

**Aquila and Forbes Magazine
Executive Briefing**

"Accomplishing Regional Electricity Markets"

**Remarks by
William L. Massey, Commissioner
U.S. Federal Energy Regulatory Commission**

**New York, New York
November 15, 2001**

I. Introduction

Good afternoon. Economic indicators suggest that we are facing uncertain times. An efficient and reliable supply of electricity is absolutely crucial to our economic health. That's why I am pleased to have the opportunity to discuss with this audience the Federal Energy Regulatory Commission's efforts to ensure vibrant electricity markets in the Northeast and across the nation.

The past year or so has shown some turmoil in wholesale electricity markets as new regional market structures got underway. We've seen the California market meltdown in the face of generation shortages and a poor choice of market rules. Other regions have experienced brief price spikes that set nerves on edge. And we have seen mixed results from the disjointed efforts of the electric utility industry in forming Regional Transmission Organizations in response to Order No. 2000. RTOs will be the reliable, pro competitive platform for large, regional power markets, but development is still a patch work.

In the face of this experience, the Commission is renewing its commitment to making wholesale electricity markets work to bring benefits to customers, and is redoubling its efforts to get the job done expeditiously. I would like to discuss our plans with you this afternoon.

II. Regional Transmission Organizations

At the end of 1999, we called for the voluntary formation of RTOs across the country by December 15, 2001. The benefits of geographically large RTOs are clear and important. The first major benefit is to separate the control of the transmission grid from merchant interests in generation. This will ensure fair access to the grid for all

competitors. This is the first principle of truly competitive markets. The second benefit is to increase the efficiency of grid operations and markets in a region. The physics of electricity is such that energy flows across broad regions, and does not respect corporate or state boundaries. The electricity that is traded across these broad regions, and the transmission prices for trades should reflect the regional nature of the market instead of the individual corporate cost components. Grid regionalization will bring both reliability and efficiency gains.

We are at a critical juncture in RTO policy now. The results of the voluntary approach to RTO formation have been less than stellar. We have received a number of proposals – some of which fall woefully short of achieving our pro competitive goals. At the same time, the wholesale markets have reinforced the need for RTOs. During the recent market disaster in the West, electricity markets across the entire West rose and fell with prices in California. And back east, prices could have been lower during certain times and trading more robust if there were no trading seams among the northeastern ISOs – PJM, New York, and New England.

The Commission has recently taken stock of where we are with RTO formation and has recommitted our agency resources to getting the job done. During the week of October 15th through the 19th, we had what is called RTO Week at the FERC – a week long series of panel discussions with industry experts on a variety of issues associated with RTO development and electricity market design and structure. We heard quite a bit of consensus on some basic issues. More recently, the Commission issued an order on November 7 that provides guidance on how we intend to proceed on the RTO filings and on other fronts necessary to finish the task we set out in Order No. 2000.

A. Individual RTOs and tariff standardization

We intend to complete the RTO effort using two parallel tracks. On the first track, we will address certain aspects of RTO formation in the individual RTO proposals now before us. Those aspects are the appropriate scope of the RTO, the independence of the RTO, and how certain RTO functions will be apportioned between component organizations of an RTO. The scope of the RTOs must be large enough to reflect the operational and market characteristics of the region. If they are too small, we sacrifice planning and operational efficiencies and needlessly allow market seams that will frustrate trading. I believe that an appropriate long term goal is to have four RTOs in the nation: one each for the northeast, the Southeast, the Midwest, and the West. The proposals before us now have all fallen well short of that long term goal. The Commission is aware of the short term obstacles to large RTOs and has indicated some flexibility in accommodating sufficient regional scope. Nevertheless, I believe the Commission remains committed to the formation of a single Northeast RTO.

Another issue we will address in the individual proposals now before us is independence. It is absolutely essential that the RTO decision makers are independent of merchant interests. Again, we sacrifice efficiency with biased decisions by the grid operator and will surely drive investors away from a market if they view the deck as stacked against them. The boards governing RTOs and the various committees that might perform planning and other functions must not be controlled by members with merchant interests. We have made some tough calls in some cases already and will continue to insist on independence as a cardinal virtue of RTOs.

