requests”
Application process, interconnection requirements, study/agreement process, and rights for generator customers.

M14A content will be preserved
Manual 14A and 14G Language Updates
Old M14A, Table 2-2-1 (Revised M14A, Table 5.2.1-1): “System Impact Study costs”

Correction to the System Impact Study Cost table (consistent with Tariff):

<table>
<thead>
<tr>
<th>Project size</th>
<th>Required deposit</th>
<th>Portion of deposit that is non-refundable</th>
<th>Maximum deposit</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;20MW</td>
<td>None</td>
<td>10%</td>
<td>$300,000</td>
</tr>
<tr>
<td>&gt;2MW and ≤20MW</td>
<td>$10,000</td>
<td>10%</td>
<td>$10,000</td>
</tr>
<tr>
<td>≤2MW</td>
<td>$5000</td>
<td>10%</td>
<td>$5,000</td>
</tr>
</tbody>
</table>
Old M14A, Section 2.1.2 *(Revised M14A, Section 2.2.1)*
“Interconnection (New Services) Requests and PJM Queue Position”

Queue window periods have been updated considering the “transitional queue” *(which occurred between November 1, 2016 and March 31, 2017)* is completed.

- The first queue window closes March 31st of the calendar year.

- The second queue window closes on September 30th of the same calendar year.

- Reference to “transitional queue” from November 1, 2016 to March 31, 2017 will be removed.
Old M14A, Section 3.1.4 (New M14G, Section 5.4.1): “Expedited and/or Combined Study Analysis”

Updated language more specifically defines the conditions under which an accelerated analysis is not possible:

- If a secondary POI is requested to be considered, then a combined study is not possible.

- If the project is identified as needing stability analyses, light load analysis or causes or contributes to a system overload or is expected to contribute to winter analysis violations, then it cannot be accelerated.
Appendix:
M14A Content Transfer
Transfer of Content from Current M14A:

Section 1: Interconnection Process Overview
Section 1: Interconnection Process Overview

- **Section 1.1**
  - Requirements for Generating Units
  - Section 4.1

- **Section 1.2**
  - Interconnections with Municipalities, Co-operatives, or Non-PJM Transmission Owner Member Companies
  - Section 1.5

- **Section 1.3**
  - Interconnection Procedures for FERC Jurisdictional Facilities and Non-FERC Jurisdictional Facilities
  - Section 1.4

- **Sections 1.4**
  - Merchant Transmission Interconnection Facilities
  - Section 1.3

- **Section 1.5**
  - Initiating the Generation and Transmission Interconnection Planning Process
  - Section 2.1

- **Section 1.6**
  - Project Management and Client Management
  - Section 3.1

Existing Manual 14A "New Services Request Process"

Modified Manual 14A "New Services Request Process"

New Manual 14G "Generation Interconnection Requests"
Section 1: Interconnection Process Overview

Section 1.7: Electing Capacity Resource Status versus Energy Resource Status
- Section 4.3

Section 1.8: PJM Membership
- Section 3.2 & modified

Section 1.9: Membership in NERC Regional Councils
- Section 3.3

Section 1.10: The Interconnection Request Studies
- Section 4.1 & modified

Section 1.11: Changes to Existing or Proposed Generation
- Section 4.5
Section 1: Interconnection Process Overview

- **Section 1.12**
  - Consent to Assignments
  - Section 5.8.2

- **Section 1.13**
  - Small Generation Interconnection Considerations (20 MW or less)
  - Section 5.1

- **Section 1.14**
  - Distributed Generation
  - Section 5.1.1

- **Section 1.15**
  - Demand Response Resource
  - Section 1.7

- **Section 1.16**
  - Behind the Meter Generation
  - Section 1.6

- **Section 1.17**
  - Coordination of Studies between PJM and MISO
  - Section 4.6

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Existing Manual 14A "New Services Request Process"

New Manual 14G "Generation Interconnection Requests"

Modified Manual 14A "New Services Request Process"
Section 1: Interconnection Process Overview

