



“National Transmission Capacity Issues”

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Agenda



- ◆ Who is ITC?
- ◆ Importance of Independence
- ◆ The Current Environment
- ◆ Need for Changes to U.S. Energy Policy

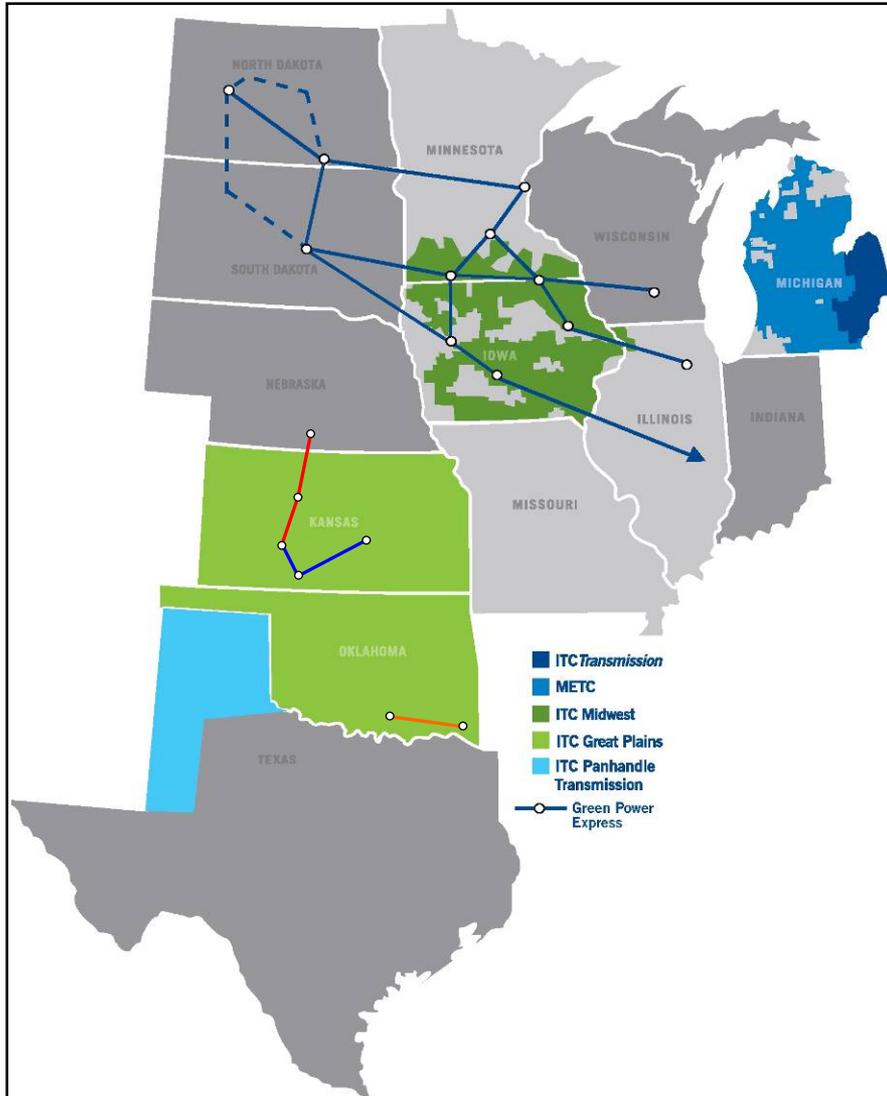
Who is ITC?

