

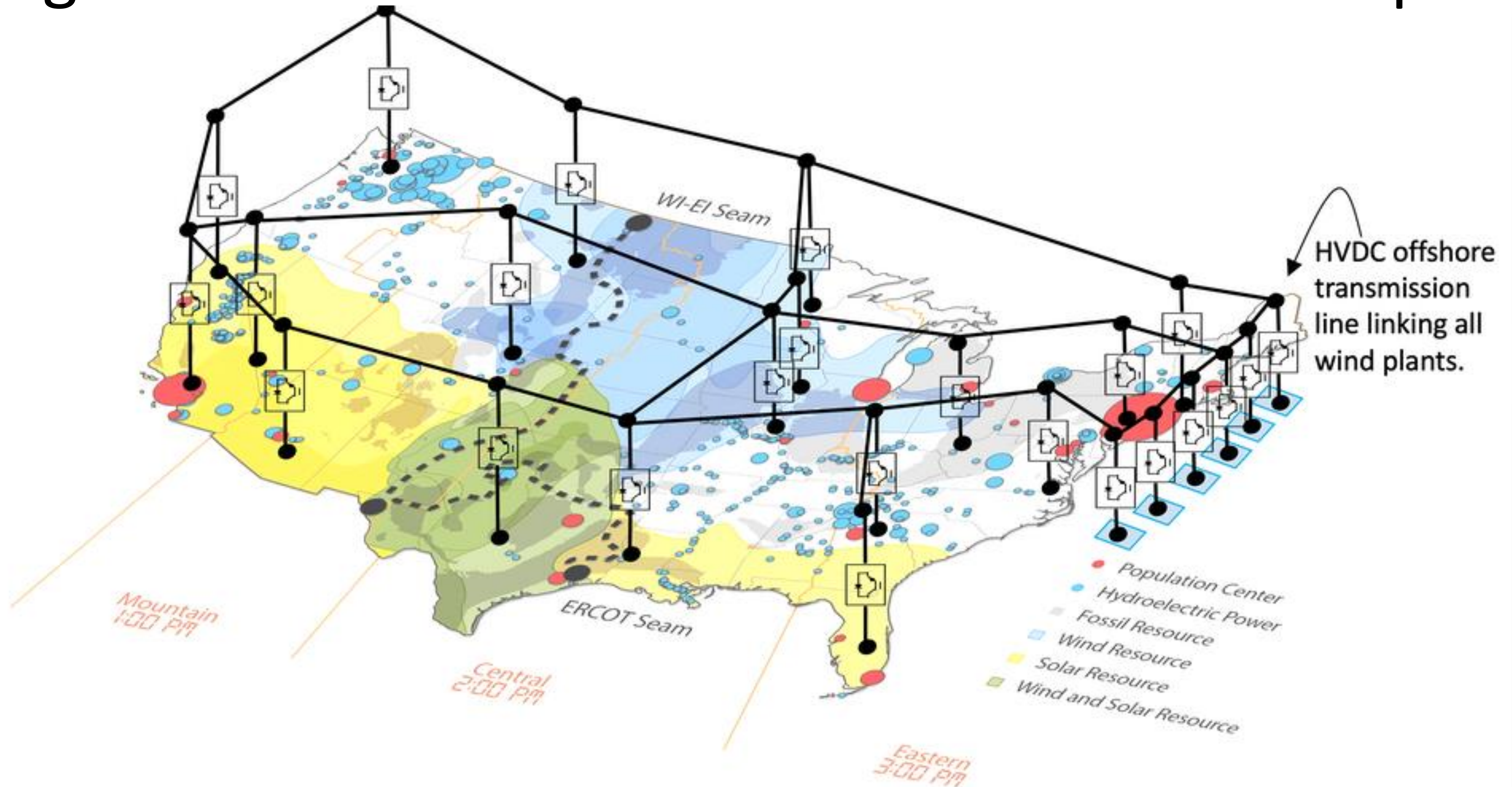
Towards the Energy System of Tomorrow

Environmental and Energy Study Institute

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