

Pricing, Rate Design, and Infrastructure Funding

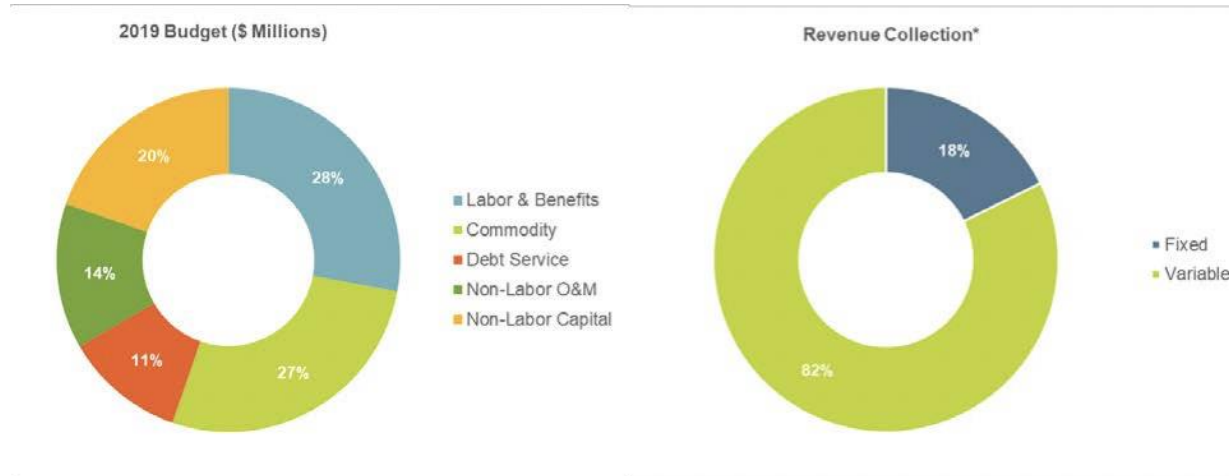
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Paying for Energy Infrastructure

- SMUD is an energy company *and* an infrastructure company
- Energy Infrastructure is costly and capital intensive.
 - Dominated by fixed costs
- Recovering those costs raises two questions
 - What type of pricing or taxes should be used?
 - Who should pay what share?
- Often the answer to the first question influences the answer to the second

Utilities in CA (including SMUD) Recover Large Portions of Fixed Costs from Variable Charges



- How to allocate these costs?
 - Regulatory principles try to balance encouraging efficient use of the infrastructure with equity/fairness objectives
- What is “usage” of a connected network?

Not just an Electric Utility Question



Income Investing

News, analysis and commentary on income-generating investments.

