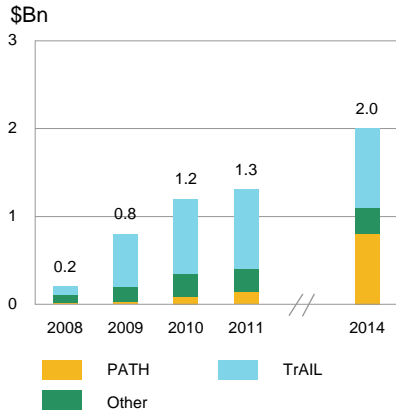


**Appendix A**

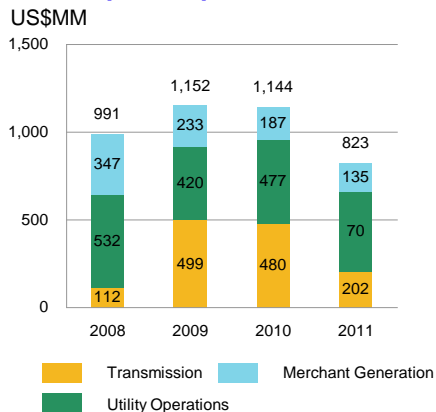
# Additional Business Model Detail

# AYE Transmission Strategy

## Transmission Rate Base



## AYE Capital Expenditure



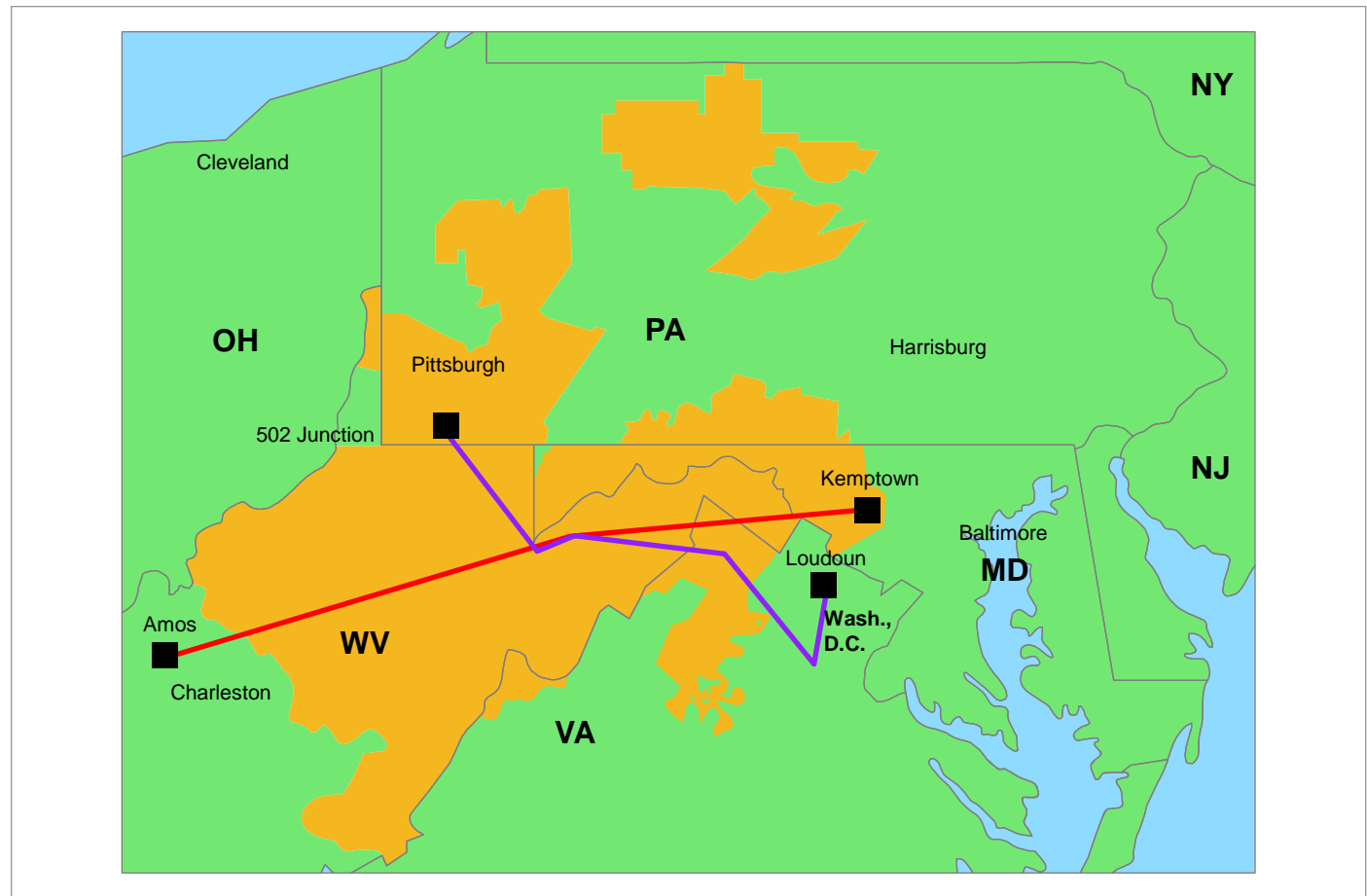
## Strategy Summary

- Allegheny's existing transmission is integrated with the utility operations, but control has been given to PJM
  - Receives FERC incentive-based ROE ranging between 10.5% - 11.9%
- Allegheny is also developing transmission projects outside its utility footprint
  - PATH: 50/50 JV with AEP, 14.3% ROE
  - TrAIL: 12.7% ROE
  - Both PATH and TrAIL will give control to PJM
- Will use project financing to fund projects, rather than corporate level debt
- Allegheny is planning total capex of \$2.0Bn over the next two years, ~35% of which will be transmission investments (~\$680MM)
- Transmission rate base is projected to nearly triple in next five years from \$781MM in 2009 to \$2.0Bn in 2014
- Company's merger proposal with FirstEnergy is expected to help bring balance sheet strength to fund the proposed capital plan

# AYE Transmission JV Projects

PATH and TrAIL Transmission Projects

## Map of Transmission Projects

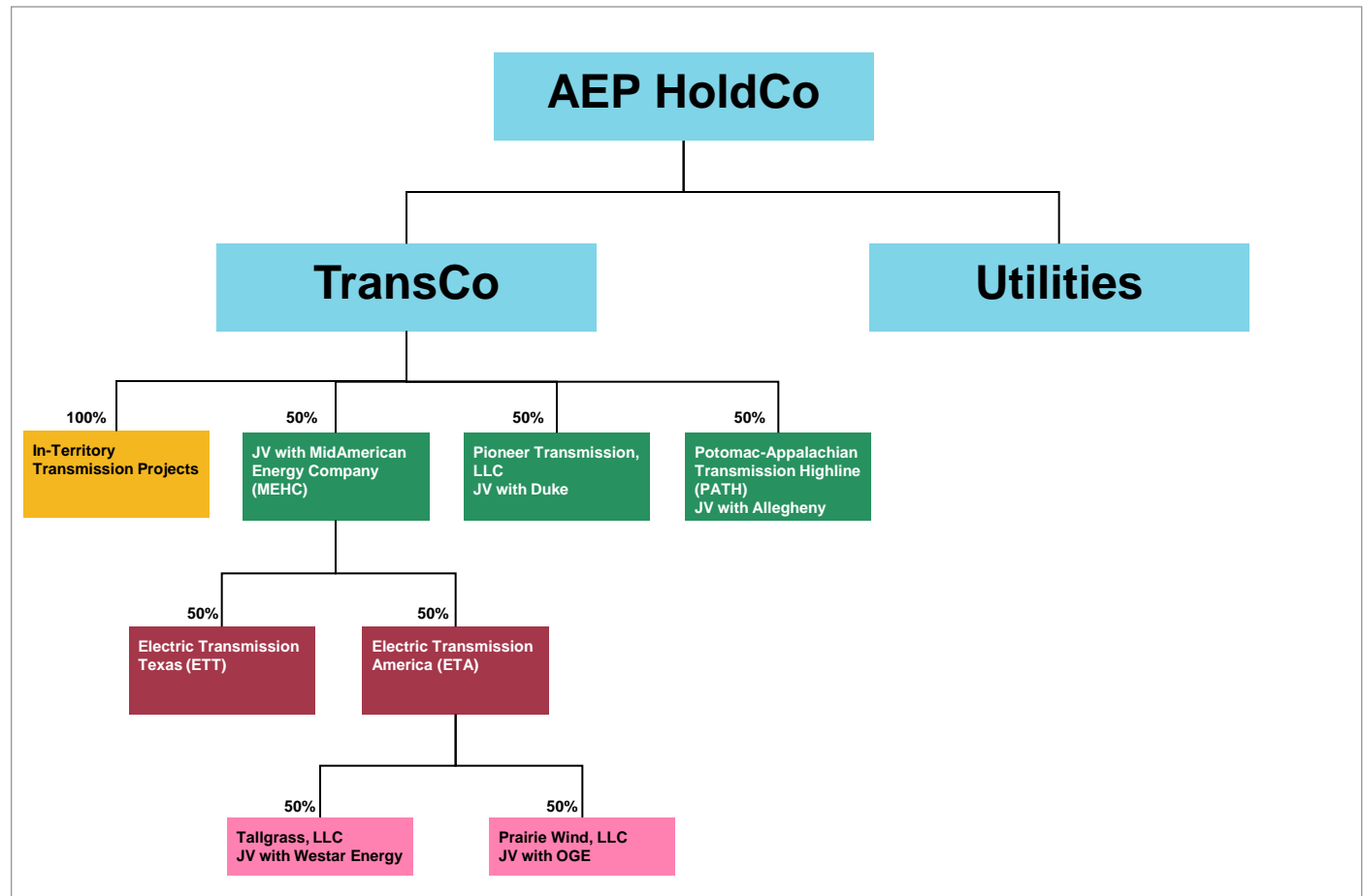


Source Company Presentation



# AEP Transmission Strategy: A Separated TransCo

AEP Transmission Structure (1)

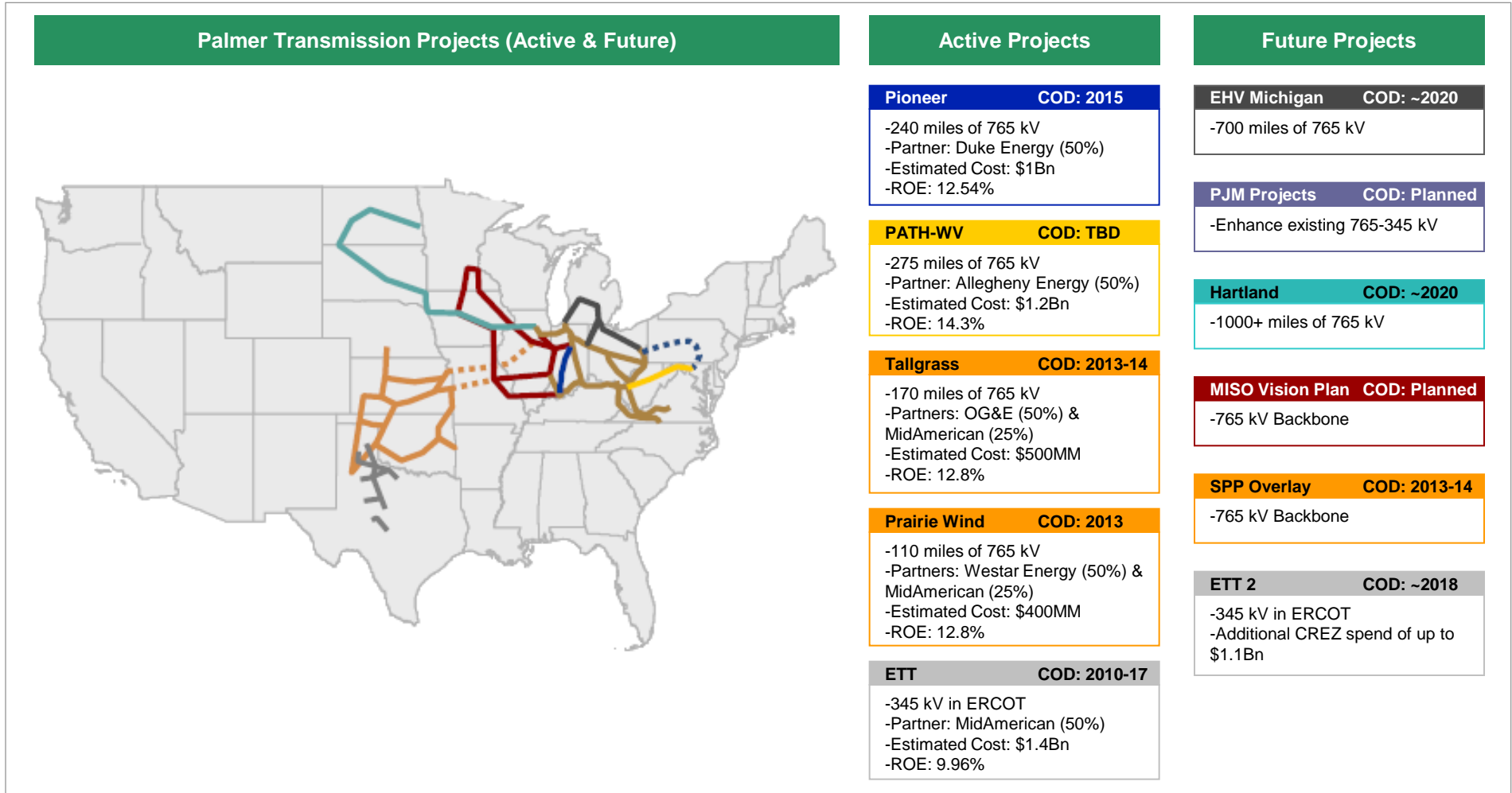


Note

1. Includes in-territory transmission projects and FERC-regulated transmission projects for which AEP has been authorized a return on equity