Section 1.18
- Studies for Long Term Firm Transmission Service
  - Section 4.8

Section 1.19
- Interim Deliverability Studies
  - Section 4.7

Section 1.19.1
- Interim Deliverability Studies associated with projects using reinforcements outside of PJM for PJM Constraints
  - Section 4.7.1

Section 1.19.2
- Affected System Studies
  - Section 4.6.4

Section 1.20
- Non-Queue Interconnection Service Agreements
  - Section 5.4.5

Section 1.21
- Serving Load as a Generator
  - Section 4.8

Modified Manual 14A "New Services Request Process"

New Manual 14G "Generation Interconnection Requests"
Transfer of Content from Current M14A:

Section 2: Generation and Transmission Interconnection Planning Process
Section 2: Generation and Transmission Interconnection Planning Process

- **Section 2.1.1**: Purpose of the Generation or Transmission Interconnection Feasibility Study Agreement
  - Section 5.1.1

- **Section 2.1.2**: Interconnection Requests and PJM Queue Position
  - Section 2.2 & modified

- **Section 2.1.2.1**: Site Control

- **Section 2.1.2.2**: Multiple Generation Interconnection Requests behind the same POI
  - Section 4.6

- **Section 2.1.2.2**: Fuel Change
  - Section 4.5.2

- **Section 2.1.2.2.1**: Requests Requiring Attachment N
  - Section 2.1

Existing Manual 14A "New Services Request Process"

Modified Manual 14A "New Services Request Process"

New Manual 14G "Generation Interconnection Requests"
Section 2: Generation and Transmission Interconnection Planning Process

- Requests Requiring Attachment Y
- Requests Requiring Attachment BB
- Merchant Transmission Facilities Requests
- Upgrade Requests
- Transmission Interconnection Customers
- Upgrade Customers

- Section 2.2
- Section 2.3
- Section 2.2.3.1
- Section 2.2.3.2
- Section 2.2.3
- Section 2.2.4

Existing Manual 14A "New Services Request Process"

Modified Manual 14A "New Services Request Process"

New Manual 14G "Generation Interconnection Requests"
Section 2: Generation and Transmission Interconnection Planning Process

- **Section 2.1.3**
  - Generation and Transmission Interconnection Feasibility Study Cost Responsibility
    - Section 5.1.2

- **Section 2.1.4**
  - New Service Request deficiency reviews
    - Section 2.3.1

- **Section 2.1.5**
  - Changes to Existing Generators and Transmission Facilities
    - Section 4.5

- **Section 2.1.6**
  - Generation and Transmission Interconnection Feasibility Study Analysis and Results
    - Section 4.2

Existing Manual 14A "New Services Request Process"

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New Manual 14G "Generation Interconnection Requests"
Transfer of Content from Current M14A:

Section 3: Small Resource Interconnection Process
Section 3: Small Resource Interconnection Process

- **Section 3.1**
  - Small Resources (20 MW or less)
  - Pre-application Process for New Generation Resource Additions of 20 MW or Less or Additions to Existing Generation Resources no to Exceed 20 MW in Aggregated Maximum Facility Output

- **Section 3.1.1**
  - Small Generation Interconnection Queue Submittal

- **Section 3.1.2**
  - Study Requirements and Cost

- **Section 3.1.3**
  - Expedited and/or Combined Study Analysis

- **Section 3.1.4**
  - Specific Provisions for Resources of 10 MW or Less

- **Section 3.2**
  - Specific Provisions for Resources Greater than 10 MW up to 20 MW

- **Section 3.3**
  - New Manual 14G "Generation Interconnection Requests"

- **Section 5**
  - Modified Manual 14A "New Services Request Process"

- **Section 5.1**
  - New Manual 14G "Generation Interconnection Requests"

- **Section 5.2**
  - Modified Manual 14A "New Services Request Process"

- **Section 5.3**
  - Modified Manual 14A "New Services Request Process"

- **Section 5.4**
  - Modified Manual 14A "New Services Request Process"
Transfer of Content from Current M14A:

Section 4: Interconnection Service Agreement and Construction Service Agreement Execution and Other Agreements
Section 4: Interconnection Service Agreement and Construction
Service Agreement Execution and Other Agreements