The third big issue we need to address is the allocation of RTO functions. Adequate scope is proving to be difficult to achieve. Getting a large number of firms in a region to share the same vision and agree to be part of a single organization has been elusive. One way of attaining large scope is to have a few subregional entities perform some RTO functions and a larger umbrella RTO that oversees the smaller entities and itself performs some functions. For example, both RTO West and MISO are proposed as ISOs with one or more transcos operating within the ISO umbrella. This raises the issue of which functions are appropriate to delegate subregionally to the transco and which must be performed at the regional level. For example, efficiently managing the congestion that occurs on the integrated transmission grid is an important RTO function. Does it make sense for this task to be delegated to each separate entity or should this function be centralized in the umbrella RTO? The same question may be asked regarding such important regional functions as determining available transmission capacity, planning, market monitoring, and transmission tariff administration.

What is the proper role of for-profit transmission companies? What functions are appropriate to be performed by an entity that is motivated to maximize profits? For example, is it appropriate for planning decisions to be made by a for-profit entity that makes money off of transmission service? It strikes me that such a firm may have an incentive to prefer transmission solutions at the expense of generation or demand management solutions. The Commission will have to strike the right allocation of RTO functions among regional and subregional entities, as well as among for-profit and not-for-profit entities, if RTOs are to realize their potential benefits for customers. The profit incentive must be harnessed to provide value not only for transco shareholders but for customers, and some functions may be inconsistent with the profit motive.

The second basic track of completing RTO formation is standardizing certain electricity market rules and design parameters as well as the way certain RTO functions are performed. The Commission will propose a rulemaking early next year that will result in a new standard tariff that will be required for all RTOs and transmission providers. Let me describe a few of the issues that I think should be covered by such a tariff.

One concept around which there was a lot of consensus during RTO week is that the RTO should run a bid-based real time energy market. The real time market is where the last minute matches between generation and demand are made. This is a critical function because electricity cannot be stored, so supply and demand must be matched instantaneously. We all know that the dispatching of electricity supply is how a transmission system is actually operated, so it makes good sense that the RTO run this real time market. A new tariff could require it.

There was also a good deal of consensus in support of an organized day ahead market. This is where suppliers and load serving entities (or perhaps even load representatives) bid and offer to meet the next day's needs hour by hour. Markets are cleared for each hour of the next day and settlements are financially binding. The benefit of such a market is that it allows market players to make adjustments to their plans for the next day. For example, if prices are high, some large industrial customers might decide to curtail production for the next day in order to save money. This heightened ability to react to market conditions introduces an increased level of demand responsiveness that will help mitigate the exercise of market power. More demand responsiveness is absolutely essential for good electricity markets. The RTO would be responsible for ensuring that a day ahead market is provided.

Another area where there seems to be a rough consensus is that RTOs should base their congestion management on locational marginal cost pricing, or LMP. LMP has been successfully used by the PJM ISO. It efficiently allocates scarce transmission service and provides price signals that indicate where on the system congestion relief measures are needed. Appropriate hedging instruments can then be overlaid on the LMP systems.

The Commission may also require that there be some mechanism in RTO markets for assuring adequate generation capacity. While it seems superficially attractive to let the invisible hand of the market determine whether adequate capacity is present, this is not acceptable in the near term, at least. Given the long lead times for adding new capacity, supply is somewhat inelastic for electricity. Add that to the fact that, under current conditions in most markets, the lack of demand responsiveness makes demand largely inelastic too. The result is the potential for electricity supply to be inadequate, and for prices to skyrocket. This was painfully demonstrated in California. Given the importance of electricity to our economic and social well being, some mechanism for assuring adequate capacity must be in place. The Commission is currently soliciting comments regarding the appropriate mechanism for accomplishing this objective. ICAP markets are one option, but are very controversial. Placing reserve requirements on LSEs is an option, as in PJM. The Commission is open to any mechanism that will work.

The Commission will be considering these aspects of market design and RTO operation as we prepare our rulemaking for next year. While it is unclear precisely what we will propose, our November 7th guidance order observed that we will build on successful market design concepts both in the U.S. and in other countries. It is my hope that we will not be tempted to adopt lowest common denominator approaches.

