Network Integration Transmission Service (NT) and Designated Network Resources (DNR)

June 30, 2016
Contents

- Introduction to Network Integration Transmission Service (also known as NT Service or NITS)
- NT Service – Requesting and Planning for new Network Resources
- Unique Characteristics of NT Service and Designated Network Resources (DNRs)
NT Service Overview

- NT service allows the NT Customer to efficiently and economically utilize their Network Resources to serve Network Load.
  - NT Customer must designate Network Resources to serve Network Load on firm transmission.
  - NT Customer must designate Network Load at discrete Points of Delivery (POD) to be served through NT service.

- The Transmission Provider has an obligation to plan and operate the transmission system to serve the NT Customer’s Network Load.

- NT Service may only be used to serve Network Load and may not be used for marketing purposes.

- NT Service is billed based on total Network Load.
Requesting NT Service

- Per section 29.2 of BPA’s Tariff, a NT Customer must apply for NT Service.
  - NT Customer must submit a Transmission Service Request (TSR) over OASIS to designate New Network Load.
  - NT Customer must submit a TSR over OASIS to designate a Network Resource.
    - Informational requirements – NT Customer must provide specific information about a resource such as the generator size and capacity to be designated, any operating restrictions, redispatch costs, maintenance schedules, etc
    - Attestation requirement – NT Customer must attest that the Network Resource being designated is owned, purchased, or leased by the NT Customer at the time of designation.
    - For off-system Network Resources, the NT Customer must demonstrate firm upstream transmission arrangements to deliver the resource onto BPA’s transmission system.
      - See Appendix A for the form used to designate and attest a network resource.
Planning the Transmission System

- Under section 28.2 of BPA’s Tariff, BPA has an obligation to plan, construct, operate, and maintain its Transmission System to ensure sufficient transfer capability to deliver the Network Customer’s Network Resources to serve its Network Load, including load growth.
  - For NT Customers with the FCRPS as a designated Network Resource, BPA plans the system under the assumption that the FCRPS will serve load growth.
  - When an NT Customer designates a non-federal Network Resource, BPA uses some of the capacity reserved from the FCRPS to assess the capacity needed for the non-federal resource.
  - For BPA to effectively plan the transmission system, NT Customers are required to submit annual 10-year Load and Resource Forecasts.
Restrictions on the Use of NT Service

- Under section 28.6 of BPA’s Tariff, NT service may not be used for (i) sales of capacity and energy to non-designated loads, or (ii) direct or indirect provision of transmission service to third parties.
  - For third-party sales (marketing), the NT Customer must reserve PTP service.
  - If the third-party sale is for a year or longer from a designated Network Resource, the NT Customer must first undesignate the Network Resource.
  - NT service may be used only for serving Network Load and may not be used in excess of Network Load.
Scheduling NT Service

- Deliveries of FCRPS generation
  - Load Following NT Customer within BPA’s Balancing Authority Area (BAA) are not required to schedule FCRPS deliveries to load.
    - However, BPA has developed proxy-tags tracking FCRPS deliveries to unscheduled Network Loads.

- Deliveries of non-federal generation
  - NT Customers are required to schedule deliveries of non-federal Network Resources to Network Load.
  - Behind the Meter Resources, solely used to serve Network Load, are not scheduled over BPA’s transmission system.
What is a Behind the Meter Resource?

- Behind the Meter Resource means a resource used to serve the NT Customer’s Network Load that is internal to the NT Customer’s system or is transmitted over non federal transmission facilities and is forecasted not to be transmitted over BPA’s transmission system.
  - Behind the Meter Resources do not need to submit a TSR
  - Behind the Meter Resources do need to submit a Network Resource Designation form

- The integrated hourly sum of generation from an NT Customer’s Behind the Meter Resources may not exceed the NT Customer’s total Network Load for any given hour.
Behind the Meter Resource Requirements

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<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>DNR Form only</td>
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<tr>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>TSR &amp; DNR Form</td>
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<td>Yes</td>
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<td>TSR &amp; DNR Form</td>
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- The table above applies to generators above 200 kW nameplate. Resources less than 200 kW nameplate are not included in a customer’s NT agreement.

- Additionally, Behind the Meter Resources qualify for the NT Short Distance Discount (NT SDD)
  - NT SDD is an incentive for NT Customers to locate generation closer to load. Behind the Meter Resources do not utilize BPA facilities and qualify for the discount.