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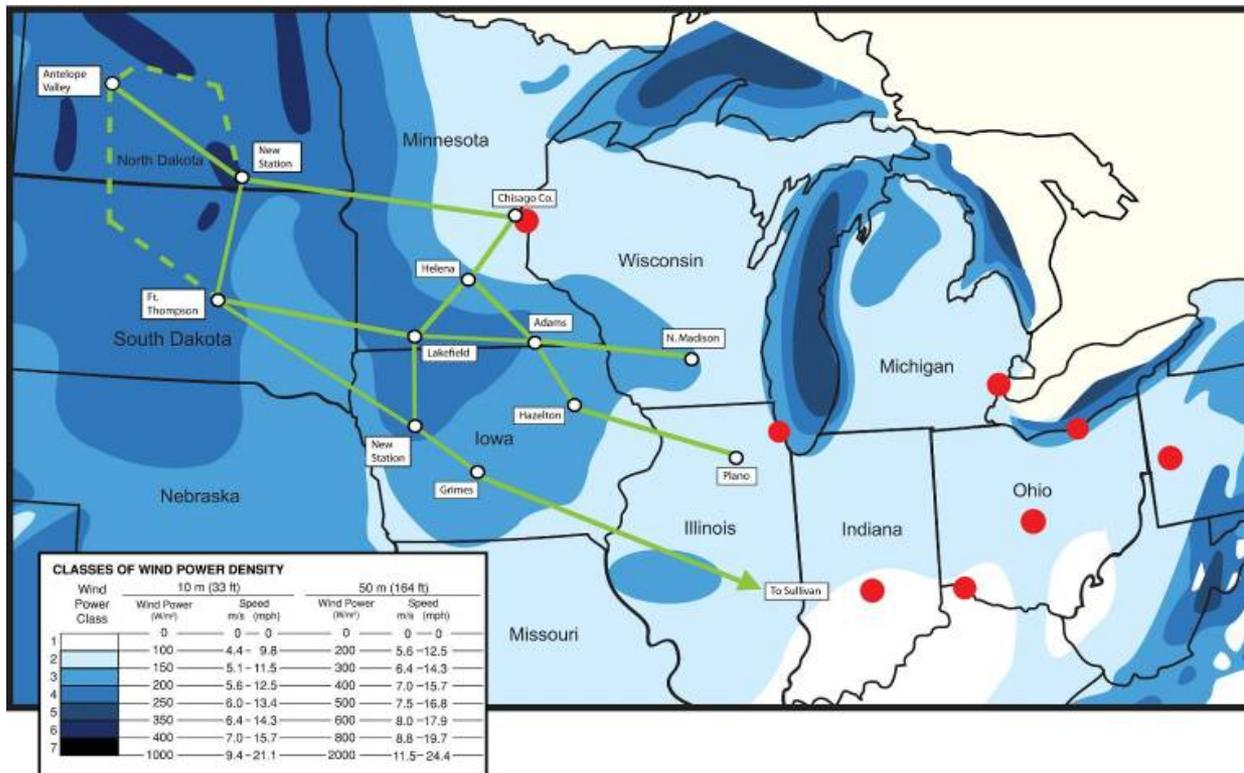
*ITC is the first
fully independent
transmission
company in the
U.S.*

Who is ITC?



- ◆ ITC is the ninth largest transmission-owning company in the U.S.
- ◆ Transmission systems in Michigan's lower peninsula and portions of Iowa, Minnesota, Illinois and Missouri
 - Serves combined peak load in excess of 25,000 megawatts (MW)
 - Approximately 15,000 line miles
- ◆ Recently announced "Green Power Express" designed to facilitate the interconnection of 12,000 MW of wind in the Dakotas, Iowa and Minnesota to eastward population centers
- ◆ Also actively seeking opportunities to build, own, operate and maintain transmission in Kansas, Oklahoma and Texas (SPP region)
- ◆ Since 2003, ITC has invested more than \$1.5 billion in transmission system upgrades to improve reliability, reduce system congestion, and facilitate the non-discriminatory interconnection of new generating assets, including renewable resources

Regional Transmission Projects Green Power Express



● Population Centers

— Green Power Express

- ◆ Green Power Express - February 2009
- ◆ ~3,000 miles EHV 765kV transmission
- ◆ Portions of ND, SD, MN, IA, WI, IL & IN
- ◆ Total ~\$10 to \$12 billion
 - ITC's investment a portion of total

Regional Transmission Projects

KETA, Kansas V-Plan & Hugo / Valliant



- Hugo / Valliant
- KETA Project
- Kansas V-Plan

ITC Great Plains is building two projects in Kansas and one in Oklahoma

- ◆ Hugo / Valliant:
 - 20 mile, 345 kV
 - Estimated investment ~\$35 million
 - In pre-construction phase
- ◆ KETA Project:
 - 185 mile, 345 kV (Two Phases)
 - Spearville, KS to Axtell, NE
 - Estimated investment ~\$200mm
 - In pre-construction phase
- ◆ Kansas V-Plan:
 - 180 mile
 - Spearville to Wichita, KS
 - Northern portion of SPP “X Plan”
 - Estimated investment ~\$430mm (reflects ITC’s portion)
 - Currently under analysis as a priority project