- AEP has established a “TransCo” structure to pursue investment opportunities within and outside its utility territories
  - In-territory projects will be 100% owned by AEP
  - Formed 50/50 JVs with MEHC, DUK and AYE to pursue national and regional opportunities, with ~\$3.5Bn in active projects
  - JVs with MEHC provide a platform for national expansion
    - ETT targets ERCOT projects
    - ETA targets projects outside ERCOT
  - JVs with DUK and AYE are focused on pursuing regional projects

# AEP JV Strategy – Nationwide Grid Expansion



**ADDITIONAL BUSINESS MODEL DETAIL**

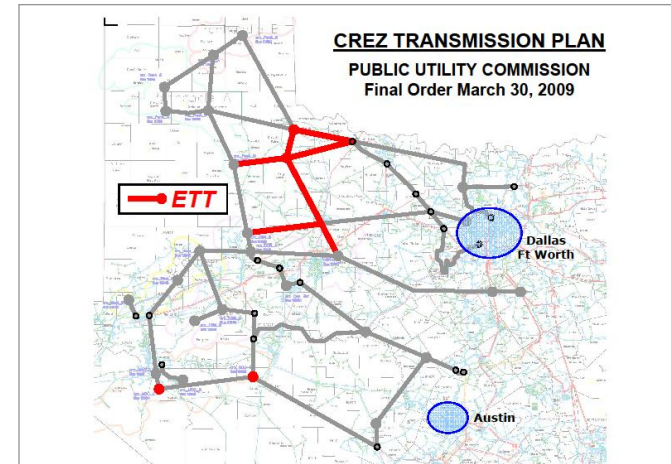
# Electric Transmission Texas (ETT)

AEP & MidAmerican JV

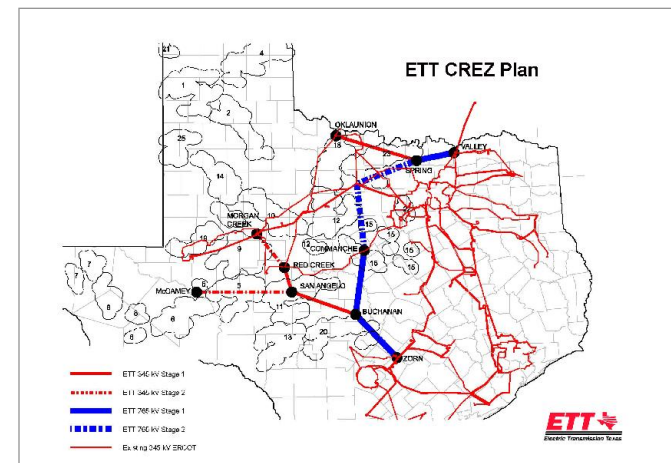
## JV Details

Based in Austin, Texas; Established: Dec 12, 2007

JV Terms	<ul style="list-style-type: none"> <li>50% / 50% ownership by AEP Utilities and MEHC Texas Transco Co LLC</li> <li>AEP transferred ~\$76MM of assets from its Texas Central Company to ETT</li> <li>AEP will initially act as project manager for planning, construction and operation of transmission projects for ETT</li> <li>Governing body: ERCOT</li> </ul>
Proposed Projects	<ul style="list-style-type: none"> <li>2012-2015 (Stage 1&amp;2) : ~1,000 mi of transmission lines to support Competitive Renewable Energy Zone (CREZ) by providing access to up to 10GWs of existing/planned renewable projects in north and central West TX; costs ~\$3Bn</li> <li>Long term (Stage 3): ~ 900 mi of high-voltage, high capacity backbone transmission; costs ~\$4Bn</li> <li>A non-exclusive proposal open to participation from other transmission developers</li> </ul>
Authorized ROE	<ul style="list-style-type: none"> <li>9.96% (11.25% requested on a 40%-60% Equity/Debt capital structure)</li> </ul>
Recent Developments	<ul style="list-style-type: none"> <li>TCC has obtained Certificate of Convenience and Necessity (CCN) granted by PUCT to operate as a transmission-only utility</li> <li>On July 17, 2008, the PUCT approved Scenario 2 of the proposed CREZ scenarios and asked transmission providers to submit a comprehensive, coordinated plan for its implementation</li> <li>On February 26, 2009, PUCT ordered its staff to stage the development of CREZ transmission lines                         <ul style="list-style-type: none"> <li>PUCT established 2 categories based on priorities and ETT has no first priority lines</li> <li>ETT's share of CREZ investment is ~\$1.4Bn of the total build-out</li> <li>The filing calls for completion by 2013</li> </ul> </li> <li>Next Steps: Perform preliminary engineering and routing work on assigned projects and file for transmission line CCN approvals this year</li> </ul>



Source Company Website



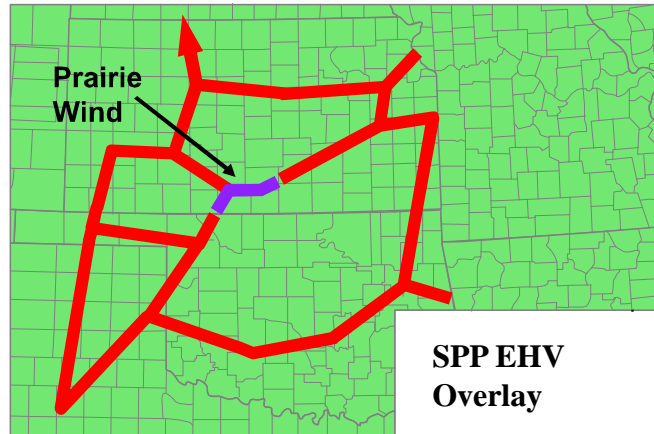
Source Company Website

- ETT is a 50/50 JV between AEP and MidAmerican to build transmission projects within ERCOT
- JV rationale
  - Infuse outside capital into TX transmission infrastructure
    - Enhance reliability
    - Support renewable efforts
  - Collaboration between two preeminent transmission developers
    - AEP: owner/operator of nation's largest transmission system
    - MidAmerican: 5<sup>th</sup> largest electric transmission owner
- Projects not pursued by ETT may be built by AEP independent of the JV

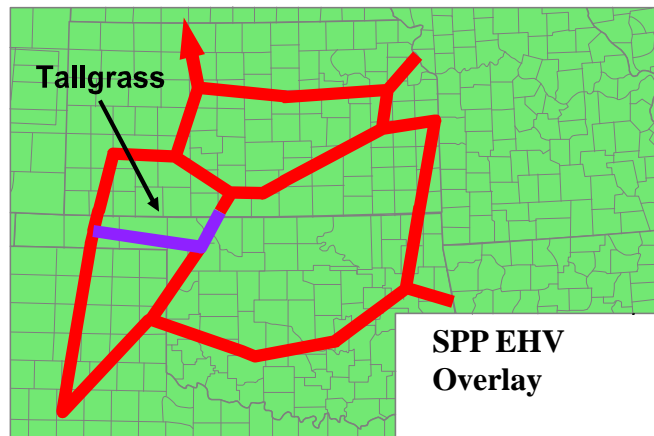
# Electric Transmission America (ETA)

AEP & MidAmerican JV

- ETA is a 50/50 JV between AEP and MidAmerican to build transmission projects outside ERCOT
  - Focused on high-voltage transmission projects (345-kV or higher)
  - Interested in investment opportunities over \$100MM
- ETA further partners with local utilities to participate in the renewables transmission build-out in the Southwest Power Pool (SPP)
  - Partners with Westar Energy on Prairie Wind Transmission project in Kansas
  - Partners with OGE Energy on Tallgrass Transmission project in Oklahoma
  - Aligns local/regional stakeholders' interests to ensure projects' approval and completion



Source Investor Presentation



Source Investor Presentation

## Prairie Wind Transmission, LLC

- In May 2008, ETA established a 50/50 JV with Westar Energy, the largest utility in Kansas, to form Prairie Wind Transmission, LLC (PWT)
- On June 1, 2009, ETA agreed to split with ITC the mileage and costs of building 110 miles of 765-kV transmission line
  - Settlement was approved by the KCC on July 24, 2009
  - Overall project costs ~\$800MM; ITC leg ~ \$400M
- In Dec 2008, FERC authorized 12.8% ROE (vs. 13.3% requested), representing a base ROE of 10.8% plus a 150-bp adder for new transmission investment and a 50-bp adder for participation in an RTO; 50/50 capital structure during construction; CWIP cash return and other incentives
  - In comparison, ITC received 12.16% ROE, representing 10.66% base ROE plus a 50-bp adder for participation in SPP and a 100-bp as an independent transco

## Tallgrass Transmission, LLC

- In July 2008, ETA established a 50/50 JV with Oklahoma Gas & Electric to form Tallgrass Transmission, LLC (TG)
- Proposes to build ~170 miles of 765-kV lines in western Oklahoma to promote wind development
- Project expected to cost ~\$500MM and be in-service by 2013
- In Dec 2008, FERC authorized 12.8% ROE (vs. 13.3% requested)
  - 50/50 capital structure during construction
  - Cash return on CWIP, 12.8% ROE (13.3% requested)
  - Recovery of all costs incurred prior to the time rates go into effect, and all prudently incurred development and construction costs if the project is abandoned as a result of factors beyond the control of TG or its parents

# Potomac – Appalachian Transmission Highline: PATH (1)

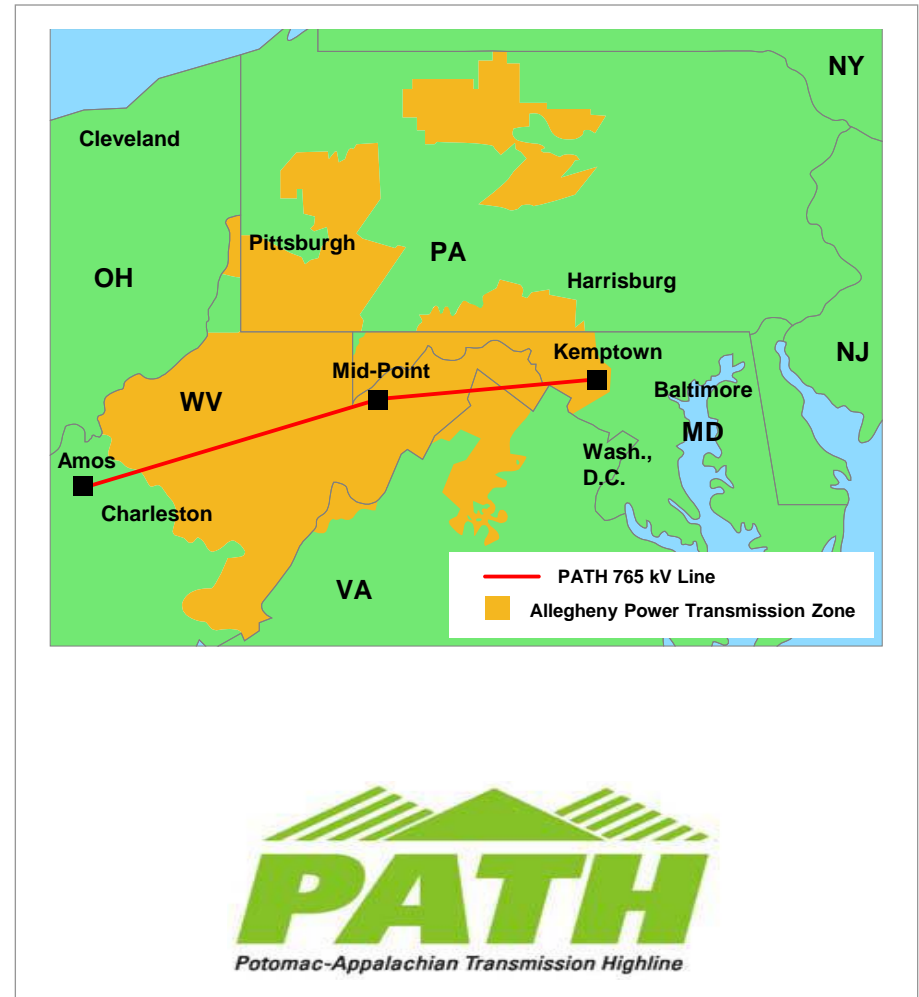
- 275 miles of 765-kV transmission line from AEP’s John Amos substation near St. Albans, WV, through a new midpoint station, ending at a new substation near Kemptown, MD
- Recently withdrew application in Virginia and filed a new application in Maryland
  - Intention to file a new application in Virginia in late 2010

## Overview

- FERC order issued on 29 February 2008 approving
  - Cash return on CWIP and 14.3% incentive ROE
  - Recovery of all costs incurred prior to the time rates go into effect, and
  - Recovery of all prudently incurred development and construction costs if the project is abandoned as a result of factors beyond the control of PATH or its parents
- Rates went into effect 1 March 2008; current annual revenue requirement is \$15MM effective 1 January 2009

## Key Challenges

- Obtaining a CPCN in West Virginia or costly concessions with WV to receive the CPCN; CPCN filing made 15 May 2009 with a decision expected later in 2010
- Total estimated cost of entire line is \$1.8Bn; AEP’s 50/50 JV with Allegheny will develop West Virginia section at a cost of \$1.2Bn. AEP share is approximately \$600MM
- Estimated completion date has been delayed with a final COD to be determined



**Note**

1. The ROW routes shown on the diagram are for illustrative purposes only and may not depict actual route that could eventually be selected; substation locations may also be modified

