

## NAESB WGQ NOMINATION AND SCHEDULING STANDARDS AND PROCEDURES

### GAS DAY

Standard time for the NAESB grid-wide Gas Day is based on the period from 9:00 a.m. through 9:00 a.m. (**central clock time**) the next day. The use of the “clock time” Gas Day standard requires a semi-annual adjustment to the usual 24-hour Gas Day – when daylight savings is initiated and again when it is stopped. In the spring, as daylight-saving time becomes effective, a 23-hour Gas Day occurs. Conversely, when standard time is reinstated in the fall, a 25-hour Gas Day results. Over the year, the correct number of hours is accounted for, but on the two transition days, measurement and set points (flow rates) must be adjusted to match the time change. The 9:00 a.m. Gas Day start time was a compromise to provide a common grid-wide time at which gas flow changes (to match scheduled quantities) could be coordinated and effected in all time zones.

### SCHEDULING TIMELINE

Natural gas grid-wide scheduling is a continuous process that is conducted 365 days per year during 17 hours each day.

The Gas Day is divided into four separate scheduling cycles which, at least to some extent, are supported by essentially all transportation service providers (TSPs). All times used in the scheduling timeline are expressed as Central Clock Time. Nominations are formal requests to transport gas and, regardless of which cycle they are entered, are represented in full-day quantities. Among other things, nominations include the requested receipt and delivery points, the quantity to be transported, the upstream party providing the gas and the downstream party receiving the gas. The TSP is responsible for determining the necessary flow rates for nominations in the two true intra-day cycles (ID1 and ID2).

The grid-wide scheduling cycles are as follows:

1. **The Timely Nomination Cycle.** This is the initial cycle for the Gas Day. Nominations are made on the day prior to the gas flow day. When scheduled, Timely Nominations have an effective flow time at the beginning of the Gas Day (9:00 a.m.)
  - A. Nomination: The deadline for submission of Timely Nominations is 11:30 a.m. No scheduled quantities are carried over from the previous Gas Day, so all nominations compete for the full amount of available capacity on the TSP’s system.
  - B. Scheduling: All nominations received by the nomination deadline must be compared to available capacity. If the nominated quantities exceed the available capacity, reductions are made to the nominations until they match the available capacity. These reductions must follow the scheduling priorities stated in the TSP’s tariff. (See description of scheduling priorities.)

- C. Confirmation: At each point of interconnection, the operators (pipelines, LDCs, producers, etc.) compare nomination records to match supplies and markets. When mismatches occur, the “lesser-of rule” (i.e., the larger quantity is reduced to match the smaller quantity) is applied to balance the nominations across the interconnect point. Confirmations must be completed by 3:30 p.m.
- D. Reporting: No later than 4:30 p.m., the TSP is responsible for making scheduled quantity reports available to both customers (shippers) and interconnected operators. For each nomination, these reports indicate the quantities that have been scheduled to flow at the beginning of the next Gas Day as well as reasons for any reductions to the originally nominated quantities.

**2. The Evening Nomination Cycle.** Similar to the Timely Cycle, Evening Nominations are for gas flow on the succeeding day. When scheduled, Evening Nominations have an effective flow time at the beginning of the Gas Day (9:00 a.m.).

- A. Nomination: The deadline for submission of nominations is 6:00 p.m. Scheduled quantities are carried over from the Timely Cycle. Bumping is required for previously scheduled interruptible (IT) nominations. Bumping means that IT nominations can be reduced to serve new, higher priority nominations. Therefore, all new Evening Nominations compete for the available capacity remaining after the Timely Cycle plus any capacity held by IT nominations that were scheduled in the Timely Cycle.
- B. Scheduling: All nominations received by the nomination deadline must be compared to available capacity, as described above. If the nominated quantities exceed the available capacity, reductions are made to the nominations until they match the available capacity. These reductions must follow the scheduling priorities stated in the TSP’s tariff.
- C. Confirmation: The confirmation process is the same as described for the Timely Cycle, above. Confirmations must be completed by 9:00 p.m.
- D. Reporting: No later than 10:00 p.m., the TSP is responsible for making scheduled quantity reports available to both customers (shippers) and interconnected operators. For each nomination, these reports indicate the quantities that have been scheduled to flow at the beginning of the next Gas Day as well as reasons for any reductions to the originally nominated or previously scheduled quantities.

