

LS Power



Competitive Transmission Forum: Hosted by NESCOE and ISO New England

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Bringing Energy Forward



- LS Power is a power generation and transmission group

Power Generation

- Over 32,000 MW of development, construction, or operations experience
- Active development of renewable and fossil generation resources

Transmission

- Over 470 miles of 345-500kV development, construction or operations experience
- Rate regulated transmission utility in the State of Texas
- Active development of high-voltage transmission throughout North America

Acquisition

- Over \$6 billion in private equity capital dedicated to energy sector
- Acquired over 20,000 MW of power generation

Functional Expertise

Functional Expertise			
Project Development	Transmission	Licensing & Environmental	Project Finance & Execution
Regulatory, Legal & Compliance	Power Marketing & Energy Management	Engineering & Construction	Operations Management

Project Portfolio



General Thoughts on Order No. 1000 Implementation



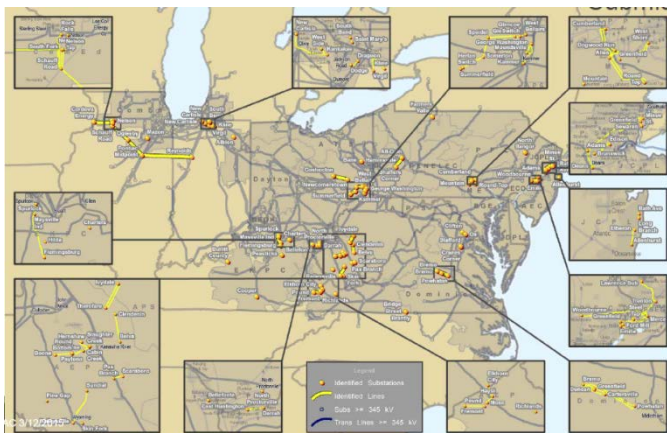
- We are still at the beginning stages of Order No. 1000 implementation
 - Order No. 1000 became effective in the vast majority of United States on January 1, 2015
 - Processes are still being established
 - Most regions have not completed competitive processes yet
 - ISO-NE
 - New York
 - MISO
 - SPP
 - California and PJM are ahead of the rest of the country in terms of implementation and actual competitive processes.
- It is too early to make meaningful pronouncements or judgments on Order No. 1000 in its entirety
- The recent PJM Artificial Island selection decision is very significant and very positive



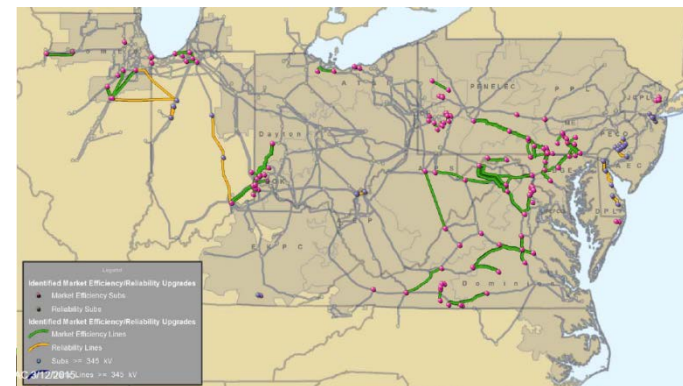
RTEP Proposal Window Status

	Artificial Island	2013 Market Efficiency	2014 RTEP Proposal Window 1	2014 RTEP Proposal Window 2	2014 RTEP Proposal Window 2 Addendum 1	2014 RTEP Proposal Window 2 Addendum 2	2014/15 RTEP Long Term Proposal Window	2015 RTEP Proposal Window 1
Window Open	4/29/2013	8/12/2013	6/27/2014	10/17/2014	1/20/2015	2/24/2015	10/30/2014	2Q 2015
Window Close	6/28/2013	9/26/2013	7/28/2014	11/17/2014	2/3/2015	3/12/2015	2/27/2015	
Objective	Operational Performance	Market Efficiency	Reliability Criteria - Thermal	Reliability Criteria Thermal and Voltage; Transmission Owner Criteria	N-1-1 Voltage Drop	N-1-1 Voltage Drop	Long Term Reliability Criteria; Long Term TO Criteria; Market Efficiency	Reliability Criteria
Proposals	26	17	106	79	4	10	120	
Entities	7	6	15	14	3	4	22	
Status	Evaluation in Progress	Recommendations Complete	Recommendations Complete	Recommendations Complete	Complete, continued as Addendum 2	Evaluation in Progress	Evaluation in Progress	Anticipated Open in 2Q 2015

