

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

**Standardizing Generator Interconnection)
Agreements and Procedures)**

Docket No. RM02-1-000

**COMMENTS OF
THE NEW ENGLAND CONFERENCE OF PUBLIC UTILITIES COMMISSIONERS
AND THE VERMONT DEPARTMENT OF PUBLIC SERVICE**

In accordance with the comment procedures established by the Federal Energy Regulatory Commission (“Commission”) in its October 25, 2001 Advance Notice of Proposed Rulemaking (“ANOPR”), as modified by the Commission’s Notices dated December 14, 2001 and January 16, 2002, the New England Conference of Public Utilities Commissioners¹ (“NECPUC”) and the Vermont Department of Public Service (“VDPS”) hereby file their comments in the captioned proceeding.

EXECUTIVE SUMMARY

NECPUC and VDPS appreciate the opportunity to respond to the Commission’s ANOPR for Generator Interconnection Standards. We also commend the Commission for its willingness to address head-on the difficult issues associated with generation interconnection. Standardization of the terms, business practices and time frames associated with interconnection issues will ultimately reduce costs to consumers by providing greater certainty to non-utility generators and to their host transmission companies. The final rule will help eliminate unnecessary delays in the process and avoid reopening legal battles over issues that have been resolved.

¹ The Massachusetts Department of Telecommunications and Energy did not participate in the development of these comments.

In these comments, NECPUC and VDPS address limited issues raised by the Commission's identification of the two-tiered PJM model for generation interconnection as a best practice model for national standards. We respectfully request that the Commission consider using the New England and New York minimum interconnection standard as a best practice model instead because it is best suited to a truly competitive generation market. NECPUC and VDPS are concerned that the standard currently proposed is inherently discriminatory, creates unnecessary barriers to entry for competitive generators, and that it could detract from a hard won and competition-friendly standard that is currently being used in New England and in New York. In addition, the standard proposed in the ANOPR, when coupled with the Commission's current pricing policy, could damage the congestion management programs of all three Northeast ISO regions and lead to the uneconomic construction of transmission. Finally, we ask the Commission to recognize that there may be good cause to allow certain states or regions of the country to vary from a standard, and to provide a mechanism for variance when such cause is shown.

COMMENTS

I. Introduction

The Commission's proposed standard requires prospective generators to request interconnection to the grid as either "energy" or "capacity" resources.² This designation dictates the type of transmission study required before the transmission system operator can grant an interconnection request. A generator that elects designation as an "energy" resource uses the

² In PJM, designation as a capacity resource conveys a higher commercial value because it qualifies the unit to participate in the installed capacity (ICAP) market. The ANOPR does not discuss whether there is any relationship between commercial value and designation as a capacity resource.

transmission system on an “as available basis.” A new generator that seeks designation as a “capacity” resource agrees to bear the initial cost of any transmission upgrades that a transmission study identifies as necessary to “integrate the Generator’s facility in a manner comparable to that in which the Transmission Provider integrates its generating facilities to serve native load customers.” Presumably, this means that a capacity resource gains the rights to transmission access or some other undefined commercial advantage over “energy” resources during periods of congestion. The concept has been taken one step further in the Commission-mandated collaborative stakeholder process, which describes at length the PJM study process and Generator Deliverability Procedure. The Commission’s current pricing policy, as reflected in Attachment B of the ANOPR, would then compensate generators for the transmission upgrade costs they bear as a result of implementing transmission study recommendations through transmission credits.³

New England has had substantial experience with generation interconnection issues due to a combination of events⁴ that attracted merchant generators’ interest to the region soon after Commission Order No. 888. In 1996, the applications for interconnection began with requests for ISO New England to conduct interconnection studies for 660 MW of new generation. This number grew dramatically. In 1997, ISO New England received applications to conduct an additional 8,000 MW of interconnection studies, and in 1998 the number of new applications grew to more than 27,000 MW of new generation.⁵ With this type of activity, it is not surprising

³ The ANOPR instructs commenters to assume that the policy is in effect, but hints that there may be changes to this policy. As we explain herein, a sound interconnection policy cannot be developed piecemeal without knowledge of the eventual pricing regime that will be applied. Hints about changes in policy can only increase uncertainty among market participants.

