

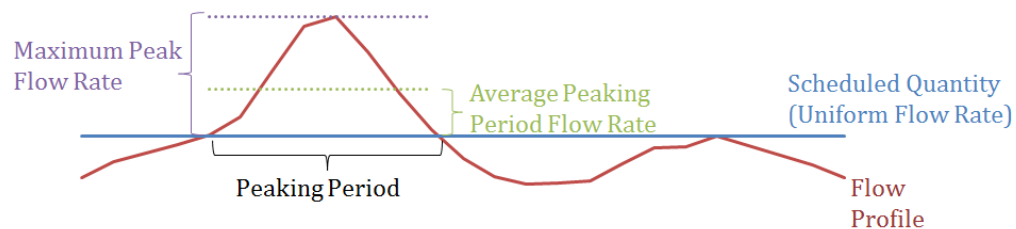
DPU 1.44: Please explain the DEQP peak hour contract and how DEQP will provide additional peak hour services using the Overthrust Pipeline.

Answer: DEQP Peak Hour Contract

The DEQP peak hour (FP) contract is an addendum to the DEU firm transportation (T-1) contract. As such, it is important to understand the uniform nature of the T-1 service.

DEQP's FERC Tariff Part 1 Section 11.9(a) defines T-1 service to be a service that receives and delivers gas at uniform hourly and daily flow rates. Shippers who would like non-uniform services at receipt and delivery points have the ability to enhance the T-1 contract with an FP Addendum.

The FP service is an enhancement to the existing reserved capacity. As illustrated below, this enhancement allows the scheduled T-1 flow rates to exceed the uniform flow rate, with the same firm priority of service, throughout a defined Peaking Period. Consequently, the flow rate outside of the Peaking Period shall be lower than the uniform flow rate yielding a total 24 hour quantity not to exceed the original scheduled quantity. The allowed non-uniform flow rate during the peaking period is firm up to the Maximum Peak Flow Rate during the Peak Period and for the Average Peaking Period Flow Rate across the Peaking Period.



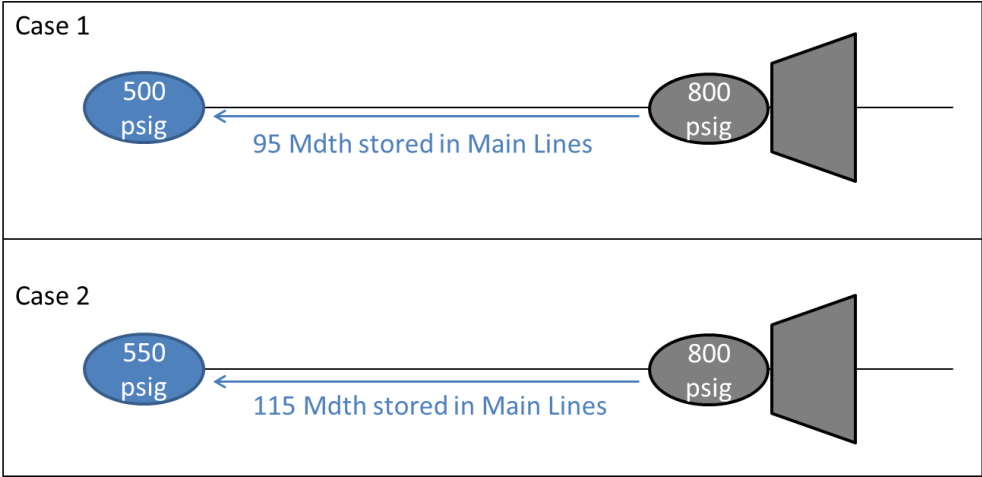
Additional Peak Hour Services Using the Overthrust Pipeline

DEQP requires a technique called 'pack and draft' to provide FP service to DEU at the MAP 164 Wasatch Front delivery point.

Pack and draft is a technique used to vary the volume of gas that is held within a pipeline. An increase to the volume of gas within the pipeline is known as “pack”. This method results in higher gas pressure as molecules are packed tightly together inside the pipeline. There is a direct correlation between the gas pressure in the pipeline and the volume of gas in the pipeline; therefore, an increase in the volume of gas in the pipeline results in increased gas pressure (Figure 1).

A decrease to the volume of gas in the pipeline is known as “draft”. This results in lower gas pressure as the gas molecules are relieved from the tightly packed conditions. A decreased volume of gas in the pipeline results in decreased gas pressure (Figure 1).

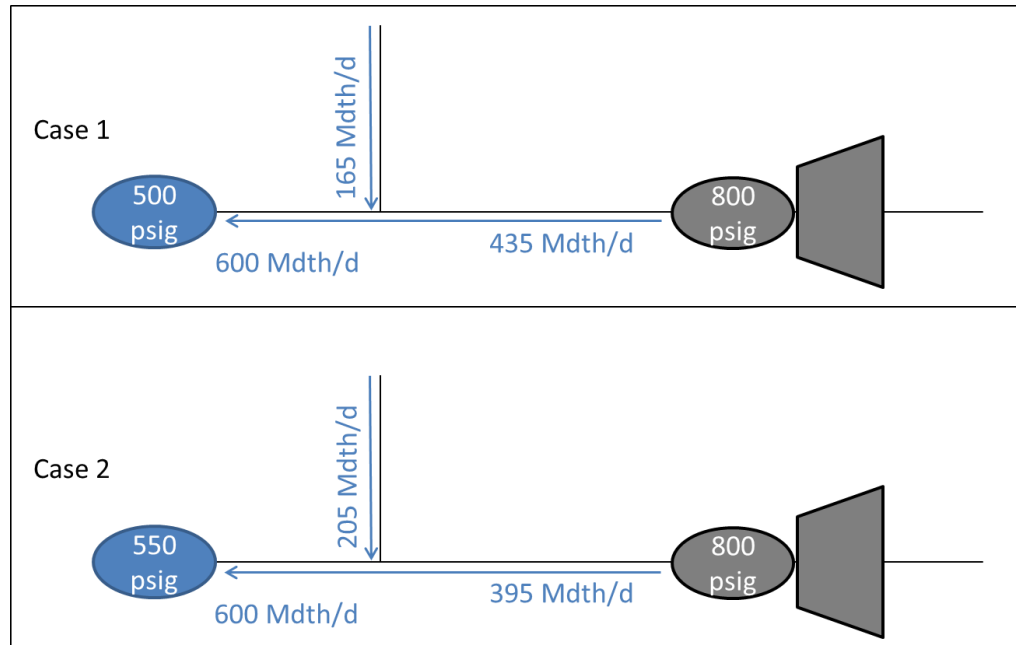
Pipeline limitations can restrict the amount of pack that can occur. These pressure limitations include the maximum allowable operating pressure, flowing pressure loss due to friction, supply point/compression discharge pressure limitations, and adequate gas supply.