ITC's Track Record for Operational Excellence



- ◆ From a state-of-the-art Operations Control Room (OCR) in Novi, ITC monitors the high voltage electric transmission system in all four operating companies across 6 states
- ◆ ITC measures its results by participation in the SGS Statistical Services Transmission Reliability Benchmarking program – **consistently in top performing system in study**
- ◆ ITC participates in Edison Electric Institute's (EEI) Safety Benchmarking program to gauge its performance against approximately 70 other utilities – **ITC one of the top companies in the study**
- ◆ The OCR is staffed with operators qualified at the highest level under the North American Electric Reliability Corporation's (NERC) Operator Certification Program
- ◆ ITC *Transmission* and METC were found fully compliant with all Transmission Operator requirements under NERC's mandatory reliability standards in our last audit



Importance of Independence

Does Independence Really Matter?

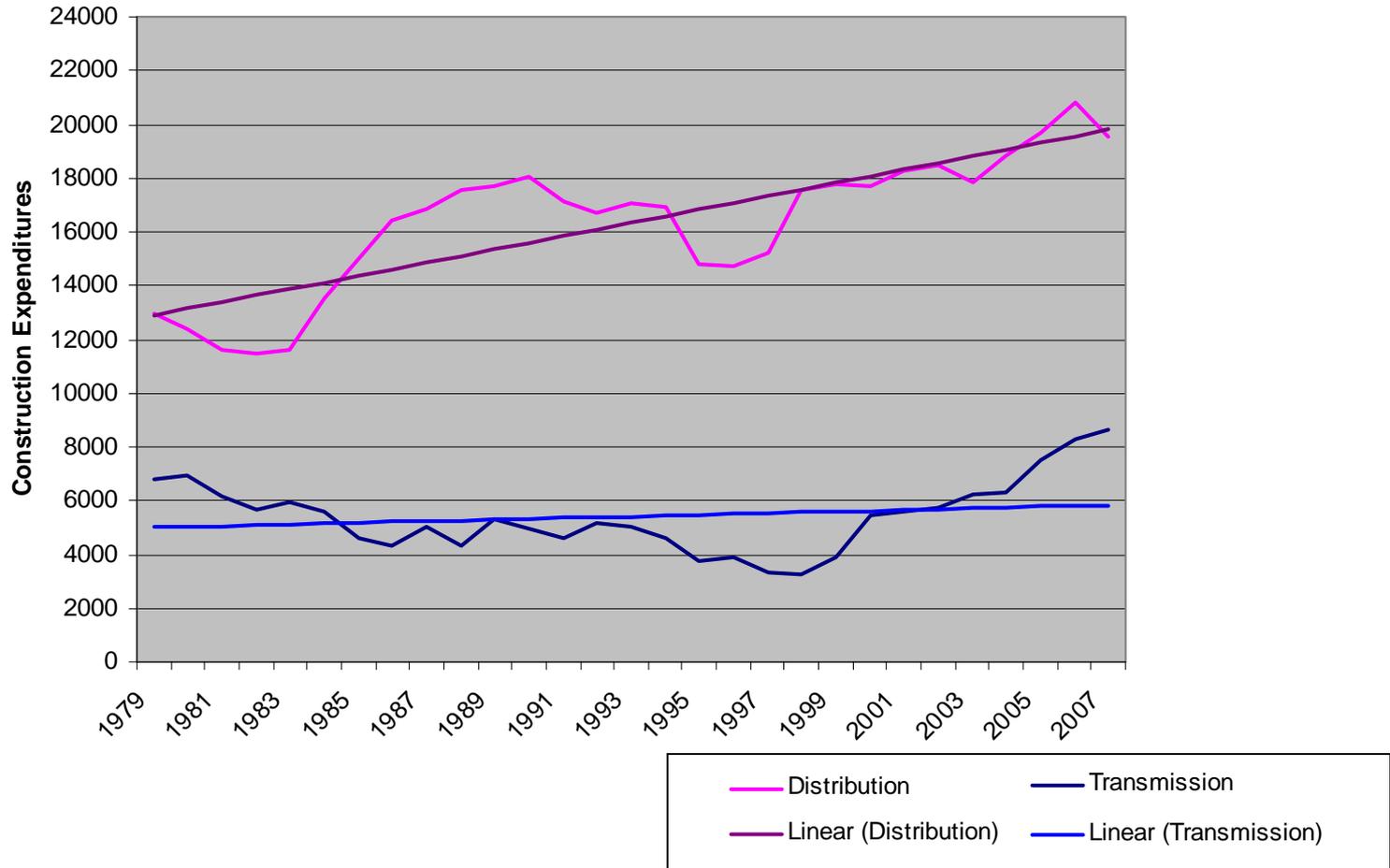


- ◆ Let's imagine that American Airlines was responsible for the control tower operations at the Manhattan Regional Airport.
- ◆ What do you think would happen?
 - Whose flights would be the first to land?
 - Whose flights would be the first to take off?
- ◆ There is a clear reason why independence in this case is important
- ◆ How does this example apply to the energy industry?

Reduced Investment in Grid



*Historical Transmission and Distribution Investment
(\$ millions in 2008 dollars)*



Source: EEI Statistical Yearbook, The Edison Electric Institute, 2009.

ITC = Independent



- ◆ ITC focuses on ownership, operation, maintenance, and construction of transmission facilities as a single line of business
- ◆ There is no internal competition for capital – it is dedicated for prudent transmission investment
- ◆ ITC is singularly focused on transmission and aims to bring significant benefits to customers
- ◆ Our Goals:
 - Improve reliability
