

TESTIMONY OF EDWARD N. KRAPELS, CEO OF ANBARIC DEVELOPMENT PARTNERS, BEFORE THE ENERGY SUBCOMMITTEE OF THE HOUSE ENERGY AND COMMERCE COMMITTEE, MAY 10, 2018

Mr. Chairman, distinguished members of the Energy Subcommittee of the House Energy and Commerce Committee. Thank you for inviting me to testify on **the State of Electric Transmission: Investment, Planning, Development and Alternatives.**

My name is Ed Krapels and I am the founder and CEO of Anbaric. We build the electric businesses of the future. We helped spearhead two high-voltage, direct current buried transmission lines between New Jersey and New York, increasing market efficiency and saving ratepayers hundreds of millions of dollars as a result. This high-voltage direct current technology is common world-wide but not used much in the US – its small size makes it well suited to linking markets in congested areas of the country where construction is difficult. An article I have just published in *The Electricity Journal*, reviews why -- even though everyone agrees these kinds of interregional transmission links are useful and more are needed -- both existing and new interregional projects are choked off by well-intentioned but unproductive regulations. That article is part of my written testimony.

We come here this morning, however, to discuss an extremely important new opportunity in our power industry. Federal energy and environmental policy can accelerate what promises to be a once-in-a-generation chance to launch a new domestic industry – offshore wind -- if we do it smartly and thoughtfully from the start. The key to success is to plan, design and build shared, independent offshore transmission systems – OceanGrids – in each of the participating coastal states.

Why are these planned and independent OceanGrids so important? Because, after years of development in Europe, technology has pushed the price of offshore wind down to super-competitive levels. With that, American offshore wind is now a natural component in the Administration's Energy Dominance strategy. It is indeed Fuel from Heaven, and its time has come.

However, as with all large-scale energy resources—indeed, with any important new industry, the business, financial, and physical platform on which it is built must be carefully designed and developed. Unfortunately, some ideas about

offshore wind would jeopardize the ability to realize its full potential. Early policy proposals in Massachusetts, New York and New Jersey explicitly would give generators the exclusive ability to own the transmission lines that take offshore wind to market. These proposals have mostly been promoted by giant, largely European wind developers that would get America's offshore undertaking off on an anti-competitive, wrong footing. It's obviously in their interest to control as much of the access to the onshore grid as possible.

If we allow that to happen, we will lose the kind of competition that will further lower offshore wind prices. We will lose more fishing grounds because there are more subsea cables than necessary. We will lose control over a substantial portion of our own coast. A proliferation of cables would displace and distress marine life during construction and operations, and make it hard to avoid estuaries and navigate sensitive shoreline points of entry. It will undermine an industry in a vital period of its growth.

What we are proposing in our OceanGrid is a smaller number of large collector stations that are placed at the edges of the offshore wind farms, gathering the electricity from multiple wind farms and bringing it to shore via the minimum number of transmission cables buried in the seabed. These cables would be buried under the ocean floor and sized for multiple wind projects and it could be either the size I showed you earlier or this size.

If we do it right, we will create an industry and tens of thousands of twenty-first century jobs. We will create competition between generators. We will create low power prices. And we will preserve the coast. Because we will create an industry here in America, we will increase and enhance our energy independence. The results: "zero-subsidy bids" from wind generators in the European countries which have followed the separate OceanGrid strategy.

The slides at the end of my prepared testimony illustrate what's needed. It shows the New Jersey and New York coastlines, where almost 8,000MW of wind — enough to power 4 million homes — will be built offshore in the coming decade. The first map shows where the designated wind areas are in relation to the coastlines of New Jersey and New York. The wind areas are in federal waters, and the power must be brought to shore in an efficient and environmentally sound manner.

The second map shows the effects of each 400MW wind farm building its own transmission lines to the coast. The third and fourth maps show the other cables, shipping lanes, ocean disposal sites, artificial reefs, unexploded ordinance, and other danger zones and restricted areas that impede the transmission cables paths to shore.

Anbaric's OceanGrid proposal is shown in the last slide. Instead of 20 small cables, we envision 5 to 10 cables designed to carry the maximum amount of electricity per conduit. The plan can be executed in phases, and the technology can be adapted to the needs of the specific procurements that each state will conduct.