# Pioneer Transmission LLC

## Overview

- In August 2008, AEP signed an agreement with Duke Energy to form Pioneer Transmission, LLC (PT)
- PT is a 50/50 JV that is proposing to build approximately 240 miles of 765-kV lines extending from AEP's Rockport Station to Duke's Greentown station in Indiana
- The project will improve the reliability of the nation's transmission grid, allow more efficient use of existing electricity production and delivery infrastructure, protect national security and expand opportunities for new generation, including renewables
- Project is expected to cost approximately \$1Bn and be in-service by 2015
- AEP's ownership of the joint venture is 50%
- FERC order received March 2009
  - Cash return on CWIP and 12.54% incentive ROE
  - Recovery of all costs incurred prior to the time rates go into effect, and
  - Recovery of all prudently incurred development and construction costs if the project is abandoned as a result of factors beyond the control of PT or its parents



## Key Challenges

- Cost allocation which enables the development of “system solutions”
- RTO Approval—touches two RTOs—PJM & MISO
- Siting

# Long Term Plan - Upper Midwest EHV Development (1)

SMART Study

## Overview

- Announced SMARTransmission Study in August 2009
  - Participants include ETA, Exelon, ATC, Northwestern, MidAmerican and Excel
  - Study due to be completed in early 2010 and will include “overlay” options and quantification of economic benefits
- Near Term Risks
  - Obtaining cost allocation between states, PJM, and MISO
  - RTO Technical Approvals
  - Favorable 205 Order including incentives
- Mitigation
  - Collaborative approach involving impacted utilities, RTOs, commissions and others



**Note**

1. The ROW routes shown on this diagram are for illustrative purposes only and may not depict actual route that could eventually be selected; substation locations may also be modified

- 1,000+ miles of 765-kV transmission linking Upper Midwest generation sources with the existing EHV infrastructure in the Chicago area expected to cost \$5Bn–\$10Bn over a 10 year period

## ADDITIONAL BUSINESS MODEL DETAIL

# American Transmission Company (“ATC”)

## Company Overview

### Key Management of ATC

Name	Position
Jose Delgado	Executive Chairman
John Procaro	President and CEO
Carol Chinn	VP and Chief Operating Officer
Dale Landgren	VP and Chief Strategic Officer
Michael Hofbauer	VP and Chief Financial Officer
Randy Satterfield	VP of Public Affairs
Bert Garvin	VP, General Counsel, and Secretary

### ATC Contributing Owners

- Adams-Columbia Electric Cooperative
- Alger Delta Cooperative Electric Association
- City of Algoma
- Badger Power Marketing Authority
- Central Wisconsin Electric Cooperative
- Cloverland Electric Cooperative
- Columbus Water & Light
- Edison Sault Electric Co.
- City of Kaukauna
- **Madison Gas & Electric Co. (3.6%)**
- Manitowoc Public Utilities
- Marshfield Electric and Water Department
- City of Menasha
- City of Oconto Falls
- Ontonagon County Rural Electrification Association
- City of Plymouth
- **Rainy River Energy (7.9%)**
- City of Reedsburg
- Rock Energy Cooperative
- City of Sheboygan Falls
- Stoughton Utilities
- City of Sturgeon Bay
- City of Sun Prairie
- Upper Peninsula Public Power Agency
- **Wisconsin Electric Power Co. (26.8%)**
- **Wisconsin Power & Light Co. (16.7%)**
- **WPPI Energy (5.5%)**
- **WPS Investments (34.6%)**
- City of Wisconsin Rapids

### Business Overview

Headquarters: Pewaukee, Wisconsin

- American Transmission Company (“ATC”) started business on Jan. 1, 2001, as the first multi-state, transmission-only utility in the United States
- ATC provides electric transmission service in an area from the Upper Peninsula of Michigan throughout the eastern half of Wisconsin and into portions of Illinois
  - Owns and operates more than 9,300 miles of high-voltage transmission lines and 500 substations
  - Meets the electric needs of approximately 5MM people
- Regulated by the FERC for rates and tariffs
- Regulated by states for siting transmission infrastructure
- Employs approximately 500 people

Source: Company Website

### 10-Year Transmission System Assessment Plan

#### 2009 Summary

- Annually, ATC evaluates the electric transmission service system, identifying future capital requirements
- In the 2009 10-Year Assessment, ATC identified \$2.5Bn in future projects required over the next 10 years to improve reliability in the service territory
- Since 2001, ATC has invested more than \$2.1Bn in capital, substantially increasing the original book value of the company
- While the cost estimate in the 2009 Assessment is slightly less than the \$2.7Bn identified in last year’s report, they increased their overall 10-year capital spending because of increased focus on regional transmission support to move renewable generation to areas where the power is needed

Source: ATC 10-Year Transmission System Assessment

### Financial Summary

(\$000s)	2007	2008	2009
<b>Income Statement</b>			
Operating Revenues	408,019	466,571	521,525
Operating Income	209,840	257,611	291,209
Earnings Before Taxes	154,089	188,045	213,365
<b>Balance Sheet</b>			
Net Transmission & General Plant	2,180,693	2,463,594	2,750,958
<b>Total Assets</b>	<b>2,237,299</b>	<b>2,530,825</b>	<b>2,818,370</b>
Member’s Equity	912,573	1,049,222	1,196,396
Total Debt	1,004,616	1,232,975	1,457,180
<b>Total Capitalization</b>	<b>1,917,189</b>	<b>2,282,197</b>	<b>2,653,576</b>

Source: Annual Report

### Service Territory



Source: Annual Report

# ATC: Background and Rationale for Creation

## Background

ATC was organized in accordance with a Wisconsin law, 1999 Act 9, which was enacted by the Wisconsin legislature to promote non-discriminatory access to transmission facilities within the State of Wisconsin

- A single-purpose, for-profit electric transmission company (a Wisconsin LLC) regulated by the PSCW and FERC
- Formed through consolidation of ownership and operation of multiple previously unaffiliated transmission systems owned by various founding members in Wisconsin and adjacent areas of Michigan and Illinois
- Transferred operational control to MISO in February-2002 in accordance with Wisconsin statutes and Order 2000
- Currently provides transmission service under the MISO Open Access Transmission and Energy Markets Tariff (“TEMT”), which preserves the basic MISO tariff while incorporating implementation of day-ahead and real-time energy markets, locational marginal pricing and financial transmission rights.

## Rationale / Key Benefits

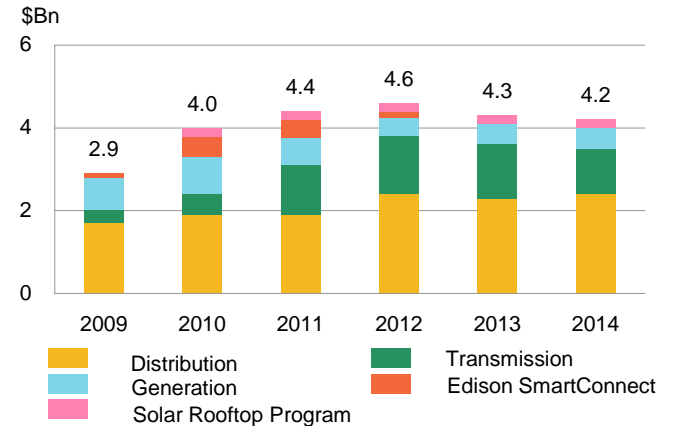
- Enhanced return: FERC jurisdiction and incentive-based ROEs
- Improved operation: Creation of a single transmission system covering the region, with improved operating efficiencies and service reliability due to centralized operations and one-stop shopping for transmission and ancillary services over multiple transmission systems
- Simplified pricing: Providing customers with wider access to generation sources at non-pancaked rates and facilitates the development of competitive electric markets
- Regional optimization: Creation of a single-purpose company with clear economic incentives to make necessary expansions to the transmission grid
- Growth platform: Asset contribution and investment ownership opportunities for other public power entities and rural electric cooperatives

# EIX / SCE Transmission Overview

## Strategy Summary

- SCE currently has transmission net PP&E of \$3.9Bn, representing 20.3% of SCE’s net PP&E
- SCE has given control of transmission to CAISO
  - Receives a 50bps ROE adder for existing transmission from FERC
- From 2001 – 2014, SCE expects to spend \$5.5Bn in capital expenditures for transmission, representing 25% of total planned capital expenditures
  - FERC granted SCE return on equity incentives to 75bps for their Devers-Palo Verde II transmission line (currently, only pursuing a CA portion) and Tehachapi lines and 50bps for the Rancho Vista transmission projects
  - Forecast transmission expenditure reduced from \$6.2Bn
- SCE has approximately \$21.5Bn of total planned capital expenditures

## Capital Expenditure Forecast



Source Company Presentation

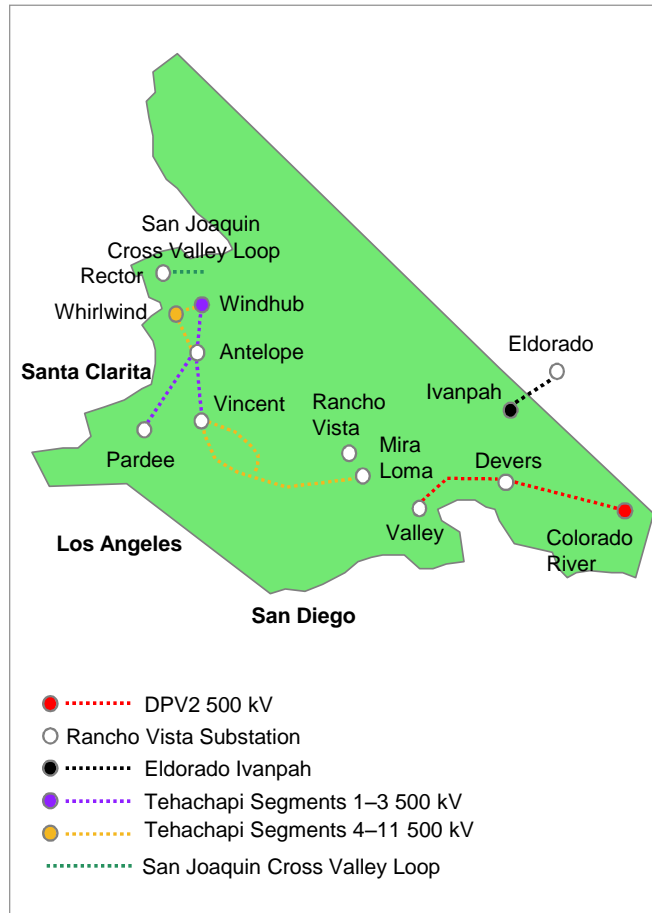
## 5-Year Base Case CapEx by Classification

	\$Bn	%
Solar Rooftop Program	1.0	4
Smart Connect	1.1	5
Generation	3.0	14
Transmission	5.5	26
Distribution	10.9	51
<b>Total</b>	<b>21.5</b>	<b>100</b>

Source Company Presentation

# SCE Transmission Investment Program

## Project Locations



## Project Summary

Project Name	Phase	In-Service	2010–2014 \$MM <sup>(1)</sup>
<b>Renewables</b>			
Tehachapi Segments 3–11	Complete / Construction	Various	1,742
Devers-Colorado River Project <sup>(2)</sup>	Licensing	2013	658
Eldorado-Ivanpah	Licensing	Various	469
Other Projects <sup>(3)</sup>	Licensing	Various	794
<b>Total Renewables</b>			<b>3,663</b>
<b>Reliability</b>			
San Joaquin Cross Valley Loop	Licensing	2012	128
Alberhill	Licensing	2014	171
Other Projects <sup>(3)</sup>	Various	Various	1,581
<b>Total Reliability</b>			<b>1,880</b>
<b>Grand Total</b>			<b>5,543</b>

**Notes**

1. Subject to timely receipt of permitting, licensing, and regulatory approvals. Forecast as of October 2009 and is based on the Base Case (see SCE Capital Investment Forecast)
2. A portion of Segment 3 was ready for service in 2009. The remainder is under construction and will be placed in service under a phased approach from 2011 through 2013
3. Includes new transmission projects to connect renewable generation and projects related to reliability, load growth, infrastructure replacement and grid monitoring and control

# ITC Holdings (“ITC”)

## Company Overview

### Overview of ITC

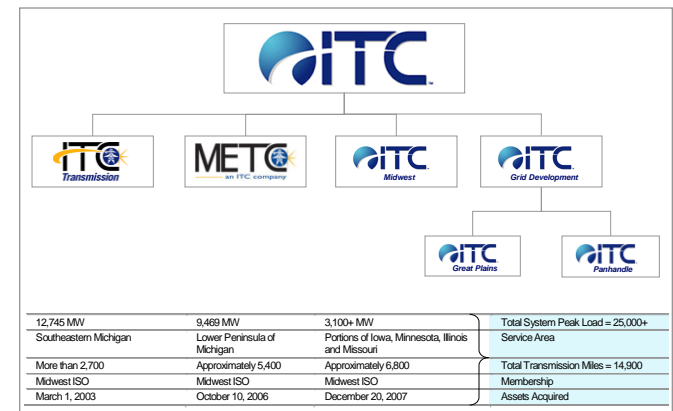
- International Transmission Company (“ITC”) is the first independently owned and operated electricity transmission company in the United States
- ITC was formerly owned by DTE Energy in Southeastern Michigan
  - DTE Energy sold ITC to an investor group as part of FERC and Michigan regulator’s efforts to encourage independent transmission system in the state
  - ITC completed its IPO in July 2005
- In 2006, ITC Holdings acquired 100% ownership interest in Michigan Electric Transmission Company (“METC”)
- Through its subsidiaries ITC*Transmission* and METC, ITC Holdings owns a fully-regulated, high-voltage system that transmits electricity to local electricity distribution facilities from generating stations in Michigan and surrounding areas
- The local distribution facilities connected to the ITC*Transmission* and METC transmission system serve a population of ~10 million people in Michigan’s lower peninsula
- Transmission rates are FERC regulated where a formulaic rate design adjusts annually for capital investments, recoverable expenses and load
- On January 19, 2007, announced that newly formed subsidiary, ITC Midwest, had signed a definitive agreement to acquire for cash the transmission assets of Interstate Power and Light Company (“IP&L”) in a transaction valued at approximately \$783MM
  - Transaction closed on December 20, 2007

