

Down a Long and Winding Road – How Far?

Richard Schmalensee, MIT
HEPG 20th Anniversary Symposium
September 26, 2013

At the Start of the Road

- Joskow & Schmalensee, *Markets for Power* (1983):
“If deregulation is to play a role in helping to improve the efficiency with which electricity is produced and used, it must be introduced as part of a *long-term process that also encompasses regulatory and structural reform.*” (emphasis added)
- Chile had already started down this road; the UK/EU and the US began in the early 1990s
- And in 1993, HEPG, with Bill Hogan’s leadership, began casting a light down the road to help us all find the way

Looking back & looking forward, how far down this road are the US and the EU?

Where Do We (Generally) Want to Go?

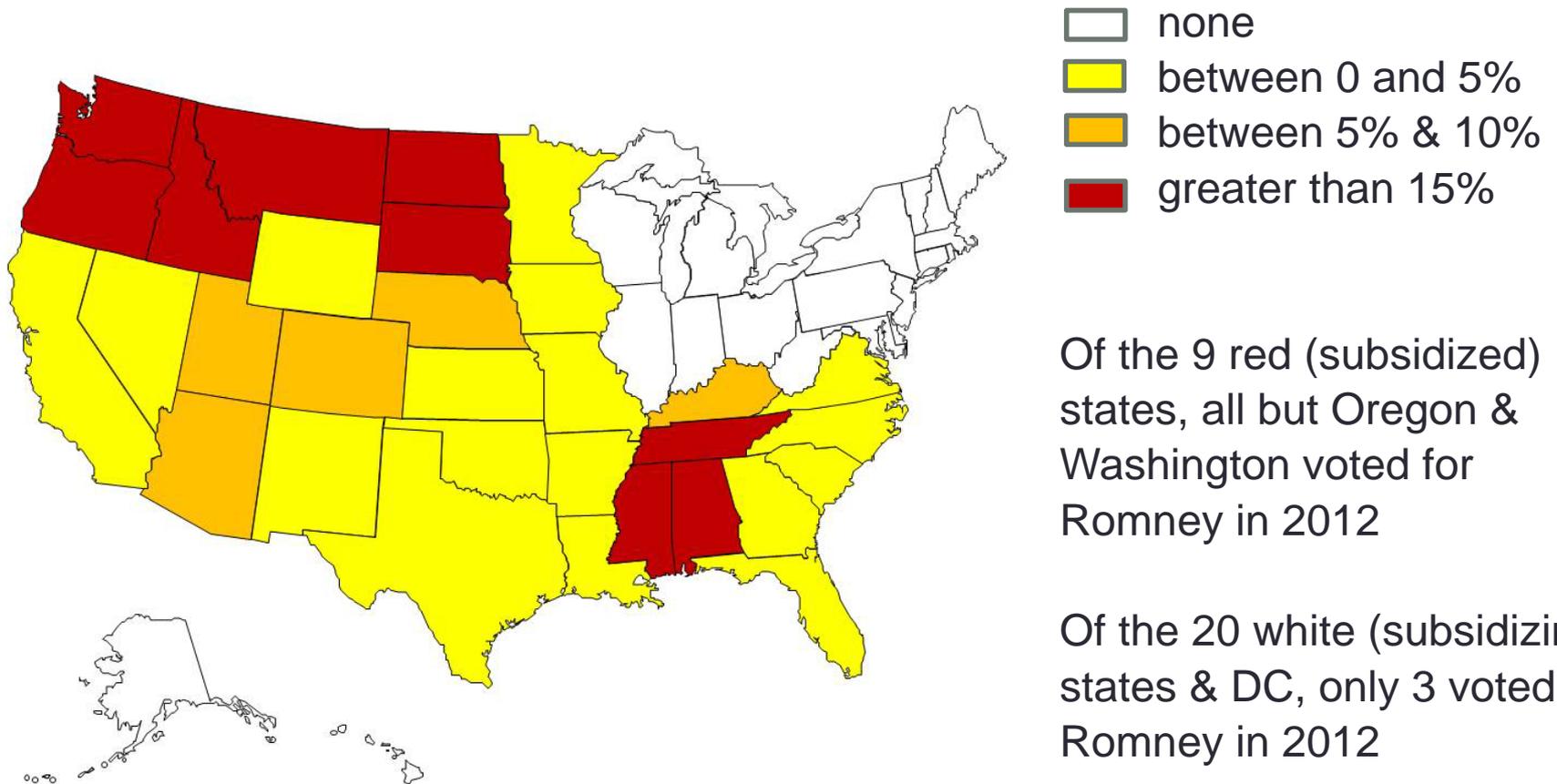
- Privatization, particularly of generation
- Competitive wholesale markets for energy & ancillary services
 - With uncapped LMP pricing of energy
- Independent operation of open access transmission systems, wholesale markets, & dispatch
 - Ideally with generation separated from transmission
- Competitive retail markets
 - Ideally with energy suppliers separated from wires companies
- Retail energy prices reflecting time-varying marginal costs