May 23, 2014, 11:45 A.M. ET

Barclays Downgrades Electric Utility Bonds, Sees Viable Solar Competition



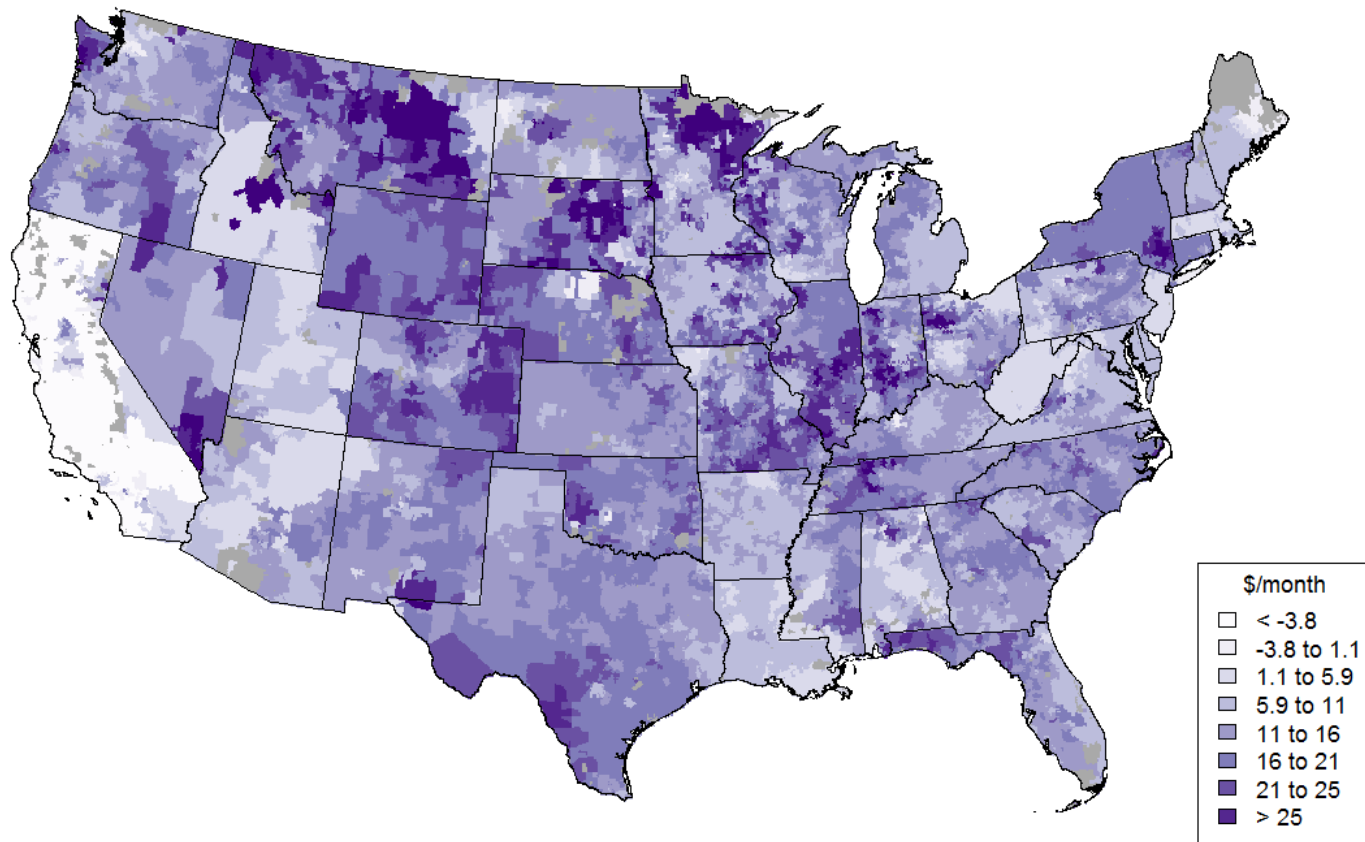
Transportation

Time is running out on federal highway funding



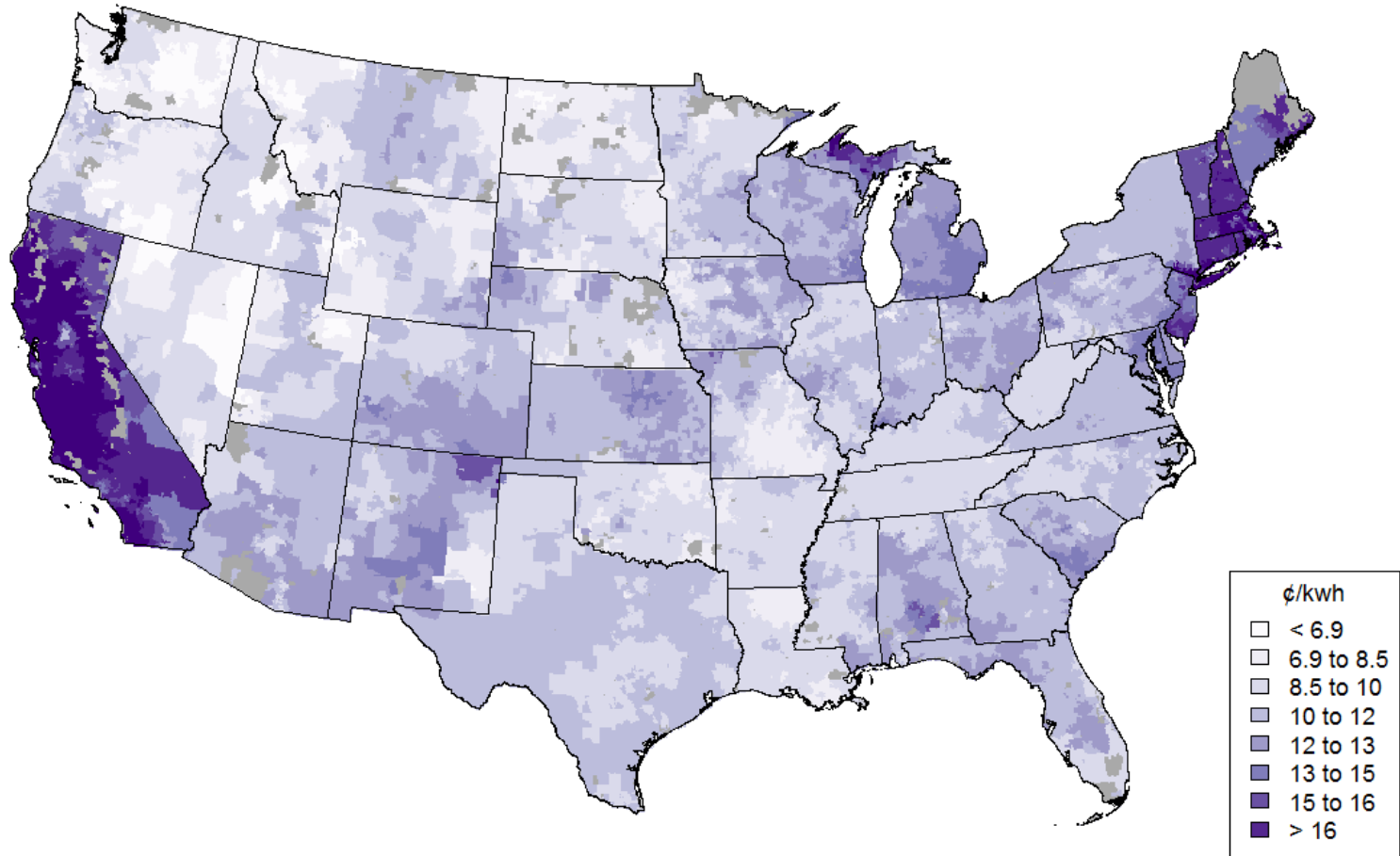
Even California imposes new fee on electric cars in lieu of gas taxes

