



# CAPACITY EXPANSION MODELING FOR TRANSMISSION PLANNING WORKSHOP

**Morning of October 24, 2022**  
Loews Minneapolis Hotel – Minneapolis, MN

## PROGRAM AGENDA

### Monday, October 24, 2022

7:00 – 8:00 a.m.

#### **Registration & Breakfast**

Location: Stone Arch III/IV

8:00 a.m. – 12:00 p.m.

#### **Capacity Expansion Modeling for Transmission Planning**

Location: TBD

Co-Chairs: **Debbie Lew**, Associate Director, ESIG & **Aaron Bloom**, Senior Director Regulatory Affairs, NextEra Energy

As we move toward a power system with higher wind and solar resources, it becomes increasingly important to consider resource and transmission expansion as an integrated process. Today for many utilities and ISO's, transmission planning is a separate, siloed process from resource planning.

Capacity expansion models are traditionally used by utilities to optimize generation resource expansion to meet demand in the future at least cost (of capital and operations). They are only beginning to be used for integrated generation and transmission planning. There are various ways to do this today, from co-optimization to iterative approaches.

This half-day workshop convenes both capacity expansion model developers and resource/transmission planners for a dialogue on how capacity expansion models can be used as a first step in transmission planning, and what improvements can be made to the models or processes to make them more useful.

As preparation, we ask participants to review a summary of models and videos of each model on our [webpage](#). This will allow us to bypass clarification questions (eg does your model co-optimize generation and transmission?) and instead focus on how the models can be applied in transmission planning, and what transmission planners need from these models to make them more effective, while still allowing these models to be tractable.

8:00 a.m.

#### **Introduction**

**Debbie Lew**, Associate Director, ESIG & **Aaron Bloom**, Senior Director Regulatory Affairs, NextEra Energy

## Summary of tools

**Ryan Deyoe**, Power Markets Analyst, Telos Energy

8:10 a.m.

### **Application of capacity expansion modeling for transmission planning in National Grid**

**Kai Van Horn**, Manager of US Market Fundamentals, National Grid USA

8:25 a.m.

### **Regional/Utility Panel Discussion**

Moderator: **Aaron Bloom**, Senior Director Regulatory Affairs, NextEra Energy

**Steven Broad**, Plexos, Senior Principal Product Manager, Energy Exemplar

**Norm Richardson**, EnCompass, President, Anchor Power Solutions

**Arne Olson**, RESOLVE, Senior Partner, E3

**Russ Philbrick**, PSO, CEO, Polaris Systems Optimization

**Drew Siebenaler**, Manager of Regional Transmission Planning and Analytics, Xcel

**Jason Frasier**, Manager of Economic Planning, NYISO

## Open Discussion

9:55 – 10:15 a.m.

### **Break**

10:15 a.m.

### **Application of capacity expansion modeling for transmission planning for National Transmission Planning Study**

**Hamody Hindi**, DOE Grid Development Office

10:30 a.m.

### **National/Multi-state Panel Discussion**

Moderator: **Debbie Lew**, Associate Director, ESIG

**Patrick Brown**, REEDS, Researcher, NREL

**Jim McCalley**, CGT Plan, Professor of Power Systems Engineering, Iowa State University

**David Young**, REGEN, Energy Systems and Climate Analysis Research Manager, EPRI

**Jinxiang Zhu**, Multi Energy Vector CEM and Aurora, Consulting Director, Hitachi ABB

**Jordan Bakke**, Director of Strategic Insights and Assessments, MISO

**Keegan Moyer**, Principal, Energy Strategies

## Open Discussion

11:55 a.m.

### **Closing remarks and next steps**

12:00 – 2:00 p.m.

### **Lunch**

Location: Stone Arch III/IV