



PRESENTATION TO THE IDAHO STATE BAR

ENVIRONMENTAL & NATURAL RESOURCE SECTION

NOVEMBER 29, 2023 | PRESENTED BY: MEGAN MCLEAN, LAURA MORTON, JANE RUEGER

DOE National Transmission Needs Study


DECLINE IN REGIONAL AND INTERREGIONAL TRANSMISSION INVESTMENTS

- Most transmission investment in the past decade has been focused primarily on incremental reliability needs of local transmission systems.
- While transmission developers in the US invested \$20 to \$25 billion annually from 2013 to 2020, only a small and declining portion of that investment went to regional transmission facilities.
- Only 70 circuit-miles of interregional transmission were energized on average each year between 2011 and 2020.

To meet Biden Administration's goal of carbon free power sector by 2035, regional transmission capacity must more than double and interregional capacity must increase fivefold (economywide decarbonization by 2050 requires even more investment)

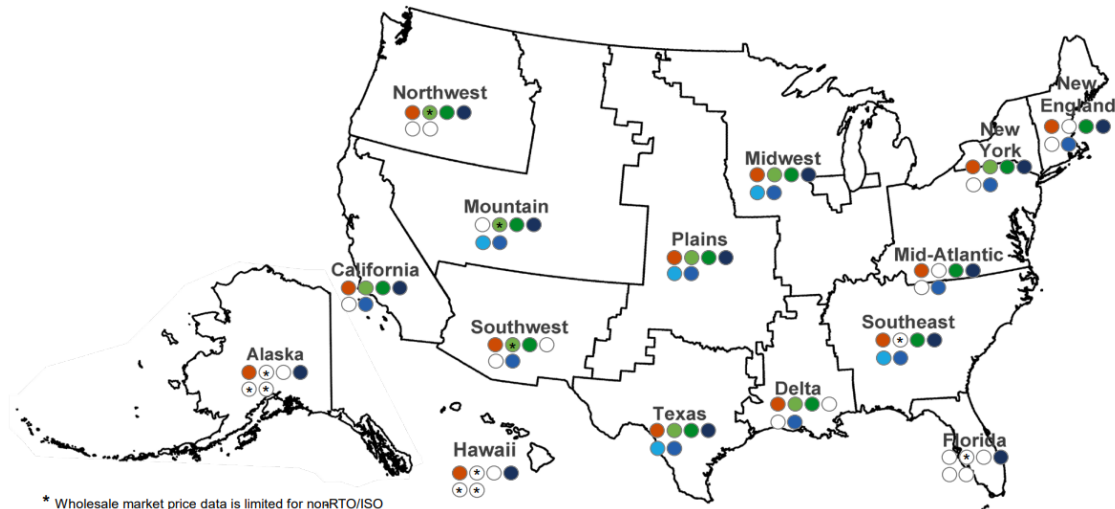
DOE National Transmission Needs Study

ONGOING FEDERAL EFFORTS TO INCENTIVIZE TRANSMISSION BUILD OUT



Needs Studies	<ul style="list-style-type: none">•National Needs Study (FPA §216(a))•Offshore Wind Studies
Financing	<ul style="list-style-type: none">•DOE Grants and Loans under IIJA and IRA•DOE Direct Investment (anchor tenant)•USDA Empowering Rural America (New ERA) Program
Transmission Planning	<ul style="list-style-type: none">•FERC Ix Reform Rule•FERC Regional Tx Planning NOPR•FERC considers interregional Tx transfer capability requirement
Federal Siting & Permitting	<ul style="list-style-type: none">•Interagency MOU (pursuant to FPA §216(h))•Coordinated Interagency Transmission Authorization and Permits NOPR (FPA §216(h); 10 CFR 900)•NIETC Designation NOI (FPA §216(a))•FERC Backstop Siting Authority NOPR (FPA §216(b))

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* Wholesale market price data is limited for nonRTO/ISO regions and capacity expansion modeling data is limited for Alaska and Hawaii. Absence of data does not necessarily indicate that there is no need for new transmission.

		Region														
		California	Northwest	Mountain	Southwest	Texas	Plains	Midwest	Delta	Southeast	Florida	Mid-Atlantic	New York	New England	Alaska	Hawaii
Current or Anticipated Need	Improve reliability & resilience	●	●		●	●	●	●	●	●		●	●	●	●	●
	Alleviate congestion & unscheduled flows	●	*	*	*	●	●	●	●	*	*	●		*	*	
	Alleviate transfer capacity limits between neighbors	●	●	●	●	●	●	●	●	●		●	●	●		
	Deliver cost-effective generation to meet demand	●	●	●		●	●	●		●	●	●	●	●	●	●
Anticipated Need	Meet future generation & demand with within-region transmission			●		●	●	●		●					*	*
	Meet future generation & demand with interregional transfer capacity	●		●	●	●	●	●	●	●		●	●	●	*	*

Source: See Supplemental Material for supporting references and methodology.

Figure ES-7. Summary of current and future transmission needs identified in Needs Study by geographic region.

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Table IV-2. High- and low-priced areas identified within the wholesale markets of the three Interconnections. Regions are defined based on a regional concentration of nodes identified with the Market Price Differential metric.

Region	Low-Priced Areas	High-Priced Areas
Plains	Southern and Western KS OK/TX Panhandles	Southern OK Southwest MO
Midwest	Southwest and Central IA Southern MN	Northwest WI Eastern and UP MI
Mid-Atlantic	Northeast IL Southeast PA	Eastern MD/VA Delmarva Peninsula MD & DE
New York	Upstate NY	Long Island NY
New England	North VT/NH	–
California	Mojave Desert CA	Southern Coast CA Northern Coast CA
Mountain	Eastern WY	–
Texas	Northern TX Western TX Southern TX	–

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KEY TAKEAWAYS

- The needs study is an important first step toward increasing transmission infrastructure investment.
- The study will inform and support implementation of existing DOE programs and those funded under the Inflation Reduction Act and IIJA.
- Many challenges remain:
 - Planning process reforms (which lines will be built and when?)
 - Transmission siting and permitting (where will lines be built? how can developers avoid conflict and navigate multiple agency processes?)
 - Cost allocation for billions of dollars of transmission investment (who will pay for the lines once built?)