

# US TRANSMISSION MARKETS AND STRATEGIES: 2011-2020

## November 2011

### STUDY HIGHLIGHTS:

#### Transmission Investment Forecasts through 2020

- Annual Investment Forecasts (\$)
- Investment Forecast by Region
- Investment Forecasts by Transmission Type

#### Strategy Profiles of Transmission Developers

- Pure-Play Transmission Developers
- Integrated Utilities
- Independent Transmission Companies
- Independent Power Producers
- Diversified Energy Players

#### Profiles of Major Transmission Initiatives

- Over 20,000 miles of proposed high voltage lines
- Status of projects in development
- Regional map project details
- Regional Analysis: MISO, SPP, ERCOT, CAISO, ISO-NE, NY ISO, WECC

#### Transmission Development Activity

- Financing/Ownership Strategies
- Approved and proposed projects by region
- Planned Investment by Company Type
- Energy Storage Integration
- Transmission Cost Trend Analysis

#### Transmission Policy Landscape and Market Drivers

- Status of Regional Planning Processes
- State Transmission Initiatives
- Federal Policies (FERC)
- Regional Bottlenecks
- Transmission Subsidies
- Impact of Renewable Energy

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The state of the US electric grid is a pivotal issue for the energy industry. The country's transmission infrastructure has been subject to increasingly rigorous reliability standards and significant changes to power markets while also weakened by decades of under-investment. Current state mandates for renewable energy have increased the urgency for transmission investment across the US. Over 70 GW of renewable energy capacity will need to come online by 2020 to meet state renewable portfolio requirements -- new transmission development is crucial for this new capacity.

With up to US\$100 Billion of capital investment required in the US transmission sector over the next decade, transmission developers are seeking innovative ownership and financing models to advance projects. These new models have been increasingly facilitated by the greater flexibility afforded by the Federal Energy Regulatory Commission (FERC) and regional planning authorities. The top 20 owners of transmission control over 60% of the total installed transmission in the US greater than 345kV, but a host of new entrants now see transmission as a key investment opportunity.

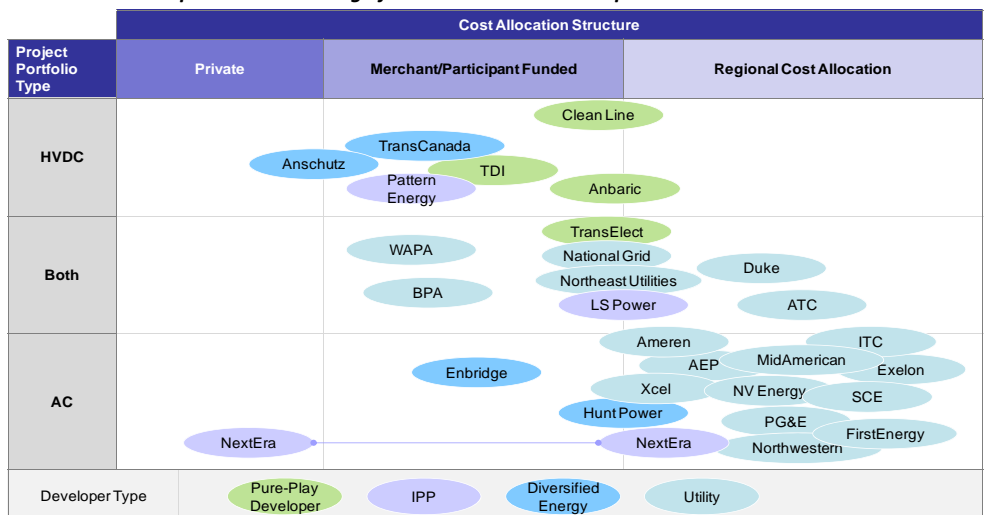
A landmark new study from IHS Emerging Energy Research, **US Transmission Markets and Strategies: 2011-2020**, analyzes the US transmission grid. It evaluates the impact on renewable energy markets, the investment required in high voltage lines, and the competitive positioning of established and emerging transmission developers and owners. Following are just a few key trends analyzed in this new study:

**-Utilities expand transmission footprint through both new and established business models:** Driven by regional expansion ambitions and RPS obligations, utilities are leveraging inherent strengths in transmission to expand their market presence. Led by AEP, MidAmerican and Duke Energy, utilities are building a pipeline of transmission projects to be submitted into the RTO/ISO planning processes. Major utility transmission owners are pursuing regulated rate-based build, establishing newly formed joint ventures, and spinning off new transcos for expansion.

**-Cost allocation key to unlocking new transmission for renewable energy:** A recent ruling by FERC (Order 1000) allows renewables-focused transmission to be eligible for regional cost allocation, mitigating risk for investors. Regional Transmission Organizations including ERCOT, Midwest ISO, and SPP have instituted new cost allocation methodologies to allow for more renewables-enabling transmission. However, long permitting and development timelines continue to bring risk and uncertainty for transmission projects and their developers.

**-New players look to unlock renewables through transmission development:** The drive to unlock renewable power generation is attracting players from across the energy spectrum into transmission development. Integrated energy companies, independent power producers, and pure play developers, are aiming to seize the opportunity. Some are pursuing novel business models, while others are competing with utilities for regional cost allocation.

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