Source Company Website

### Financial Summary

(\$000s)	2007	2008	2009
<b>Income Statement</b>			
Operating Revenues	426,249	617,877	621,015
Operating Income	181,674	286,123	326,867
Earnings Before Taxes	109,946	176,470	208,472
<b>Balance Sheet</b>			
Net Property, Plant and Equipment	1,960,433	2,304,386	2,542,064
<b>Total Assets</b>	<b>3,213,297</b>	<b>3,714,565</b>	<b>4,029,716</b>
Equity	563,075	929,063	1,011,523
Total Debt	2,243,424	2,248,253	2,434,398
<b>Total Capitalization</b>	<b>2,806,499</b>	<b>3,177,316</b>	<b>3,445,921</b>

### Corporate Structure



Source Company Presentation

# ITC: Background and Rationale for Creation

## Approved ROEs

ITC Transmission	13.88%
METC	13.38%
ITC Midwest	12.38%
ITC Great Plains	12.16%
Green Power Express	12.38%

## Background

- Following FERC’s Order 888, Michigan enacted legislation in 2000 to permit unbundled retail electric service and required major electric utilities to join an RTO and/or divest its transmission facilities
- In May 2000, Predecessor ITC, Detroit Edison and DTE Energy filed jointly with FERC for permission to transfer all transmission assets from Detroit Edison to a subsidiary of Detroit Edison. FERC granted permission in June 2000 and Predecessor ITC became a subsidiary of Detroit Edison on January 1, 2001, and subsequently as a wholly-owned subsidiary of DTE Energy on June 1, 2001
- Predecessor ITC joined MISO in December 2001. Consistent with FERC’s and MI’s policy goals regarding the separation of transmission, DTE Energy divested Predecessor ITC to ITC Holdings, which was incorporated in Michigan in November 2002
- On April 8, 2004, ITC became the first independently owned and operated electricity transmission company in the United States

## Rationale / Key Benefits

	ITC	Traditional Integrated Utility
Regulatory Jurisdiction	<ul style="list-style-type: none"> <li>• FERC only</li> </ul>	<ul style="list-style-type: none"> <li>• State jurisdiction on distribution wires and regulated generation</li> <li>• FERC on transmission</li> <li>• Potentially multiple state jurisdictions</li> </ul>
Rates and Rate Setting	<ul style="list-style-type: none"> <li>• Automatic annual rate increases through Attachment O</li> <li>• Preapproved mechanism—no approval required</li> <li>• Receives return on and of investment</li> <li>• Burden of proof on intervenors to challenge projects/rates</li> </ul>	<ul style="list-style-type: none"> <li>• Rate case every few years</li> <li>• Litigated, often adversarial proceedings</li> <li>• Utility almost always does not fully receive requested amount</li> <li>• Burden of proof on utilities to prove rate request prudence</li> </ul>
Regulatory Lag	<ul style="list-style-type: none"> <li>• ~ Six months</li> </ul>	<ul style="list-style-type: none"> <li>• 1–2 years on average</li> </ul>
Allowed ROE	<ul style="list-style-type: none"> <li>• 13.88% FERC approved ROE (incl 100 bp adder to reward ITC for independent status)</li> </ul>	<ul style="list-style-type: none"> <li>• Average of 10%–12%</li> </ul>

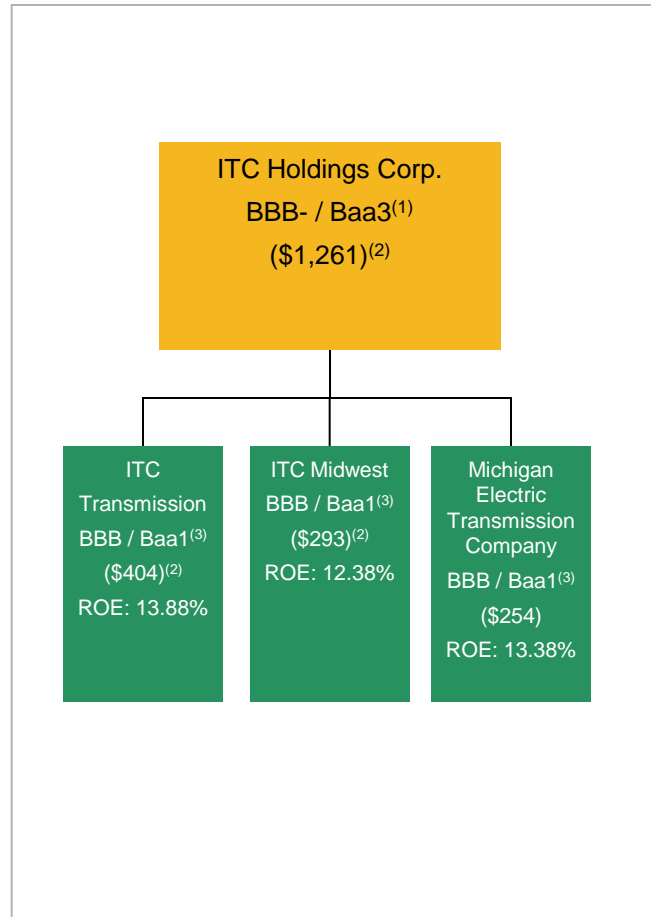
**ADDITIONAL BUSINESS MODEL DETAIL**

# Illustrative ROE Comparison

## ITC Holdings Corporate Structure

- As part of ITC's allowed regulatory construct, the company has a deemed capital structure of 60/40 equity/debt
  - Allowed ROE of 12.38% – 13.88%
- This has allowed the company to put on debt at the Holdco level, which effectively increases returns to equity holders
  - Equity can achieve 23% ROE versus 10% – 12% for a traditional utility
  - Based on current capital structure and 2010 P/E multiples, \$1.00 of equity investment creates ~\$4.40<sup>(4)</sup> of equity value
  - Compares to \$1.20<sup>(5)</sup> of value created for each \$1.00 of investment by a regulated utility (based on 10% ROE and 12.0x forward multiple)

**Structure**  
(Debt in \$MM)



**Notes**

- Senior unsecured rating
- Includes Credit Facilities
- Long-term Issuer rating
- 19.0 P/E \* \$7MM = \$118.4MM vs. \$30MM of book equity
- 12.0 P/E \* \$5MM = \$60MM vs. \$50MM of book equity

**Traditional Utility vs. Pure-Play Transco ROE Comparison**

(\$MM)	Traditional Utility	Transco
<b>OpCo</b>		
Assumed Rate Base	\$100.0	\$100.0
Equity (Regulatory)	50%	60%
Allowed ROE	10.00%	13.88%
Net Income (per \$100MM rate base)	5.00	8.33
<b>HoldCo</b>		
Consolidated Equity	50%	30%
Interest Rate	-	7%
Tax Rate	-	35%
Less: Additional Interest Expense	-	\$1.4
Consolidated Earnings	\$5.0	\$7.0
Equity	\$50.0	\$30.0
<b>Actual ROE</b>	<b>10%</b>	<b>23%</b>
Multiple	12.0	19.0
Equity Value	\$60.0	\$131.9
<b>Value created per \$1 of Investment</b>	<b>\$1.20</b>	<b>\$4.40</b>

ADDITIONAL BUSINESS MODEL DETAIL

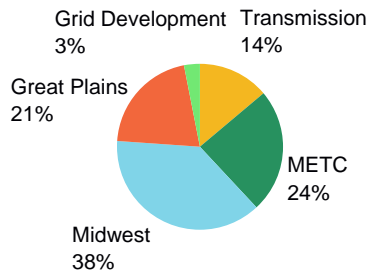
# ITC Capital Expenditure Plan

## Five Year Plan

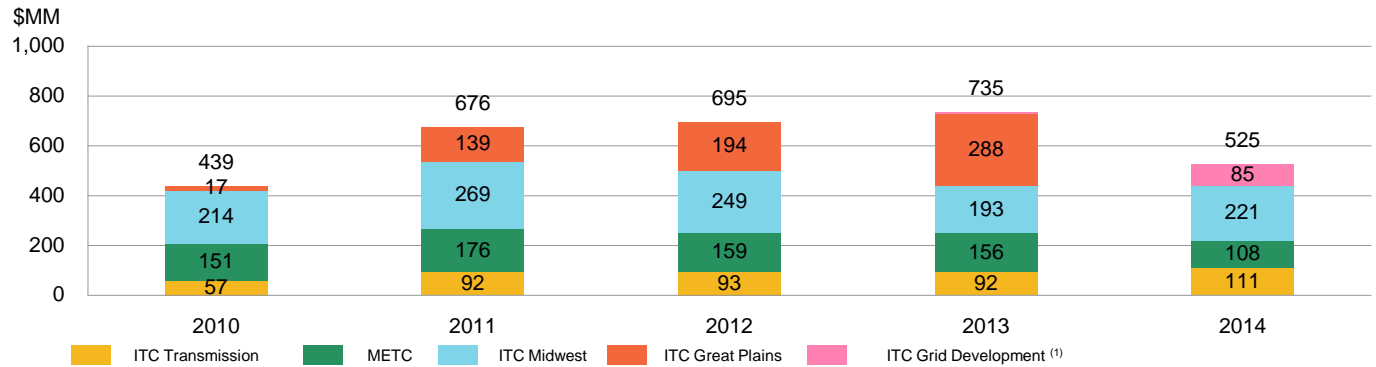
- Over the five year horizon, ITC's capital expenditures are expected to be approximately \$3.0Bn, with \$2.3Bn at existing operating companies and \$0.7Bn for development
- Rate base is expected to grow from approximately \$2.1Bn in 2008 to approximately \$4.5Bn by 2014
  - Represents a compound annual growth rate of approximately 14.0% over this period

### Capital by Business Unit

#### Five Year Plan

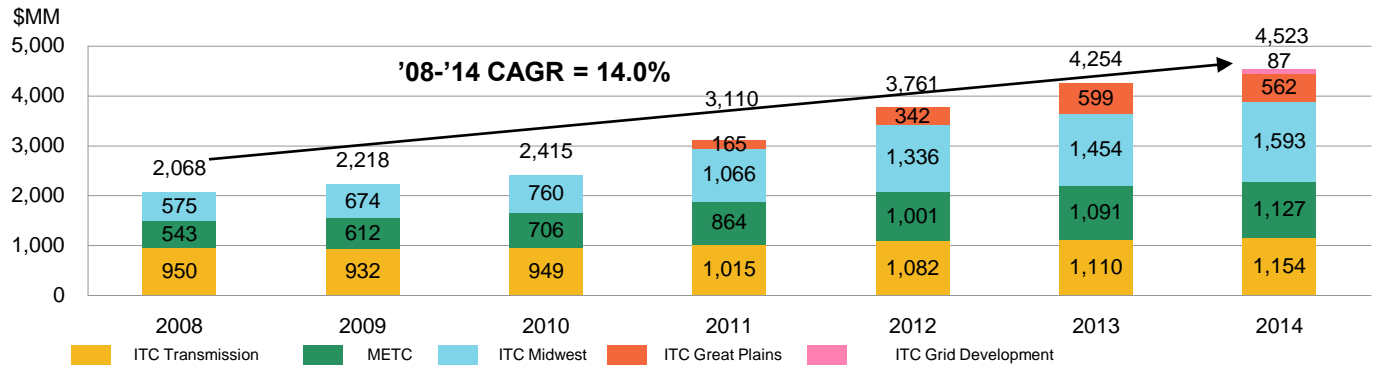


### Capital Expenditure Plan



Source: Company Presentation

### Projected Rate Base



Source: Company Presentation

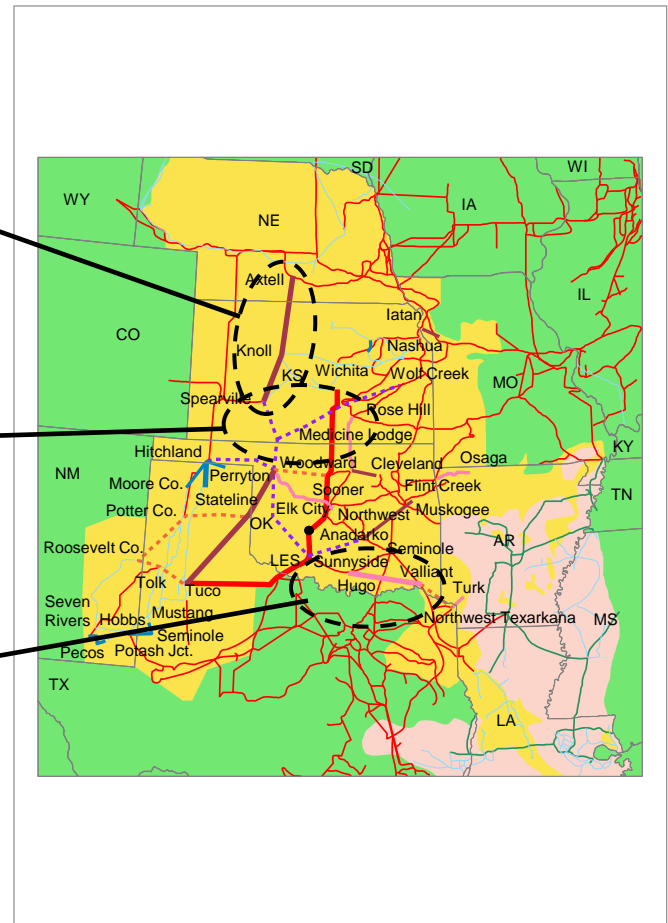
Note: 1. Includes Green Power Express and other development initiatives