B. Coordinating with the states

During RTO Week, state commissions expressed concern that they need to be more involved in the formation of RTOs in their regions and urged the Commission to establish a formal mechanism for collaborating with the states. While some states wanted the Commission to proceed more quickly on getting RTOs in place, others wanted us to slow down and were not convinced of the benefits of RTOs. Others were concerned with the potential for cost shifting as transmission cost recovery is shifted to a regional tariff. Yet other states, particularly those in PJM, were so happy with the success of their current ISO that they are concerned that ISO mergers would weaken an already successful ISO. Their attitude, essentially, is don't mess with PJM.

In response, the Commission will establish regional panels with the state commissions to coordinate RTO efforts. The states are important partners in RTO formation and their advice and collaboration are needed. While I support the formation of the regional panels with the states, I am concerned that we may become bogged down. We've already had an extensive process. The Commission has held numerous regional proceedings over the last several years to take comment on RTOs, some exclusively with the states, and some where states participated along with others. At some point, we must make some tough decisions and move on. Process cannot be allowed to stymie RTO formation. So it is my hope that our regional panels will quickly identify the issues that are important to each region and that all parties will make good faith efforts to reach some accommodation in a reasonably expeditious time frame. The Commission will then be able to get RTOs in place.

In addition, the Commission will address the concerns of some states that the benefits of RTOs will not outweigh their costs. We will conduct additional cost-benefit analyses on RTOs to guide our efforts. These studies will identify particular customer benefits and will also provide a quantitative basis for the appropriate number of RTOs in the nation.

C. Getting the RTOs up and running

It's now clear that we will not meet our goal of having RTOs up and running by December 15th, just a few weeks from now. That deadline may have been overly

optimistic from the start, but it's always better to put down an ambitious target. The Commission, however, is still committed to moving ahead as quickly as possible with RTO formation. We recognize, however, that RTO development is in different stages in the various regions of the country, so we will soon establish concrete time lines for RTO programs in each region.

III. Demand response

While grid regionalization is an important part of getting regional electricity markets to work, it is not the only part. The Commission has initiated action in a number of other areas. One of them is increasing demand responsiveness. As I mentioned earlier, demand responsiveness is critical to a good market, but is generally not present in most electricity markets. This is not because demand is truly inelastic, but instead is because consumers do not have the opportunity to react to prices.

This has to change. Customers must see accurate prices and must have the ability to react to them. Where this is the case, customers are enabled to make efficient consumption decisions and are empowered to fight the high prices that result from the exercise of market power. Increasing demand responsiveness is good for markets and good for customers.

Improving demand responsiveness will require action from both federal as well as the state regulators. Load serving entities buy in FERC jurisdictional wholesale markets but sell in state jurisdictional retail markets. The Commission can facilitate demand responsiveness by requiring that RTOs allow the demand side to bid so called "negawatts" into the market along with supply side resources, and we can facilitate the resale of consumption rights. However, it is up to the states to facilitate both the right price signals reaching customers and customers ability to react to those signals. The Commission will be holding an important conference with DOE and the states next February to explore with all interested parties ways of increasing demand response. And, of course, RTO markets must be designed with this goal in mind.

IV. Infrastructure

Good markets require an adequate infrastructure for good performance. It's clear that in some regions there is a lack of generation to meet the growing loads and a lack of transmission capacity to meet the demands placed on the grid by an increased level of trading and different flow patterns. Commission staff studies are now underway to identify the locations of the significant transmission constraints in the eastern and in the western regions of the nation. These studies are due in the next several weeks.

While the Commission has direct jurisdiction for assuring well functioning electricity markets, the jurisdiction for siting new transmission and generation facilities lies with the states. We do, however, have siting authority for gas pipelines, which are expected to feed most of the new generation capacity. The Commission has initiated a series of regional meetings with state authorities to determine what infrastructure is needed and the obstacles in the way of getting the needed facilities in the ground. Our first meeting was held earlier this month in Seattle. Others will follow next year. Several bills pending in Congress would transfer the siting of transmission to FERC. This makes sense. I support this legislative change, though it is highly controversial.