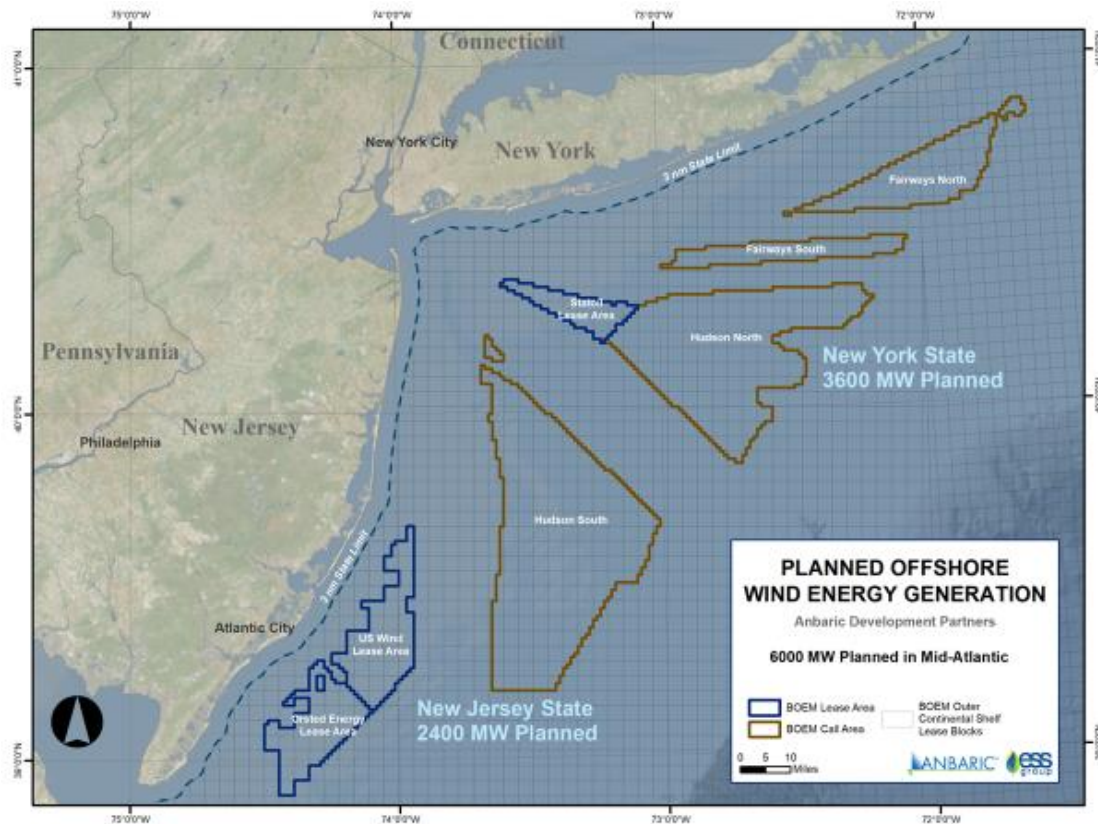
America has a once-in-a-lifetime opportunity to create a new industry. Let's maximize the prospects of success from the start – with a thoughtful and far-sighted approach to planned transmission that benefits taxpayers, electricity consumers, businesses, and our nation's economy.

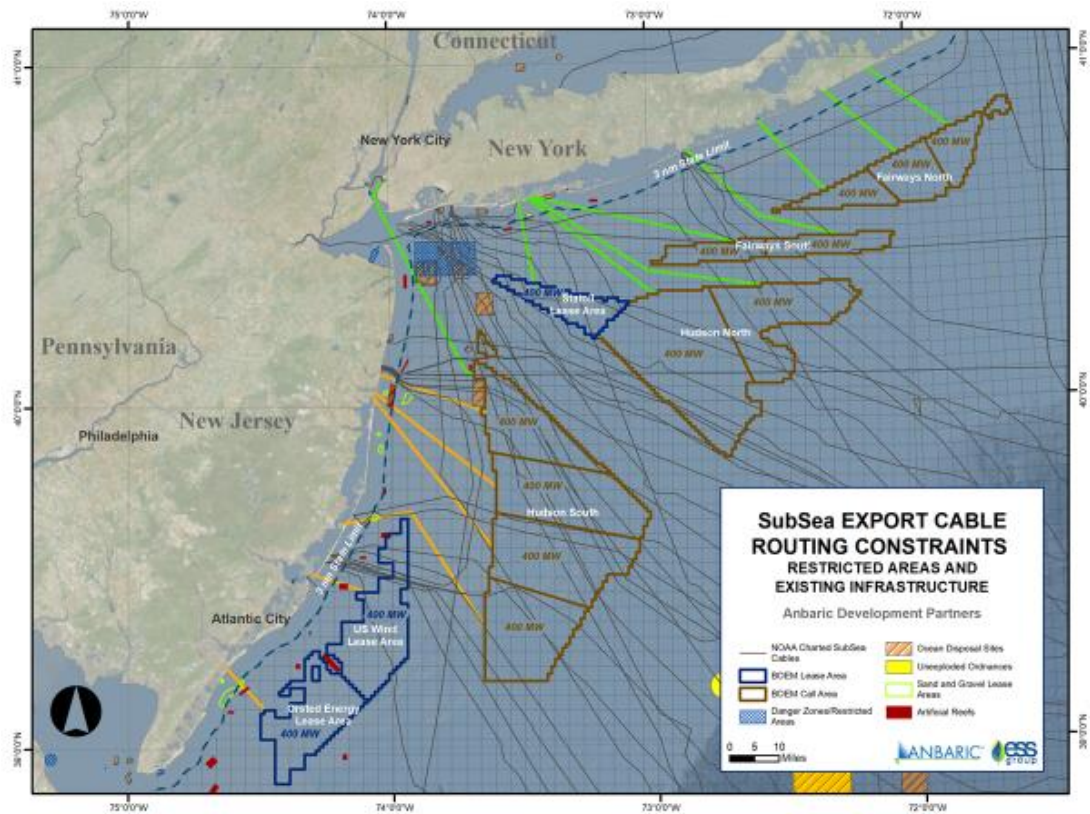
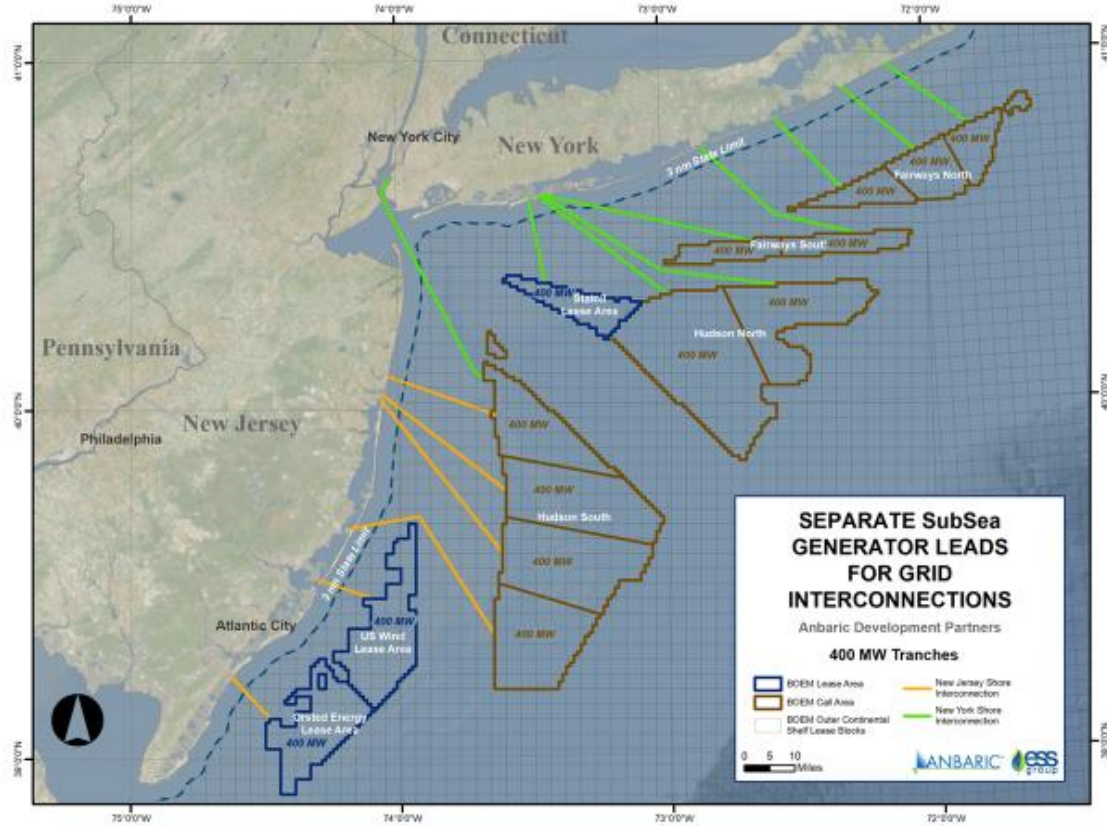
Ladies and Gentlemen of the Committee, as we welcome this important new offshore wind energy industry, let's dedicate ourselves to ensuring that the states, industry leaders, utilities and regulators, with appropriate Federal oversight, embrace the urgent need to build this critical new infrastructure in the right way from the start.

