

The Operations Model

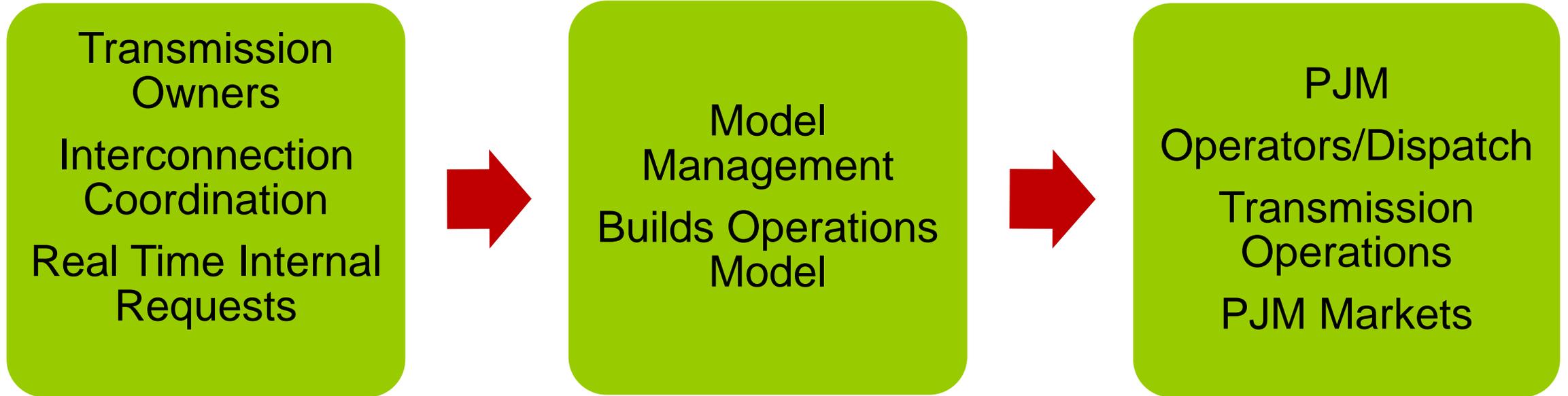
Ankit Kharod

Sr. Engineer, Model Management

Special MIC – FTRMPS

June 23, 2017





- Transmission Owners
 - Primarily responsible for submitting data
 - Official source for all model related changes
 - Submit data through eDART

New Network Model Change Request

Company: **PJM TEST**

Title: PJMexpIVFexmpl

Company Project ID: 123456 Type: Equip Name Cleanup

RTEP/Gen Queue: B1234 Status:

Description: *This is an example. Please enter a detailed description here!*

PJM Comments:

Stations: 11 FISR

Target Model Build: **Fall 2016**

In-Service Date: Already in Service

Actual Model Build:

Network Model Change Request

**Change Request was Submitted or Revised on 06/30/2016.
For the Fall 2016 Build, the request needs to be submitted by 06/10/2016.
Please contact your PJM Model Coordinator.**

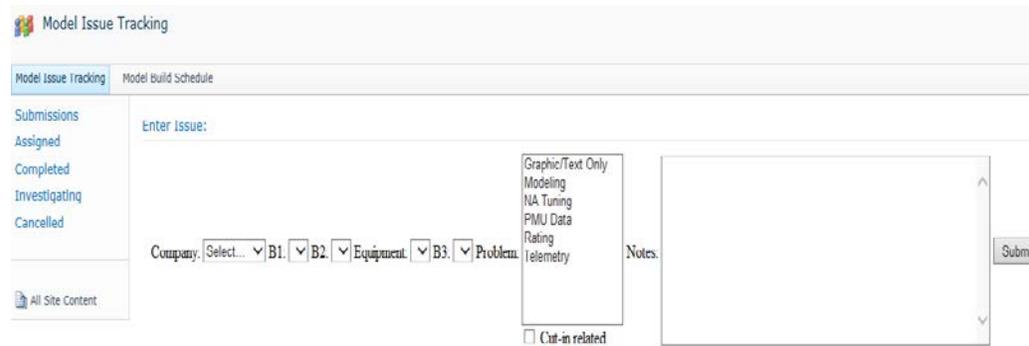
Network Model Change Request was successfully submitted.