⁴ They included rapid load growth, state restructurings, development of new gas supplies, the age and efficiency of the existing fleet of power plants, and the premature retirement of some nuclear units.

⁵ To put these numbers in perspective, the entire installed capacity of the region is only about 27,000 MW.

that issues over interconnection studies became significant quite quickly in New England.⁶ Our success as a region in completing the required studies, developing the appropriate business practices, and interconnecting the generation was greatly facilitated by important Commission decisions in prior Orders.⁷ Those Orders provided a template for the “minimum interconnection standard” in New England which, NECPUC and VDPS submit, is a better starting point for a national standard than those contained in either the ANOPR or the “Generator Interconnection Products and Studies,” which is attachment A to the “Standard Generator Interconnection and Operating Agreement.”⁸

II. The “Two-Tiered” Standard Proposed In The ANOPR Is Discriminatory And Would Potentially Inhibit The Development Of Economically Efficient Generation

The two-tiered “energy” vs. “capacity” standard proposed in the ANOPR is discriminatory. As currently structured, the Commission’s ANOPR and the “Generator Interconnection Products and Studies” proposed by the stakeholder group are both fashioned after the practice in the PJM Interconnection that requires any new generators connecting to the grid to decide whether they will be designated as a “capacity” or as an “energy” resource. NECPUC and VDPS believe this practice is discriminatory because of the way in which the modeling is conducted. The transmission system is modeled under “stressed conditions.” Assumptions are made about loads within the system and the level of generation dispatch. All existing “Network” resources are

⁶ The queue of generation applications in New England can be viewed on the ISO New England web site: http://www.iso-ne.com/transmission_services_and_generation_interconnection/New_Interconnections/Interconnection_Study_Status.xls

⁷ *Champion International Corporation and Bucksport Energy L.L.C. v. ISO-New England Inc., New England Power Pool and Central Maine Power Company*, 85 FERC ¶ 61,142 (1998) and companion case, *New England Power Pool*, 85 FERC ¶ 61,141 (1998).

⁸ These documents were developed during the Commission’s collaborative stakeholder process.

assumed to be in operation. When a new resource is added to the region's generation mix and the models indicate a need for transmission upgrades, it is the new generator that is considered to be the "straw that broke the camel's back."⁹ Moreover, if existing generators are assumed to be *de facto* capacity resources, then the proposal presents a barrier to entry for new generation projects because it asks them to meet a different standard than their intended competitors. The Commission recognized this problem in its October 29, 1998 Order accepting NEPOOL's restructuring proposal:

We agree with ISO-New England's conclusion that NEPOOL's existing SIS procedures are cumbersome and ineffective. However, we do not agree with ISO-New England's characterization of the "status quo" within NEPOOL. ISO-New England correctly observes that the NEPOOL system has been generally unconstrained in the past. However, this reflected the fact that any utility seeking to rely on remote generating resources was required to make arrangements for a firm transmission path between its remote resource and its specific load. It appears that this practice has now been redefined as a requirement to expand the system to ensure a firm path between each new generator and every load in NEPOOL because there is no longer a matching between generator and load as was the case in the past, i.e., generators will now sell through the NEPOOL PX to all loads in NEPOOL. This leap in logic is flawed. The PX will not match specific generators to load and transmit power on that basis; it will simply dispatch the generators offering the lowest bids to meet the combined loads of the pool. While there may be a need for system expansion as a consequence of the decisions generators as a group make as to where to locate in relation to the load centers, legitimate expansion projects will not be based on the extreme assumptions that ISO-New England is now being forced to use.¹⁰

⁹ It bears emphasis that unless otherwise established by bilateral agreements under point-to-point service (or grandfathered contracts) load pays for transmission service under the network service tariff. Load, therefore, must be given a full choice of all generating capacity connected to the network. When there is limited transmission capacity only a limited number of plants will be able to qualify as capacity resources and each new competitor that qualifies as a "capacity" resource should presumably bump an existing resource off the list if the customer designates the new resource. In a sense, each study that qualifies a new resource as eligible for the capacity designation should also be a review all other pre-existing capacity resources. Except in the case of existing contracts or bilateral agreements preserving a contract path between the load and a particular generator, existing generators eligible to receive competitively set market-based rates should not be able to claim transmission capacity belongs to them merely because "they were there first."

