

Barriers to Clean Energy Development in Indian Country

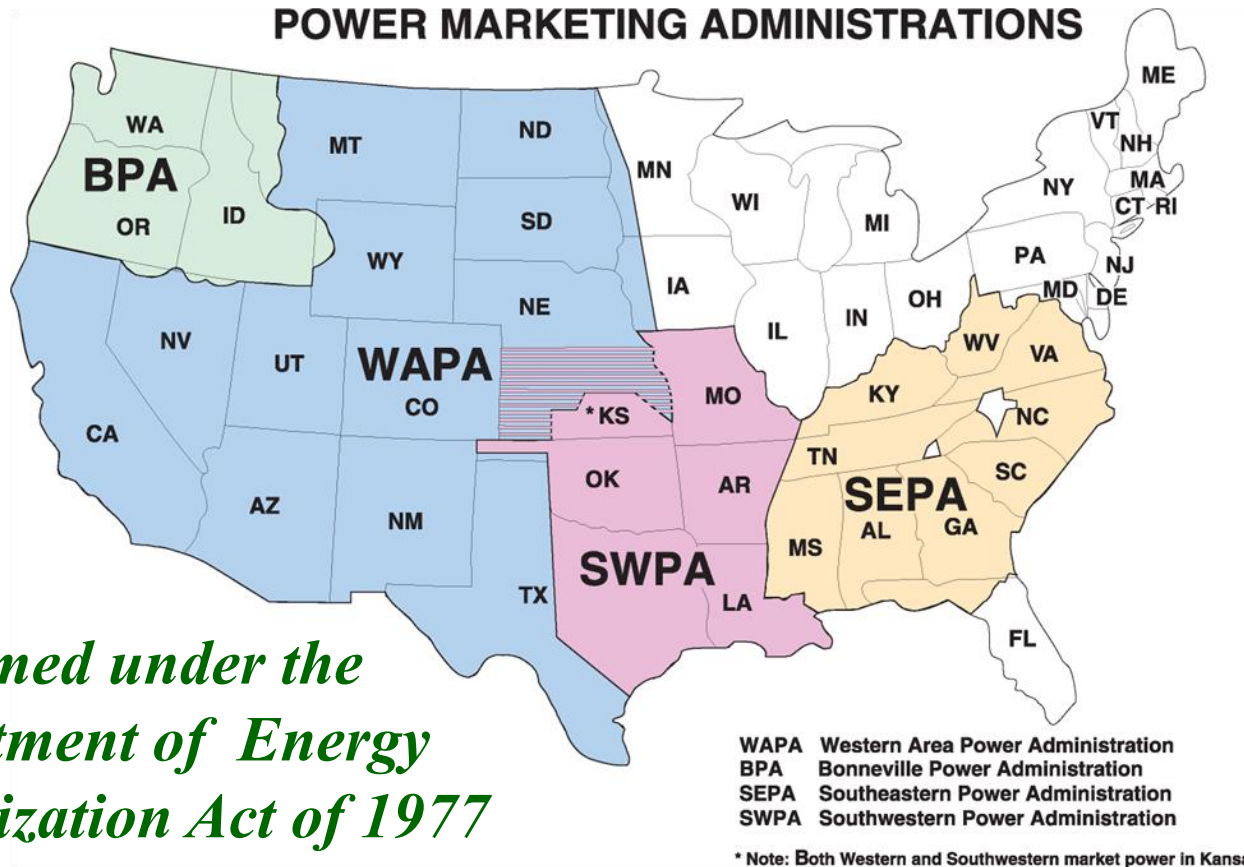
Randolph Manion
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Western Area Power Administration