- **Interconnection Coordination**

- Responsible for submitting Gen queue requests
- Baseline Upgrades, Network Upgrades & Supplemental Upgrades

- **Real Time Internal requests**

- Operators and Study engineers submit requests through MIT (Model Issue Tracking)
- Model adjustments are also made for Markets and Settlements requirements

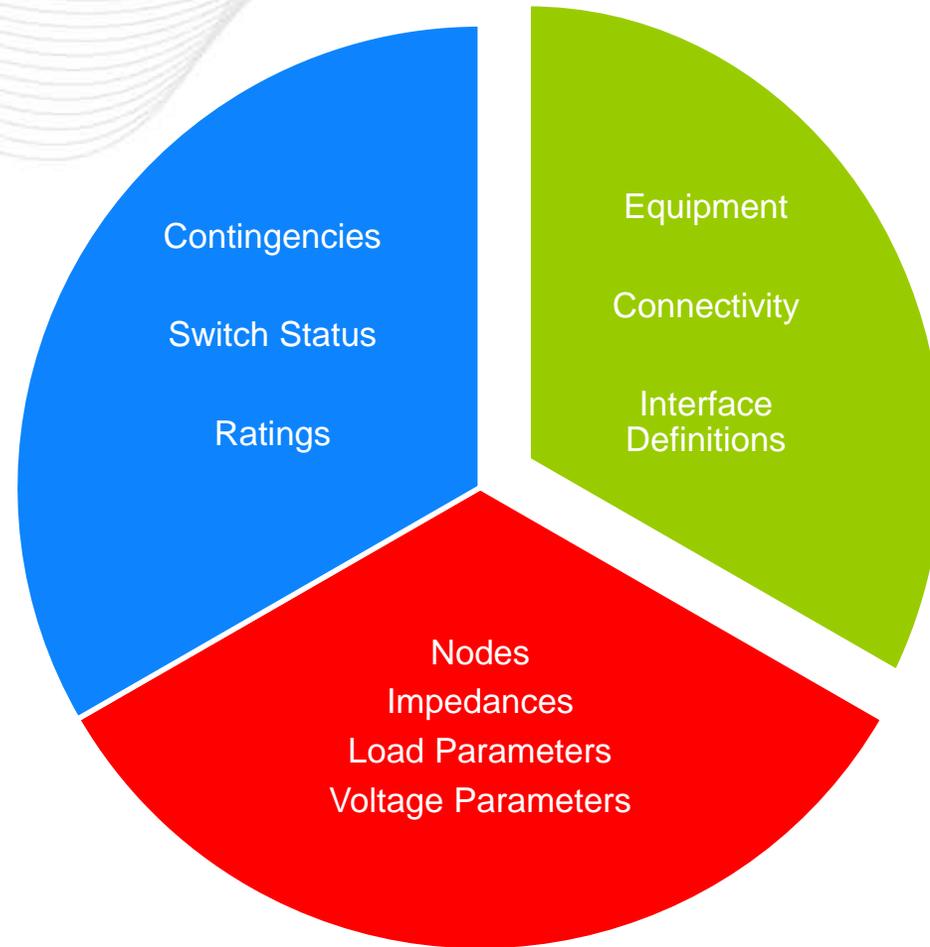
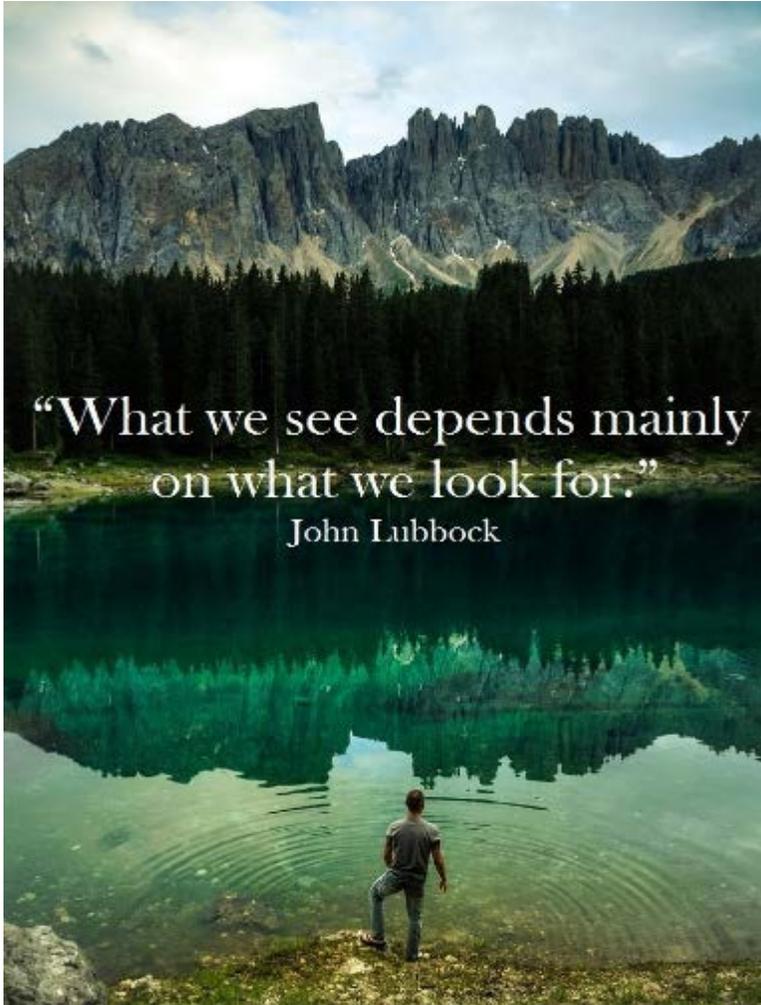