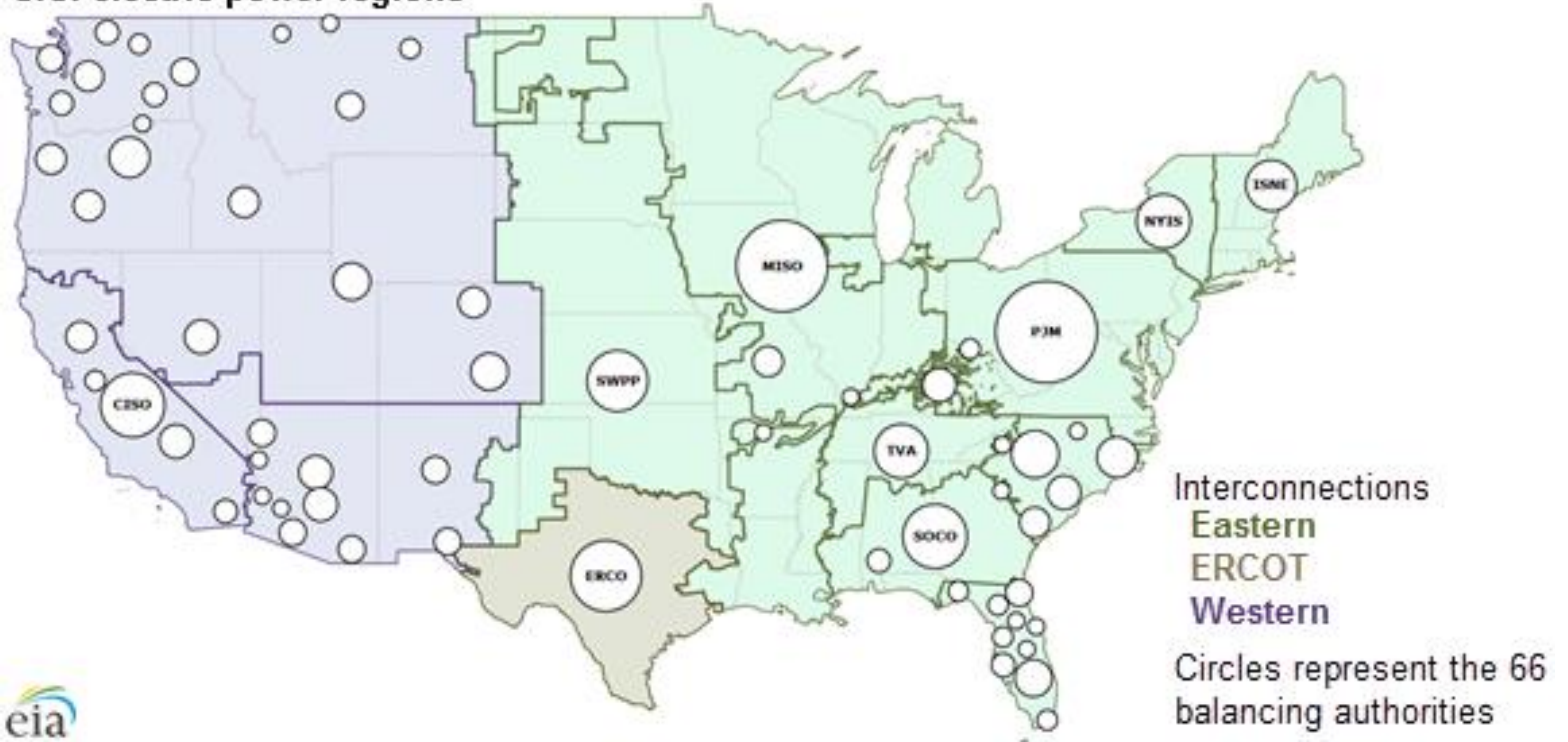
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Regional solutions: economies of scale and scope