May 5, 2015



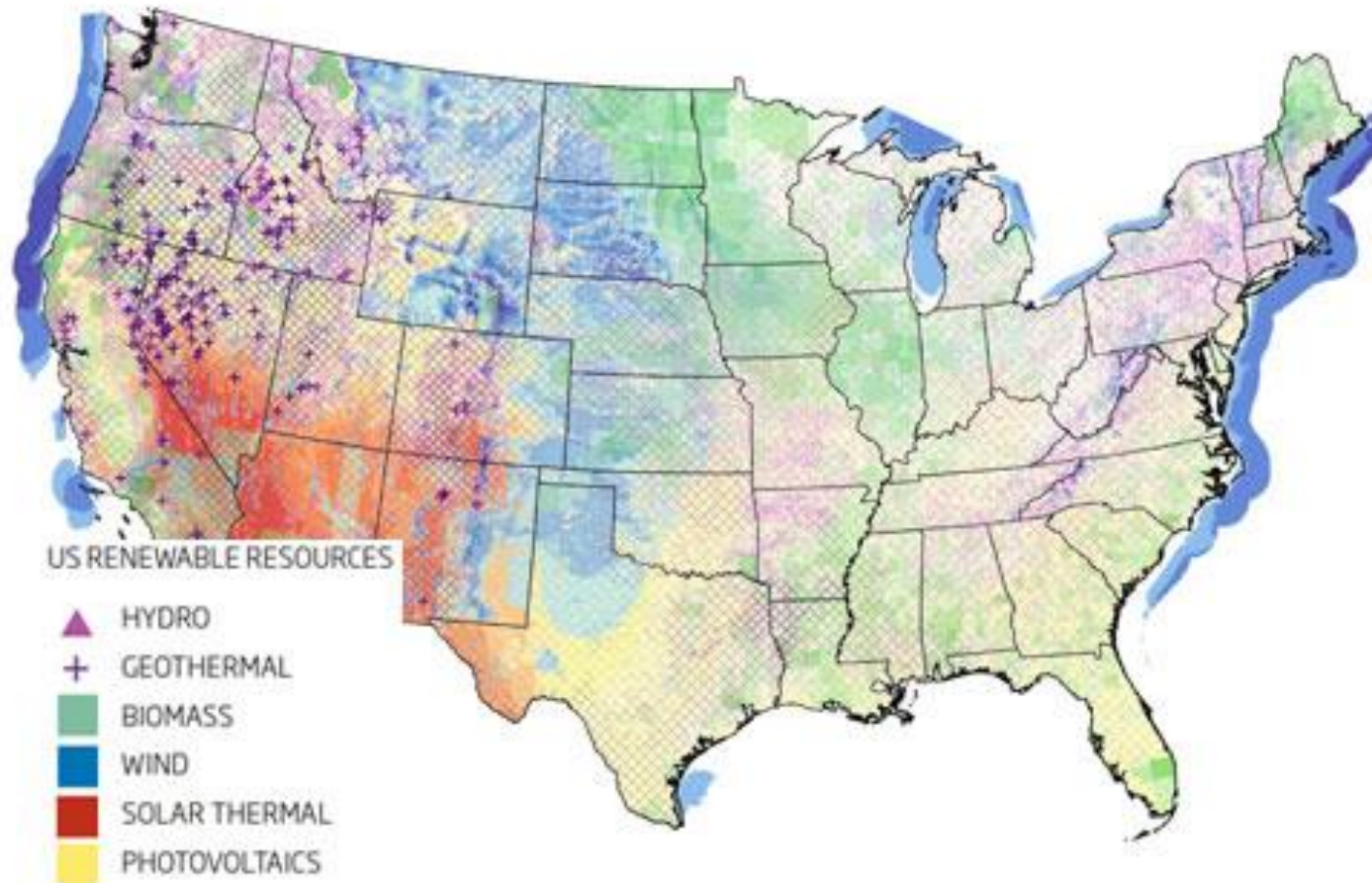
A Little About Western...