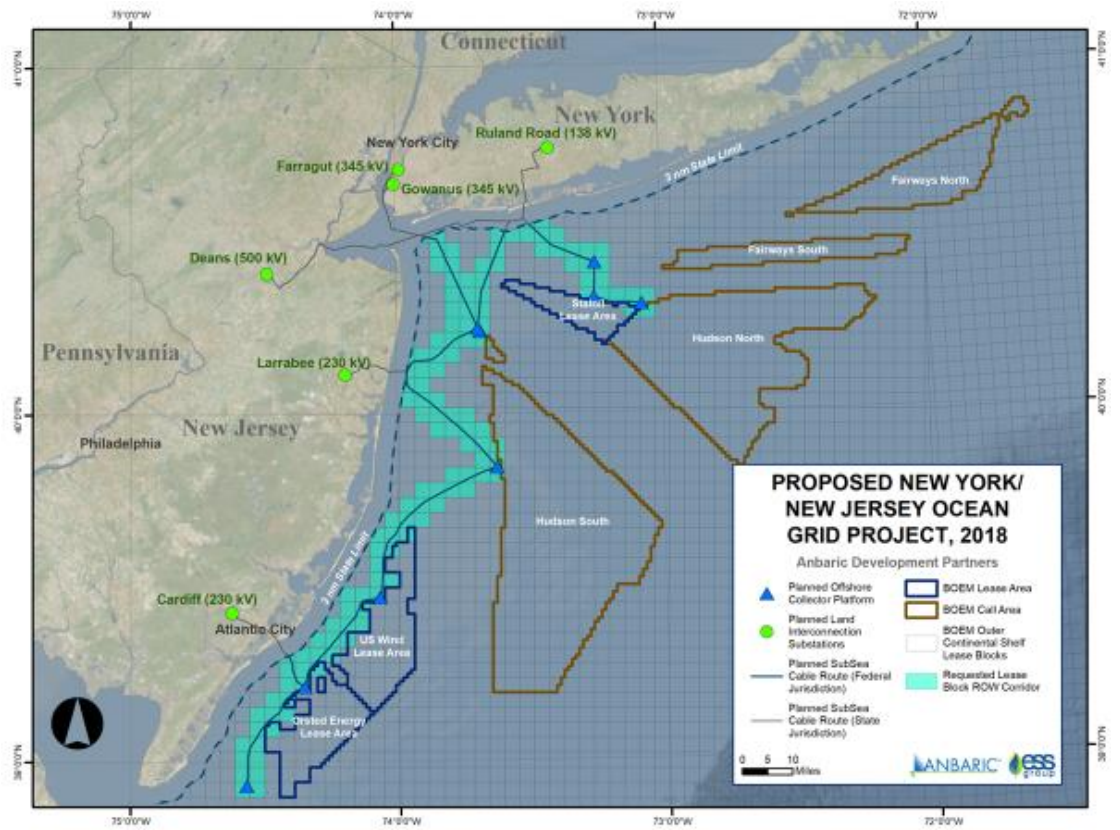
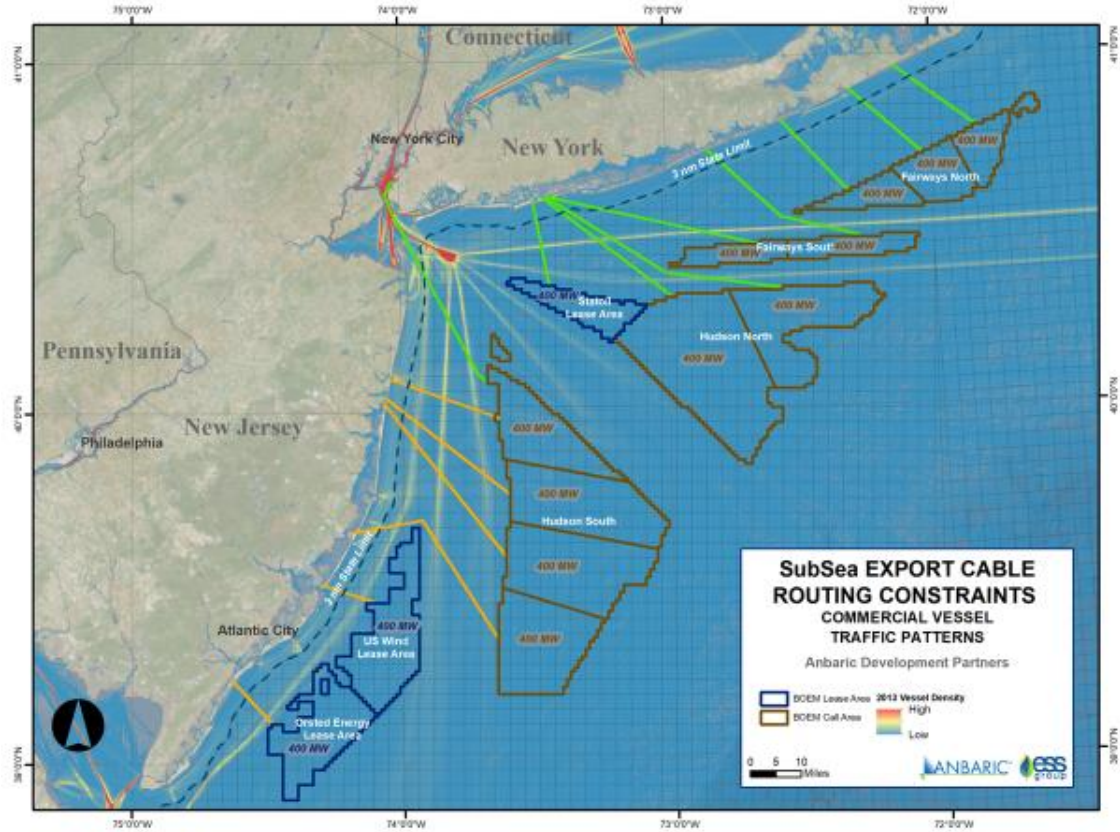
Anbaric's Proposed OceanGrids of New Jersey and New York