¹⁰ *NEPOOL*, 85 FERC at pp. 61,551-52.

We think the Commission got it right. In a competitive market, particularly where load pays for transmission service, generators' access to the transmission system should be based on economics and not on plant vintage.¹¹

New England's subsequent experience shows that earlier assumptions regarding the levels of congestion and value of firm contract paths may have been misguided. As mentioned in the Order cited above, prior to widespread generation divestiture and the implementation of market-based rates, New England's transmission system was assumed to have little to no congestion. Had the Commission accepted NEPOOL's initial "full integration" proposal, all existing generators would have been considered "fully integrated." Only one year after market-based rates went into effect, however, northeast Massachusetts and southwestern Connecticut developed significant congestion problems, thereby demonstrating the fallacy of the full integration assumptions. This was the same system, with the same generators and the same loads "experts" had claimed to be uncongested just one year before. What market-based rates really did was unmask congestion that had been hidden from experts.¹² New England's sudden congestion problems demonstrated that not even existing generators could "ensure a firm path between each new generator and every load in NEPOOL." In short, NEPOOL's proposed standard would have treated new entrants differently by subjecting them to a test incumbents themselves were not subject to and by requiring them to meet a standard that the incumbents could not.

¹¹ Vintaging may be an appropriate way to organize which interconnection proposal to study first, but it is not an appropriate way to dispatch a transmission system.

¹² In fact, the thinking changed. What formerly had been considered to be "reliability must run" units were recognized to be "out of merit" generation in a bid-based system with market rates.

The standard proposed in the ANOPR would create the same problem. It ignores congestion that may already exist on the system¹³ and it assumes that existing transmission capacity belongs to incumbent generators. If the Commission's desire is to create a competitive standard it must treat all of the competitors fairly. To do this, the Commission has two choices: (i) it can require any generator – old and new – that desires designation as a network resource to make the deliverability demonstration contained in the standard; or (ii) it can decide to apply a minimum interconnection standard and treat all generators equally as “energy” resources as is now the case in New England and New York.

Even if applied in a competitively neutral way, the proposed ANOPR standard is unwieldy and inefficient. If it is applied even-handedly to old and new generators, system operators¹⁴ will need to review the deliverability of existing as well as new generators. This treatment will greatly increase the number of transmission studies required and cause yet another set of issues about the queue. In addition, full integration, or network, studies are more complicated and rely on more assumptions than a minimum interconnection standard. For example, the output of other generators on the system must be inferred in order to determine whether the output of a new facility can be “delivered” across the system. To do this in a bid-based system requires transmission modelers to make assumptions about the bid behavior of private enterprise. Such assumptions are understandably contentious because they may pit one set of financial interests against another and are likely to be challenged.¹⁵ As proposed, the deliverability requirements of the proposed standard will complicate the study process, lengthen

¹³ New England's congestion problems are well known by now. Differences in the locational prices in the New York and PJM markets demonstrate that congestion exists there also. Just like New England, existing generators in those markets cannot “ensure a firm path between each new generator and every load.”

¹⁴ The term system operator here could mean vertically integrated utilities, independent system operators, or RTOs.

¹⁵ This was in fact, what happened in the *Champion and Bucksport* case cited earlier.

the period of time that project sponsors are required to wait before their interconnection studies are completed, and increase the level of contention regarding the study assumptions.

Accordingly, NECPUC and VDPS urge the Commission to adopt as a best practice the minimum interconnection standard currently used by the New England and New York ISOs rather than the two-tiered PJM model proposed in the ANOPR.

III. The Policies Proposed In The ANOPR Could Result In The Uneconomic Construction Of Transmission And Interfere With Price Signals For Generation And Merchant Transmission

As the foregoing discussion makes clear, NECPUC and VDPS believe that the Commission's interconnection policy should facilitate the addition of economically efficient generation resources without adding more transmission capacity than is necessary. Having said this, NECPUC and VDPS submit that transmission upgrades, once determined to be required, should not be funded in a way that interferes with price signals for location of generation, construction of merchant transmission, and use of other methods that would most efficiently relieve transmission congestion. While NECPUC and VDPS note the Commission's statement that pricing issues are to be addressed in a later stage of this proceeding,¹⁶ as a practical matter, the interconnection agreement model that has been presented in the collaborative directly implicates pricing issues.