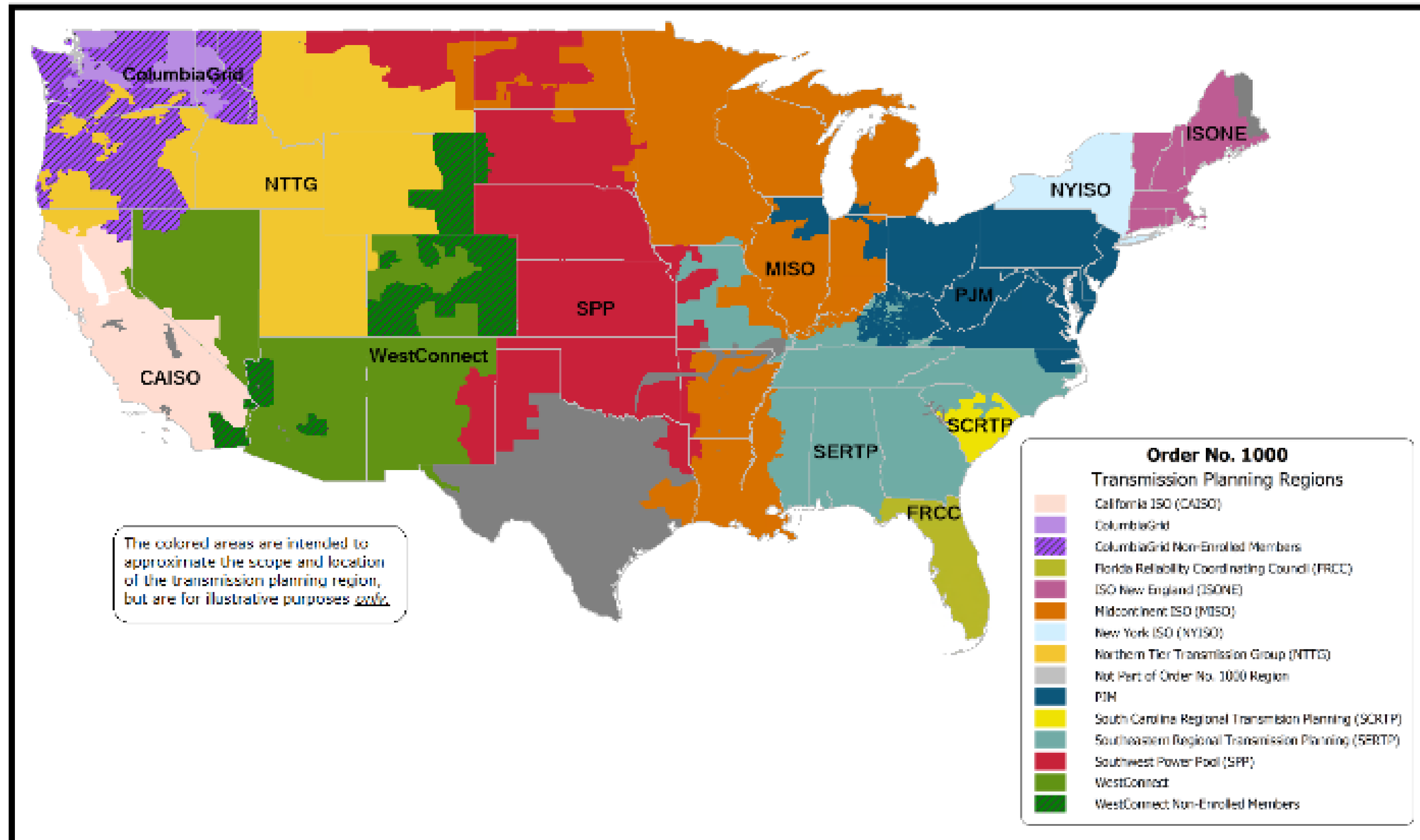


Fragmented electricity trade

U.S. electric power regions



Fragmented transmission planning



Electricity customers can offer key solutions

- Customer devices will scale up with electrification
 - D-system must be able to manage higher amounts of smaller, distributed resources discharging and storing electricity
- EVs, HVAC systems, etc. on the D-system can help balance electricity supply and demand
 - Help integrate wind/solar and maintain reliability at least-cost
 - FERC allowing DR, storage, DERs to participate in wholesale electricity markets helps optimize use of these resources
 - Need T&D coordination, accurate prices, better forecasting

How can Congress help?

- Market / transmission expansion and grid-edge issues highlight importance of federal, state and local authorities collaborating—need forums to work out solutions
 - Ask FERC/DOE to convene states, local authorities, stakeholders to develop coherent, equitable, implementable large-scale backbone transmission plan
 - Fund and provide technical assistance to states to study the benefits of market and transmission expansion, and improve D-system to accommodate DER proliferation and participation in markets
 - Fund DOE to improve open-source mapping tools to identify transmission corridors that optimize efficiency, equity, and avoid environmentally sensitive and cultural heritage sites while maximizing existing rights of ways
- Reduce costs of efficiently sharing resources
 - Fund DOE to develop common open-source energy market trading platform to optimize trades across borders
- Align incentives with policy goals
 - Direct FERC to require utilities to trade electricity and share resources as part of an independently operated market to minimize overcharging customers
 - Enable DOE to investigate setting standards to encourage greater efficiency for the transmission system

Thank you!

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ReGrid

Renewable Reliable Reimagined