

# ***IS TRANSMISSION EXPANSION FOR DECARBONIZATION COMPATIBLE WITH GENERATION COMPETITION?***

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## **Overview**

Decarbonization of the electricity sector, and expanding it to facilitate decarbonization of transportation, heating, and other energy applications primarily using fossil fuels, is an important step in mitigating climate change. A widely advocated step in that direction is long-term planning to massively expand the transmission system to deliver electricity generated by wind and solar units that are far away from population centers. The transmission system has seen substantial investment in recent years, with few examples of failure to construct new lines, but future climate imperatives may justify moving away from the process of adding incremental capacity in response to specific requests. However, the planning process may sacrifice much of the benefits of competition that electricity policy has striven to achieve over the past three decades.

## **Methods**

Economic, analytical, legal, documentary

## **Results**

Two types of benefits from competition are at risk with long-term transmission planning. The first are those from foregone static competition resulting from independent output and capacity responses to market prices. Perhaps more important benefits at risk are those from dynamic competition from technological innovation and market information acquired over time.

## **Conclusions**

Reconciling the benefits of competition with central planning has long been necessary in the electricity sector. I propose options for preserving some of the benefits of competition, if long-term transmission planning remains an imperative.

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