In this regard, NECPUC and VDPS are also concerned that the ANOPR's choice of Attachment A interconnection policies, combined with current Commission pricing policy as reflected in Attachment B, could result in the uneconomic construction of transmission and the frustration of price signals for the location of generation and merchant transmission provided by location based pricing. Under the ANOPR proposals, a generator must pay to upgrade the

¹⁶ FERC Stats. & Regs. ¶ 35,540 at p. 35,799-3 (2001).

transmission system to a level where its output can meet the deliverability test in order to be considered a capacity resource. As we read section 3 of Attachment B, entitled “Credits to Follow Transmission Service,” generators are subsequently compensated for these costs through transmission credits. By combining credits for transmission expansions with a standard that places a higher commercial value on deliverability, the ANOPR removes the incentives that congestion pricing provides for generation location or for construction of merchant transmission or load response initiatives. If a generator is not required to pay for transmission upgrades and the cost is instead to be socialized across all load, then generators will choose their location based on other factors, such as where land is cheaper or emissions permitting is easier, rather than where good transmission planning or market economics would dictate.¹⁷ On the other hand, if the cost of transmission associated with locating in these other areas were borne by the generators themselves, these economic tradeoffs would be internalized and economic location would be more likely to occur. As currently proposed, the costs are not borne by generators, which could lead to uneconomic grid expansion.

The Commission has already confronted these issues in the context of natural gas pipeline pricing and concluded that “rolled-in pricing” is often inappropriate in a competitive environment. In its Statement of Policy on the Certification of New Interstate Natural Gas Pipeline Facilities, Docket No. PL99-3-000, the Commission explained that project sponsors must be willing to financially support expansions to transmission facilities on an incremental rather than a “rolled-in” basis because use of rolled-in pricing could lead to construction of

¹⁷ While we do not agree in the way that existing generators are favored over new generators, PJM has correctly internalized the cost of the upgrades to the firm that proposes them. Because the generators pay for upgrade costs, they can weigh the advantages of locating in a congested area with paying for upgrades. If they elect to pay for the upgrades, they will be awarded with financial transmission rights and be able to capture the rents associated with differences in locational prices.

suboptimal or even non-viable projects due to the fact that the costs of the project were socialized across system rates:

The threshold requirement in establishing the public convenience and necessity for existing pipelines proposing an expansion project is that the pipeline must be prepared to financially support the project without relying on subsidization from its existing customers. This does not mean that the project sponsor has to bear all the financial risk of the project; the risk can be shared with the new customers in preconstruction contracts, but it cannot be shifted to existing customers. For new pipeline companies, without existing customers, this requirement will have no application.

The requirement that the project be able to stand on its own financially without subsidies changes the current pricing policy which has a presumption in favor of rolled-in pricing. Eliminating the subsidization usually inherent in rolled-in rates recognizes that a policy of incrementally pricing facilities sends the proper price signals to the market. With a policy of incremental pricing, the market will then decide whether a project is financially viable.

* * *

This is the only condition that uniformly serves to avoid adverse effects on all of the relevant interests and therefore should be a test for all proposed expansion projects by existing pipelines. It will be the predicate for the rest of the evaluation of a new project by an existing pipeline.¹⁸

As the Commission stated in its order clarifying the Pricing Policy Statement, the determination of whether a project was viable should be made by the market:

The removal of the subsidy is necessary to ensure that the market finds the project is viable because either the pipeline or its expansion shippers are willing to fully fund the project. Having lower prices subsidized by existing customers can lead to overbuilding as new customers are willing to subscribe to the capacity only because the price of the capacity is subsidized.¹⁹

The Commission further explained that roll-in of expansion costs could not only lead to uneconomic expansion, but would discourage entry by new pipeline companies (the equivalent of merchant transmission companies):

¹⁸ *Certification of New Interstate Natural Gas Pipeline Facilities*, “Statement of Policy,” 88 FERC ¶ 61,227 at p. 61,746 (1999) (footnote omitted).

¹⁹ *Certification of New Interstate Natural Gas Pipeline Facilities*, “Order Clarifying Policy Statement,” 90 FERC ¶ 61,128 at p. 61,392 (2000).