# ITC Great Plains Projects

## Project Summaries

- KETA Project
  - 185 mile long high voltage line running between Spearville, Kansas and Axtell, Nebraska
  - Estimated cost to ITC Great Plains: ~\$180MM
  - Begin construction: 2011
  - In-service: 2012 (Phase I); 2012-2013 (Phase II)
  
- Kansas V-Plan
  - 180 mile line connecting Spearville to Wichita, Kansas which is the northern portion of the Southwest Power Pool’s (SPP) “X Plan”
  - Estimated cost to ITC Great Plains: ~\$430MM
  - Begin construction: 2011
  - In-service: 2013
  
- Hugo to Valliant Project
  - New 19 mile 345 kV transmission line and new 450 MVA 345 / 138 kV substation in Oklahoma
  - Begin construction: 2011
  - In-service: 2012

ITC Great Plains: Map of Planned Projects

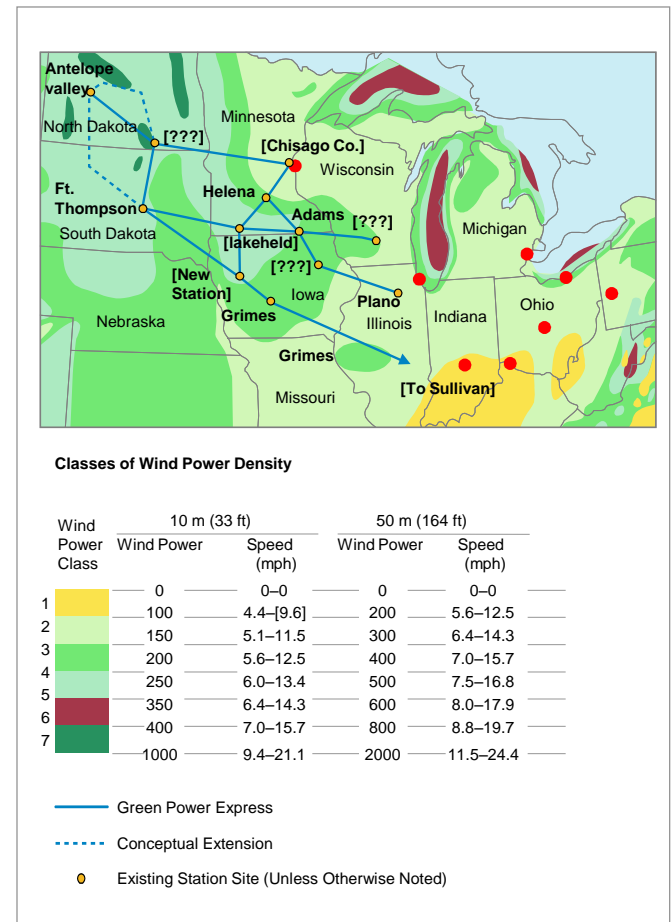


# ITC Green Power Express

## Project Summary

- Green Power Express is ITC’s project aiming to develop high voltage transmission lines to facilitate the movement of approximately 12,000 MW of power from the high efficiency wind abundant areas
- Approximately 3,000 miles of EHV (extra high-voltage) 765kV transmission lines
- Traverses portions of North Dakota, South Dakota, Minnesota, Iowa, Wisconsin, Illinois and Indiana
- Expected cost of \$10 - \$12 billion
  - ITC expects to own a portion of this project
  - Actively pursuing partnership opportunities
    - Recently announced partnership arrangements with MDU and Northwestern
- Next steps
  - MISO RGOS Study results (4<sup>th</sup> Quarter 2009)
  - Continue to develop partnerships

## Green Power Express: Map of Project

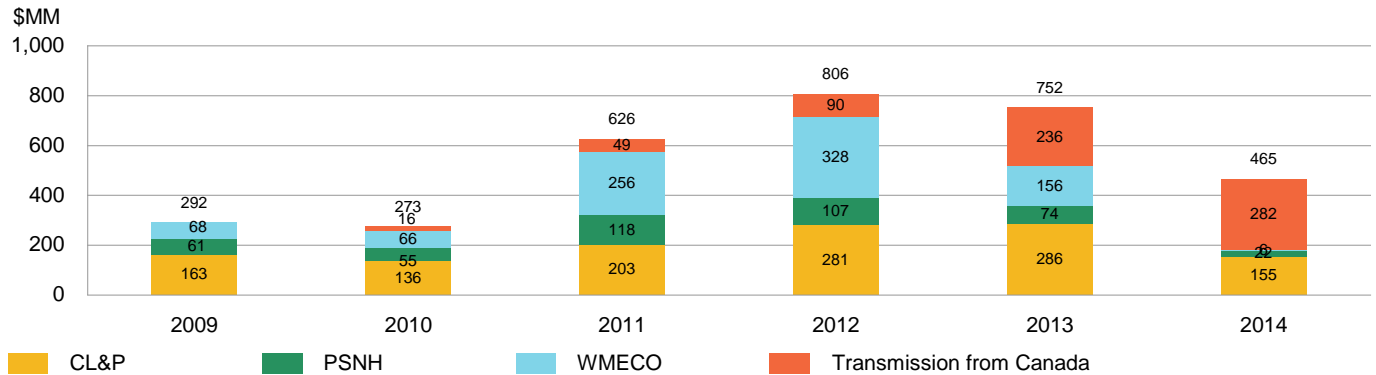


# Northeast Utilities Transmission Overview

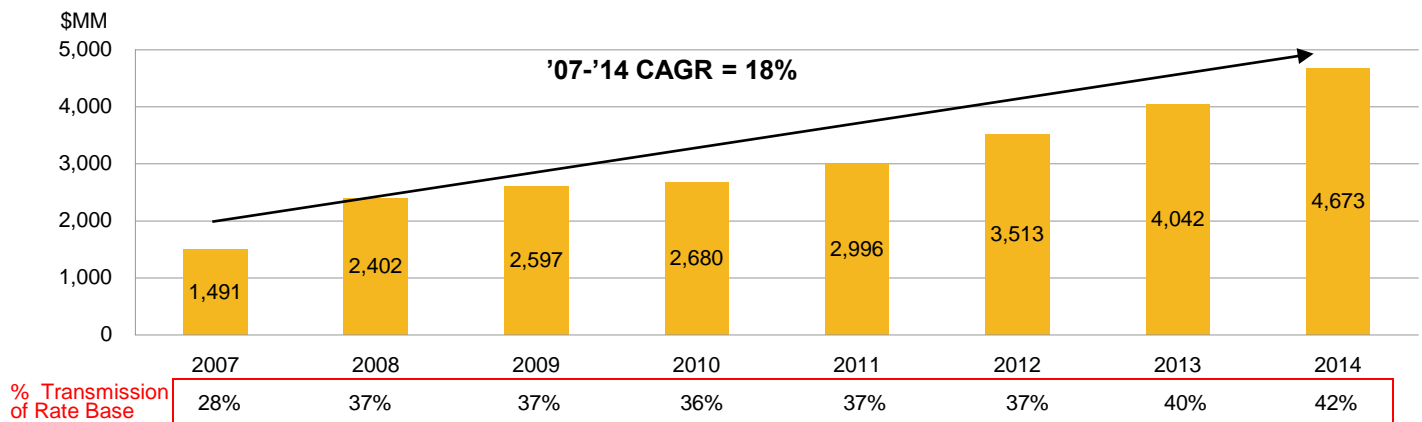
## Capex and Rate Base Projections

- Transmission capex is expected to total \$2.9Bn over the next five years, representing 45% of NU's total capex plan of \$6.4Bn
  - Includes ~\$1.49Bn for NEEWS projects
  - \$675MM of NU's share of HVDC line from Canada
  - \$900MM for additional projects
- Strong transmission rate base and associated earnings growth expected over the next five years
  - Rate base to grow at CAGR of 12.5% from \$2.6Bn in 2009 to \$4.7Bn in 2014 (increase from 37% to 42% of total NU rate base)
  - Transmission earnings contribution as a percent of total earnings grew from 25% in 2005 to over 50% for the last twelve months ended March 31, 2010

### Transmission Capital Expenditures



### Transmission Year-End Rate Base <sup>(1)</sup>



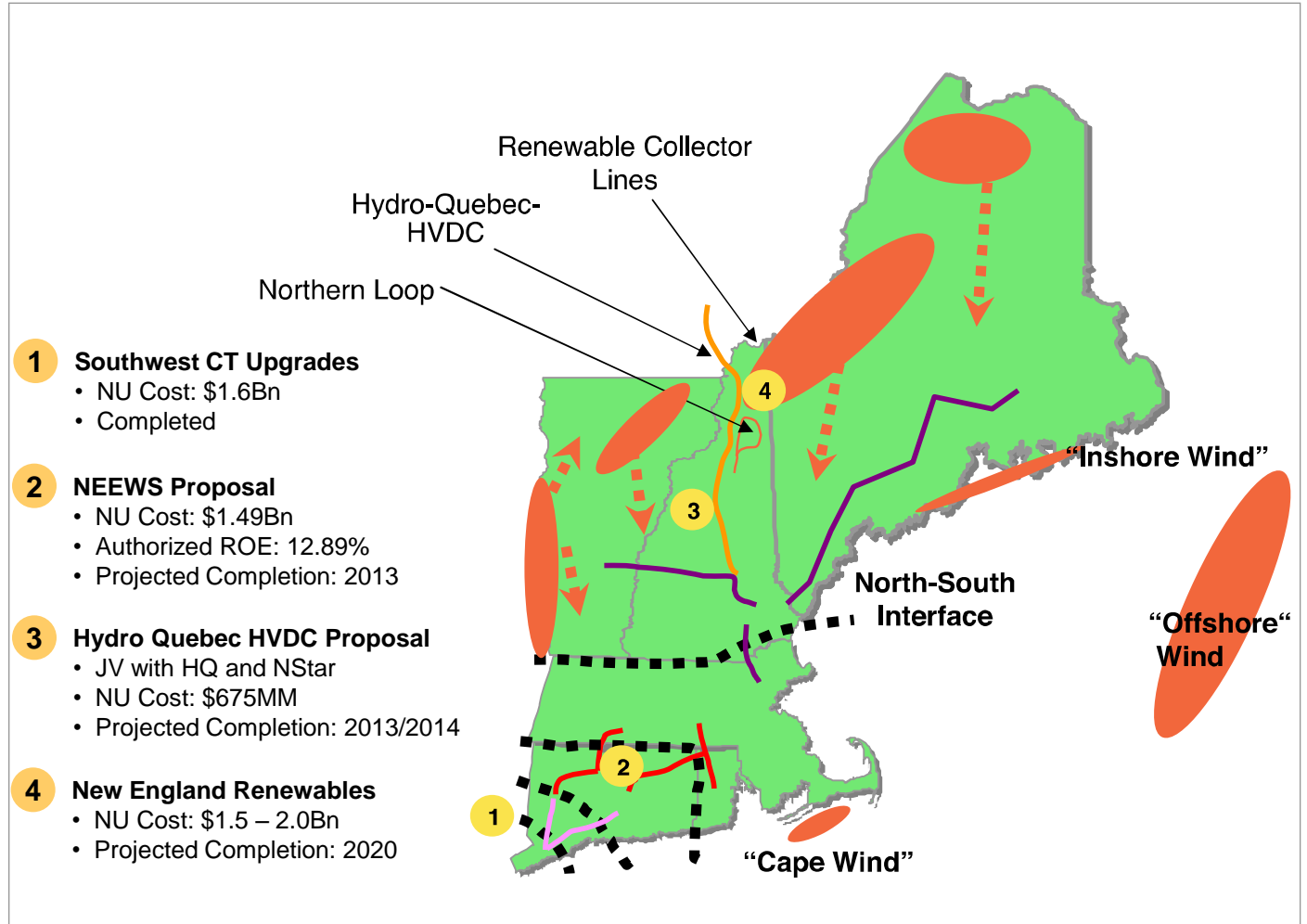
Source Company filings and Investor Presentation

Note  
1. 100% CWIP assumed for NEEWS projects

# Northeast Utilities Transmission Overview (cont'd)

## Transmission Projects

- NU has given control of transmission to ISO-NE
- For existing transmission assets, NU receives a FERC incentive based ROE of 11.18%
- For new transmission projects, NU's authorized ROEs ranging from 12.89% to 13.10%
- NU's major transmission projects include:
  - \$1.6Bn upgrade in southwest CT, completed in 2008
  - New England East-West Solutions (NEEWS)
  - A JV with HQ/NStar for a HVDC project
  - New England Renewables projects



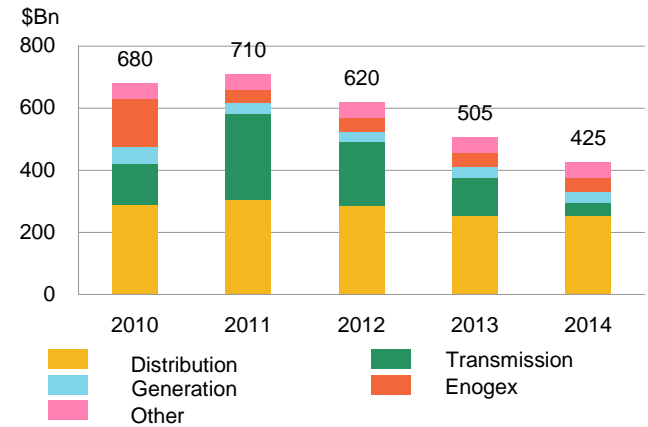
Source Investor Presentation

# OG&E Transmission Overview

## Strategy Summary

- OG&E owns over 4,300 circuit miles of transmission lines from 69 kV to 500 kV.
- They are a member and its transmission facilities are under the operational control of the Southwest Power Pool RTO
- Between 2001 and 2008 OG&E invested approximately \$471 million into the transmission system.
  - OG&E plans to spend over \$800MM on various transmission projects in the next 5 years