**Figure 1. Line Pack Correlation to Line Pressure**

**Diagrams are simplified for illustrative purposes only. Actual system operations may vary.**

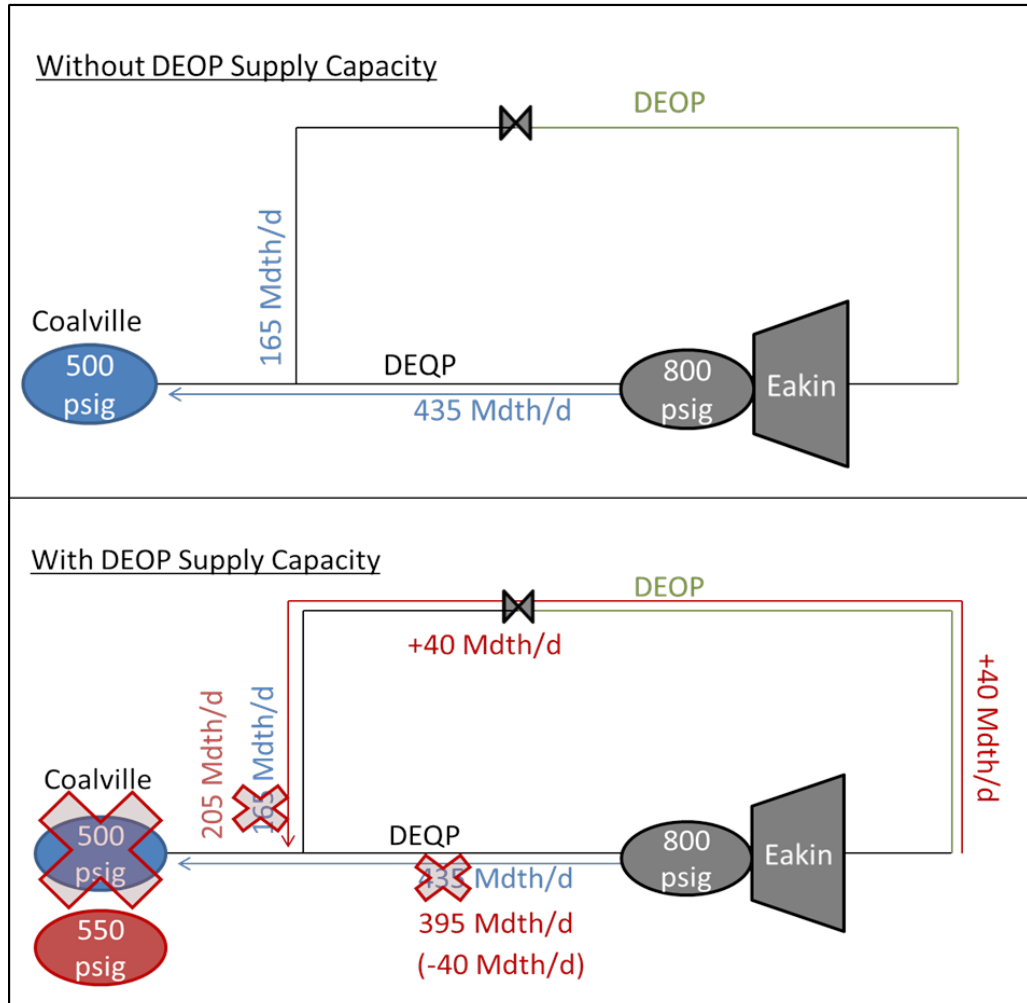
DEQP’s current flowing design pressure of 500 psig at Coalville is constrained by upstream compression discharge pressure limits and pressure loss due to friction. By sourcing 40 MDth/d of Firm Peaking supply at a location closer to Coalville instead of flowing that same volume through Eakin, the system can be operated to achieve a higher flowing design pressure of 550 psig at Coalville (Figure 2).



**Figure 2. Pressure Drop Due to Friction**

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The DEQP FP contract therefore requires a shift in flow to DEQP Dominion Energy Overthrust Pipeline, LLC (DEOP), via incremental transportation capacity on DEOP. A portion of the cost of the service is the reservation of 40,000 Dth on DEOP. An incremental non-uniform flow of up to 40 MDth/d on DEOP allows DEQP to increase line pressure at Coalville from 500 psig to 550 psig (Figure 3). This additional pressure has a corresponding 20 MDth of increased line pack. This line pack can be drafted at a rate of approximately 40 MDth/d of incremental Firm Peaking capacity under the proposed 250 MDth/d Firm Peaking scenario.



**Figure 3. DEOP Capacity Increases Line Pressure at Coalville**  
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