ISO/RTO Council Comments to NAESB
Request for the Creation of a Standard Energy Day

The ISO/RTO Council ("IRC") recognizes the impact that the current standard gas day (9am to 9am Central Time) has had at times, particularly in cold weather, on electric markets, both in terms of the reliability of the electric grid as well as increased market efficiencies. However, at this early stage it is not clear that the benefits of changing to a standard energy day for both the gas and electric industries would outweigh the potential costs as opposed to considering other options.

Market participants in the ISO/RTO operating regions have not identified problems with, nor requested changes to our individual market timelines or energy days. Many ISO/RTO electric market timelines are not synchronized specifically at the request of our market participants so that they can better manage their transactions between neighboring control areas.

The IRC is concerned that the original scope of the energy day as contemplated at the September NERC-NAESB ISO/RTO Council Joint Interface Committee ("JIC") authorizing NAESB to develop the standard may expand in scope to include changes in the electric day, an issue with reliability concerns. Any alterations to the electric day should be addressed by NERC as well as the regional stakeholder processes to review reliability concerns.

As such, the IRC encourages NAESB to consider whether there are other coordination activities between the gas and electric markets that could achieve similar results without the significant costs implied by changing to a standard energy day.

Background

Understanding the background behind the historical rationale for the standard gas day will help explain why the nature of the electric markets has not necessitated a similar standard.
The natural gas market is contiguous, linking gas-producing basins to load centers via interstate and interprovincial pipelines throughout North America. In order to efficiently operate a market where gas is transported from the producing basins in the Gulf of Mexico and Canada to the load centers throughout North America, the natural gas market participants created a single daily schedule using a standard "Central Clock" time. Under the Standard Gas Day, natural gas can be supplied to any number of end users without scheduling conflicts across the myriad interstate pipelines and other related natural gas infrastructure.

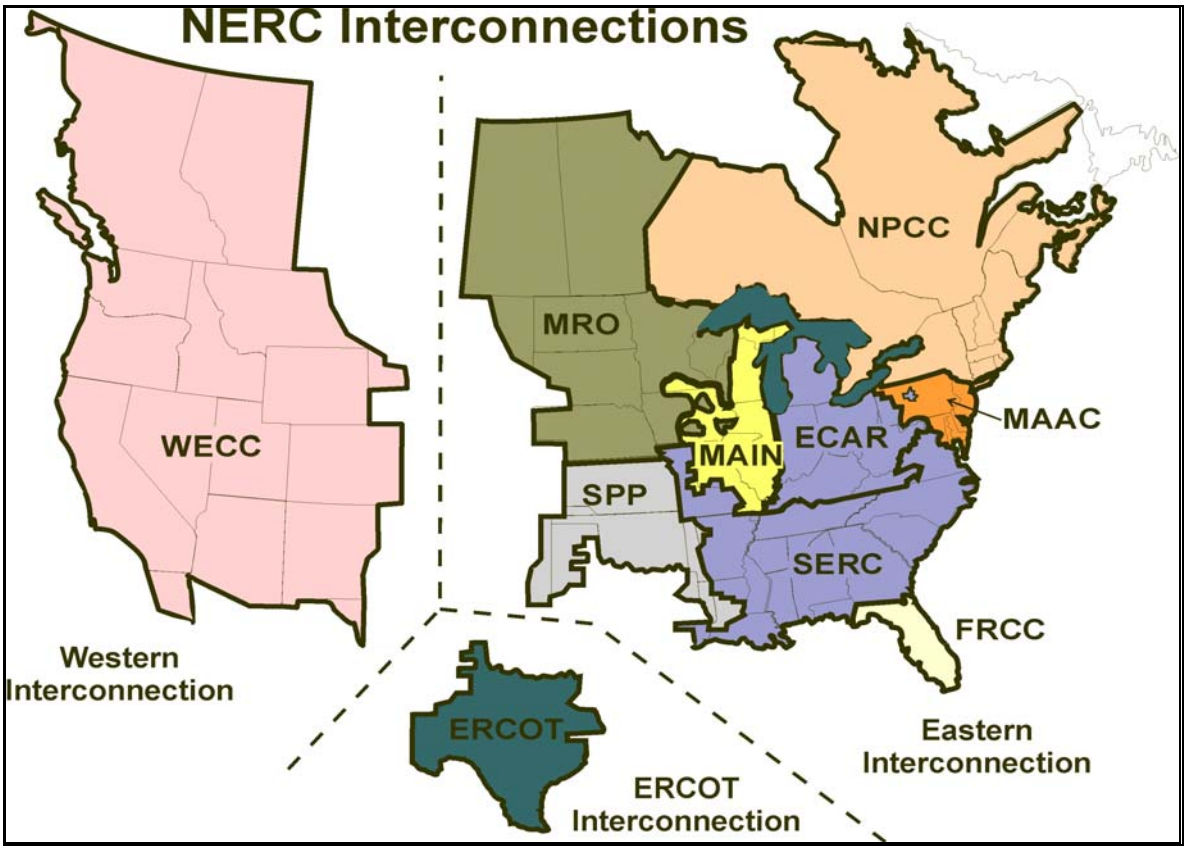
The electric industry, however, has not faced the same coordination requirements. First, the electric grid is not contiguous across the North America (see Figure 1, below). The electrical grid is divided into three asynchronous regions: Western Interconnect, Eastern Interconnect, and the ERCOT Interconnect. With the exception of some DC tie-lines linking these regions, each interconnect is electrically isolated from the others.

