

# Energy Regulation Insights

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## From the Editor

On 16 February 2007, the Federal Energy Regulatory Commission (FERC) issued Order No. 890 on the regulation of electricity transmission access and charges. The latest order builds on a decade of experience with Orders 888 and 889 (the FERC's previous attempts to open up transmission access). Here, Mike Rosenzweig and Sarah Voll summarize the most important facets of the new Rule and describe the progress the FERC would now like to see. They conclude that the reform of pricing is likely to promote efficiency, but also identify two aspects of the FERC's vision which will entrench inherent conflicts: vertical integration and the "contract path" model of access.

—Graham Shuttleworth, Editor

## FERC's Order 890 on Transmission Access and Charges By Michael Rosenzweig and Sarah Voll

### The Background: Orders 888/889

For most of the twentieth century, the US electricity industry was dominated by investor owned, vertically integrated utility companies that provided service in defined geographic areas and whose operations were regulated by state commissions. Companies entered into interconnection and coordination agreements with neighboring utilities, and long term full requirements contracts to sell power to the distribution companies connected to their transmission systems. The Public Utilities Regulatory Policies Act of 1978, designed to encourage the development of smaller scale alternative energy sources, initiated the era of competitive generation, with many of the independent power producers able to take advantage of technological advances in generation and transmission.

It was clear to the Federal Energy Regulatory Commission (FERC), however, that the full benefits of the more efficient independent units would not be realized unless they could obtain access to the regional (i.e. multi-state) transmission grids. In the late 1980s, the FERC began to use its authority under the Federal Power Act to require utilities filing for mergers or for permission to set "market-based" rates for generation services to file "open access" transmission tariffs as well. In 1992, in response to continuing competitive developments and perceived transmission constraints, Congress expanded the FERC's authority to approve applications for transmission services, which in 1996 culminated in Order Nos. 888 and 889. The first required all public utilities that own, control or operate facilities used for transmitting electric energy in interstate commerce to file open access transmission tariffs with minimum terms



and conditions of non-discriminatory services (the pro forma OATT), and to state separately their rates for generation, transmission and ancillary services. It also encouraged the formation of independent system operators and established reciprocity conditions for utilities not under its jurisdiction (i.e, municipals and other public power systems). Order No. 889 addressed the separation of vertically integrated utilities' transmission and merchant functions and established the Open Access Same-Time Information System (OASIS) to provide potential customers access to transmission information.

### **The Experience**

The ten years following the issuance of these seminal orders saw growth in the numbers of independent generators and load on the transmission system, less investment in the system itself, some but not universal establishment of regional transmission organizations, continued

interest in alternative generation resources, and a Congressional reaction in 2005 providing the FERC with new authority and direction. But the fundamental tool for achieving open access to transmission, the pro-forma OATT, was not without problems, and in September 2005 the FERC issued a Notice of Inquiry inviting comments on whether and how Order Nos. 888 and 889 should be revised in light of the decade of developments. A thousand pages of comments later, many echoing the long standing complaints from IPPs, municipals and large customers, the FERC issued Order No. 890, itself more than 1250 pages long, making the following five findings about the need of reform.

### **Opportunities for Undue Discrimination Continue to Exist**

The FERC found that the economic self-interest of transmission providers, especially those with high-cost generation, provided an incentive

to offer transmission to third parties on a basis that is inferior to that which they provide to themselves. Impermissible discrimination is enabled by unnecessarily broad discretion in the application of their tariffs and the lack of transparency in developing rules, plans and computations. The lack of transparency and consistency resulted in pricing for services unrelated to costs or not based on optimal alternative solutions to congestion, and transmission customers being unable to predict when they would or would not obtain service. As a corollary, the FERC concluded that this discretion and lack of transparency impedes its enforcement of open access requirements.