A Federal Power Marketing Administration



*-- Formed under the
Department of Energy
Organization Act of 1977*

Barriers to Renewable Development



Renewable Barriers at 50,000 Feet



Union of Concerned Scientists

Citizens and Scientists for Environmental Solutions

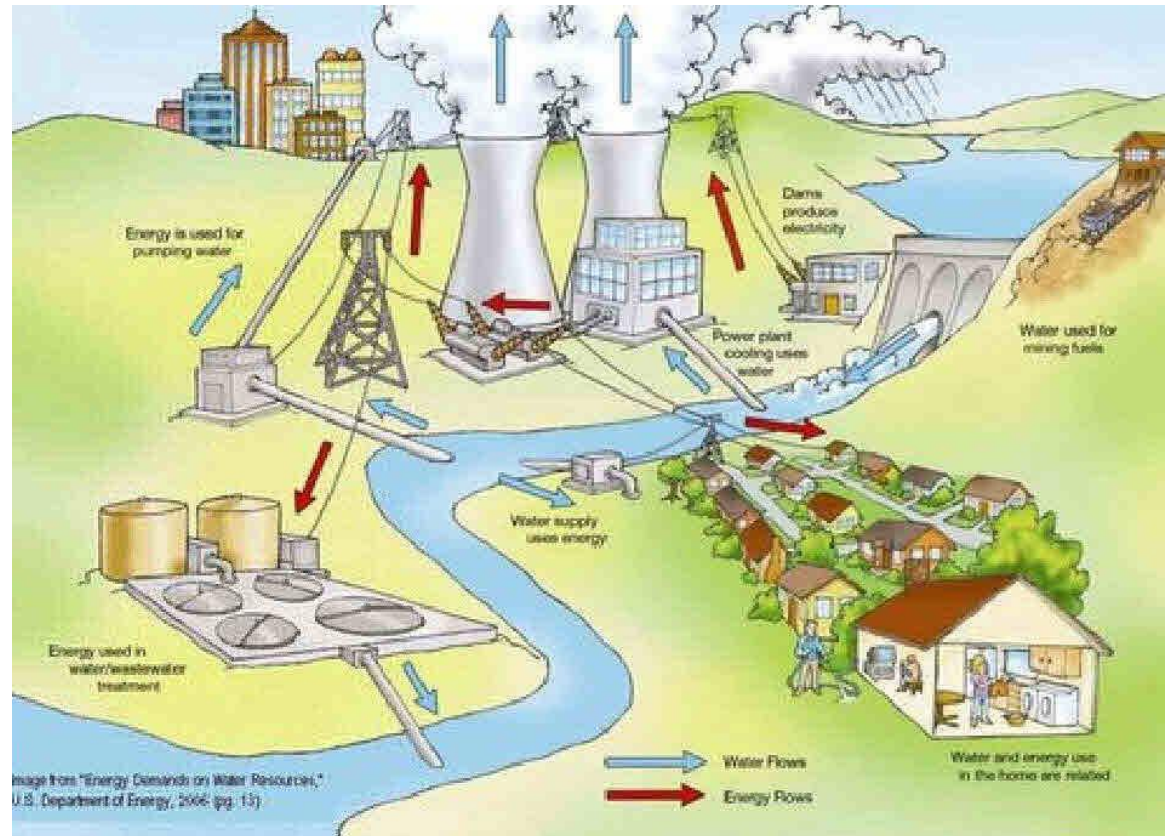
- Commercial
- Markets
- Unequal Government Subsidies and Taxes
- Failure to Value Public Benefit of Renewables

RESOURCES:

- [UCS Paper on Barriers: http://www.ucsusa.org/clean_energy/smart-energy-solutions/increase-renewables/barriers-to-renewable-energy.html#.VTkVoJ1lB9A](http://www.ucsusa.org/clean_energy/smart-energy-solutions/increase-renewables/barriers-to-renewable-energy.html#.VTkVoJ1lB9A)

Renewable Barriers at 1,000 Feet

- Technical
- Transmission
- Operations
- Markets
- Financial
- Community



Caption from: University of Michigan Clean Energy Program

Transmission Barriers

- Transmission access
- Feasible interconnection point
- Access to off-takers
- Timing and study costs