Attachment to Prepared Testimony of Edward N Krapels,
CEO of Anbaric, before the Committee on Energy and
Commerce, U.S. House of Representatives

May 10, 2018







SUPPLEMENT TO TESTIMONY OF EDWARD N. KRAPELS, CEO OF ANBARIC
DEVELOPMENT PARTNERS, BEFORE THE ENERGY SUBCOMMITTEE OF THE HOUSE
ENERGY AND COMMERCE COMMITTEE, MAY 10, 2018

“Triple Jeopardy: How ISOs, RTOs, and incumbent utilities are killing interregional
Transmission”

By Edward N. Krapels

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Triple jeopardy: How ISOs, RTOs, and incumbent utilities are killing interregional transmission

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ABSTRACT

Everyone agrees interregional transmission is useful and more is needed. Yet both new and existing interregional projects are treated terribly. Why?

1. Summary

Over the last two decades, innovative elective interregional transmission *ideas* have cropped up all over the country in response to the opening of transmission to competition by federal and most state regulators, but very few have been built.² In the West, several multibillion dollar power lines are under development that would connect the resource rich areas of Wyoming, Nevada, and New Mexico to California. In New England, new transmission proposals are competing to better the links with Quebec and the Maritimes. In the mid-continent, bold transmission initiatives would connect previously unconnected states and provinces. In each of these areas, inter-regional electric trade is touted as a beneficial result of new infrastructure. After all, transmission is to the power business what the interstate highway system is to the broader economy: it is the infrastructure that facilitates trade to the benefit of both sides of the line. Those who can make electricity more cheaply can transmit to those where it is more costly. Both sides benefit.