### **Congestion and Inadequate Infrastructure Development Impede Customers' Use of the Grid**


The FERC believes that the ability and incentive to discriminate increases as the transmission system becomes

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more congested. Vertically integrated utilities lack the incentive to expand the grid to accommodate new entrants or to facilitate the dispatch of more efficient competitors. Reforms are therefore needed to ensure that transmission infrastructure is evaluated and, if needed, constructed, on a nondiscriminatory basis, sufficient to support reliable and economic service to all eligible customers. Current opaque planning processes may not consider the needs of off-system resources so that such resources face the expense and delay of the provider's piece-by-piece expansion process.

#### **Need for a Consistent Method of Measuring Available Transmission Capacity (ATC)**

Lack of specified methods for calculating how much "available transmission capacity" (ATC) was actually available to support transactions has led to complaints that transmission providers were

withholding capacity from other users. Actual calculations of ATC are subject to self-interested interpretation of crucial elements by service providers.

#### **Discriminatory Pricing of Imbalances**

Existing policies on the development of imbalance charges provide wide discretion and have resulted in a wide variety of provisions. Not all provisions appropriately linked the charges to the incremental cost of ramping generation up or down to compensate for escalating deviations.

#### **Redispatch/Conditional Firm Options**

Existing methods for evaluating requests for long-term firm point-to-point service discriminate between new resources to serve native load and potential transmission service requests when transmission providers do not offer network users with the options of "redispatch" and "conditional firm service" like those used for serving their native load.

#### **Elements of the New Rule**

##### **Consistency in Calculation of ATC**

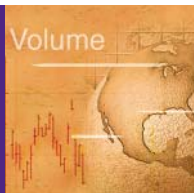
Under Order No. 888, the FERC hoped for voluntary development of a consistent framework for calculating ATC but nothing was forthcoming from the companies. The Rule now requires that such a framework be developed under the auspices of the North American Reliability Corporation. The FERC gives the industry specific guidance regarding the calculation of ATC and changes the pro forma OATT requirements and OASIS regulations to increase transparency. Its proposal includes consistent definitions of the ATC's components, data inputs, modeling assumptions, and data exchange and coordination protocols.

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### **Coordinated, Open, Transparent Transmission Planning**

The FERC observes that the existing *pro forma* OATT

*“contains very little specificity regarding how transmission planning should be conducted, how customers’ needs are incorporated into that process, and what information is publicly available regarding the transmission providers’ assumptions, criteria and data used in the planning process.... With inadequate levels of investment in the grid and increasing transmission congestion, customers’ ability to access alternatives to the transmission provider’s resources is limited.”*

The FERC adopted nine planning principles that each public utility transmission provider will be

required to follow. These are: (i) coordination, (ii) openness, (iii) transparency, (iv) customer information exchange requirements, (v) comparability in service between native and transmission customers, (vi) published dispute resolution process, (vii) regional participation, (viii) executing and posting on OASIS planning studies based on economic considerations, and (ix) allocation of costs for regional or economic transmission projects. The FERC provided more details on implementation of each principle.

### **Transmission Pricing Reforms**

Imbalance charges should provide appropriate incentives to keep schedules accurate without being excessive. Since all imbalances have the same net effect on the

transmission system, consistency in imbalance charges, both between and among energy and generator imbalances, is preferable to the wide variety of imbalance provisions in place under the current *pro forma* OATT. The Commission adopts a multi-tiered approach that recognizes the link between escalating deviations and potential reliability impacts on the system while keeping imbalance charges closely related to incremental costs. In keeping with its charge from Congress to encourage alternative resources, the Commission exempts intermittent resources from the highest-tier deviation band. Transmission providers are required to credit to all non-offending transmission customers the revenues they collect in excess of incremental costs. The charges must (1) be related to

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the cost of correcting the imbalance, (2) be tailored to encourage accurate scheduling behavior, such as by increasing the percentage of the adder as the deviations become larger, and (3) account for the special circumstances presented by intermittent generators, such as by waiving the higher ends of the deviation.