PJM TEAC Update on Proposal Window Status - April 9 TEAC – Reliability Update - Slide 10



PJM TEAC Identification of 2014/2015 Long Term Proposal Window – Project Submissions - Long Term Reliability Criteria



PJM TEAC Identification of 2014/2015 Long Term Proposal Window – Project Submissions - Market Efficiency

The Backdrop is Getting More Competitive



- **From recent UBS Wall Street Report (October 2015):**
 - “We maintain that we are still in the midst of a structural ramping of competition in the transmission sector with newcomers joining the sector via newly created competitive bid structures arising from FERC Order 1000 implementation. We flag recent bids awarded to private developers as illustrating the willingness for RTOs to award large projects to such entities, which have committed to specific bid caps in order to win projects away from incumbents who have historically avoided making such commitments on projects. We maintain that this trend could yet continue.”
- **From Commissioner LaFleur’s Concurrence on FERC’s Denial of PSE&G Complaint on Artificial Island (June 2015)**
 - “One of Order No. 1000’s key goals was to harness the benefits of competition in transmission development for customers, and it is important that, as regions implement their Order No. 1000 procedures, we do not lose sight of that goal: facilitating the identification, development, and ultimately the construction of more efficient or cost-effective transmission projects that are better for customers. Order No. 1000’s competitive solicitation processes – and in some cases, the mere prospect of competitive solicitation processes – have already led to a host of innovative rate structures and cost containment proposals that, if properly designed, could provide significant benefits for customers. I believe that these efforts should be encouraged, both by the Commission and in the regional transmission planning processes, to foster a dynamic environment for new transmission development.”

Why Is this Being Done?



- **From the DC Circuit Decision (3-0) Upholding FERC Order No. 1000**
 - “The Commission feared that this lack of an incentive for non-incumbents to propose needed infrastructure would ultimately give rise to unlawful rates for customers. By deterring proposals from non-incumbents, rights of first refusal would impede the identification of some cost-efficient projects, resulting in the development of transmission facilities “at a higher cost than necessary”... Those higher costs would be then passed on to customers, yielding rates that were “not just and reasonable”, in violation of the Federal Power Act. The Commission’s concerns were particularly acute in light of its expectation that a massive amount of transmission facility would take place during the next two decades as renewable energy resources were integrated into the grid.” (p. 50)
 - “Finding no merit in any of the petitioner’s right of first refusal challenges, we deny those portions of their positions that attack the ban.”
- **Purpose of Order 1000 is to arrive at “more efficient or cost effective” transmission solutions to reduce costs to ratepayers**
- **LS Power believes that once entities are qualified in the process, that cost should be the primary driver in the selection process**