This is why the nation's chief electricity regulator (the Federal Energy Regulatory Commission, or FERC) issued "Order 1000" in 2011, to accelerate the development of interregional transmission lines. Seven years later, however, little has been done in pursuit of this laudable objective, and this paper will argue that little has been done because FERC was not sufficiently prescriptive in how interregional projects should be treated by those who have the power to approve and maintain them at a regional and state level. In the pages that follow, the ex-

perience of some proposed and some built interregional projects between New York and its neighboring power markets will be reviewed to support the argument that FERC needs to do more to get the desired results from Order 1000.³

The new FERC commissioners appointed by President Donald Trump have a number of opportunities to free the development of innovative interregional transmission proposals from a "triple jeopardy" that not only discourages anyone from proposing new projects, but renders existing projects uneconomic. The development of new interregional transmission lines should be an important federal policy goal for the Trump Administration because it will promote economic growth within the United States. To get that growth, FERC needs to develop a more prescriptive policy on how such projects can be originated and how their cost should be allocated.

The interregional "planning" that was promoted by the Obama-era FERC almost always reaches a dead end because these organizations have been dedicated to maintaining the reliability of their systems without depending on neighboring regions. That's why the primary reason to build interregional transmission lines should be similar to the primary reason to build the interstate highway system: as infrastructure that unites the states, and enables economic growth.

2. The first jeopardy: interconnection costs

In the process of development of any electric asset, the sponsor must make an interconnection filing to the transmission entity to which the project intends to connect. In organized power markets, this is an

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independent system operator (ISO) or a regional transmission organization (RTO). In traditional markets (mostly in the south), this is the vertically integrated monopoly utility. This first step in transmission development – the interconnection process – is fraught with risk. While the developer can hire expert engineering firms to estimate what the RTO/ISO or the utility will charge to connect to the system, even the best experts have repeatedly underestimated what will be charged for the connection.⁴

In spite of the difficulties of predicting interconnection costs, during the decade between 2000 and 2010, projects like the Cross Sound Cable, Neptune, the Hudson Transmission Project, and the TransBay Cable were developed and built using sophisticated, controllable, inter-area HVDC systems. These projects were mostly developed by independent transmission companies, not the established electric utilities. As occurred in the electric generation business beginning in the 1980s, FERC made it clear in word and deed that it wanted to encourage competition and the entry of private capital to make such transmission investments. Moreover, FERC repeatedly urged states and regions to increase the ties between them, essentially advocating “a more perfect union” electrically for that most old-fashioned of reasons: that it is good for the country for states to trade electricity with one another.

Naturally, these projects affected the power markets they connected. And inevitably, these important changes in the infrastructure of the electricity business gave rise to opposition. Thus came Jeopardies #2 and #3, effectively stopping the further development of interregional transmission everywhere in the United States.

3. The second jeopardy: revenge of the urban generators

No tectonic shift can occur in the electric topography of any market without a challenge from those who have invested in the *status quo*. In most RTOs and ISOs, capacity market rules were developed or tweaked to prevent new transmission lines from allowing electric capacity resources to migrate from one area to another. Proponents of these capacity market constructs argued that transmission lines should not be allowed to distort capacity markets, an argument which, applied to other American businesses, would prevent any more roads from being built lest they harm the businesses of the incumbents.

For example, in HTPs case, the challenge came in the form of changes in the NYISO’s capacity regulations and in the form of cost allocation “surprises” in the PJM market. To explain what happened in New York requires a quick review of how the NYISO works. Under FERC rules, the NYISO can propose amendments and refinements to its foundational document (the OATT), but FERC disposes approvals and denials. For a period of several years culminating on September 27, 2010, the NYISO labored over the outlines of a series of rules that

would ultimately be called “market power mitigation measures applicable to the New York City (in-City) Installed Capacity (ICAP) market.”⁵ Its effect, if not its intent, was to protect New York City generators from enhancements to the transmission system.

The original regulations for the New York ISO’s ICAP market created a periodic auction of the existing and proposed capacity, with minimum and maximum bid prices in New York’s three designated capacity zones (New York City, Long Island, and “rest of state”). The intent was to protect buyers against market power and predatory pricing by generators (hence the need for a ceiling price for capacity services), and to protect generators against monopsony power in the form of efforts by utilities and Authorities to subsidize new generation and thus drive the price down (hence the need for a floor price for capacity services). To qualify as capacity resources and earn capacity revenues, new projects had to qualify as a “competitive entrant.” The tortuous language selected for this assignment was “NET CONE” with CONE an acronym for Cost of New Entry.

As usually happens in these types of regulatory constructs, the devil is in the details. The key parameters are the definition of what constitutes a competitive entrant and how the price floor and ceilings are calculated. These constructs were embedded into what’s called a “demand curve” for capacity that allows the capacity price to go up and down between the floor and ceiling, in response to the changes in the balance between supply and demand. The price floor and the ceiling were determined in reference to the cost of a theoretical new generating unit, Net CONE. The floor was set to protect generators against subsidized competitors at 75 percent of “Net CONE.” With these mechanisms, the NY-ISO subjected projects to a Mitigation Exemption Test (MET). If a project was exempt, it could participate in the capacity market without restrictions. If it wasn’t exempt (if it was deemed “uneconomic”), it would be prohibited from participating in the capacity market for a defined period of years. Such a prohibition would cost the project tens of millions of dollars per year in revenue.

Whatever one’s opinion of this construct for generation, the NYISO first applied this construct to a transmission line (HTP) in 2012,⁶ when it ruled that capacity resources that might be procured in PJM across HTP would be “uneconomic” and therefore would be subject to the MET. HTP subsequently lodged a complaint with FERC arguing against this ruling, but HTP based its argument on relatively narrow grounds pertaining to timing and the exact figures to use in the MET.⁷ HTP’s Complaint didn’t raise the larger issue of whether the MET should be applied to a new transmission line at all. The more fundamental question – never asked by the transmission owner – is whether it is appropriate – even in principle – to apply the MET to new transmission lines.