- Section 4.1
  - Interconnection Service Agreement
  - Interim Interconnection Service Agreements
  - Interim ISA vs. ISA with Interim Rights
  - Security Requirements
  - Agreement Milestones

- Section 4.2
  - Interconnection Construction Service Agreement
  - Option to Build
  - General Timeline

- Section 4.1.1
  - Section 5.4.1

- Section 4.1.2
  - Section 5.4.2

- Section 4.1.3
  - Section 5.4.3

- Section 4.1.4
  - Section 5.4.4

- Section 4.2.1
  - Section 5.5.1

- Section 4.2.2
  - Section 5.5.1.1

Modified Manual 14A "New Services Request Process"

Existing Manual 14A "New Services Request Process"

New Manual 14G "Generation Interconnection Requests"
Section 4: Interconnection Service Agreement and Construction Service Agreement Execution and Other Agreements

- **Section 4.2.3**
  - Summary of General Conditions
  - Section 5.5.1.2

- **Section 4.2.4**
  - Specific Process Flow and Timeline
  - Section 5.5.2

- **Section 4.2.5**
  - PJM Manuals
  - Section 5.5.3

- **Section 4.2.6**
  - PJM Tariff - Part VI
  - Section 5.5.4

- **Section 4.2.7**
  - PJM Operating Agreement
  - Section 5.5.5

- **Section 4.3**
  - Wholesale Market Participation Agreement (WMPA)
  - Section 5.7

- **Section 4.4**
  - Other Agreements
  - Section 5.8

- **Section 4.4.1**
  - Station Power
  - Section 4.9

- **Modified Manual 14A "New Services Request Process"**

- **New Manual 14G "Generation Interconnection Requests"**
Transfer of Content from Current M14A:

Section 5: Additional Generator Requirements
Section 5: Additional Generator Requirements

- Section 5.1: Behind the Meter Generation Projects
- Section 5.1.1: BtMG Interconnection Requests
- Section 5.1.2: BtMG Metering
- Section 5.1.3: BtMG Effects on Market Operations
- Section 5.1.4: Non-Retail BtMG

- Section 1.6
- Section 1.6.1
- Section 1.6.2
- Section 1.6.3
- Section 1.6.4
Section 5: Additional Generator Requirements

Section 5.2
- Generator Power Factor Requirements

Section 5.2.1
- Application of Power Factor Requirements to Increases of Existing Generation

Section 5.3
- Wind or Non-Synchronous Generation Projects

Section 5.3.1
- Wind or Non-Synchronous Generation Capacity Credit Rules

Section 5.3.2
- Wind or Non-Synchronous Generation - Specific Technical Requirements
Transfer of Content from Current M14A:

Attachments & Annex
  • Attachment A

• PJM Request Cost Allocation Procedures
  • Attachment B

• PJM Generation and Transmission Interconnection Planning Team Role Clarity Diagram
  • Attachment C

• General Description of Facilities Study Procedure
  • Attachment D

• Small Generator (10 MW or Less) Technical Requirements and Standards
  • Attachment C

Existing Manual 14A "New Services Request Process"

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New Manual 14G "Generation Interconnection Requests"
Attachments & Annex

- **Attachment E-1**
  - Small Generator (greater than 10 MW up to 20 MW) Technical Requirements and Standards

- **Attachment F**
  - Generation Interconnection Feasibility Study Data

- **Attachment F-1**
  - Feasibility Study Data Form

- **Attachment G**
  - System Impact Study Data

- **Attachment A**
  - Attachment A

- **Attachment A-1**
  - Attachment A-1

- **Attachment D**
  - Attachment D

- **Attachment B**
  - Attachment B

Existing Manual 14A "New Services Request Process"

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New Manual 14G "Generation Interconnection Requests"
Attachments & Annex

Attachment G-1
- Dynamic Model Study Request Form
- Attachment B-1

Attachment G-2
- System Impact Data Form
- Attachment B-2

Attachment H
- Generator Reactive Deficiency Mitigation Process
- Attachment E

Annex 1
- SCADA Requirements by Transmission Owner Region
- Attachment F

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