

COUNTERFLOW

BY STEVE HUNTOON

FERC Order 1000: Need More of Good Thing

The most significant innovation in FERC Order 1000? Transmission competition.

Where and when transmission competition is properly implemented, it is a staggering success. Consider a recent PJM "window" seeking solutions to reliability and congestion needs.

One such need was relief of high congestion on a transmission corridor between Pennsylvania and Maryland where low-cost natural gas generation from Pennsylvania hits a bottleneck. PJM received 44 proposals from nine separate entities, proposing solutions ranging in cost from \$6 million to \$192 million.¹

Before transmission competition, it was like the color of a Model T. You could have any



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solution you wanted as long as it was the transmission owner's solution.²

And TOs never have had an incentive to find the most cost-effective solution, for reasons brilliantly explained by Montana Public Service Commissioner Travis Kavulla in his recent *American Affairs* article:³

This so-called cost-of-service regulation suggests to the utility that it should spend as much as possible, even when less might do. The barometer for whether an investment is wise for a utility is not capital productivity, but whether expenditures will be disallowed by the regulator. This seldom occurs. Indeed, the legal presumption that governs the arcane, trial-like proceedings of utility commissions is that all utility spending is prudent. A utility earns a return even on the cost of decorating the C-suite.

Investment funds understand this dynamic perfectly. Their analysis often simply celebrates more and more capital investment ("ratebase" or "capex" in industry lingo), with

little attention to the underlying value it delivers to customers. One recent investor note by UBS on the New Jersey utility PSEG was titled "More Ratebase Please."

The other good news about the advent of transmission competition is how little it costs to implement. Last year it cost PJM \$451,610 to administer its Order 1000 proposal windows; project sponsors paid proposal fees of \$490,000.⁴ So PJM stakeholders made money implementing competition.⁵

The bad news is that there is very little of this good thing. The scope of transmission competition has become severely restricted. If you look at the pie chart on the next page, only the smallest slice — less than 10% of the cost of transmission projects in PJM in 2016 — had competition.⁶

The exceptions to transmission competition have swallowed more than 90% of the rule.⁷ The biggest exception — \$899 million in PJM last year — is "Supplemental" projects, which

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by definition are projects that PJM itself does not consider needed. The TOs have the unilateral right to build whatever they'd like, as long as they tell PJM what they are doing.

Under this exception, billions of dollars are being spent based on TO claims of "aging infrastructure," but no one knows if those billions materially improve reliability. Indeed, a Lawrence Berkeley National Laboratory study found no statistical correlation between transmission (and distribution) spending and reliability.⁸

Obviously, at some age transmission lines would fall down and affect reliability, but there are few instances of that happening. There are many causes of outages (severe weather, lightning, human error, misoperations, and even metallic balloons and squirrels).⁹

This enormous transmission spending beyond PJM's purview reverses the situation from 10 years ago when the vast bulk of transmission spending in the RTO was what it determined was needed.¹⁰

The TO exclusives seem to be falling into a regulatory gap, as states seem to assume that PJM is reviewing all this. But PJM only has oversight over Order 1000 projects and "Immediate Need" projects, and only uses competitive windows for the former.

And, unbelievable as it may seem, PJM seems to be the best of the RTOs.

In ISO-NE, "Immediate Need" and other exceptions appear to have swallowed the rule entirely.¹¹ The section of the ISO-NE webpage listing competitive transmission RFPs is ... empty.¹²

In MISO, the allocation of transmission costs was changed so that virtually all transmission projects qualify for the "local" exception. How many projects have been subject to competition? That loneliest number: One.

States (and others) are increasingly concerned about the explosion in transmission costs,¹³ but one simple step states could take on their own is to require, as a condition of the state certificate and/or rate recovery process, that all projects costing more than some threshold be subject to an Order 1000 window. FERC could do the same as a condition of cost flow through in FERC-jurisdictional transmission rates. This would not solve the problem of unwarranted projects, but it would help mitigate the carte blanche in spending on such projects.¹⁴

Bottom line: Transmission competition works great when properly implemented. But it's been severely limited. We need more of the good thing.

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¹ <http://pjm.com/~media/committees-groups/committees/teac/20170413/20170413-2016-2017-rtep-window-market-efficiency-proposals.ashx>

² By the way, there is a right way and a wrong way to implement transmission competition. PJM identifies transmission "needs" and requests proposals to address these needs (the "sponsorship model"). As a result, PJM gets wide-ranging, solution-based proposals (in the example I gave, projects ranging from \$6 million to \$192 million). In contrast, CAISO identifies specific projects and requests proposals to build those specific projects (the "procurement model"). Thus, CAISO totally misses the opportunity for competitors to offer solutions that may cost a fraction of what the ISO thinks best.

³ <https://americanaffairsjournal.org/2017/05/no-free-market-electricity-can-ever/>

⁴ <http://pjm.com/~media/committees-groups/committees/teac/20170413/20170413-reliability-analysis-update.ashx> (slide 5)

⁵ This renders inexplicable an RTO claim that transmission competition is not worthwhile because of "staff headaches." (See *PJM, SPP Chiefs Share Frustration with Order 1000*). When potential savings are in the billions, and the cost of implementation is in the hundreds of thousands, the benefit-to-cost value proposition — at least for customers — is self-evident.

⁶ Thanks to LS Power for providing this data.

⁷ It should be noted that going forward, the exceptions



■ Greenfield - Competition ■ TO Upgrades - TO Only
 ■ Local Upgrades - TO Only ■ Immediate Need - TO Only
 ■ Supplemental - TO Only

PJM 2016 transmission spend (\$ millions) |
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are expanding with the exclusion of facilities below 200 kV and of upgrades to substation equipment (except transformers). So the less than 10% of transmission spend subject to competition will get even smaller.

⁸ <https://emp.lbl.gov/sites/default/files/lbln-188741.pdf> (pages 37-38)

⁹ http://www.nerc.com/pa/RAPA/PA/Performance%20Analysis%20DL/SOR_2017_MASTER_20170613.pdf (see Table B.4 on pages 86-87)

¹⁰ <http://www.opsi.us/meetings/2016/panels/Panel-6-Herling.pdf> (slide 3)

¹¹ The proliferation of "Immediate Need" projects is wholly at odds with ISO-NE's 10-year planning horizon. https://www.iso-ne.com/static-assets/documents/2017/01/isone_overview Regional_update_nh_stc_committee_final.pdf (slide 28)

¹² <https://www.iso-ne.com/system-planning/transmission-planning/competitive-transmission-projects>

¹³ According to data compiled by the PJM Market Monitor, the cost of transmission in PJM has increased from \$4.09/MWh in 2009 to \$8.33/MWh in 2016. http://monitoringanalytics.com/reports/Presentations/2010/IMM_MC_SOM_2009_Overview.pdf (slide 12) and http://monitoringanalytics.com/reports/Presentations/2017/IMM_MC_SOM_Special_Session_2016_SOM_20170323.pdf (slide 11). This is a 104% increase in seven years. With no end in sight.

¹⁴ And, as I've suggested before, federal and state regulators should stop giving returns on equity that are much greater than the utility cost of capital. <http://energy-counsel.com/docs/Nice-Work-If-You-Can-Get-It-Fortnightly-August-2016.pdf>. Two Wall Street deans corroborated this phenomenon of overly generous returns on equity. <https://www.fortnightly.com/fortnightly/2016/10/dont-cry-utility-shareholders-america>.

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