² See, for example, “Investors are Building Their Own Green Power Lines,” Russell Gold, *Wall Street Journal*, April 6, 2017.

³ Federal Energy Regulatory Commission, 136 FERC ¶ 61,051, 18 CFR Part 35 [Docket No. RM10-23-000; Order No. 1000] Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities (Issued July 21, 2011) FERC’s failure to lead in the development of interregional transmission is reflected in this comment, buried on page 417 of this lengthy Order: “As in the case of regional cost allocation, we do not require a single nationwide approach to interregional cost allocation but instead allow each pair of neighboring regions the flexibility to develop its own cost allocation method or methods consistent with the interregional cost allocation principles adopted in this Final Rule.” P. 417

⁴ For example, the author was one of the developers of the Hudson Transmission Project, in which the initial “feasibility” study conducted by PJM indicated the project would be charged about \$50 million for upgrades to the PJM system. On the basis of that study, HTP proceeded to the next phase: a system impact study. That study was delivered a year later and issued a new interconnection cost estimate: \$500 million. After another year of discussions between HTP and PJM, the final cost was settled at \$170 million, after HTP reduced the quantity of firm transmission withdrawal rights requested from 660 MW to 330 MW.

⁵ The seminal FERC Order was issued on November 26, 2010. See FERC Docket No. ER10-3043-000.

⁶ HTP entered the NYISO interconnection queue in 2005 and won the NYPA RFP in 2006, years before NYISO’s buyer market power mitigation rules and the MET had been proposed. The NYISO first proposed the MET in 2007 and later proposed to apply the MET to transmission lines, as if transmission were equivalent to new generation, without providing any details or discussion of how it would implement the MET for transmission or any justification for its proposal. See FERC Docket No. EL07-39; New York Independent System Operator, Inc., 122 FERC ¶ 61,211 (the “March 2008 EL07-39 Order”), on reh’g and compliance, 124 FERC ¶ 61,301 (2008), on reh’g, clarification & compliance, 131 FERC ¶ 61,170 (2010) (the “May 2010 EL07-39 Order”). The FERC order accepting the NYISO’s proposal to apply the MET to transmission included only a cursory discussion of the proposal, and didn’t address any of the potential policy issues, or the logical peculiarities, of the NYISO’s proposal. After the commission accepted the NYISO’s proposal, the NYISO didn’t provide any further details as to how it would apply the MET to new transmission lines until four years later, in mid-2011, and only then on a confidential basis to HTP.

⁷ See “Complaint Of Hudson Transmission Partners, LLC,” Attachment 7, FERC Docket EL12-98.

Is there a basis in logic, FERC precedent, or economic theory for treating transmission like generation?

NYISO's application of the MET to a controllable interregional transmission line was puzzling. Simply stated, such a transmission line isn't a generator, nor is it a "generator lead." By treating a controllable interregional transmission line as if it were a generator, the NYISO simply failed to recognize the fundamental differences between generation and interregional transmission. Such an error isn't all that common in the regulatory arena, and its appearance here was perhaps more an act of omission than commission. Clearly, it's erroneous to equate agents of production (a generator) with agents of transportation (transmission). Transmission lines aren't generators. Generators create electricity; interregional and controllable transmission lines convey electricity from multiple generators from one point in an electric system to another.

When evaluating what kind of regulatory error this is, it may be best to rely on simple logic. It was recognized long ago that authorities can commit what are now called category errors: "a category mistake arises when things or facts of one kind are presented as if they belonged to another."⁸

It seems plain that the NYISO committed a category error when it looked upon Hudson Transmission and assumed it was part of the category "generators," rather than in the category "controllable transmission infrastructure," which is complex system for conveying energy, capacity, and ancillary services from one electric area to another. To compound the error, the NYISO treated the Hudson Transmission Project as a "generator lead line" that provides electric energy, capacity and ancillary services from one specific generator to a specific point on the NYISO system. But the Hudson Transmission Project isn't a generator lead. It's a high-tech, controllable, system-to-system connection between the entire PJM system and the NYISO system. HTP will continue to operate whether or not any particular generator is on or off. Like the road to the mall, it's in the category of infrastructure. A road connected to a mall doesn't close just because a store in the mall closes; it remains open.

Moreover, a generator is a market participant, a producer and supplier of electric energy and capacity, while a transmission line like HTP is not. Hudson Transmission earns revenues merely from providing transmission service, and its costs for doing so are based on the cost of construction, rather than the marginal costs of fuel. Thus, the cost and revenue streams for new generation and new transmission projects are fundamentally different. Given these different cost and revenue streams, the concept of "uneconomic entry," as embodied in the NYISO's rules, can't be meaningfully applied to transmission lines.⁹

Equally important, the FERC applies different standards to evaluate and mitigate generation and transmission market power. The commission recognizes these fundamental differences in how it applies different standards for evaluating and mitigating generation and transmission market power, respectively. The commission assesses generation market power through market share, pivotal supplier, or delivered price tests that are based on the amount of generation owned or controlled by a generator and its affiliates in a given market, and generators that fail those tests are mitigated by applying cost-based offer caps or similar mitigation. The commission normally assumes that a regu-

lated transmission provider with a franchised service territory (i.e., a non-merchant transmission line) has market power by virtue of the fact that transmission is assumed to be a "natural" monopoly. Consequently, the commission addresses this by requiring such transmission providers to provide service under an open access transmission tariff (OATT) or through transferring operational control to an ISO-RTO (as Hudson Transmission has done). Service over the Hudson Transmission line is provided under the terms of an ISO-RTO OATT, and it's therefore inappropriate to impose additional mitigation on Hudson Transmission.

