

# BtMG Modeling Process

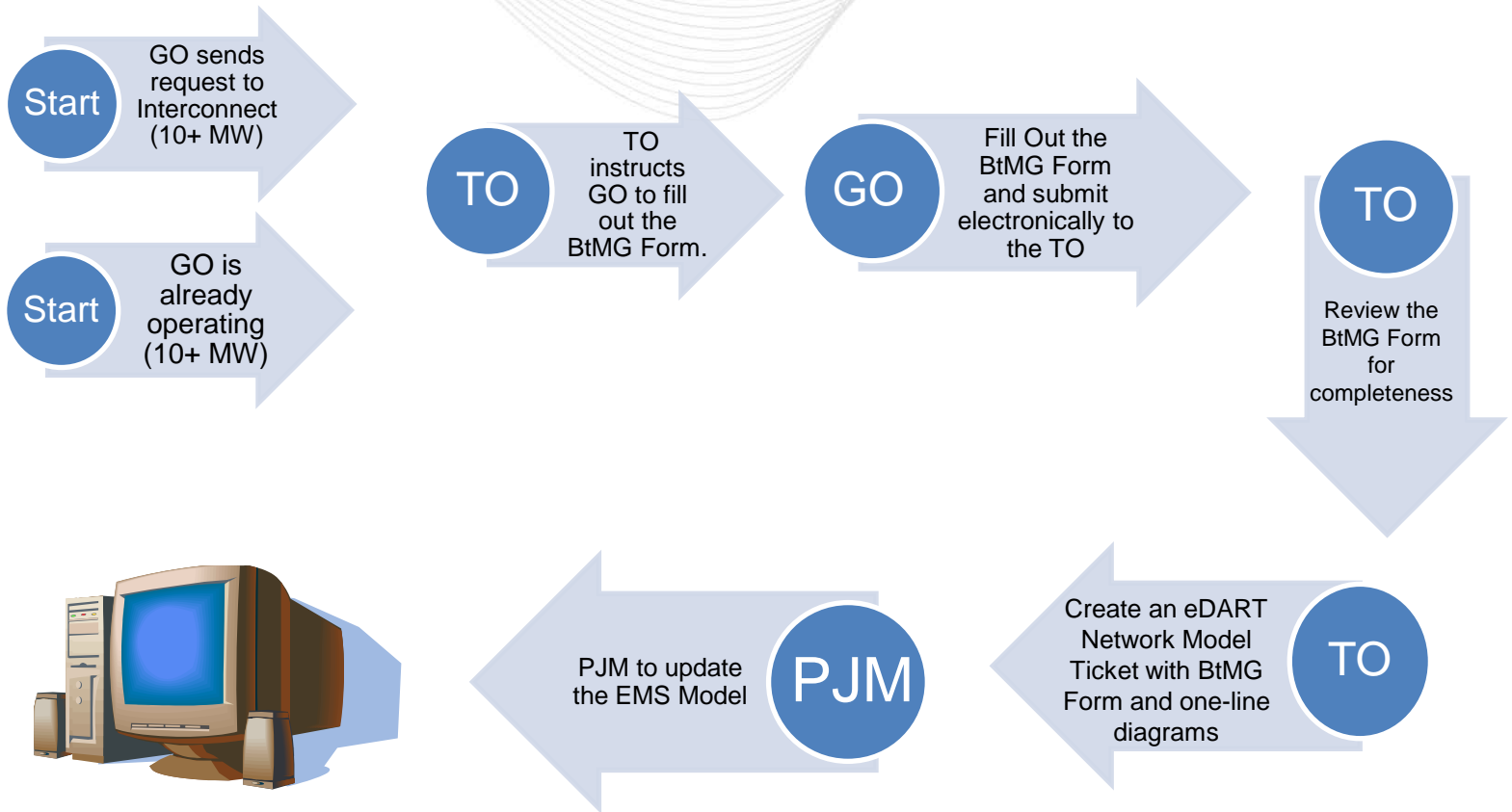
Intermittent Resources  
Subcommittee (IRS)  
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Ronald DeLoach

## **Manual 14D Appendix A Item 9 Requirement:**

*BtMG that is 10 MW or greater (or has been identified as requiring metering for operational security reasons) must have both revenue metering and telemetering for operational security purposes. Single unit small BtM generators that collectively total more than 10 MW, may be aggregated behind the meter and metered as a single unit to meet this requirement should PJM require metering for the aggregate generation. Rules for metering are detailed in the PJM Manual for [Generator Operational Requirements](#) (M-14D).*

## **Focus: Avoiding Load Shed**

# New Process for Including BtMG in Model



## PJM Behind the Meter Generation Submission Form

BtMG Form Description			
This form is to gather information on Behind the Meter Generators. PJM will use this information to update the EMS model. Refer to <a href="#">PJM Manual 3A Section 1.2.1</a> for more details regarding this form.			
General Information			
In Service Date:		Transmission Owner:	
Utility Company Name:		Generator Name:	
Utility Company Address:		Generator Address:	
Utility Company Phone:		BtM Generator Contact:	
Utility Company Email:		Generator Email:	
System Operating to (check one): Distribution (<100 kV) <input type="checkbox"/> Transmission (>100 kV) <input type="checkbox"/>		Generator Code:	
GIS Data (latitude, longitude):			
Modeling Information			
<b>Generator Model Update (required section):</b>			
<ul style="list-style-type: none"> <li>&gt; Commercial name:</li> <li>&gt; Attach Generator single-line diagram</li> <li>&gt; Generator Information:                             <ul style="list-style-type: none"> <li>◆ Unit Type (see below):</li> <li>◆ Fuel Type:</li> <li>◆ Maximum Output PMax (total):                      MW</li> <li>◆ Number of Units:</li> <li>◆ Operating Voltage:    (kV)</li> </ul> </li> </ul>			
<b>Transmission Model Details (can be supplied by TO in Network Model Request):</b>			
<ul style="list-style-type: none"> <li>&gt; Nearest Transmission Substation name:</li> <li>&gt; Attach Transmission Substation single-line diagram</li> </ul>			
<b>Telemetry (see Manual 14D, Appendix A (9) to determine applicability):</b>			
<ul style="list-style-type: none"> <li>&gt; From TO via ICCP                             <ul style="list-style-type: none"> <li>◆ Provide status of circuit breakers and switches</li> <li>◆ Provide MW and MVAR measurements</li> <li>◆ Provide Voltage</li> </ul> </li> </ul>			

### Form URL:

<http://www.pjm.com/~medi a/committees-groups/subcommittees/dms/postings/btmg-submission-form.ashx>

- Transmission substation that will be normally connected to the generator
- One-line of the station with the interconnection

- Information on the generator
- Information on the company which the generator is interconnecting to.

- Basic technical information to model the generator
- One-line of the generation facility with the interconnection to distribution or transmission

- The telemetry required for PJM to model the generator.

Please complete and attach to eDART Network Model Application

## Manual 3A Additions:

- Section 1.2.1: New section outlining Electrical Model Responsibilities for Behind the Meter Generation (BtMG)
- Appendix D: New appendix added for new Behind the Meter Generation (BtMG) Submission Form and outlining procedure for form submission.
  - New Exhibit D1 (blank BtMG submission form)
  - New Exhibit D2 (sample BtMG Submission Form for Distribution)
  - New Exhibit D3 (sample BtMG Submission Form for Transmission).

## Manual 14D Update:

- Appendix A Item 9: Identify need for unit to be modeled in PJM EMS to support telemetry assignment. Point to Manual 3A Section 1.2.1 for directions on how to fulfill requirement