

# Current Trends in Renewable Energy Policy

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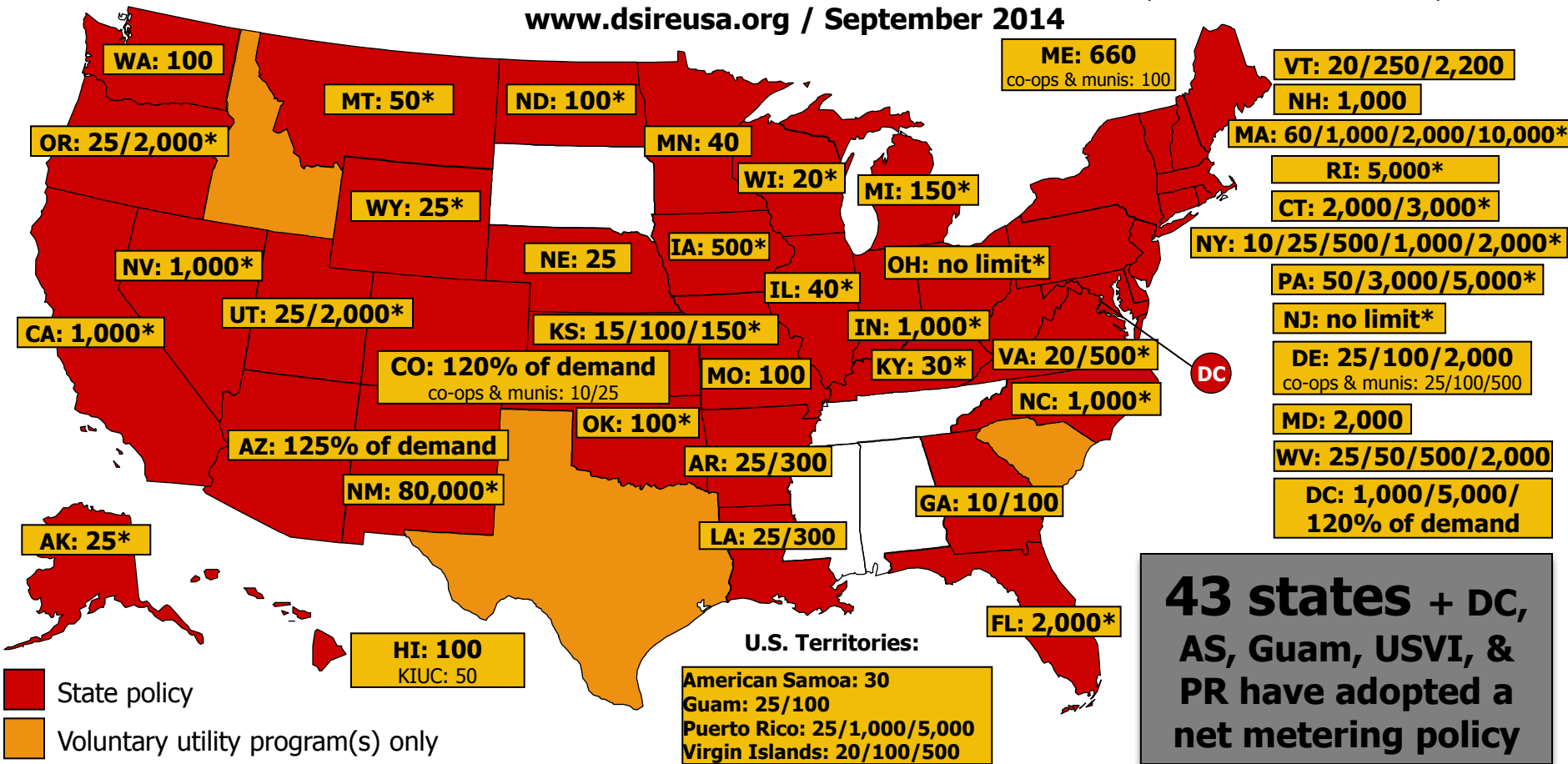
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- Net Metering & Changing DG Rate Design
- Renewable Portfolio Standard Developments
- Four DG Financing Topics
- Getting the Climate Rule on your Calendar

## Net Metering

www.dsireusa.org / September 2014

Note: Net Metering rules are being actively discussed in over a dozen state public service & utility commissions across the country.



