

Comments on Security Constrained Economic Dispatch

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I would like to thank Chairman Kelliher and the members of the state commissions for the opportunity to speak before this Board. I believe you will find that NCEMC has a unique perspective on the issue of economic dispatch which we hope you will seriously consider as you develop recommendations based on these proceedings.

Economic dispatch in the area of the southeast in which NCEMC is located is typically performed by vertically integrated utilities operating a control area, or I guess, under the new NERC definition, a balancing authority. I am sure that other members of this panel will explain quite convincingly that they do a very effective job of extracting the maximum economic value out of the generation under their control while at the same time ensuring the reliability of the system. I would not dispute that they do a very effective job within the scope of the generation and transmission system within their control. However, there are entities such as NCEMC which face significant impediments which make it difficult to efficiently utilize their own resources, much less take advantage of efficiencies in a broader wholesale market.

First, a little background on NCEMC. We are one of the largest G&T cooperatives in the country, with load obligations exceeding 3,200 MW. As a load serving entity (LSE), we have the same native load obligations as our investor-owned neighbors. We are also a transmission dependent utility (TDU), meaning that we are completely dependent on the transmission access promulgated in Order 888 to deliver economic and reliable power supply to our customers. Our load is also spread over three different transmission providers. Finally, the majority of our power supply comes from long-term, bilateral contracts, rather than generators under automatic generation control (AGC). It is easy to think that the industry consists of traditional utilities and merchant generators, but there are many entities that do not fit the mold of either.

Why do these factors make us different? A balancing authority operates in real time, meaning that they can react instantly to changes in load or market conditions. We are not included in a balancing authority dispatch. Instead, we rely on schedules between multiple control areas to serve our load. The rules for scheduling of resources provide limited flexibility to adjust our resources to optimize economic benefit.

Most scheduling today is done on a day-ahead basis, with very limited intra-day scheduling flexibility. Therefore, we must set our resource mix a day in advance based

on projections of loads and market conditions. Without the ability to adjust our resources in real-time, we are never going to be operating in a truly optimal fashion.

A further complication is load balancing. We must schedule in discreet blocks, instead of being able to adjust output in real time. The result is that our resources will never match our load exactly, resulting in very costly energy imbalance penalties. While we have had some success with dynamic scheduling, this process is complicated and expensive.

The southeast has a very illiquid market for economic transactions. There is no central clearinghouse for matching up buyers and sellers. Utilities typically engage in bilateral transactions in day-ahead block schedules, relying on phone calls to potential trading partners to identify economic opportunities. Obviously, this is an inefficient system for optimizing resources at the lowest cost.

Perhaps the biggest impediment to economic dispatch is constraints on the transmission system. We frequently find we are unable to access economic sources of energy because of transmission limitations. In addition, we often forgo economic transaction because of concern that the transaction could be curtailed.

NCEMC believes that regional planning and operation of the electric system beyond traditional control area boundaries is necessary to resolve many of these problems. At the same time, we are cognizant of the concerns expressed by many utilities and state commissions on moving toward RTO-based markets. We believe that solutions can be found which extract greater efficiency, without mandating an RTO structure. As an example, the LSEs in North Carolina, in cooperation with the North Carolina Utilities Commission, have recently established a Transmission Planning Collaborative Process to jointly plan the transmission system for network customers. We believe that this Board should look for innovative ways to improve the economic operation of the electric system without mandating a single, prescriptive solution.

Again, I thank you for the opportunity to speak here today.