**3. The Intraday 1 (ID1) Nomination Cycle.** This cycle is the first opportunity to modify previously scheduled quantities after gas flow has commenced for a Gas Day. When scheduled, ID1 Nominations have an effective flow time of 5:00 p.m. (8 hours after the start of the Gas Day).

- A. Nomination: The deadline for submission of nominations is 10:00 a.m. Scheduled quantities are carried over from the Evening Cycle. Bumping is required for previously scheduled interruptible (IT) nominations. Therefore, all new ID1 Cycle nominations compete for the available capacity remaining after the Evening Cycle plus any capacity held by IT nominations that were scheduled in the earlier cycles (Timely and/or Evening).
  - B. Scheduling: All nominations received by the nomination deadline must be compared to available capacity, as described above. If the nominated quantities exceed the available capacity, reductions are made to the nominations until they match the available capacity. However, because gas is already flowing on previously scheduled nominations, reductions are limited by the amount of gas that would have flowed up to the effective time of the ID1 changes (5:00 p.m.). Therefore, eight hours or one-third of the daily nominated flow is protected from reduction. For example, if 24,000 had been scheduled as IT in the Timely or Evening Cycles, the most that nomination could be reduced in the ID1 Cycle is by 16,000 to 8,000. This process is referred to as the Elapsed Prorated Scheduled Quantity (EPSQ) process. After allowing for the EPSQ limitations, reductions must follow the scheduling priorities stated in the TSP's tariff.
  - C. Confirmation: The confirmation process is the same as described for the Timely Cycle, above. Confirmations must be completed by 1:00 p.m.
  - D. Reporting: No later than 2:00 p.m., the TSP is responsible for making scheduled quantity reports available to both customers (shippers) and interconnected operators. These reports indicate the quantities that have been scheduled for effective flow at 5:00 p.m. as well as reasons for any reductions to the originally nominated or previously scheduled quantities.
- 4. The Intraday 2 (ID2) Nomination Cycle.** This is the second and final opportunity to modify previously scheduled quantities during the Gas Day. When scheduled, ID2 Nominations have an effective flow time of 9:00 p.m. (12 hours after the start of the Gas Day).
- A. Nomination: The deadline for submission of nominations is 5:00 p.m. Scheduled quantities are carried over from the three previous scheduling cycles. However, because no additional opportunities to nominate changes for the Gas Day are available, Bumping is not permitted. Therefore, all ID2 Nominations compete for the available capacity remaining after the ID1 Cycle.
  - B. Scheduling: All nominations received by the nomination deadline must be compared to available capacity, as described above. If the nominated quantities exceed the available capacity, reductions are made to the nominations until they match the available capacity. As with reductions in the ID1 Cycle, ID2 reductions are limited by EPSQ. However the EPSQ calculation for ID2 includes an adjustment for the additional four hours of

effective flow after ID1. After allowing for the EPSQ limitations, these reductions must follow the scheduling priorities stated in the TSP's tariff.

- C. Confirmation: At each point of interconnection, the operators (TSPs) compare nomination records to match suppliers and markets. When mismatches occur, the lesser-of rule is applied to balance the nominations across the interconnect point. Confirmations must be completed by 8:00 p.m.
- D. Reporting: No later than 9:00 p.m., the TSP is responsible for making scheduled quantity reports available to both customers (shippers) and interconnected operators. These reports indicate the quantities that have been scheduled for effective flow at 9:00 p.m. as well as reasons for any reductions to the originally nominated or previously scheduled quantities.

## **TRANSPORTATION SERVICE PROVIDER SCHEDULING PRIORITIES**

Scheduling priorities are used by Transportation Service Providers (TSPs) to differentiate between customer (shipper) transactions when more transportation has been requested (nominated) than can be accommodated by the available capacity. The following scheduling priorities are listed from highest to lowest. When the priority level is reached that equates to the capacity available for scheduling, the reduction process for that priority level is used to make the necessary reductions.