California has Lower Monthly Fixed Charges than Other States

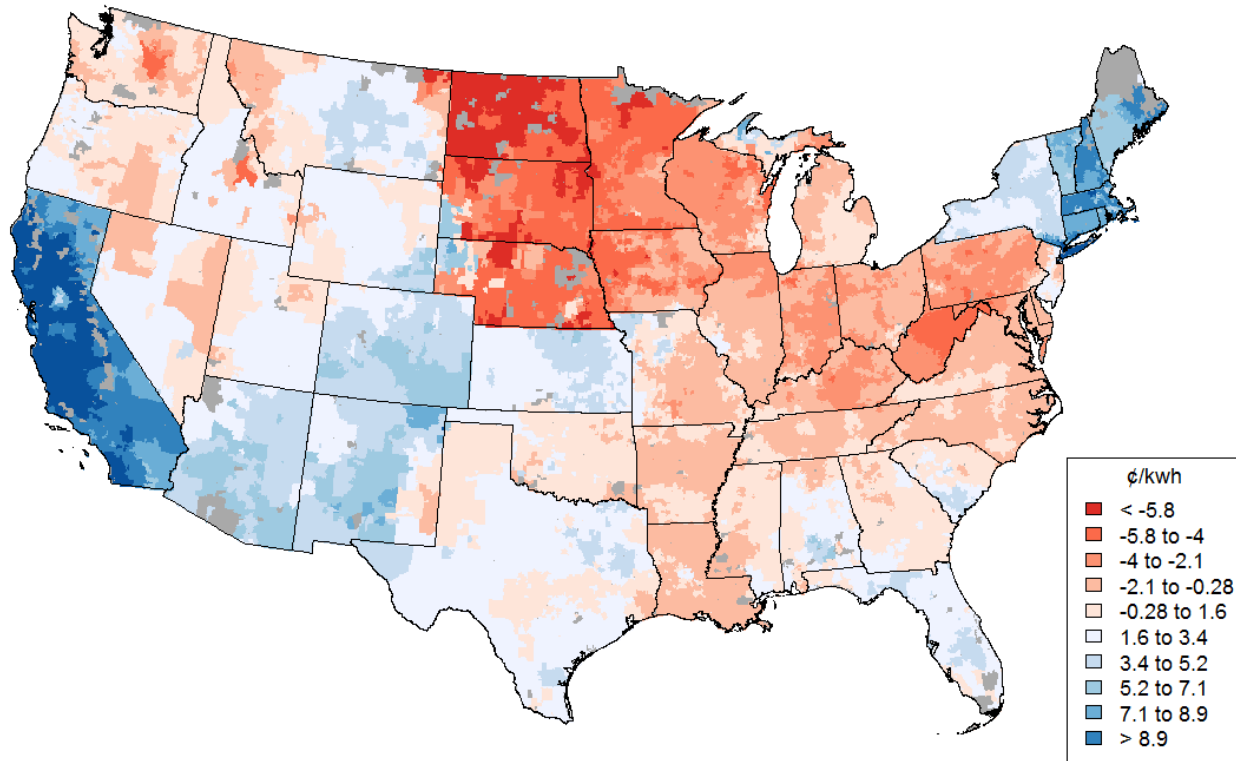


Source: Borenstein and Bushnell, (2018) "Do Two Electricity Pricing Wrongs Make a Right? Cost Recovery, Externalities, and Efficiency"

And Highest Variable Prices



And Variable Prices Well Above Social Marginal Cost (including air pollution/carbon cost)



Closing Thoughts

- Transition timing and impacts
- What we know about DER benefits to distribution systems
- Environmental, Energy, and Capacity benefits need to be considered in context of State and Global policies

Thank you

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