 - Reduce congestion, improve efficiency
 - Increase access to generation, including renewable resources
 - Lower cost of delivered energy

ITC's independence uniquely positions it to bring the necessary investment to the grid

The Current Environment

Current Situation For the Grid



High Demand: Electricity demand continues to grow; expected to increase 25% by 2030

- ◆ ***Aging infrastructure:*** Most of the grid was built more than 30 years ago and not designed to reach regions of the country that have the most potential for renewable energy generation
- ◆ ***Mounting Reliability Concerns:*** Blackouts and brownouts cost our economy every year
- ◆ ***Inefficiencies:*** A lack of investment has led to increased congestion, inefficiency, and higher electricity prices
- ◆ ***Interconnection Problems:*** A lack of capacity has created a huge queue length for energy projects
- ◆ ***A Fragmented System:*** Today we have approximately 3,200 electric utilities including an estimated 500 transmission owning entities that are regulated using an outdated model

Unfortunately, Current System is Inefficient



- ◆ Let's consider how energy gets to your home:
 - Oil is transported from the Middle East by way of fuel-powered barge across ocean
 - Oil is then used to move coal rail car from coal fields to your city across long distance with loss through coal dust
 - Coal is then shoveled into coal generating plant that is only ~30% efficient
 - Electricity generated is transported across transmission and distribution lines where another 9.5% is lost due to aforementioned congestion

Energy Industry: Today and Tomorrow

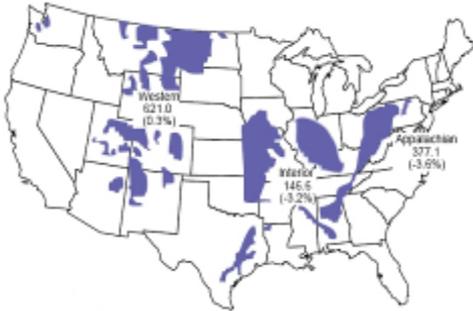


- ◆ Policymakers are calling for the industry to look at new sources for energies and technologies
 - Create new jobs
 - Invest in and improve nation's infrastructure
 - Diversify our fuel sources / energy security
 - Protect the environment
- ◆ However, many of these new sources and technologies are not possible without a robust transmission grid

