



Report on Transmission Cost Allocation for RTOs and Others



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Lynn Coles, NREL

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Highlights of Recent Report (1)(2)

- **Projected Transmission Investment.**
- **Issues with Transmission Cost Allocation Methods.**
- **Examples of Innovative Cost Allocation Methods.**
- **Conclusions.**

Report Title and Where to Find It —

- (1) [Fink, S.; Porter, K.; Mudd, C.; Rogers, J. \(2011\). Survey of Transmission Cost Allocation Methodologies for Regional Transmission Organizations. 67 pp.; NREL Report No. SR-5500-49880.](#)
- (2) [www.nrel.gov/wind/.../pdfs/2011/fink transmission cost allocation.pdf.](http://www.nrel.gov/wind/.../pdfs/2011/fink_transmission_cost_allocation.pdf)

Transmission Addition Trends

NERC Expects:

- **About \$10 billion per year going forward.**
- **An increase of 31,400 circuit miles or about 8% by 2018.**

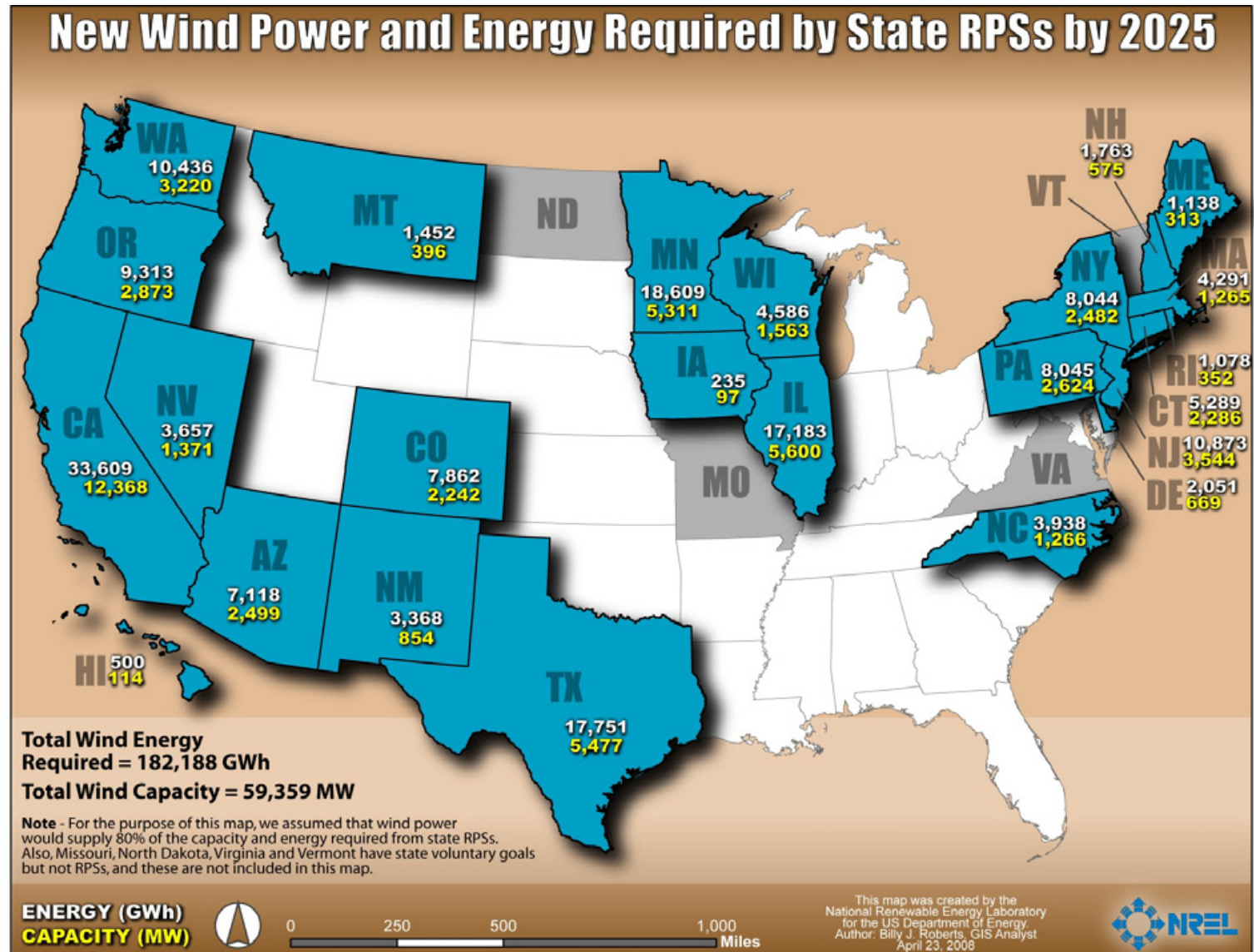
The Brattle Group found more than \$120 billion worth of planned and conceptual transmission projects.