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For informational purposes only.
Forecasted Network Resources

- NT Customers can submit Forecasted Network Resources via the NT Dialogue Process.
  - NT Dialogue Process provides BPA with information necessary to plan to meet the NT customer’s forecasted uses of the Transmission system.
  - At the time of the NT Dialogue and submittal of the forecast, NT Customers do not need to meet the Tariff attestation requirements.
  - This process incentivizes NT Customers to plan for their resource choices earlier than today, and provides the ability to reserve capacity for those forecasted needs.
  - Prior to delivery of the resource, prior to service commencement, NT Customers must formally designate the resource and meet the attestation requirements.
Appendix A

- Network Resource Designation Form can be viewed on the next two slides and is posted with the forms on BPA’s Business Practice site:

- Direct link:
  - [http://transmission.bpa.gov/ts_business_practices/Content/2_Bulletins_Forms_BP_Index/Forms/NT_Resource_Designation_Form.doc](http://transmission.bpa.gov/ts_business_practices/Content/2_Bulletins_Forms_BP_Index/Forms/NT_Resource_Designation_Form.doc)
<table>
<thead>
<tr>
<th>Network Resource Designation Form</th>
<th>July 2014</th>
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</table>

**Section II. Complete for Generating Resources located outside the BPA Balancing Authority ONLY**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
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<tbody>
<tr>
<td>1)</td>
<td>Start Date and Stop Date: Must be consistent with the Transmission Service Request.</td>
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<tr>
<td>2)</td>
<td>Type of Generating Resource: Identify type of Generating Resource, e.g., system sale purchase, wind, generation, hydro, etc.</td>
</tr>
<tr>
<td>3)</td>
<td>Power Purchase Agreement No. (if applicable): Provide the contract number of Power Purchase Agreement.</td>
</tr>
<tr>
<td>4)</td>
<td>Capacity (MW) to be designated: Enter designated capacity in MW. For designated network resources associated with one Transmission Service Request, the MW amount must match the “MW Requested” field in the Transmission Service Request. For designated network resources associated with multiple Transmission Service Requests, the MW amount should be the highest of the “MW Requested” in the multiple Transmission Service Requests or if the designated capacity exceeds the highest “MW Requested” in the multiple Transmission Service Requests, then the MW amount should be the designated capacity.</td>
</tr>
<tr>
<td>5)</td>
<td>Balancing Authority Area from which the power will originate: Use WECC Balancing authority abbreviations.</td>
</tr>
<tr>
<td>6)</td>
<td>Transmission Interchange point for delivery to BPA Balancing Authority Area: Interchange point must match the Point of Receipt (POR) field of the Transmission Service Request.</td>
</tr>
<tr>
<td>7)</td>
<td>Upstream Transmission Arrangements (on BPA Balancing Authority Area or external Transmission systems): If the customer is taking title to power at the specific generator, identify the Transmission Provider, and the associated D-Ref number of the Upstream Transmission Arrangements. If a firm transmission service request is pending, please identify the associated D-Ref number and identify the request as “pending.” If the customer is taking title to firm power at the point of interconnection between BPA’s E&amp;I and the source E&amp;I, no need to identify upstream transmission arrangements.</td>
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<td>8)</td>
<td>Any periods of restricted operations throughout the year: Enter the periods of restricted operations. Not applicable for system sales.</td>
</tr>
<tr>
<td>9)</td>
<td>Maintenance Schedule: Describe duration and seasonality of planned maintenance outages. Not applicable for system sales.</td>
</tr>
<tr>
<td>10)</td>
<td>Minimum Loading level of the Generating Resource: This amount may vary based on the Generating Resource and can be expressed as the percentage [%], or MW amount, of the nameplate capacity of the Generating Resource. Not applicable for system sales.</td>
</tr>
<tr>
<td>11)</td>
<td>Normal operating level of the Generating Resource: Enter normal operating level of the Generating Resource in MW. Not applicable for system sales.</td>
</tr>
<tr>
<td>12)</td>
<td>Any must-run Generating Resource Designations required for system reliability or contract reasons:</td>
</tr>
<tr>
<td>13)</td>
<td>Approximate variable generating cost ($/MWH) for disposition computations: Enter current approximate actual production costs or contract price, as appropriate.</td>
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