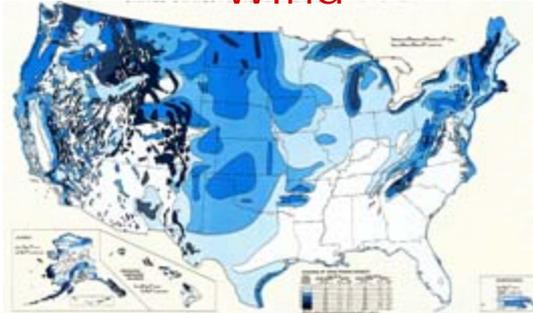
Our Nation's Generation Resources



Mine-mouth Coal



Wind



Nuclear



Geothermal



Gas

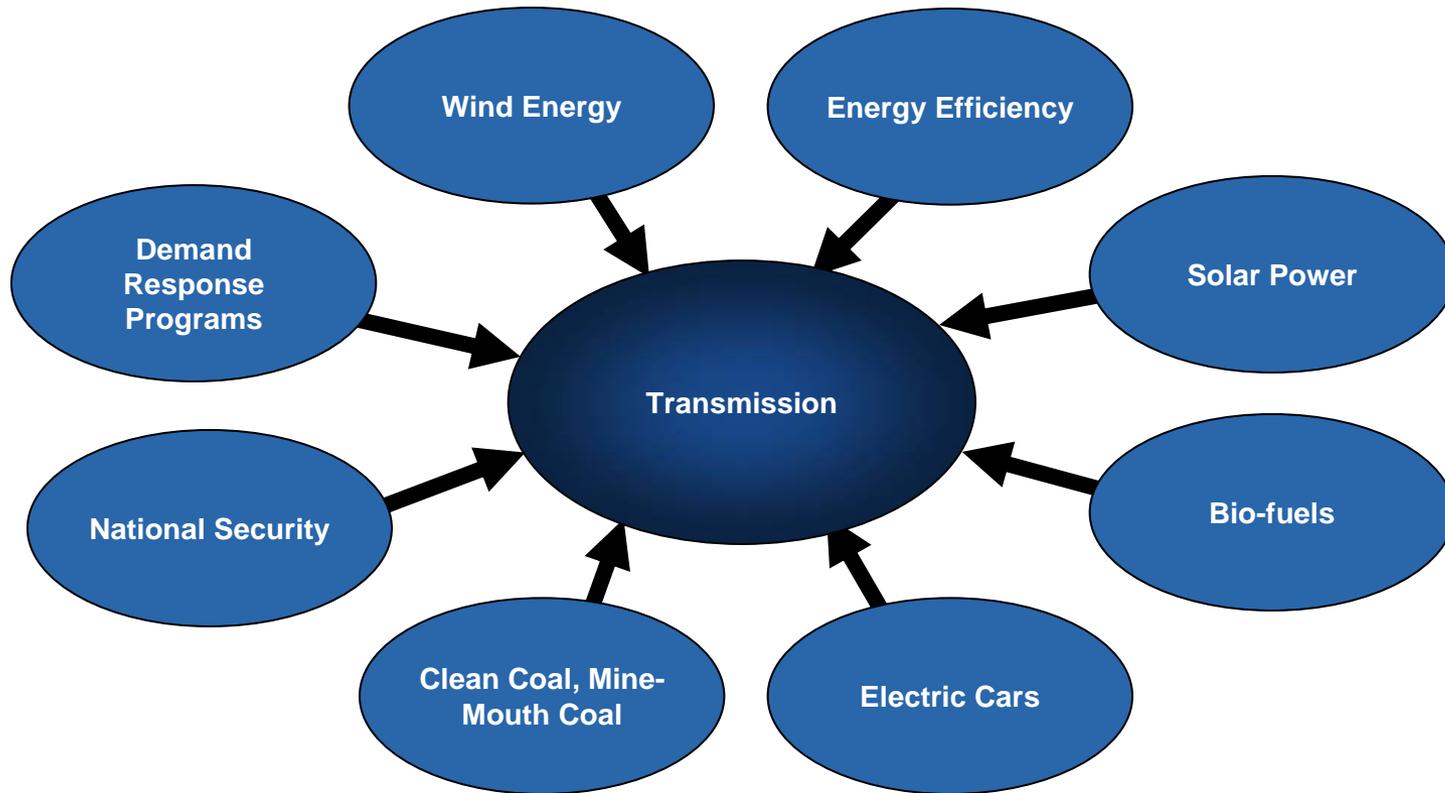


Solar



- ◆ ITC must provide equal and non-discriminatory access to all forms of generation
- ◆ Each of these different generation sources provide a unique challenge in interconnecting them to the grid
 - ◆ For example, wind is highly variable and largely abundant in areas with little transmission infrastructure
- ◆ However, all have one thing in common:
 - ◆ All generation sources need access to a robust transmission grid

