

Western Interstate Energy Board
Western Natural Gas Study
May 18, 2004

On April 13, 2004, the Western Interstate Energy Board (WIEB) approved the Western Natural Gas Study (Study). The Study stems from the Western Governors Association's amended and readopted energy roadmap resolution. In one of the amendments to the resolution, the Governors:

“Request that the Committee on Regional Electric Power Cooperation, the Western Electricity Coordinating Council, and the Seams Steering Group-Western Interconnection assist in the development of a comprehensive assessment of whether there will be sufficient generation and demand response resources to meet electricity demand, sufficient transmission to move generation to load, sufficient natural gas resources and infrastructure to fuel natural gas power plants, and sufficient energy and infrastructure to avoid extreme scarcity, high prices, and the ability of market participants to exercise market power. Such analyses should assume normal and abnormal weather conditions, including drought and extreme temperatures. Such analysis will be valuable to both policy makers and market participants.”

This Study will become input to the related question of electricity resource adequacy. The analysis will be conducted in two phases; the first phase examining the natural gas market for the next 10 years, and the second phase assessing the short-term market in smaller intervals.

More specifically, the first phase will assess the West's natural gas market from a long-term perspective from 2005 to 2014 and examine trends on a yearly basis. Based on annual average conditions, a Basecase will be developed to represent the most likely scenario for the North American natural gas market. Included in the Basecase's average conditions will be normal hydroelectricity generation and weather. Results reported will include:

- Natural gas supply availability;
- Interstate pipeline utilization including identification of potential congested lines;
- Inferences as to how natural gas storage facilities may assist in meeting reliability goals; and
- Basis pricing differentials between resource basins and major natural gas markets.

A forecast of natural gas market prices will not be performed.

To assess atypical conditions, the analysis will include abnormal hydroelectricity generation and weather circumstances and provide corresponding analytical results for natural gas resources and pipeline infrastructure. Phase I results will be reported in late 2004.

The second phase of this Study will analyze the natural gas market from a short-term view on a monthly or quarterly basis. The short-term analysis will provide a more in-depth assessment of how natural gas storage facilities could improve localized supply reliability for states and provinces in the WIEB region. In addition, other conditions will be analyzed, such as how robust economic growth affects the natural gas system. Like Phase I, Phase II will report results

on resources, interstate pipelines and basis pricing differentials. Phase II will be reported in Fall 2005.

The California Energy Commission has agreed to conduct this analysis under the direction of the Western Interstate Energy Board to evaluate the adequacy of natural gas supplies and infrastructure in the western U.S. and Canadian Provinces. All Western states and provinces will be participating on a collaborative basis to complete the study. This work will require the compilation and analysis of gas supply and demand in the West in detail and throughout North America. The Energy Commission will use supply data from the National Petroleum Council and any improved demand data that becomes available from the Department of Energy's Energy Information Administration (EIA), the states, and the Canadian provinces.

To perform this work at the highest achievable level, the Energy Commission will request natural gas data and information from each of the western states and provinces. These data needs include historical natural gas consumption, pipeline supply, and natural gas resource production data along with a narrative of the historical consumption, pipeline usage, and production of natural gas. In addition to this request, the Energy Commission will seek input and feedback from each western state and province as to each party's information and analytic needs. Lastly, natural gas demand and supply forecasts that each party can provide will be utilized to the fullest extent possible to improve the analytical results

In summary, this Study will analyze the western U.S. and Canada to shed light on resource availability, pipeline and storage infrastructure utilization, and how demand growth in the future will influence basis pricing differentials. This Study will assess both most likely and abnormal conditions. The Study will be broken into two phases, with Phase I examining the long-term trends for the next 10 years and Phase II assessing seasonal demand and how and where natural gas infrastructure enhancement is needed to provide sufficient supplies to the western U.S. and Canada.