

24 Hour Gas Scheduling Concept

Pacific Gas Transmission Company - June 27, 1997

Basic Concept:

Currently, most pipelines schedule the receipt and delivery of gas utilizing a process for the start-of-day (next day) and one or more processes for rescheduling during the gas flow day. The start-of-day process is generally a straight forward allocation of pipeline capacity based upon daily physical and/or contractual constraints and the pipeline's tariffed service priorities. The intra-day process(es) usually duplicate the start-of-day process, but often include a number of additional scheduling criteria, procedures, and rules determined by either individual pipeline or customer needs, regulatory direction, or attempts to adhere to unclear industry standards. The 24 hour scheduling concept, in simplest form, is an attempt to schedule the receipt and delivery of gas based upon the more clearly identified and understood scheduling conventions used for the start-of-day process and then repeating the same process each time gas is scheduled. The concept requires us to move away, but not entirely, from thinking in terms of a gas day and to begin thinking about the "gas flow period". For operational, billing, and metering purposes a gas day would probably remain a necessity, but for scheduling purposes we would need to concentrate only on the next gas flow period, not the current or past periods.

As a starting point, consider the following scheduling rules to be used each time gas is scheduled:

- Gas to be scheduled four times a day - every six hours
- Each scheduling cycle is totally independent of the last or next cycle
- Rules for scheduling at each cycle remain constant and are used consistently. Priority of service governed by pipeline tariff at each cycle.
- Each cycle will have defined/standard nomination and confirmation deadlines. All scheduling will take place in the period prior to the gas flow.
- Contracts could remain on a Maximum Daily Quantity basis, but TSPs would schedule using a period maximum of one-quarter of the MDQ. This assumes staying with daily quantities. It would probably be preferable to think in terms of "delivery rates" which would possibly allow for the delivery of a full day's contracted MDQ in less than a 24 hour period.
- Service requester nominations would allow for end dates spanning multiple periods. Interconnecting pipelines would need to communicate at each scheduling period. A request for no change would be indicated by providing a request which matches the confirmation from the prior period. No communication would indicate intention of using the request from the prior period.

- There will be no rescheduling (intra-period nominations) within the gas period. Except in the case of absolute physical emergency, curtailment procedures or the invoking of OFOs should be made at the beginning of the next gas period.

The gas periods can be any four consecutive six hour periods. These periods would be determined by exploring the combinations making the most business sense and having the highest usage value for all segments across the grid. For illustration purposes consider a 24 hour day, midnight to midnight central standard time. The four gas periods would look like this:

- 1) midnight to 6:00am
- 2) 6:00am to 12:00 noon
- 3) 12:00 noon to 6:00pm
- 4) 6:00pm to midnight

Again for simplicity, let the proposed scheduling period timelines resemble the current scheduling timelines. Based on this, the repeating scheduling cycles (strawman) would look like the following:

	Period 1	Period 2	Period 3	Period 4
Nomination Deadline	12:00am	6:00am	12:00pm	6:00pm
Quick Response	12:15am	6:15am	12:15pm	6:15pm
Interconnect Confirm (final)	3:30am	9:30am	3:30pm	9:30pm
Scheduled Quantities	5:00am	11:00am	5:00pm	11:00pm

This schedule allows for 2+ hours for TSPs to exchange information, 1 1/2 hours to finalize prior to sending scheduled quantities to shippers, and an hour between receipt of scheduled quantities report and the next period's nomination deadline.

Each pertinent issue raised at the end of the last Task Force Meeting can be addressed using the 24 hour scheduling methodology. Specifically, but not all inclusive:

BUMPING - Tariffed priority of service is used at each scheduling cycle. Because there is a scheduling cycle every six hours firms have an opportunity to bump ITs at each cycle. Also, because there are no intra-period nominations, once confirmed ITs would flow for the period.

NOTICE - Scheduled quantities are communicated every six hours and a new opportunity to flow also occurs every six hours. The scheduled quantity report would serve as notice to any shipper who placed a nomination but did not get scheduled.

CONFIRMATIONS - Interconnects should communicate at each scheduling cycle. Should no change from the last period be desired, the interconnect should so indicate by sending a request matching the confirmation from the prior period. If no communication is received, the last communication should be used for scheduling the next period. This moves slightly away from the "lesser of rule" when no communication is received. The thought process here is - *when an order(request) is received I will attempt to fill it 100%. Any quantity not filled on the order will be placed on backorder and I will attempt to fill it at the next process until I receive instructions (new request) telling me not to fill backorders.*

REOPENING

OF GAS DAY - Each scheduling period is independent of the last and the next. Scheduling is always done on a prospective basis.

INTRA-DAY

NOMINATIONS - Intra-days and all of the problems associated with intra-day scheduling are non-issues. There is a scheduling opportunity, continuously, every six hours. No rescheduling would be allowed, or probably even necessary, inside the gas period. Force Majeure would be one possible exception, but even on these cases it would be beneficial to make changes effective at the start of the next period, if at all possible.

STANDARDS - The 24 hour scheduling concept would require modifications be made to Nominations Standards 1.3.1, 1.3.2, 1.3.3, 1.3.5, 1.3.9, 1.3.12, and 1.3.22. More importantly, this concept would allow for the elimination of the ambiguous intra-day Standards 1.1.15, 1.2.4, 1.2.7, 1.3.8, 1.3.10, 1.3.11, 1.3.13, 1.3.32, and 1.3.33.

The 24 hour scheduling concept would generate a new wave of standardization efforts. However, a thorough, fair, and open minded exploration of the process and the issues it resolves could lead us to the first step towards embracing a continuous and contiguous scheduling model.

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