Transmission as Facilitator



*Transmission is at the center of the energy debate;
It is the critical link to many energy policy visions*

Recent Emphasis



- ◆ **FERC policy initiatives to encourage transmission investment provide greater returns for certain projects including:**
 - High voltage facilities which increase reliability, reduce congestion and encourage development of clean energy
 - All investment for transmission
 - Only clean energy projects

- ◆ **Although grid investment has doubled in recent years, it is still well below where it needs to be**

- ◆ **Estimated over \$230 billion of investment will be necessary over the next 20 years**

Need for Changes to U.S. Energy Policy

Not One Inch of Regional Transmission



- ◆ FERC landmark Order 888 (1996)
 - Sought generation competition
 - Required transmission owners to provide non-discriminatory access
- ◆ FERC Order 2000 (1999)
 - Encouraged utilities to participate in regional transmission organizations (RTOs)
- ◆ These two orders helped establish a non-discriminatory market
 - Fell short of being fully effective

Despite all the attention to the concept of regional transmission & RTOs, NOT ONE INCH of truly regional transmission has been built



Present Transmission Policy



- ◆ **Existing transmission policy results in significant barriers to investment / development**
 - Barriers for existing transmission owners
 - Barriers to entry to new, potential transmission owners
- ◆ **Problems with present transmission policy include:**
 - Uncertainty of cost allocation and cost recovery
 - Unpredictable and excessively lengthy state and local siting for projects with regional benefits
 - Disproportionately high costs to generators for network upgrade projects
 - Uncertainty on regulated rates of return
- ◆ **What is impeding regional transmission?**

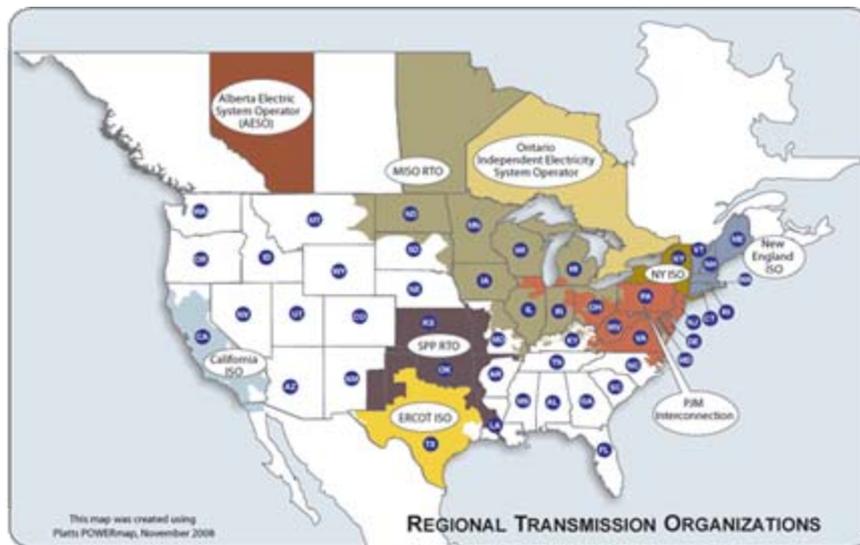
Impediments to Regional Transmission



- ◆ What is impeding transmission investment?
 - Lack of collective industry vision
 - Parochialism caused by vertically integrated utilities and state regulation
 - Influence of market participants
 - Fallacy of generation vs. transmission debate
 - Local opposition / NIMBY challenges

All of these issues are interrelated and stem from the lack of a national energy policy and legislation that addresses regional planning, cost allocation and siting

Challenges of RTOs



- ◆ Voluntary nature of RTO membership, governance structure
- ◆ Influence of members and stakeholders on regional planning within RTO
- ◆ Competing interests in planning regional transmission and running an energy market
- ◆ Disagreement as to who should pay for regional projects