The existing cap on the price for reassignment of point-to-point service is eliminated, which will eliminate an unnecessary impediment to the resale of capacity, and in turn increase utilization of the grid.

New facilities are eligible for “credits” if they are integrated into the operations of the transmission provider’s facilities, i.e. if owned by the transmission provider, they would be eligible for inclusion in the transmission provider’s annual transmission revenue requirement.

#### **Non-Rate Terms and Conditions**

Under certain circumstances transmission providers currently use two techniques—planning redispatch and conditional firm service—when serving native load. Transmission owners must provide comparable services to potential customers to avoid undue discrimination, facilitate the provision of long-term transmission service and provide customers with greater flexibility

in choosing resources to meet their needs. Both techniques should help integrate new generation more quickly. This can be particularly beneficial to renewable generation resources such as wind, which can be constructed more quickly than the transmission upgrades necessary to deliver their power on a firm basis over the long-run.

Redispatch allows the system operator to reduce or eliminate congestion, by arranging for out-of-merit dispatch of generators to rebalance a transmission system within constraints. The Rule also adopts a “conditional firm” component to long term point-to-point service to address the situation where firm service can be provided for most, but not all, hours of the period requested.

FERC says that the existing ongoing right of transmission customers to renew or “roll over” their contracts does not provide consistency between the rights of rollover customers and the resulting obligations of transmission providers to plan and upgrade the system to accommodate rollovers. The Rule increases the minimum term of the rollover rights from one year to five. A transmission customer eligible for rollover rights must provide notice of whether or not it will exercise its right of first refusal

to renew the contract no less than one year before the expiration date of the transmission service agreement, rather than within the current 60-day period.

To increase transparency in the access process, the Rule requires transmission providers and their network customers to use the transmission providers’ OASIS when changing the designation of their network resources and to modify their OASIS so that such requests can be queried by third parties. Providers must also post on their OASIS all current designated network resources, as well as all business rules and the process for changing any rule, practice or standard that relates to transmission services provided under the pro-forma OATT.

The Rule enhances the FERC’s enforcement capabilities and penalties, including suspension of authority to set market-based prices, requirements for additional information and extensions to the audit period. Also, it revises the rules on what types of contract meet the criteria for being deemed resources and how capacity will be allocated in situations of over-subscription.



## Observations

Order No. 890 represents a major refinement of the FERC's policies on open access and pricing of transmission. The Rule contains important changes to the principles for setting prices which appear to improve efficiency in the use of imbalance services and in the remarketing of unused transmission capacity. The exemption of intermittent sources from the highest prices for imbalances also improves the incentive properties of the new tiered pricing scheme for imbalance services, by recognizing the limited control of such resources over their production. However, the reform of rules on transmission access is hampered by two major features of the FERC's vision:

- At the highest level is the fundamental structural question of whether it is possible to have integrated utilities in a competitive market environment. For most of the principal changes to the existing pro forma OATT, the Rule is concerned with integrated utilities and not ISOs or RTOs. But the original introduction of market incentives to monopoly controllers of an essential market facility may have created an inherent conflict of interest. To regulate in this environment requires the regulator to fix a perfect set of rules. This is impossible, especially when the FERC—correctly, in our view—rejects a broadly drawn, one-size-fits-all approach that would inevitably leave some “wriggle room” for profit maximizing entities.
- The FERC still hangs on to the “contract path” view of transmission systems for systems that are not part of an ISO or RTO. This creates much of the difficulty that the Rule is attempting to remedy. Clearly, the Commission's goals of standardizing terms and conditions, creating common methodologies and increasing transparency are all beneficial but appear in many instances to be unrelated to the reality of independently-operated, free-flowing transmission systems.

Thus, the FERC has decided that experience shows a need for greater standardization of the terms for access to transmission, but is making it harder for standardization to succeed, by persisting with a vertically integrated, contract path model, which leaves inherent conflicts unsolved.

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