## Capital Expenditure Forecast



Source Company Presentation

## Selected Transmission Project Capital Spend

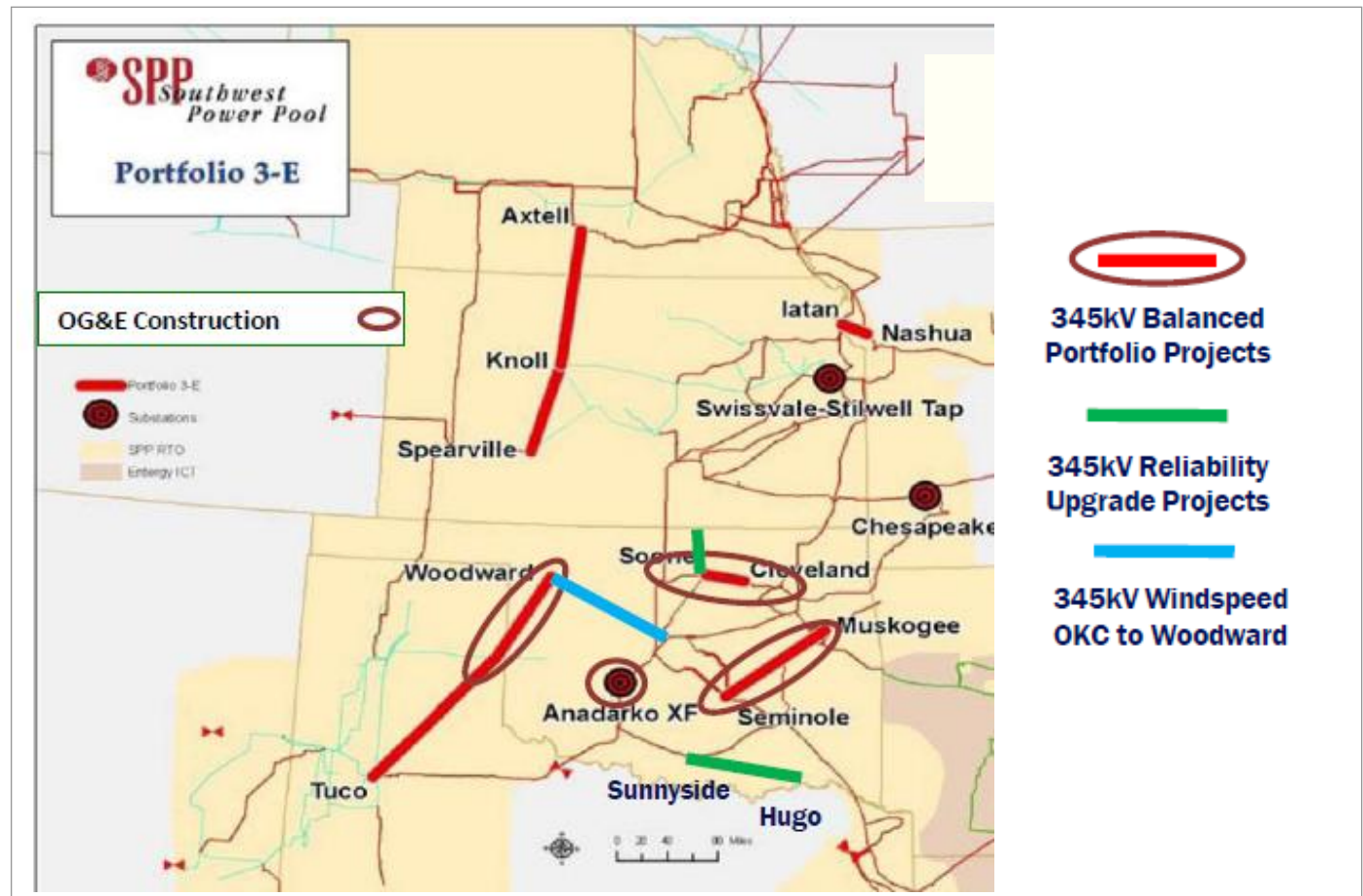
Project Name	Line Type	Projected Capex (\$MM)				
		2010	2011	2012	2013	2014
Sunnyside-Hugo	345kV	25.0	115.0	60.0	-	-
Sooner-Rose Hill	345kV	10.0	40.0	10.0	-	-
OKC-Woodward	345kV	25.0	-	-	-	-
Sooner-Cleveland	345kV	5.0	30.0	35.0	-	-
Seminole-Muskogee	345kV	5.0	25.0	45.0	55.0	-
Tuco-Woodward	345kV	-	20.0	35.0	50.0	15.0

Source Company Presentation

# OG&E Transmission Overview (cont'd)

- The SPP “Portfolio 3-E” is an initiative to develop a group of economic transmission upgrades that benefit the entire SPP region
  - Costs will be allocated regionally to interconnected utilities
  - The benefits of this group of 345 kV transmission upgrades have been demonstrated by model analysis to outweigh the costs according to SPP

OG&E Committed Project Map



Source: Company Presentation

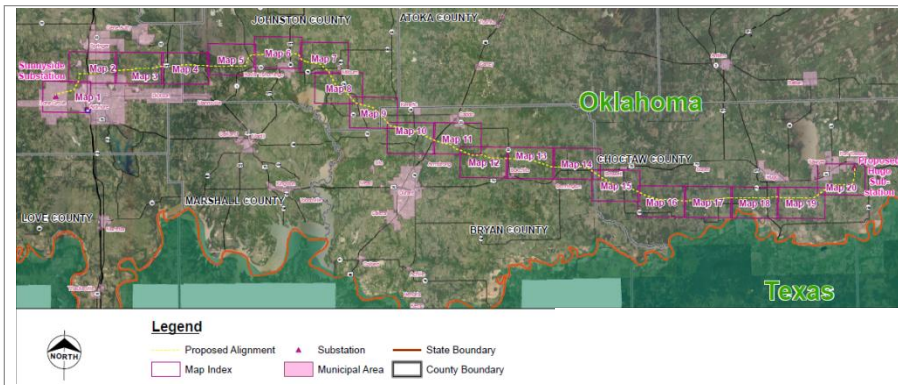
# Selected Project Overviews

## Sunnyside-Hugo

- Approved by SPP to facilitate transmission service reliability and to serve transmission customers across the SPP
- Voltage: 345 kilovolt
- Length: 130 miles
- Route: From existing OG&E substation near Lone Grove, OK, to the Western Farmers Electric Co-op substation near Hugo, OK
- Right-of-way acquisition and surveys: 2010
- Construction Period: 2011-2012

Source Company Website

## Project Map



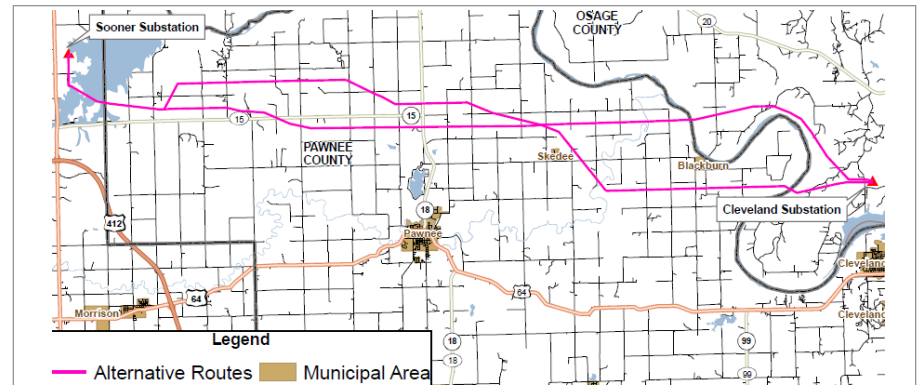
Source Company Website

## Sooner-Cleveland

- Approved by SPP as part of the Portfolio “E-3” balanced portfolio approach to relieving congestion in SPP
- Voltage: 345 kilovolt
- Length: 36 miles
- Route: From the OG&E Sooner Power Plant substation in Noble County to the existing GRDA Cleveland substation in Osage County
- Right-of-way acquisition and surveys: 2010
- Construction Period: 2011-2012

Source Company Website

## Project Map



Source Company Website

## Selected Project Overviews (cont'd)

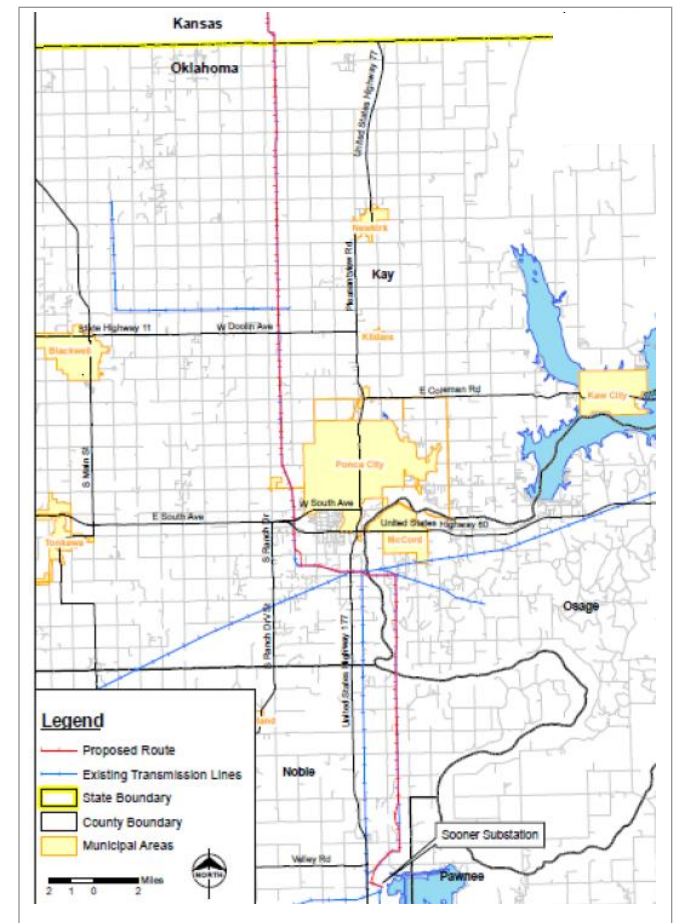
- In addition to the projects shown, OG&E has entered into a joint-venture with AEP and MidAmerican called “Tallgrass Transmission LLC”
  - Goal is to construct high capacity (up to 765kV) transmission lines to help move wind energy
  - Estimated costs of the two proposed lines would be approximately \$500MM
  - OG&E owns 50% of the joint-venture and would cover \$250MM of the estimated costs

### Sooner-Rose Hill

- The proposed line is a joint-venture with Westar Energy to build a new 345 kilovolt high-capacity transmission line from its Rose Hill Substation, about 6 miles southeast of Wichita, Kansas, to the Oklahoma border
- The cost of the line will be recovered through transmission rates charged to utilities that use the line (costs are usually passed on to utility customers)
- Voltage: 345 kilovolt
- Length: 47 miles
- Route: The route extends primarily from the existing OG&E Sooner Substation near Red Rock, OK, north to the Kansas border
- Right-of-way acquisition and surveys: 2009 (completed)
- Construction Period: 2011-2012

Source Company Website

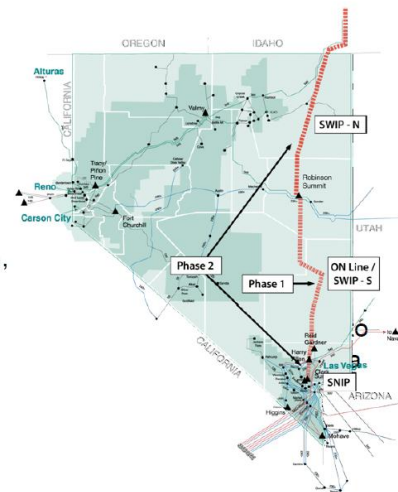
### Project Map



Source Company Website

# LS Power

- LS Power is actively developing several long distance, high-voltage transmission projects throughout the United States
- Projects to bring attractive renewable generation to load and improve the aging transmission system



## Southwest Intertie Project (SWIP)

The SWIP is a 500+ mile 500 kV AC transmission line stretching between Idaho and southern Nevada developed by Great Basin Transmission (GBT), a single-purpose company formed to develop, finance, construct, own, and operate the project

- On 11/6/2008, GBT announced Open Season for transmission rights on the SWIP
- On 4/15/2009, GBT announced Open Season 2 for transmission rights on SWIP as well as the Overland Transmission Line
- On 1/11/2010 NV Energy and Great Basin Transmission signed an MOU to jointly own a 235 mile portion of the 500KV transmission line from Las Vegas to Ely, NV. NV Energy would purchase Great Basin’s share of capacity on the jointly owned line under a long term agreement.
- 2012 in-service date pending PUCN approval (Order expected Aug 2010)
- NV Energy will have rights to additional capacity on the expansion of the SWIP at no additional cost
- Additional capacity will remain available for sale to third parties.
- “This project is a great example of how the local utility, an independent energy project developer and the Federal Government can work together to deliver a project that is superior to the alternatives. It will enable transmission access for renewable energy projects that were otherwise isolated from the market and provide reliability, efficiency and other benefits to the transmission system,” said Mike Segal, Chairman and Chief Executive Officer for LS Power.
- 400 jobs and millions of dollars in sales and use tax and property tax payments for Nevada counties and schools.
- The line will also enable hundreds of additional jobs as it will provide market access to spur the development of new renewable energy generation projects.