SPP's forward-thinking policies on issues such as cost allocation are setting the standard for other RTOs

Significant Transmission Policy Changes Necessary



- ◆ **Need general recognition of constraints which the existing structure places on development / access to renewable energy sources**
 - Report: The Governors' Wind Energy Coalition (bi-partisan group of 29 Governors) – including Governor Richardson from New Mexico
- ◆ **Major changes could come within 2 to 3 years**
 - Regional / inter-regional planning
 - Regional cost allocation
 - Federal siting for regional projects
- ◆ **Policy changes could result from several sources**
 - Pending federal legislation concerning energy
 - Reinterpretations by FERC of existing statutes
 - Court decisions

Modernize the Grid via Modernized Rules

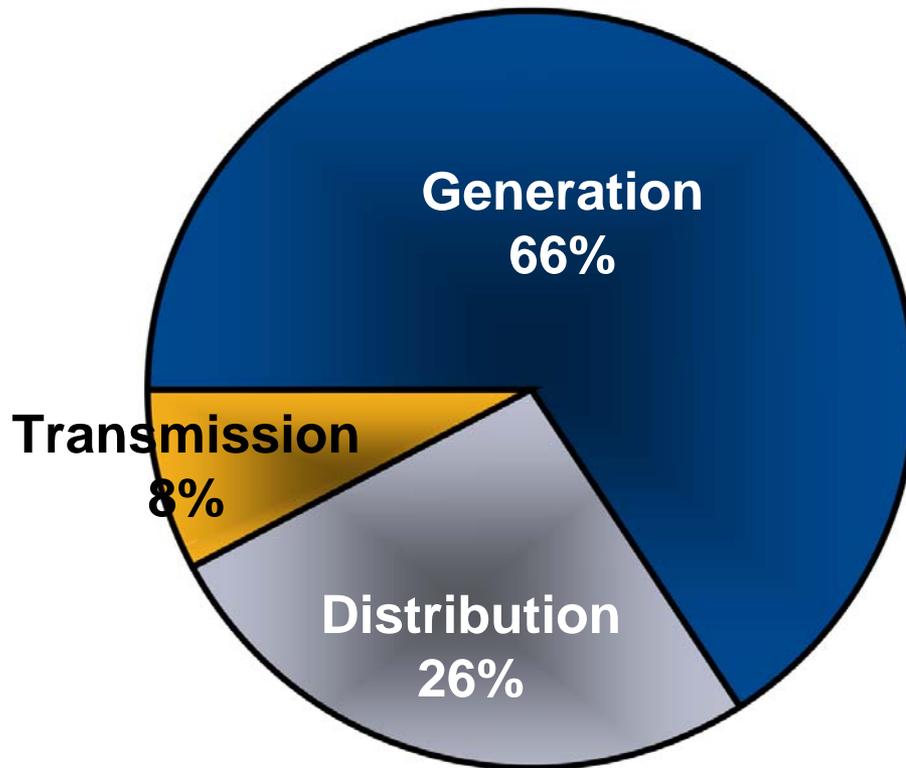


- ◆ ***National energy policy vision***
 - Guide decisions on planning of future energy delivery system
 - Foundation for energy policy (e.g., national RES, carbon pricing, etc.)
- ◆ ***Independent regional planning***
 - Interconnection-wide
 - Membership is determined by geography
 - Budget is paid for by planning assessment
- ◆ ***Cost allocation***
 - Should be harmonized for all transmission investment regardless of primary driver
 - Costs should be recovered from entire region via postage stamp rates
- ◆ ***Federal siting***
 - FERC should be given backstop authority to site transmission if a state fails to act

Transmission as Component of Bill



Proportions by Service Category ⁽¹⁾



- ◆ All of this work is accomplished while having transmission currently representing only approximately 8% of the electricity bill

(1) Source: EIA Annual Energy Outlook 2009 with Projections to 2030

Closing Remarks



- ◆ To make regional transmission a reality, there must be an energy policy vision
- ◆ Once established, the vision will guide:
 - Independent regional planning
 - Broad Regional Cost allocation
 - Backstop federal siting authority
- ◆ Doing so will lower transmission policy barriers to facilitate expansion of renewable energy