Much higher than historic patterns: ~ 2\$B in 90s.

Drivers/Issues

- **Transmission cost allocation: “who pays what” can determine whether transmission lines are built or not.**
- **Cost allocation can be contentious across multi-state paths.**
- **Several RTOs and transmission providers have experimented with innovative cost allocation strategies.**

State Policies



Cost Allocation Requirements:

Clear for Interconnection and Reliability Upgrades but not for Economic or Policy Upgrades.

- **Interconnection: Facilities to tie new generation to the network -**
 - Generators generally pay for direct connection lines, but can be reimbursed over time for network upgrades.
- **Reliability Upgrades: Facilities to serve load reliably and to meet NERC reliability requirements -**
 - 100% paid for by load;
 - Important - transmission congestion is not necessarily alleviated through reliability upgrades.

Cost Allocation Requirements: (cont.)

- **Economic/Policy Upgrades:** To access new generating resource areas, enhance competitive markets or to meet other policy requirements (RES) -
 - Typically has to meet cost-benefit test requirements;
 - May have to be included in regional transmission plan.

Few economic transmission projects have gone forward.

As a result, individual RTOs (e.g., CAISO, PJM) either have or are considering revamping transmission plans to include “public policy requirements.”

Some Innovative Approaches to Cost Allocation

[See NREL Report for greater detail (Fink, S.; Porter, K.; Mudd, C.; Rogers, J. (2011). Survey of Transmission Cost Allocation Methodologies for Regional Transmission Organizations. 67 pp.; NREL Report No. SR-5500-49880)]

SPP

Oct 2008 FERC Approval for **Balanced Portfolio** provided:

- Benefit-to-cost ratio for 10 years is greater than 1.0;
- The portfolio is balanced – each zone has a positive benefit-to-cost ratio.

June 2010 FERC Approval for **Highway/Byway** Cost Allocation:

- Facilities above 300 kv , 100% assigned to regional postage stamp rate;
- Facilities between 300 kv and 100 kv, 33% regional 67% zonal;
- Below 100 kv, 100% zonal.

BPA-Non RTO

Bonneville Power Administration (BPA) Network Open Season

Started in 2008 to reduce overloaded queue issues:

- **Annual open season where customers sign an agreement and provide refundable deposit;**
- **BPA does cluster study and financial analysis to see if they can move forward on embedded rates;**
- **If rates would be greater than embedded costs, agreement would be considered terminated.**

Proposed FERC Rule on Transmission Planning and Cost Allocation

- **Transmission providers and RTOs must incorporate public policy requirements into transmission plans (e.g., state RPS policies).**
- **Every transmission provider must:**
 - **Participate in regional transmission planning;**
 - **Coordinate with neighboring regional transmission planning processes;**
 - **Propose transmission cost allocation criteria that may differ by type of transmission project (e.g., reliability, economic, or public policy-driven).**

Proposed FERC Rule on Transmission Planning and Cost Allocation (Cont.)

- **FERC to impose a transmission cost allocation methodology on a case-by-case basis if a region cannot reach agreement.**
- **Strong indication that FERC will propose “beneficiary pays” transmission cost allocation.**

Conclusions

- **This has been “highlights only.” See the cited report for more topics and greater detail.**
- **The United States appears to be posed for significant transmission expansion after years of low growth.**
- **Cost allocation criteria clear for interconnection and reliability-driven transmission projects, but not for economic transmission projects.**
- **RTOs and others have proposed innovative cost allocation methods.**

Conclusions (Cont.)

- **New proposed FERC transmission rule incorporates public policy requirements into transmission planning;**
- **FERC can step in and offer a transmission cost allocation method if the region does not;**
- **FERC appears to be leaning towards “Beneficiary Pays” approach.**

Questions?

Lynn Coles

NREL

303-384-6974

Lynn.coles@nrel.gov