

Appendix F

Capacity Requirements & Peak Day Planning

2020 OR IRP

Appendix F - Introduction

The purpose of this document is to illustrate the flexibility of Cascade's system, and to identify where Cascade needs to pick up incremental transportation rights.

Cascade can realign the transportation Maximum Daily Delivery Obligation(s)(MDDOs) in the Company's contracts to citygates in the same zone on the Northwest Pipeline (NWP) system. GTN has citygate specific MDDOs where they cannot be realigned. GTN does have a few contracts that can be delivered to any of the citygates on their system.

In the first series of charts, below, the Company analyzes each of the citygates in Oregon and Washington. The Company also aggregates the gates by zone, by state, and finally the entire system. In these charts, the green bars indicate what the Company forecasts demand to be in a peak day environment for a 20-year time horizon. The orange line shows how many therms can contractually be moved to that area with location specific MDDOs. The blue line shows the total amount of therms that are utilized by realigning certain contracts that do not specify a fixed location where the therms need to go and adding those MDDOs to the fixed contracts. These flexible contracts are assigned using the Company's optimization software, SENDOUT. Finally, the yellow line illustrates how much demand Cascade can serve by adding incremental transportation agreements to its existing transportation portfolio. The space between the blue line and yellow line, if any, shows exactly how much additional transport the Company believes will need to be acquired, and when it needs to be picked up.

As mentioned above, Cascade has the ability to realign certain MDDOs on the zonal level to help serve demand in areas where there is not a direct contract to that citygate. To that end, certain citygates within NWP will utilize MDDOs above or below their contracted level. Some examples of this are described below:

Citygates where utilized MDDOs are below contracted MDDOs: This occurs when the Company has the capacity to send more gas to a citygate than what they forecast is needed over the 20-year planning horizon. Ideally, this transportation capacity is moved to another citygate within that zone, but in certain situations these MDDOs are unable to be utilized if they are not needed elsewhere. Examples: Pendleton and Umatilla.

Citygates where utilized MDDOs are above contracted MDDOs: This occurs when the Company projects that there is not enough capacity in existing contracts to serve projected demand over the 20-year planning horizon, but there is excess capacity at a citygate within the same zone. It is important to distinguish that this is not an acquisition of additional capacity, but a realignment of excess capacity within the same zone. Examples: Bend Loop and Redmond.

Citygates where utilized MDDOs are both above and below contracted MDDOs: In certain situations, a citygate may start the planning horizon with excess capacity but grow to a point where Cascade expects a shortfall with current contracts. In these circumstances, the Company illustrates the citygate first sharing the excess MDDOs with other locations that need it, but later pulling capacity from other areas with excess transportation contracts.



































