Source Company Website

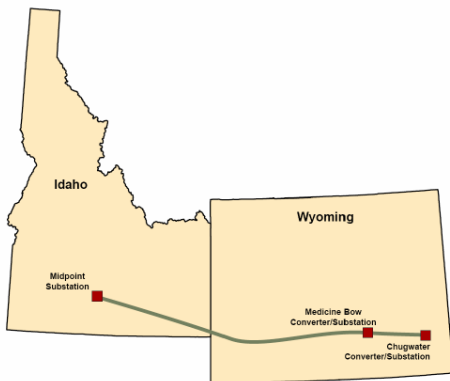
## LS Power (cont'd)

- The Overland Transmission Line and the Southwest Intertie would provide a market for Wyoming wind resources in the Southwest

### Overland Transmission Line

The Overland Transmission Line is a 560 mile AC or DC line between southern Idaho and eastern Wyoming, developed by Jade Energy Associates an affiliate of Great Basin Transmission

- The Overland Transmission Line is a complimentary transmission project to the SWIP that will provide Wyoming wind resources with direct access to load centers and liquid energy markets in the Desert Southwest.
- On 4/15/2009 GBT announced Open Season 2 for transmission rights on SWIP as well as the Overland Transmission Line



Source Company Website

## Selected Independent Transmission Projects

### Neptune Regional Transmission System

- Developers: Siemens Power Transmission and Distribution Inc; Prysmian Cables and Systems USA, LLC
- Project Type: Underwater HVDC Cable
- Location: Sayreville, New Jersey to Nassau County, Long Island
- Voltage: 500kV
- Length: 65 miles
- Cost: \$700MM
- Permitting Status: Construction commenced in the fall of 2005 and was completed in the summer of 2007
- Interconnection: Connects between PJM and LIPA
  - Provides 660 MW of electrical capacity and allows the Long Island Power Authority (LIPA) to purchase power from PJM for less than new energy assets can be built on Long Island

### Trans Bay Cable

- Developer: SteelRiver Infrastructure Fund North America (formerly Babcock & Brown)
- Project Type: Underwater HVDC Cable
- Location: Pittsburg, California to San Francisco, California
- Voltage: 400kV
- Length: 53 miles
- Estimated Cost: \$500MM
- Permitting: Final approvals were received in August 2007 and construction commenced for converter stations in November 2007 with expected completion during 2010
- Interconnection: CAISO
  - Project chosen by CAISO to transport up to 400 megawatts of power from Pittsburg to San Francisco. In September 2005, the CAISO selected TBC over its alternatives as the best transmission solution for the northern San Francisco Peninsula

### PATH 15 Transmission Project

- Developers: Western Area Power Administration, Pacific Gas and Electric Company and Trans-Elect (Western will own the new line, transmission rights will be shared and CAISO will operate the line)
- Project Type: New above-ground lines and existing transmission system upgrade
- Location: California Central Valley connecting Southern California with the northern part of the state
- Voltage: (2) 500kV, (4) 230kV
- Length: 84 miles
- Cost: \$255MM
- Permitting: Final approvals were received in 2003 and construction was completed in December 2004
- Interconnection: CAISO
  - Path 15 is rated at 3,900 MW and consists of six transmission lines. CAISO estimates that customers save \$100 million in energy costs during a normal year from the introduction of the line

**Appendix B**

# Transmission Projects

## Utilities with Significant Transmission Investment Plans

Company	Plans
AEP	<ul style="list-style-type: none"> <li>Transmission expansion with Allegheny (PATH) at a total cost of \$1.8Bn (AEP \$600MM) and 14.3% ROE, Duke (Pioneer Transmission) at a total cost of \$1Bn (AEP \$500MM) and MEHC Texas Transco, LLC (9.96% ROE)</li> <li>JV with MidAmerican established Electric Transmission America (ETA) to invest in select transmission projects located outside of ERCOT; Additional transmission projects in SPP (765kV and 500kV projects) expected to be approved 2009 - 2011</li> </ul>
Duke	<ul style="list-style-type: none"> <li>With AEP, formed a joint venture (Pioneer Transmission LLC) to build and own a 765-kV 240 mile transmission line in Indiana</li> <li>Project is expected to cost approximately \$1Bn with construction to be completed in 2014-2015</li> </ul>
Edison International	<ul style="list-style-type: none"> <li>Expected to spend \$5.5Bn over the next 5 years on transmission projects (28% of total capex)</li> <li>SCE developing Tehachapi transmission line to interconnect up to 4,500MW of generation</li> </ul>
Entergy	<ul style="list-style-type: none"> <li>Announced planned capex spend of \$1 - \$2Bn in transmission investments in ERCOT / SPP over the next 5 - 10 years</li> </ul>
Great Plains	<ul style="list-style-type: none"> <li>Expected to spend approximately \$680MM over the next three years (representing 30% of total capex) on transmission and distribution facilities</li> </ul>
ITC	<ul style="list-style-type: none"> <li>With AEP, recommended 700 miles of new transmission lines in Michigan and Ohio to link existing AEP high-voltage systems in the southwest corner of Michigan and Ohio</li> </ul>
NU	<ul style="list-style-type: none"> <li>In June 2008 presented proposed expansion between Connecticut and Massachusetts with an estimated cost of \$714 MM</li> <li>Planned construction in 2010 pending state and regulatory approval</li> </ul>
OG&E	<ul style="list-style-type: none"> <li>\$848 MM (representing 28% of total capex) on 7 transmission projects in SPP               <ul style="list-style-type: none"> <li>– 11.1% ROE, with cost allocation spread over regional SPP participants</li> </ul> </li> </ul>
Pepco	<ul style="list-style-type: none"> <li>5-year combined transmission construction forecast of \$1.9Bn, including construction of the Mid-Atlantic Power Pathway (MAPP); Completion of MAPP delayed one year to 2014 due to reduction in forecast of near-term demand</li> <li>230 mile line extending from northern Virginia and into southern New Jersey with an authorized ROE of 11.3%</li> </ul>
Progress Energy	<ul style="list-style-type: none"> <li>Expected to spend \$375MM in transmission &amp; distribution growth capex in 2009, though subject to downward revision</li> <li>In October 2008, Progress Energy Florida was granted approval for \$14Bn nuclear facility and \$3Bn in related transmission facilities; Pre-construction begins in 2010 / 2011</li> </ul>
Xcel Energy	<ul style="list-style-type: none"> <li>Expected to spend \$1.2Bn over the next 3 years on transmission projects</li> <li>Proposed projects in Colorado, New Mexico and Minnesota; Partner in the CapX 2020 project, a joint initiative of 11 transmission-owning utilities in Minnesota and surrounding states to build 700 miles of transmission</li> </ul>

## TRANSMISSION PROJECTS

# Selected Transmission Joint Ventures

## Overview

### Selected Transmission Joint Ventures

Project Name	Owner(s)	Partner(s)	Description	Regulated Return	Timing	Total Cost (\$MM)	Ownership Split	Cost (\$MM)
Potomac-Appalachian Transmission Highline (PATH)	AEP	Allegheny Energy	<ul style="list-style-type: none"> <li>244 mi, 765-kV line from Amos (WV) to Bedington (WV)</li> <li>46 mi, twin-circuit 500-kV line to Kemptown (MD)                             <ul style="list-style-type: none"> <li>May be reconfigured</li> </ul> </li> <li>Routing study and environmental assessment began in January 2008</li> <li>WV and MD regulatory approvals were to be sought in 1Q2009</li> </ul>	<ul style="list-style-type: none"> <li>Formula rates</li> <li>14.3% ROE</li> <li>Cash return on CWIP</li> <li>Recovery of all costs incurred prior to time rates go into effect</li> <li>Prudent development and construction costs recovered if abandoned</li> </ul>	<ul style="list-style-type: none"> <li>Siting approval from WV and MD anticipated in 2010</li> <li>Completion originally scheduled for June 2012, expected to be 2013-2014</li> </ul>	1,800	50% of Amos-Bedington line	600
Kansas Electric Transmission Authority (KETA)	ITC Great Plains	Sunflower Electric, Mid-Kansas Electric, Midwest Energy, NPPD	<ul style="list-style-type: none"> <li>210 miles split into two lines: a 765-kV line between Knoll (KS) and Spearville (KS) and a 365-kV line between Knoll and Axtell (NE)</li> </ul>	<ul style="list-style-type: none"> <li>12.16% ROE, inclusive of 100 bp adder for independence and 50 bp adder for RTO participation</li> </ul>	<ul style="list-style-type: none"> <li>FERC filing spring 2009</li> <li>Upon expedited regulatory approvals, completion is expected by May 2012</li> </ul>	350	NA	NA
Kansas V-Plan	ITC Great Plains	Sunflower Electric, Mid-Kansas Electric, Westar / Prairie Wind	<ul style="list-style-type: none"> <li>180 miles of 765-kV transmission line from Spearville (KS) to Wichita (KS) with intermediate points in southern Comanche County (KS) and near Medicine Point (KS)</li> </ul>	<ul style="list-style-type: none"> <li>12.16% ROE, inclusive of 100 bp adder for independence and 50 bp adder for RTO participation</li> </ul>	<ul style="list-style-type: none"> <li>FERC filing spring 2009</li> <li>Completion 2012</li> </ul>	476	NA	NA
Electric Transmission Texas (ETT)	AEP	MidAmerican Energy Holdings	<ul style="list-style-type: none"> <li>1,000 mi of 765-kV lines in Texas</li> </ul>	<ul style="list-style-type: none"> <li>9.96% ROE</li> </ul>	<ul style="list-style-type: none"> <li>Awaiting PUCT approval of consortium proposal</li> <li>Completion (in segments) 2012-2015</li> </ul>	4,200	50%	2,100
Horizon Transmission, LLC	AEP	Oklahoma Gas & Electric, (Through ETA JV)	<ul style="list-style-type: none"> <li>JV with ETA</li> <li>170 mi, 765-kV line from Kansas border through Oklahoma to tap wind energy</li> <li>OG&amp;E to contribute right of way expertise, operations and maintenance</li> <li>AEP to provide engineering design and construction oversight</li> <li>Part of SPP overlay plan</li> </ul>	<ul style="list-style-type: none"> <li>NA</li> </ul>	<ul style="list-style-type: none"> <li>FERC filing fall 2008</li> <li>Completion 2013-2014</li> </ul>	500	25%	125
Prairie Wind Transmission, LLC	AEP	Westar Energy, (Through ETA JV)	<ul style="list-style-type: none"> <li>JV with ETA JV (see below): 230 mi, 765-kV line through Kansas</li> <li>AEP to provide oversight of engineering, technology and project management</li> </ul>	<ul style="list-style-type: none"> <li>NA</li> </ul>	<ul style="list-style-type: none"> <li>FERC filing fall 2008</li> <li>Completion 2013-2014</li> </ul>	600	25%	150
CapX2020 Transmission Plan	Xcel Energy	Minnesota Power, 10 other companies in the upper midwest	<ul style="list-style-type: none"> <li>The first group of four proposed lines would span over 700 miles in Minnesota (three 345-kV lines, one 230-kV line)</li> <li>Expansion expected in N. Dakota, S. Dakota, and Wisconsin</li> </ul>	<ul style="list-style-type: none"> <li>NA</li> </ul>	<ul style="list-style-type: none"> <li>Regulatory permits in all applicable states pending (MN expected in 2009)</li> <li>Completion 2013-2015</li> </ul>	1,700	NA	NA
Greentown-Rockport (Pioneer Transmission LLC)	AEP	Duke Energy	<ul style="list-style-type: none"> <li>240 mi, 765-kV transmission line in southern Indiana</li> </ul>	<ul style="list-style-type: none"> <li>NA</li> </ul>	<ul style="list-style-type: none"> <li>FERC filing 2008</li> <li>Completion 2014-2015</li> </ul>	1,000	50%	500
Donald C. Cook Transmission Line	AEP	ITC Holdings	<ul style="list-style-type: none"> <li>700 mi, 765-kV line connecting the lower half of Michigan with eastern Ohio</li> </ul>	<ul style="list-style-type: none"> <li>NA</li> </ul>	<ul style="list-style-type: none"> <li>FERC filing 2009</li> <li>Completion 2015-2021</li> </ul>	2,600	50%	1,300
Electric Transmission America (ETA)	AEP	MidAmerican Energy Holdings	<ul style="list-style-type: none"> <li>A vehicle to invest in select transmission projects outside of ERCOT</li> </ul>	<ul style="list-style-type: none"> <li>NA</li> </ul>	<ul style="list-style-type: none"> <li>NA</li> </ul>	NA	50%	NA
Canada - Pacific Northwest - Northern California Transmission Project	PG&E	Avista Utilities, British Columbia Transmission Corp	<ul style="list-style-type: none"> <li>JV to analyze the feasibility of constructing a 1,000 mile, high-voltage line to increase access to new renewable resources in the Northwest</li> </ul>	<ul style="list-style-type: none"> <li>NA</li> </ul>	<ul style="list-style-type: none"> <li>Completion 2015-2016</li> </ul>	NA	NA	NA
<b>Total</b>			<b>4,720 mi</b>			<b>13,226</b>		<b>4,775</b>