To what extent have the US & EU achieved each of these key objectives?

Privatization of Generation?

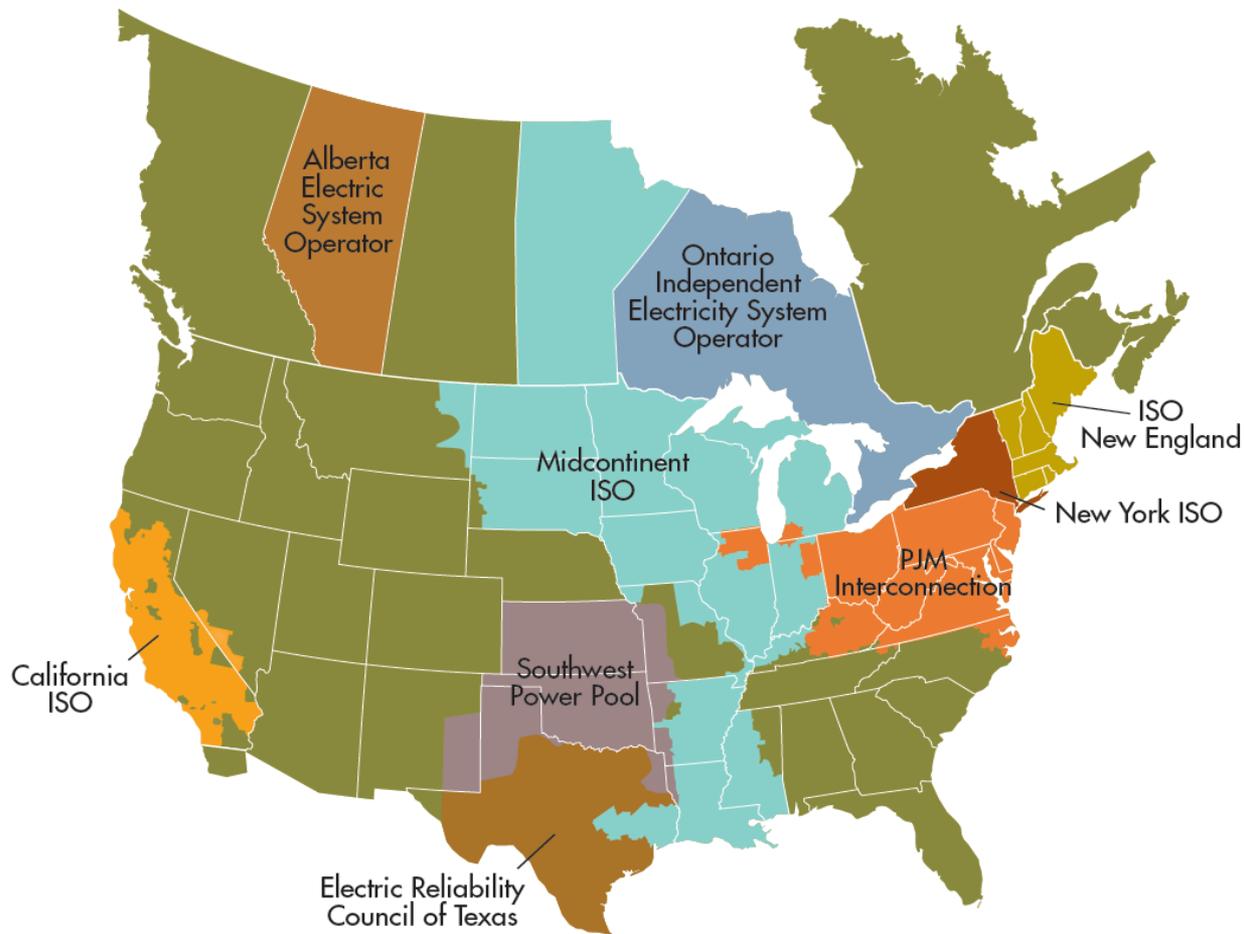
More to do in both the US and EU

Sales of federal electric utilities as a % of retail sales, 2010
(preliminary, approximate)