V. Interconnection standards

One way the Commission can help get new generation in the market is to standardize the process and contracts for getting interconnected to the grid. Currently, each transmission provider may decide whether or not to file in advance a set of interconnection procedures and standard contracts. And if they do, those procedures need only be within certain parameters. There is no standardization. Needless to say, these varying procedures and contracts – interconnection legerdemain, if you will – raise the costs of new generation entry and may lead to poor location decisions. Deciding where to locate a generator should be driven by market economics, not by which grid operator has the most friendly process. Interconnection procedures should be standardized to smooth and streamline the way for generation to be located where it is needed.

The Commission has initiated a formal process that will result in this needed standardization. To toot my own horn, I have been championing this for over two years. A few weeks ago, we issued a strawman proposal based largely on the current interconnection process in the ERCOT region in Texas, modified somewhat by other attractive provisions in Commission approved interconnection tariffs. The ERCOT procedures were chosen as the foundation because they were developed through an extensive outreach process that included all relevant stakeholders in ERCOT. Thus, these procedures have been well vetted. Nevertheless, the Commission is conducting a national stakeholder process to reach consensus on as many of the provisions as possible. We will then propose a rulemaking to standardize interconnection early next year.

Later in the year, we will begin an additional rulemaking to deal with allocating the cost responsibility of new interconnections. The cost allocation question is particularly vexing. The State of Louisiana, for example, is attracting thousands of megawatts of merchant generation. It is easy to site generation, and there is a robust gas pipeline grid and supply in Louisiana. There will, however, be little market for this merchant power in Louisiana. They will need substantial transmission upgrades to export this merchant power out of the region. Louisiana argues that the generators, rather than

Louisiana transmission ratepayers, should pay for these upgrades. In ERCOT, however, these types of interconnection costs are socialized over the grid. How to allocate these costs will be a key issue in RTO formation and in finalizing our standardized interconnection policy.

VI. Market analysis framework

There is one more initiative the Commission will soon begin that is critical to making regional electricity markets work for customers. That initiative addresses our analytic framework for assessing market power for purposes of allowing market based, instead of traditional cost based, rates for generation sellers. Our current framework is inadequate because it focuses on specific sellers and ignores many important determinants of market scope. Literally every seller passes the screen. As we transition to market driven outcomes, the focus of our regulatory eye must shift from individual sellers, as it has been under traditional regulation, to market conditions.

The Commission will soon ask for comments on how we should assess market power in wholesale electricity markets. If we are going to rely more and more on markets for disciplining prices and protecting customers, we must insist on accurate methods for detecting market power and effective tools for mitigating that market power before it is exercised. The recent painful experience in California and the West shows what the consequences can be if we fail. Measuring and mitigating market power that keeps prices too high will be a key focus as we move forward.

VII. Gas Market Issues

Before I close, let me turn briefly to natural gas issues. The centerpiece of our regulatory efforts has been Order No. 636, finalized in 1992. Pipelines must offer a non-discriminatory transportation service, and pipeline capacity is traded in an active secondary market.

The electric restructuring has had a powerful influence on gas markets. Virtually all new generation that is planned will be gas fired. Generators are now competing with the traditional LDCs for space on pipelines. A 30 Tcf market will no doubt become a reality. Thousands of miles of new pipeline capacity are being built to access new markets and new supplies both in the U.S. and in Canada. There are now scores of pipeline hubs where market-related business is transacted. Although there have been bumps in the road, the Commission is generally pleased with the success of its gas restructuring policies. In the near term, we seem to be steady as she goes on gas policy, and electric restructuring appears to be a boom for gas markets. Traditional pipeline shippers welcome the new generators, but want to make sure that if the more specialized

pressures and tariffs required by generators do not denigrate the quality of pipeline service provided to the local distribution companies.

VIII. Conclusion

We are now squarely in the middle of our transition to competitive wholesale power markets. I am frustrated that fully nine years after EPACT, we still straddle the old and the new. How well and quickly we manage this transition will have important effects on further movement to retail competition and on the nation's economy as well. The FERC is actively engaged now on a number of fronts to ensure that pro competitive institutions develop. Our goal is customer benefit. Markets must work to benefit customers. Period. No exceptions!