- 1. Primary Firm Capacity.** Firm capacity is based on a shipper agreeing to purchase a specific amount of capacity (quantity) that is sourced from certain receipt points and delivered at certain delivery points. Firm shippers pay a reservation fee for the capacity for which they have contracted. This fee “reserves” their right to use this capacity with the highest scheduling priority of all transportation transactions. Firm capacity nominations using the contracted receipt and delivery points and/or the contracted flow path are considered primary up to the capacity limit of the contract. Once scheduled, primary capacity nominations may not be bumped.
- 2. Secondary Capacity.** Firm Shippers nominating at points other than the primary points of capacity, or in some cases, nominating in excess of their contractual rights at a point specified in their contract are utilizing secondary capacity. Secondary capacity has a priority for access to pipeline capacity below primary capacity. In most cases, secondary capacity nominations may not be bumped. Therefore, scheduled secondary capacity may prevent nominations for primary capacity that are submitted in a later cycle from being scheduled.
- 3. Interruptible Capacity.** Interruptible capacity is provided to shippers who hold an interruptible transportation (IT) agreement. IT agreements generally have no specific entitlement or right to transport gas on the TSPs system and are only able to use system capacity when it is available after service has been provided to all firm requests. IT capacity is only paid for when it is actually used.

#### **4. Other Priorities.**

- A. **Authorized Overrun:** Overrun quantities are those nominated firm quantities that exceed the contract's firm entitlement. Overrun nominations become "Authorized" when they are scheduled. In most cases, overrun is only scheduled after all firm and IT nominations have been served. Not all TSPs offer overrun services.
- B. **Imbalance:** Imbalance quantities are those nominated to clear up over- or under-supply situations. Imbalance nominations are usually the last transactions to be scheduled when capacity is available.

Some TSPs offer alternate types of firm and interruptible services which may be inserted among the priorities listed above. These services and their respective scheduling priorities are described in the TSP's tariff.

In summary, transportation nominations are generally scheduled in the following order when available capacity is limited:

1. Primary Firm
2. Secondary Firm
3. IT
4. Authorized Overrun
5. Imbalance

#### **SCHEDULING AND BUMPING IN PRACTICE**

When nominations exceed the capacity of the pipeline, capacity allocations must be conducted to be sure the appropriate parties are scheduled to flow. Once a nomination deadline has passed, the TSP organizes all of the nominations it has received according to the priorities discussed above. Then, nominations in the lower priority tiers are dropped until the remaining nominated quantities equal the available capacity.

Generally, once a nomination has been scheduled for a Gas Day, it is protected from being reduced later in that day except for operational changes. However, the exception to this rule is that, scheduled interruptible transportation (IT) nominations can be reduced ("bumped") in the Evening and ID1 Cycles to make room for new firm nominations. In the Evening Cycle, bumping can cause an IT (or other lower priority nomination) nomination to be reduced to zero because no gas has flowed. However, because the effective flow time of the ID1 Cycle is eight hours into the Gas Day, the assumption is that 1/3 of any scheduled quantity has already flowed and cannot be reduced. Since this IT capacity is protected, there is less capacity available for new, firm nominations. This process is referred to as the Elapsed Prorated Scheduled Quantity (EPSQ) calculation.

The following two examples demonstrate this process:

**Base Data**

Gas Day: December 25 (9:00 a.m. 12/25 to 9:00 a.m. 12/26)  
ID1 effective flow time: 5:00 p.m. 12/25  
Pipeline Capacity = 15,000 Dth

Timely Nominations/Scheduled Quantities (to begin flow at 9:00 on 12/25)

<u>Nom</u>	<u>Quantity</u>
PF1	3600
PF2	2400
SF1	4800
SF2	1800
IT1	<u>2400</u>
	<u>15000</u>

**Example 1**

New Evening Nominations

<u>Nom</u>	<u>Quantity</u>
PF3	1200

Evening Scheduled Quantities

<u>Nom</u>	<u>Quantity</u>	
PF1	3600	
PF2	2400	
PF3	1200	
SF1	4800	
SF2	1800	
IT1	<u>1200</u>	Bumped by 1200
	<u>15000</u>	

**Example 2**

New ID1 Nominations

<u>Nom</u>	<u>Quantity</u>
SF3	1200

ID1 Scheduled Quantities

<u>Nom</u>	<u>Quantity</u>	
PF1	3600	
PF2	2400	
PF3	1200	
SF1	4800	
SF2	1800	
SF3	800	
IT1	<u>400</u>	(1200 X 1/3 = 400 EPSQ) Bumped by 800
	<u>15000</u>	