Moreover, for merchant transmission providers such as HTP, the commission applies a four-prong test to evaluate requests for negotiated rate authority. To pass this test, the merchant transmission provider must demonstrate, among other things, that the line won't be located in the footprint of its own, or an affiliate's, franchised service territory, that it won't have the ability to exercise market power (instead it turns operational control over to an ISO-RTO), and that it can't engage in undue discrimination or affiliate abuse. FERC determined that Hudson Transmission satisfied all these requirements, and therefore Hudson Transmission shouldn't be subject to additional mitigation as if it were a generator.¹⁰

The imposition of the mitigation principle on HTP robbed the New York Power Authority – which owns the transmission rights – of one of HTP's primary values: its ability to serve as a conduit to the PJM capacity market. Ironically, in most parts of America's vibrant and competitive market economy, it's considered a good thing for people in one state to buy stuff from people in another state. As HTP was about to discover, however, the electric market is not like the rest of the American economy. Years after it went into operation, HTP was afflicted by the third jeopardy.

4. The third jeopardy: revenge of the incumbent utilities

In 2015, the NYISO's category error was amplified and compounded by the efforts of utilities on the PJM side of the transmission line to extract hundreds of millions of dollars of additional costs on HTP. The Project was designed to provide a way for its customer – NYPA – to purchase both energy and capacity from PJM. Such trade is enabled by HTP because it is an ultra-sophisticated and completely controllable HVDC line. Recall that HTP had already encountered the first jeopardy and paid more than \$180 million for 320MWs of "Firm Transmission Withdrawal Rights" (or FTWRs) from PJM. HTP and its customer NYPA originally pursued the FTWRs based on an understanding that the FTWRs would enable NYPA to purchase electric generation capacity in the PJM capacity market. For various reasons including, principally, the mitigation policy described in the previous paragraphs of this article, NYPA's FTWRs were practically worthless.

In 2015, the New Jersey electric utility, PSEG, added insult to injury by trying to allocate charges for upgrades in the New Jersey electric system to New York consumers. Initially, the bulk of these upgrades were going to be assigned to a long-standing transmission agree-

¹⁰ To the extent the rules of logic matter in regulation, the NYISO further compounded the category error by committing a "composition fallacy," which occurs when the conclusion of an argument depends on an erroneous characteristic from parts of something to the whole or vice versa. A simple Wikipedia example: "This fragment of metal cannot be fractured with a hammer, therefore the machine of which it is a part cannot be fractured with a hammer." This is clearly fallacious, because many machines can be broken-apart, without any of those parts being fracturable. By assuming that HTP is, in effect, part of a generator, it attributes to HTP only the attributes of a generator. But HTP on its face is far more than a generator. It's a controllable transmission line that conveys the products of multiple generators, indeed the essential strength and stability of the entire PJM system (whose total value is far more than the sum of its generator parts), across the Hudson River, to New York City.

⁸ From Simon Blackburn in the *Oxford Dictionary of Philosophy*.

⁹ Transmission can also provide enormous system-wide reliability benefits of a different nature than those provided by generators. In particular, under New York rules, if a transmission project can't clear the ICAP auction, the inherent attributes of the transmission line enable the NYISO to use the line to reduce the Installed Reserve Margin (IRM) for NYISO and the Minimum Locational Capacity Requirement (MLCR) for New York City and Long Island. By contrast, if a generator in New York City is unable to clear the capacity markets, it isn't available to be used by NYISO to reduce the IRM or MLCR.

ment with Consolidated Edison (called “the Wheel”).¹¹ ConEd filed complaints against the allocation with FERC, which the commission rejected, whereupon ConEd renounced the transmission rights that had been granted to it under the decades-old arrangement. The next project in line to be allocated this cost (about which more below) were the other New York-bound transmission lines, like HTP. The stakes in this RTEP allocation drama were extremely high. Con Ed was assessed more than 80% of the \$762.6 million for its 1000MW wheel while PSEG with its load of 11,000MW was assessed only 7%.

This disproportionate allocation of hundreds of millions of dollars of RTEP charges by PJM and PSEG to New York customers raised huge questions about the value and viability of interregional transmission. A NYPA filing to FERC noted that “As a result, the HTP FTWRs—which were originally intended to impart a beneficial and valuable right to the holders—have not only become worthless, but now represent a \$645 million liability that threatens the continued viability of the Hudson Transmission Project merchant transmission facility.”¹²

For PJM’s incumbent utilities, including PSEG, the presence of interregional projects like Neptune and Hudson presents an opportunity to impose the costs of system upgrades on “foreigners,” in this case the customers of the New York Authorities who believed they could rely on reasonable rule-makings in the “power market next door.” Instead, as NYPA observed in its July 2017 filing, PSEG “is clearly motivated by its fear that NYPA’s current RTEP cost responsibility... could ultimately be reassigned to PSEG.” In a final irony, a few years earlier PSEG had been selected by the Governor of New York to manage the Long Island electric market. That assignment did not stop it from imposing hundreds of millions of dollars of additional costs on New York’s electric customers.