## TRANSMISSION PROJECTS

# Selected Renewable-Focused Transmission Projects

### Selected Renewable-Focused Transmission Projects

Project	Owner(s)	Description	Expected In-service Date	Estimated Cost (\$MM)
North Las Vegas Area Routing and Siting Project	NV Energy	Construct a new substation, new quad circuit and double circuit transmission lines in the north Las Vegas area - approx. 90 miles; will allow for enhanced connection to multiple identified projects (mostly solar) in the northwest corner of the Las Vegas grid	2007 - 2015	231
Southwest Minnesota Wind Outlet Expansion Project	Xcel Energy	Recently completed project of ~220 miles of new transmission line and upgraded 300 miles of existing transmission to increase the deliverability of high quality wind generation resources in southwest MN from nearly 600 MW to over 800 MW	2008	310
Electric Transmission Texas	Electric Transmission America (JV owned by AEP and MidAmerican)	345kV interconnection line (as part of CREZ) in west Texas; 500 MW 345kV interconnection of the Kenedy County wind farms (includes substation and 25 mile radial 345kV line); next phase includes 345kV Gas Insulated System	2008	1,500
Four Wind Interconnection	ATC	Construction of one 345kV and three 138 kV substations on existing transmission paths connecting to four Wisconsin wind farms	2008 / 2009	17
Square Butte Electric Cooperative	Allete	Purchase of 465 mile HVDC line from Square Butte Electric Cooperative in Minnesota which currently carries coal-generated power; coal supply would be phased out to wind-generated power; total capacity of 500MW; Minnesota PUC to grant approval for transaction	2009	80
New Hampshire Northern Loop Project	Northeast Utilities	Project is aimed at reinforcing the 115kV transmission line running through several substations in the loop; four options range from re-sagging line to allow additional 40MW of capacity to interconnecting in excess of 100 MW of new renewables generation	2009	160 - 210
Northwest - Woodward District EHV 345kV Line	OGE Energy	120 miles of 345kV in the Woodward district of Oklahoma expected to transfer up to 2,300MW of proposed new wind generation to the Oklahoma City area	2009	218
Buffalo Ridge Incremental Generation Outlet (BRIGO)	Xcel Energy	~40 miles of new and upgraded transmission to provide deliverability for over 350 MW of wind resources in southwest MN and eastern SD	2009	65
Tehachapi Renewable Transmission Project	SoCal Edison	250 mile of new and upgraded high-voltage transmission lines north and east of Los Angeles; will support renewable generation development, enabling California to meet its RPS goals	2009 - 2013	2,000
Paddock - Rockdale 345kV Project	ATC	Construction an additional 35 mile 345kV line primarily on an existing transmission corridor between Paddock Substation (Beloit, WI) and Rockdale Substation (Christiana, WI)	2010	133
Montana - Alberta Tie	Tonbridge Power	215 mile, 230kV line connecting Great Falls, MT to Lethbridge, Alberta which will had a capacity rating of 300 MW; will transfer renewable energy, primarily wind, in a bi-directional manner between load centers in Montana and southern Canada	2010	120
Texas North Expansion Project (TNEP)	Xcel Energy - Southwestern Public Service (SPS)	Construction of 213 miles of new 230kV and 115kV transmission lines as well as associated infrastructure including "interchanges" and switching stations; project goal is to increase reliability, reduce congestion, and allow additional load servicing capabilities near Amarillo, TX and Guymon, OK; the projects exist in an area experiencing significant requests for wind generation interconnections and will facilitate the interconnection of additional wind generation in the north Texas panhandle	2010 - 2011	109
Pleasant Valley Transmission Project	Xcel Energy, Rochester Public Utilities, Great River Energy, and Southern Municipal Power Agency	~45 miles of new and upgraded transmission to provide deliverability for over 700 MW of wind resources in response to 2010 and 2012 renewable targets in MN; will also provide load serving benefit to Rochester, MN	2010 - 2012	41

Source Company Information, CERA, EEI

## TRANSMISSION PROJECTS

# Selected Renewable-Focused Transmission Projects (cont'd)

### Selected Renewable-Focused Transmission Projects

Project	Owner(s)	Description	Expected In-service Date	Estimated Cost (\$MM)
Carson - Suffolk 500kV Line	Dominion Resources	59.6 mile 500 kV transmission line in southeastern Virginia between Carson and Suffolk; October 2008 state commission approval; will increase access to wind energy and other renewables west of Dominion's service territory	2011	185
Devers - Palo Verde No. 2 (DPV2 Project)	SoCal Edison	230 mile, 500 kV line from Devers Substation (near Palm Springs, CA) to Harquahala (west of Phoenix, AZ) and well as related line upgrades to facilitate the development of renewable resources	2011	680
Competitive Energy Renewable Zones	Oncor Electric, Electric Transmission Texas, Lower Colorado River Authority, Lone Star Transmission, Wind Energy Transmission Texas, Sharyland Utilities, and Cross Texas Transmission.	2,950 miles of 345kV transmission line throughout Texas to bring wind energy sources in the state, primarily in the West and in the Panhandle, to urban demand centers in the east and south of the state	2011+	4,930
Northeast Energy Link	National Grid, Bangor Hydro-Electric	Proposal to build a 220 mile 660 MW HVDC between Orrington, ME and eastern MA; project would allow for the import of renewable generation from ME and New Brunswick (near Boston); the project would also be designed with flexibility to upgrade to 1,200 MW of capacity; under construction and currently seeking regulatory approvals	2012	2,000
Eastern Nevada Transmission Project	NV Energy	280 mile 500 kV transmission line from southern Nevada to Ely, Nevada; the project also adds one 500 / 345kV substation; received PUCN approval in November 2006; will allow direct interconnection between NVES and NVEN and improved access to renewable energy sources in northern Nevada	2012	420
KETA Project (ITC Great Plains)	ITC Great Plains, Sunflower Electric Cooperative, Mid-Kansas Electric, Midwest Energy, Nebraska Public Power District	210 miles of HV lines in KS; 765kV line between Spearville and Knoll; 345kV line between Knoll and Axtell; ~3,000 MW of wind generation proposed for interconnection to KETA	2012	350
Kansas V-Plan	ITC Great Plains, Sunflower Electric Cooperative, Mid-Kansas Electric, Westar / Prairie Wind Transmission	180 mile, 765 kV (operating initially at 345kV) between Spearville and Wichita, KS with intermediate points at Comanche SW (wind resource collection point) and Medicine Lodge (wind resource collection point)	2012	476
Carson Lake - South Fallon Project	NV Energy	22 mile, 230 kV from a new substation along its existing 230 kV line between Ft. Churchill and Gonder (in NV); construct 3 taps for approx. 109 MW of geothermal output	2012 - 2015	35
Prairie Wind Transmission	Electric Transmission America (JV owned by AEP & MidAmerican) and Westar Energy	230 mile, 765kV line extending from Wichita to Dodge City and Medicine Lodge (in KS); the project will connect to the proposed Tallgrass 765kV line and the existing 345kV near Dodge City and Wichita; will be the first 765kV transmission built west of the Mississippi; currently seeking RTO / state / federal approvals; will support renewable generation development	2013	600
Tallgrass Transmission	Electric Transmission America (JV owned by AEP & MidAmerican); OG&E - 50%; AEP and MidAmerican - 50%	170 mile, 765kV line extending from Woodward to Guymon (in Oklahoma) and connecting to proposed 765kV Prairie Wind line; it will also integrate with an existing 345kV line between Woodward and Guymon. November 2008 FERC approval and seeking RTO / state / federal approvals; will support renewable generation development	2013	500

**Source** Company Information, CERA, EEI

## TRANSMISSION PROJECTS

# Selected Renewable-Focused Transmission Projects (cont'd)

### Selected Renewable-Focused Transmission Projects

Project	Owner(s)	Description	Expected In-service Date	Estimated Cost (\$MM)
Central California Clean Energy Transmission Project (C3ET)	PG&E	140 to 170 mile 500kV overhead transmission line from Midway Substation to Gregg Substation or to a new 500 / 230kV substation (E2) between Gregg Substation and Helms Pumped Storage Plant (PSP) in Kern and Fresno counties in the southern portion of the PG&E service area; will increase the Path 15 transfer capability by at least 1,000MW and facilitate efficient management of renewable resources	2013	800 - 1,000
SunZia Southwest Transmission Project	South Western Power Group, Salt River Project, Tucson Electric Power, Energy Capital Partners, Shell WindEnergy	500 miles of 500kV transmission line with a capacity of 3,000 MW; connecting wind, solar and geothermal energy production to load centers and increasing the reliability of the transmission system in southern NM and southern AZ	2013	N/A
TransWest Express Project	Anschutz	900 mile transmission line intended to deliver wind-generated electricity from Wyoming to CA, AZ, and NV; 3,000 MW capacity; will have the potential to meet 25% of the forecasted 2020 clean energy needs for the Desert Southwest region	2013	3,000
Mountain States Transmission Intertie	NorthWest Energy	430 mile, 500kV transmission line from Townsend, MT to Jerome, ID and would transmit wind-generated power	2013	800
San Luis Valley - Calumet 230 kV Transmission Project	Xcel Energy - Public Service of Colorado (PSCo), Tri-State Generation and Transmission (TSG&T)	~95 miles of 230kV line between San Luis Valley and Calumet (in CO); proposed in accordance with Colorado Senate Bill SB07-100 to facilitate potential generation resource development in ERZ 4 and 5	2013 - 2014	90
East Valley Master Project	NV Energy	Project includes two new 500 / 230kV, 1,500MVA substations, a new 1,500 MVA bank, a 10 mile 500kV line and two 230kV lines on the east side of Las Vegas; will integrate more than 2,000 MW of future generation resources (including approx. 600 MW of renewable energy, primarily base load geothermal) into the 230kV transmission network on the east side of Las Vegas	2013 - 2015	397
CapX2020 Transmission	Allete, Central Minnesota Municipal Power Agency, Dairyland Power Cooperative, Great River Energy, Minnesota Municipal Transmission Group, Minnesota Power, Minnesota Power Cooperative, Missouri River Energy Services, Otter Tail Power Company, Rochester Public Utilities, Southern Minnesota Municipal Power Agency, WPPI Energy and Xcel Energy	First group of four proposed lines would span over 700 miles: (1) 240 mile, 345kV line between Brookings, SD and Hampton, MN, plus a related 345kV line between Marshall and Granite Falls, MN; (2) 250 mile, 345kV line between Fargo, ND and St. Cloud and Monticello, MN; (3) 150 mile, 235kV line between Hampton, MN, Rochester, MN and La Cross, WI; (4) 70 mile, 345kV line between Bemidji and Grand Rapids, MN. The lines provide access to wind generation sources in SD and MN	2013 - 2015	1,700
Southern Crossing Project	Portland General Electric	Expansion of the existing transmission system across the Oregon Cascades with the construction of a new 200 mile, 500kV line; would integrate up to 600 MW of proposed wind and thermal resources	2014	600 - 700
Pawnee - Smoky Hill 345 kV Transmission Project	Xcel Energy - Public Service of Colorado (PSCo)	~95 miles of 345kV and 230kV line of both new and upgraded transmission lines in CO to help facilitate the development of renewable generation; proposed in accordance with Colorado Senate Bill SB07-100 to facilitate potential generation resource development in ERZ 1 and 2	2014	132

Source Company Information, CERA, EEI

## TRANSMISSION PROJECTS

# Selected Renewable-Focused Transmission Projects (cont'd)

### Selected Renewable-Focused Transmission Projects

Project	Owner(s)	Description	Expected In-service Date	Estimated Cost (\$MM)
Chinook Transmission Line	TransCanada	1,000 mile, 500kV transmission HVDC line with a capacity of 3,000 MW that will originate in southwest Montana and terminate in the Eldorado Valley near Las Vegas; will enable large-scale development of environmentally attractive wind generation projects	2014	1,500
Zephyr Transmission Line	TransCanada	1,100 mile, 500kV transmission HVDC line with a capacity of 3,000 MW that will originate in southeast Wyoming and terminate in the Eldorado Valley near Las Vegas; will enable large-scale development of environmentally attractive wind generation projects	2014	1,500
CNC Project	PG&E, Avista Corporation, British Columbia Transmission Corporation, PacifiCorp	1,000 mile line from new renewable resources in British Columbia to the Pacific Northwest and northern CA; will be able to transport up to 3,000 MW of power over a 500kV HVAC and 500kV HVDC	2015	3,000 - 7,000
Corridor Project	Xcel Energy, all utilities in the Minnesota Transmission Owners (MTO) group	220 - 250 mile, double circuit 345kV line utilizing a current transmission corridor between the Minneapolis area and western MN; purpose is to further increase access to the wind resources in western MN and eastern SD and ND in response to MN's 2016 RES target	2015	600 - 900
Big Stone Transmission Project	OtterTail, Central MN MPA, Heartland Consumers Power District, MDU Resources Group, Missouri Energy Services	140 miles of 230kV and 345kV transmission line to upgrade existing lines; current transmission for coal-fueled power plant however additions were purposely oversized to enable the outlet for additional wind resource projects of approximately 800 - 1,000 MW	N/A	175
Green Power Express	ITC	~3,000 miles of 765kV transmission lines that will traverse portions of ND, SD, MN, IA, WI, IL, ID; designed to efficiently move up to 12,000 MW of renewable energy in wind-rich areas to major Midwest load centers (i.e. Chicago)	N/A	10,000 - 12,000
Southwest Intertie Project	LS Power	500-mile, 500-kilovolt transmission line that will extend from southern Idaho through eastern Nevada to the Las Vegas area. The SWIP will help unleash the significant renewable resource potential that exists within Nevada and other parts of the Western U.S	2012	1,300
Wyoming-Colorado Intertie Project	LS Power	850 megawatt (MW) transmission line extending approximately 180 miles between Laramie River Station Substation located at Wheatland, Wyoming, and Pawnee Substation located at Brush, Colorado. The Wyoming-Colorado Intertie Project will provide a transmission path to deliver high capacity-factor wind energy from Wyoming to load centers in Colorado.	2013	325
Cross Texas Transmission	LS Power	170 mile, 345 kV transmission line to support renewable energy as part of the Texas Competitive Renewable Energy Zone process, for Texas to meet its "Goal for Renewable Energy."	2012	400
La Salle	LS Power	345 kV transmission project connecting Illinois and Indiana. LaSalle will be a 160 mile line connecting three existing 345 kV substations operated by the PJM RTO : Pontiac - Midpoint (Illinois), Reynolds (Indiana), Dymont (Indiana). Will facilitate wind development in Illinois and Indiana.	2012	400