The electric industry is also characterized by producers or generation resources typically in closer proximity to the load centers than that of the gas industry. Any one electricity system or market operator has most of its resources (supply and load) close at hand, with a relatively weak

need to exchange resources with far away systems. As such, there is a lesser requirement to schedule vast amounts of energy over distant regions. Moreover, because of the instantaneous nature of electricity, any exchange of power with other systems occurs without significant time lags and resultant cascading impacts on distant regions. Also, the farther generation resources are from the load centers, the greater electricity flow losses, resulting in decreased market efficiencies.

For these reasons, there has been no compelling reason to date for the electricity industry to create a standard electricity day to coordinate electricity schedules across North America. The use of "prevailing time" has allowed the regional electric industry entities to meet their energy demands without jeopardizing reliability of the electric grid.

Figure 1: NERC Electric Interconnections [1]



Although the creation of a Standard Gas Day satisfied the gas industry's very-real need for a single standardized time across North America, there were unintended consequences in relation to the electric industry. The end result was that the Gas Day gas nomination deadlines, scheduling, and fuel deliveries no longer matched the electric industry's daily generation requirements and gas consumption patterns.

[1] Note that while Quebec is part of the Eastern Interconnect, it is asynchronous and therefore electrically isolated from the rest of the NPCC control area and interconnections.

ISO New England ("ISO-NE") closely examined the disparities in gas and electric market timelines following the cold snap in New England during January 2004, where the ISO and its market participants evaluated numerous changes to their market rules to better accommodate the needs of gas generators[2]. Instead of changing its electric day to match the gas standard day, ISO-NE proposed to better align the two markets only during periods of extreme cold temperatures, when gas supplies are scarce. Furthermore, various coordination activities have been implemented between ISO-NE and the interstate gas pipelines serving that control area. Market participants in ISO-NE's electric markets did not favor completely aligning the electricity market with the gas standard day, as the costs of doing so outweighed the benefits.

Rather than creating a single standard energy day to align the energy and scheduling requirements in the gas and electric industry, the gas industry can achieve almost all of the coordination it needs with the electric industry by returning its standard Gas Day to a more traditional calendar day – e.g. midnight-to-midnight Central Time. In making this change, the gas industry will maintain its nationwide industry standard Gas Day clock, and yet the gas industry "clock" will never be more than 2 hours away from the electric industry's regional "Real-Time" (assuming Central to Pacific Time Zones). A two-hour time difference between the Gas Day and the electric industry's "Real-Time" should be inconsequential to the gas industry.

Conclusion

The IRC recognizes the very real issues associated with the lack of coordination between the gas and electric markets, particularly in view of the increasing share of gas fired generators in electricity markets throughout North America. The Council recommends that NAESB review whether there are other more cost effective coordination activities which can be pursued.

Changing to a standard energy day should only be considered if all other options for better coordination between the electric and gas markets have been exhausted. If NAESB finds that the standard energy day is the most constructive option for coordination, a thorough cost / benefit analysis should be conducted all market participants to better evaluate this proposal. Furthermore, any changes to the electric day has reliability consequences and should be done in conjunction with NERC as well as the regional stakeholder process in place to address electric reliability issues.

[2] A summary of the activities ISONE is pursing as a result of the cold snap last winter can be found on the ISONE website at: http://www.iso-ne.com/special_studies/January_14_-_16_2004_Cold_Snap_Reports