This no-subsidy requirement also is needed to ensure existing pipelines do not receive unfair advantage in competition for new construction projects with new entrant pipelines. The new entrant, by virtue of having no existing customers, must fully support a proposed project. In contrast, if the existing pipeline can receive a partial subsidy from its existing customers, this would create a bias favoring the expansion of existing facilities even where the pipeline of the new entrant would be more efficient. A rolled-in subsidy paid by the customers of the existing pipeline, therefore, may result in potential shippers favoring the less efficient project over the more efficient one.²⁰

The Commission's reasoning for refusing to socialize system expansion costs in the natural gas pipeline context applies with equal force in the generator interconnection context. Just as subsidization of gas pipeline expansion costs could lead to non-optimal or unnecessary capacity expansion, so too will subsidization of transmission upgrades associated with new generation projects. Rolled-in rates remove incentives for generators to locate in areas that minimize the need for transmission upgrades. Similarly, just as rolled-in pricing gives an existing gas pipeline an unfair economic advantage over potential "new entrants," subsidization of transmission upgrades for generator interconnections could interfere with price signals for alternatives to traditional congestion solutions such as load response from customers or merchant transmission.

While NECPUC and VDPS believe that it is inappropriate to socialize the costs of transmission upgrades that are undertaken for commercial reasons, we believe that the socialization of certain reliability related costs continues to be an appropriate method for cost allocation. The NEPOOL operating procedures have allowed, and we support, cost recovery assigned to load for transmission upgrades that are deemed to be "Reliability Upgrades" in accordance with NEPOOL Procedures. NECPUC and VDPS believe that Federal interconnection standards should not supersede the existing New England rules that allow

²⁰ *Id.*

regional allocation of the costs of transmission expansion, when such expansion is found through an objective planning process conducted by an independent system operator to produce system-wide reliability benefits.

For all of the reasons expressed above, NECPUC and VDPS respectfully request that the Commission begin its formal Notice of Proposed Rulemaking with a minimum interconnection standard as its industry-wide template. Sponsors of generation projects that would like enhanced access to particular loads on the system²¹ should be allowed to pay for upgrades and should be entitled to the financial rights associated with increased transfer over the facilities.²² Subject to the exception for appropriately-determined reliability upgrades, those costs should not be socialized over a broader group of consumers who are not party to the transaction.

IV. The Interconnection Standards Adopted By The Commission Should Provide Necessary Flexibility

Finally, NECPUC and VDPS are concerned that the imposition of overly rigid interconnection standards could cause unnecessary controversy and frustrate progress on market reforms. We are comfortable with the minimum integration standard currently in place in New England, and for the reasons expressed above, we believe that it should serve as the Commission's national "standard." But we recognize that our comfort stems from the way in which we have restructured the retail component of the industry in our states, and that not all states are alike. Therefore, we respectfully request that the Commission allow utilities and states to depart from the standards when good cause can be shown. Alternatively, if the Commission decides to adhere to its proposed "energy" and "capacity" resource standard, we request that it

²¹ Because of the constantly changing pattern of consumption and production on a generation system, and the inability to predict transmission or generation outages, it is simply impossible for transmission system operators to guarantee the deliverability of a particular unit's output to any load. The best that can be hoped for is to relieve obvious constraints where it is economically sensible to do so.

specifically address the minimum interconnection standard now in place in New England, and reaffirm its prior decisions approving the standard. This action will head off a costly and unproductive series of arguments in this docket.

CONCLUSION

As set forth above, NECPUC and VDPS respectfully request that the Commission consider using the New England and New York minimum interconnection standard as a best practice model rather than the PJM approach. The New England/New York standard is best suited to a truly competitive generation market insofar as it does not create unnecessary barriers to entry for competitive generators, lead to the uneconomic construction of transmission, or unfairly socialize upgrade costs in a manner that interferes with price signals to economically relieve transmission congestion. Finally, NECPUC and VDPS ask the Commission to recognize that there may be good cause to allow certain states or regions of the country to vary from a standard, and to provide a mechanism for variance when such cause is shown.

Respectfully submitted,

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²² Transmission upgrade requests need not be made only by generators. Use of financial transmission rights enables sponsors of merchant transmission projects or load interests to also request upgrades and capture congestion rents.