Transmission Competitive Processes



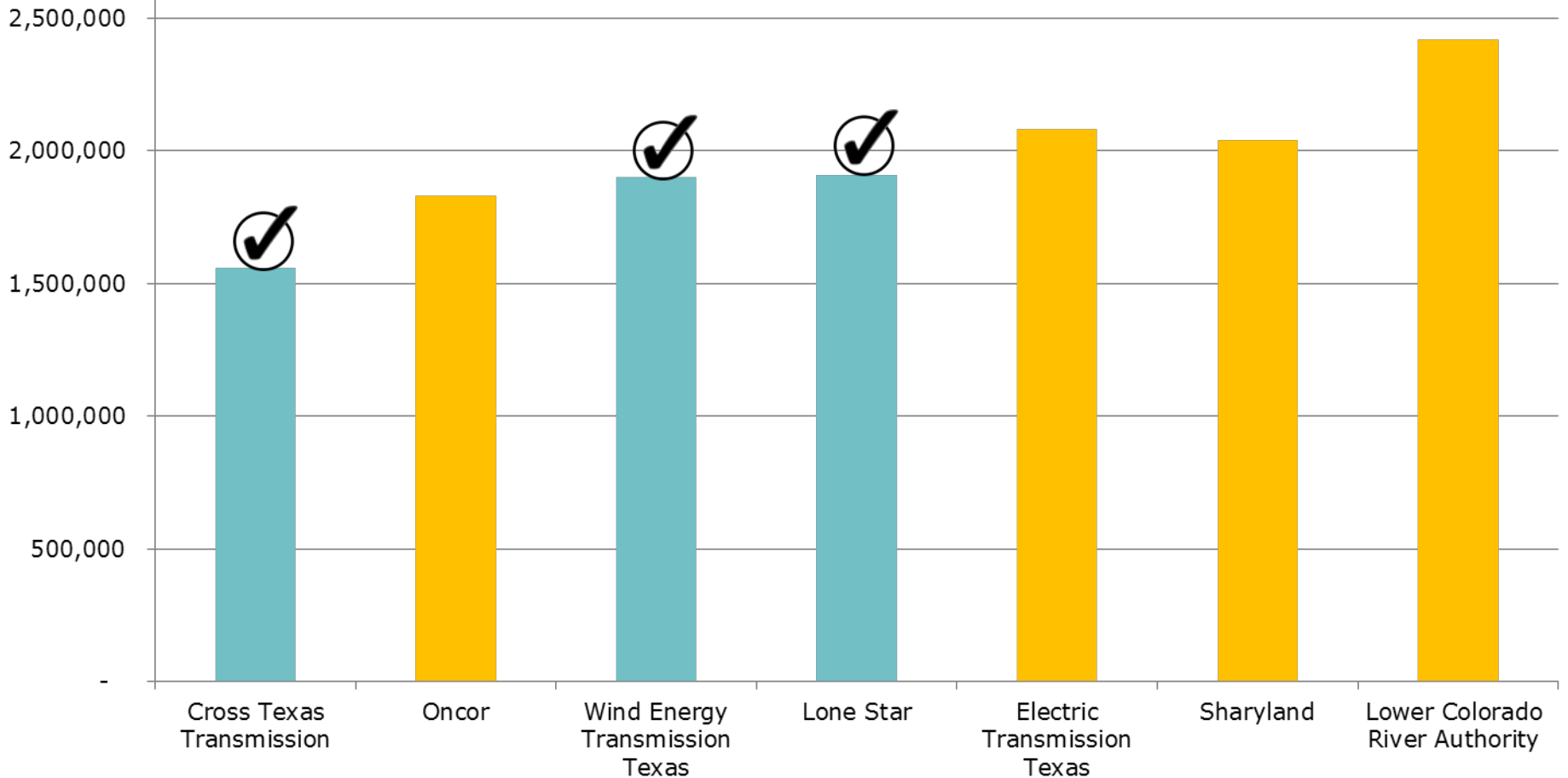
Competitive Process	Bid/ Sponsorship	Cost as Evaluation Factor
AESO (Alberta)	Bid	100%
CAISO	Bid	Cost as one of several unweighted factors
ISO-NE	Sponsorship	Cost as one of several unweighted factors
MISO	Bid	30%
NYISO	Sponsorship	Cost as one of several unweighted factors
PJM	Sponsorship	Cost as one of several unweighted factors
SPP	Bid	37.5%

CREZ Cost Differentiation: Wide Variances in Actual Costs Between Developers



\$/mile, Double Circuit 345kV
3,000,000

Wide variation in construction costs of transmission lines with same voltage (345 kV), same configuration (double-circuit), same state (Texas), same timeframe (2010-2013)



Risk Mitigation / Cost Containment



- The Selection Process Should Drive Lower Costs to Consumers
 - Binding cost control measures
 - Multiple bidders
 - Competitive pressure leads to optimization/innovation
- The Competitive Process Could Change Risks Borne by Developers
 - Routing/permitting risk
 - Commodity and equipment/material supply cost risk
 - Interest rate and financing cost risk
 - Operating cost risk
- Not one size fits all – developer creativity should be encouraged to arrive at “more efficient or cost effective” solution
- Different appetites for risk and different ability to mitigate risk
- Recent Regulatory Process Examples
 - AESO Process – Clear Identification of Risk Allocation. Fixes annual payment with adjustments for route, commodity / inflation, interest rates. 100% Weighting.
 - New York Energy Highway –Clear Identification of Cost Containment - binding capital cost estimates – sharing 80%/20% ratepayer/developer above or below
 - PJM & California – Existence of the Binding Cost Cap was a Winning Factor
- ITC Declaratory Motion

Binding Bids Can Be and Will Be Legally Enforceable



- Nothing controversial about utility willing to charge less than its cost
- Caps are enforceable in contracts such as DEA, FERC rate proceedings. If you don't follow through with your cap in your rates, you would be denied any rate recovery.
- FERC has approved fixed price rates, such as under power purchase agreements
- FERC has approved market based rates (compared with cost based rates) in many instances
- FERC has approved shared savings mechanisms in rates