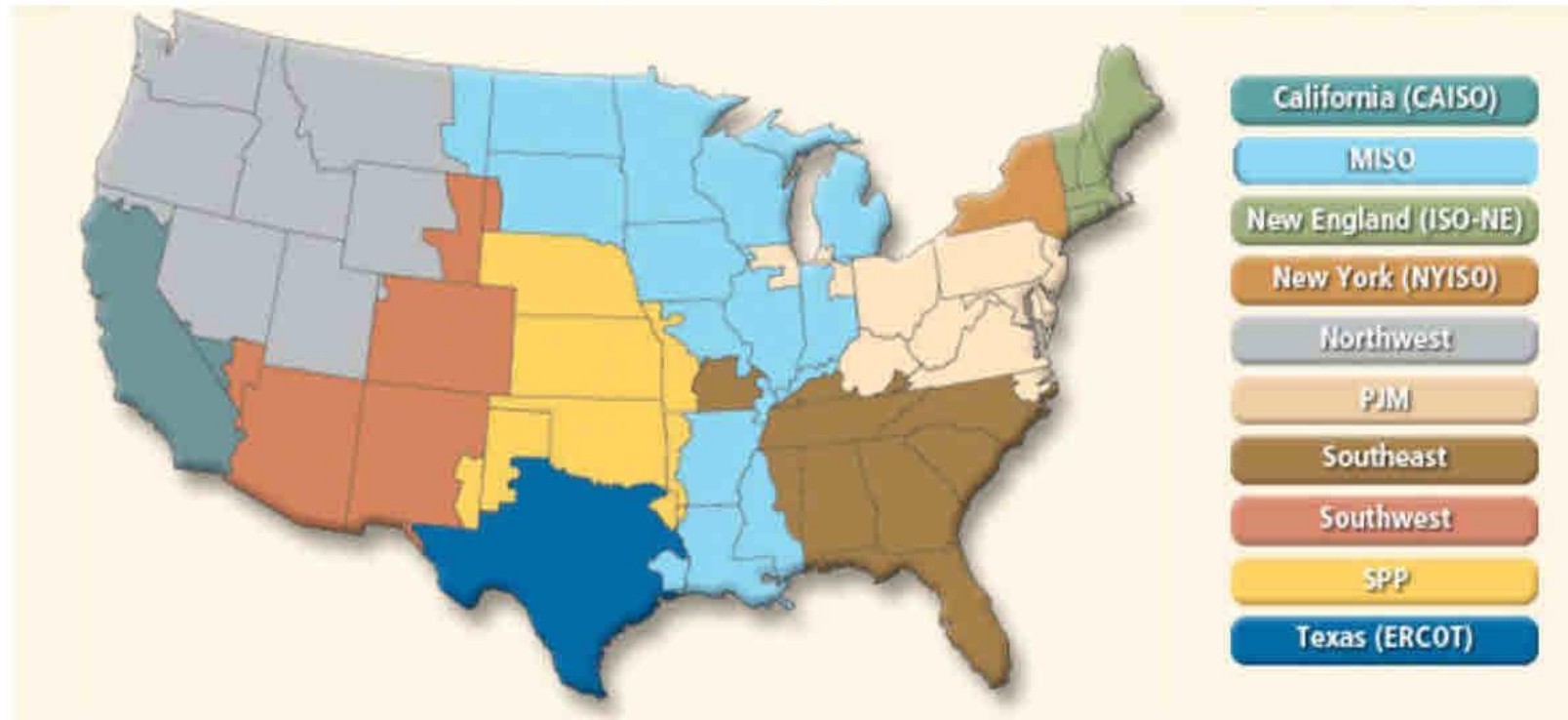


Resources:

- Interconnection process less than 20 MW, <http://www.ferc.gov/industries/electric/indus-act/gi/small-gen.asp>
- Interconnection process greater than 20 MW, <https://www.ferc.gov/industries/electric/indus-act/gi/stnd-gen/2003-C-LGIP.doc>
- SPP Generator Interconnection Procedures, <http://sppoasis.spp.org/documents/swpp/transmission/studies/Interconnection%20Request%20Guidelines%20for%20Posting.pdf>

Market Barriers

Electric Power Markets: National Overview



Resources:

- FERC Electric Power Markets National Overview, <http://www.ferc.gov/market-oversight/mkt-electric/overview.asp>
- Regulatory considerations in developing renewable projects Tribal lands, <http://ww2.wapa.gov/sites/western/renewables/Pages/Webcasts.aspx#FERC13>
- FEMP Purchase Power Agreement Information, http://www1.eere.energy.gov/femp/pdfs/afo_ppa_pres.pdf
- NREL PPA Information, <http://www.nrel.gov/docs/fy10osti/46668.pdf>

Other Barriers

“It’s not like the gates of heaven open up when solar becomes cheaper”

Isaac Moriwake,



- Financial
- Community
- Public Policy
- Institutional
- Vested Interest - BAU
- NIMBY
- Resistance to change
- Many, many more...

Resources:

- FERC Clean Power Plan Reliability Workshop in Denver, February 25, 2015, http://ferc.capitolconnection.org/022515/fercarchive_wmy.htm



Imagination and Vision



Caption: Solar system along UK Roadway

RESOURCES:

- TEP Guide to Tribal Energy Development, <http://www1.eere.energy.gov/tribalenergy/guide/about.html>
- OIEPP Online Learning, <http://www.energy.gov/indianenergy/resources/education-and-training/renewable-energy-online-learning>

FYI...

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