5. Preventing unintended consequences

These interconnection procedures, MET, and RTEP regulations, while highly technical, have huge implications for interregional transmission projects. If they continue to be applied to transmission projects like the ones serving New York City and Long Island,¹³ few new interregional projects will be built and some existing projects will become uneconomic. In many parts of America, transmission development is already incredibly difficult and demanding. The triple jeopardy makes it almost impossible.

How to prevent the damage these jeopardies will wreak? It starts with FERC. First, FERC should finally follow up on the promise made

¹¹ As reported in RTO-Insider of August 14, 2017, “The Con Ed-PSEG wheel began in the 1970s as a grandfathered service by PSE&G, and was converted in 2012 to the PJM Tariff.... Con Edison says RTEP charges currently represent about \$9 million of the wheel’s \$40 million annual cost. The \$600 million allocation for the short circuit fix would quadruple the cost of the wheel to \$160 million annually, Con Ed says. ‘While Con Edison continues to find value in the service that the Commission approved as important to regional reliability, irrational increases in costs could ultimately undermine this arrangement.’”

¹² New York Power Authority, “Motion To Intervene And Supportive Comments Of The New York Power Authority,” Docket R17-2073-000, page 2. NYPA’s filing notes that a constellation of changed circumstances since the execution of the HTP [contract] has caused NYPA’s RTEP liability to skyrocket, including (i) PJM’s move from violation-based to solution-based distribution factor analysis (“DFAX”) for regional cost allocation; (ii) the move from 100% postage stamp cost allocation to 50% postage stamp and 50% DFAX cost allocation for high-voltage RTEP projects; (iii) PJM’s use of solution-based DFAX to allocate the majority of the costs of a large transmission project designed to alleviate short circuit concerns in New Jersey—the \$1 billion plus Bergen-Linden Corridor Project (“BLC Project”); and (iv) the recent reassignment of \$533 million in BLC Project costs from Consolidated Edison Company of New York (“ConEd”) to the HTP line.”

¹³ MET hasn’t yet been applied in zone K, the Long Island zone. RTEP allocations, however, have already been imposed on the Neptune project, and it is practically impossible to guess how much these allocations will change in the years ahead.

in Order 1000 and create a new category of cost allocation for interregional transmission lines. The narrowest version of “beneficiary pays” is simply too restrictive, because it tends to rely too heavily on a static analysis of the effects of transmission. In conventional electric power market thinking, a powerflow model will show that a new transmission line will raise the price in the “source” market and lower it in the “sink” market. But that static picture is never the entire picture. Instead, a transmission line changes the dynamic topography of the region in which it sits: it creates a new dynamic that in one year might be to the advantage of the source market, and another year to the sink market. The courts have made this more difficult by insisting on extremely narrow “beneficiary pays” formulations that, had they applied to interstate highways, the interstate highways system would never have been built.

Second, FERC should direct all ISOs and RTOs to refrain from imposing mitigation rules on interregional transmission lines. States have a right, and some would argue the federal government has a responsibility, to encourage interregional transmission and thereby enhance competition. The mitigation rules prevent that from happening by raising, not lowering, barriers to entry. For example, the NYISO should revise its Attachment H to eliminate the provisions applying the MET to new controllable transmission lines.

Third, FERC must not allow ISOs and RTOs to impose disproportionately large RTEP costs on interregional transmission lines. Based on behavior by PJM members, imposing costs on “foreigners” is irresistible. While export customers should pay their fair share of maintaining reliability in the regions from which they import electricity, they should not be victims to the kind of extremely disproportionate allocations they have suffered in recent PJM RTEP procedures.

The new FERC of the Donald Trump era has an opportunity to dismantle the triple jeopardy. With that, not only New York, Connecticut, and New Jersey but also other parts of the country can get on with the development one of the critical components of the Administration’s infrastructure policy, and make electric America great again.

Edward N. Krapels has long been active in the rising industry of non-utility electric transmission and distribution development. He is CEO of Anbaric Development Partners (ADP), a joint venture with the Ontario Teachers Pension Plan whose transmission projects focus on bringing renewable energy into cities. A former financial advisor and risk management consultant, Mr. Krapels has published several books and hundreds of articles in energy industry journals. He was a member of Energy Secretary Steven Chu’s Electricity Advisory Committee from 2010 to 2012. In the transmission sphere, Mr. Krapels has been a founding partner in developing several ground-breaking electric transmission projects, including the Neptune Regional Transmission System, the Hudson Project, and several major new projects designed to bring renewable power into urban markets (www.Anbaric.com). Mr. Krapels has also been active in the promising microgrid industry as a cofounder, in 2009, of Viridity Energy, a company dedicated to optimizing demand-side management programs and developing the control software for microgrids. Anbaric has initiated a microgrid project development company with Exelon (www.AnbaricMicrogrid.com) and is actively pursuing the development of the first generation of independent microgrids in New York State. The author holds a Ph.D. from the Johns Hopkins University, an M.A. from the University of Chicago, and a B.A. from the University of North Carolina, Chapel Hill. This article is based in part on an article published with William Hollaway (a partner with the law firm Gibson Dunn & Crutcher) in *Public Utilities Fortnightly*, and an earlier article written with Clarke Bruno prepared for the Regional Plan Association in June 2013. The author was a principal with the companies that developed the Neptune and Hudson projects, which are discussed in this paper.