The screenshot shows the 'Model Issue Tracking' web application. The interface includes a navigation menu on the left with options: Submissions, Assigned, Completed, Investigating, Cancelled, and All Site Content. The main content area is titled 'Enter Issue:' and contains several dropdown menus for 'Company', 'B1', 'B2', 'Equipment', 'B3', and 'Problem'. A 'Submit' button is located to the right of the form. A 'Notes' field is also present, and a 'Cut-in related' checkbox is at the bottom. A tooltip is visible over the 'Notes' field, listing options: Graphic/Text Only, Modeling, NA Tuning, PMU Data, Rating, and Telemetry.

- IMM
 - Stands for Information Model Manager
 - AGC, TNA and SCADA model maintenance
 - CIM File gets exported to Markets

- TNA
 - Stands for Transmission Network Applications
 - Used for grid monitoring and operational decisions
 - Provides critical input to Markets via State Estimator solution

The Model – A pie sized slice of the big pie





Model Update Timing Requirements

Model Build Schedule available via the DMS Subcommittee Webpage

PJM Model Management Department Model Build Schedule

Build Year	Build	DMS Meeting Date	Data Close Date	Target Production Date	Actual Production Date
2016	Spring	11/19/2015	11/27/2015	3/8/2016	3/17/2016
	Summer	1/28/2016	2/5/2016	5/17/2016	5/26/2016
	Fall	5/5/2016	5/13/2016	9/13/2016	9/13/2016
	Winter	8/25/2016	9/2/2016	12/13/2016	12/13/2016
2017	Spring	11/16/2016	11/25/2016	3/8/2017	3/8/2017
	Summer	1/26/2017	2/10/2017	5/16/2017	
	Fall	5/9/2017	5/12/2017	9/12/2017	
	Winter	8/24/2017	9/1/2017	12/12/2017	
2018	Spring	11/16/2017	11/24/2017	3/13/2018	
	Summer	1/25/2018	2/9/2018	5/22/2018	
	Fall	5/10/2018	5/18/2018	9/18/2018	
	Winter	8/30/2018	9/7/2018	12/11/2018	

pjm.com Calendar – System Changes: <http://www.pjm.com/Home/Calendar.aspx>
 EMS Model Updates: <http://www.pjm.com/markets-and-operations/etools/oasis/system-information.aspx>

Last Update: 05/09/2017

eDART Application	Usage	Timing Requirements
Network Model	Transmission model updates	Manual 3A Section 3.2 - TOs are required to notify PJM from six (6) months to one (1) year in advance of system topology changes.
Transmission Equipment Ratings Monitor (TERM)	Ratings and impedance updates	Manual 3A Section 3.2 – [As] more exact parameter data becomes available, TOs are required to update the project's initial parameter data using the eDART TERM tool for Line impedances and ratings updates. For example, SCADA information and ratings data are often not available initially. It is the responsibility of the TO staff to submit appropriate data to PJM as soon as it is available. The data must be received by PJM no later than two (2) weeks prior to the scheduled cut-in.
N/A - Email	Telemetry	
Transmission Outage Ticket	Transmission outage and cut-in tickets	Manual 3 Section 4.2.1 - The TO is required to submit all outage requests in excess of 5 calendar days in duration before the 1st of the month six months in advance of the start of the outage. Outages exceeding 30 calendar days in duration for the following planning cycle (June 1 – May 31) must be submitted before February 1. The TO is required to submit all other outage requests before the 1st of the month prior to the month of the requested start date of the outage.

Manual 3A – Appendix E: Checklist for New Equipment Energization Process has a high level list from planning to energization of TO submission items and timing requirements