Competitive Wholesale Markets?

Everywhere in the EU, Only 2/3 of US



No signs of forward movement in the US

Uncapped LMP pricing of energy? Farther off the road in the EU?

- With SPP's planned move, LMP will be universal in US ISOs – but not universal in the US
- The EU is moving toward a strange linkup of national copper-plate systems; *physics still overruled by politics*
- Ceilings (& floors) more common than not in both
- Capacity markets & other ad hoc reactions to missing money in the US – **ERCOT may innovate!**
- Religious objections to capacity markets in the EU seem to be softening – a good thing?

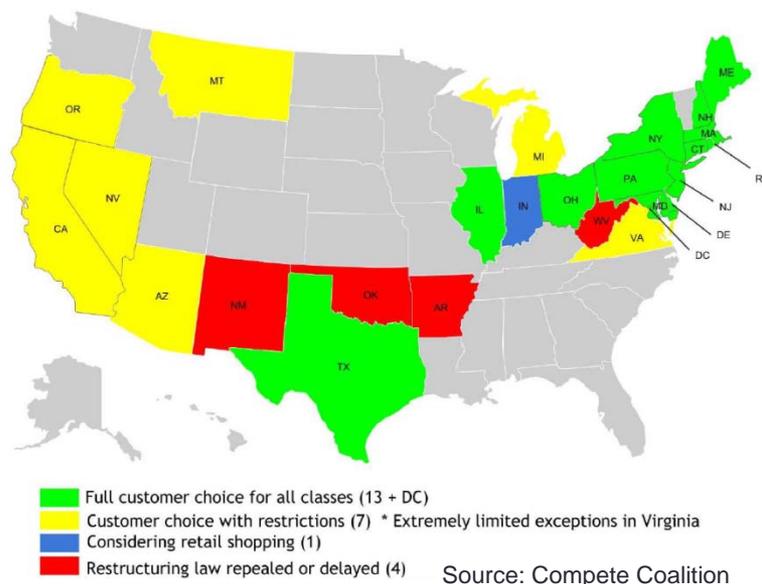
ISOs with Generation-Transmission Split? EU Clearly Ahead Here

- TSOs that own transmission but no generation are the norm in the EU – government monopolies were split
- US ISOs are not owned by generators but don't own transmission assets
- FERC can't force divestiture; encouraging sale via premium RoR begs for state rate-driven pushback
 - See Entergy's difficulty getting state approval for selling its transmission assets to ITC

Retail Competition with Energy-Wires Split?

Universal in the EU, Rare(?) in US

- US has nominal retail choice in fewer than half the states + DC



- Moreover, effectiveness varies, esp. for residential customers; a wires company affiliate is commonly a player (sometimes the default) in the energy business; & no forward momentum

Dynamic Pricing at Retail?

Only for a Few Customers Anywhere

- Much enthusiasm (not universal) for smart meters...
- But much less enthusiasm for using their intelligence fully via dynamic pricing – legitimate bill shock fears
- Smart meters + smart appliances + effective retail competition may be the path to dynamic pricing...?
- No visible motion anywhere(?)

Some Concluding Thoughts

- Both the US and the EU have traveled far down the reform road – with plenty of help from HEPG
- Both have a long way to go to achieve all the key reform objectives – but only the EU is moving (*forward?*)
- Rates & directions of travel have differed substantially, reflecting starting points & institutional differences:
 - Easier to restructure government enterprises than private firms (wires/energy at retail, transmission/generation at wholesale)
 - State sovereignty is difficult, but nation-states are more difficult (EU wholesale price system)

At least 20 more years of hard work for HEPG!