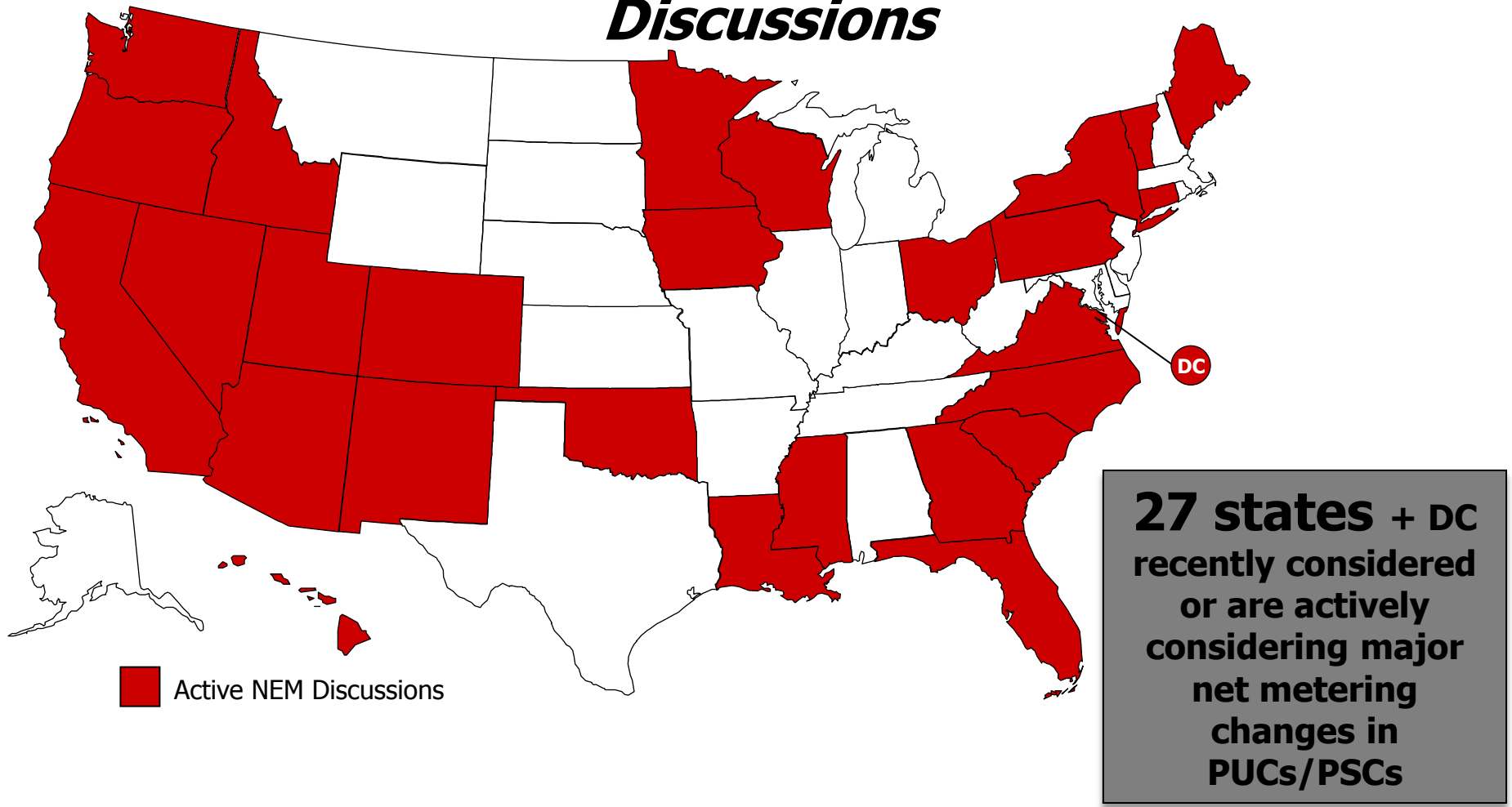
**43 states + DC, AS, Guam, USVI, & PR have adopted a net metering policy**

State: kW limit residential / kW limit nonresidential

\* State policy applies to certain utility types only (e.g., investor-owned utilities)

Note: Numbers indicate individual system capacity limit in kW. Some limits vary by customer type, technology and/or application. Other limits might also apply. This map generally does not address statutory changes until administrative rules have been adopted to implement such changes.

## Active & Recent Net Metering Regulatory Discussions



# Big Question in Net Metering Debates:

## How much to compensate for distributed generation?



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# Features of Net Metering / DG Rate Conversations that Should be Scary to Distributed Wind Generators

- Lack of awareness about DG benefits, especially wind benefits
- Lack of awareness regarding renewable technology costs
- Lack of publicly available data to make informed decisions
- Insufficient resources allocated to most fairly apply available data



## Many possible solutions to challenges.

- Value of Solar Tariffs
- Rethinking Fixed Charge Costs
- Attribute Based Pricing
- Incorporation of Locational Marginal Prices
- And More...



# Value of Solar Tariff

Figure 8: Preliminary Minnesota Value of Solar (Xcel Energy)

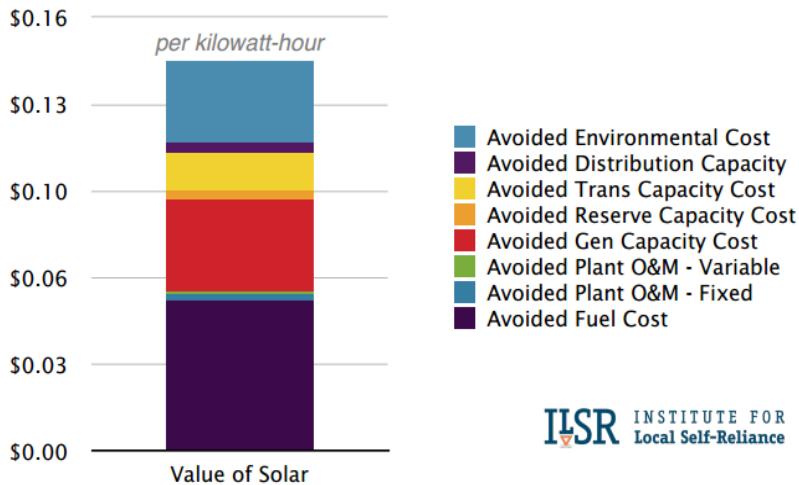
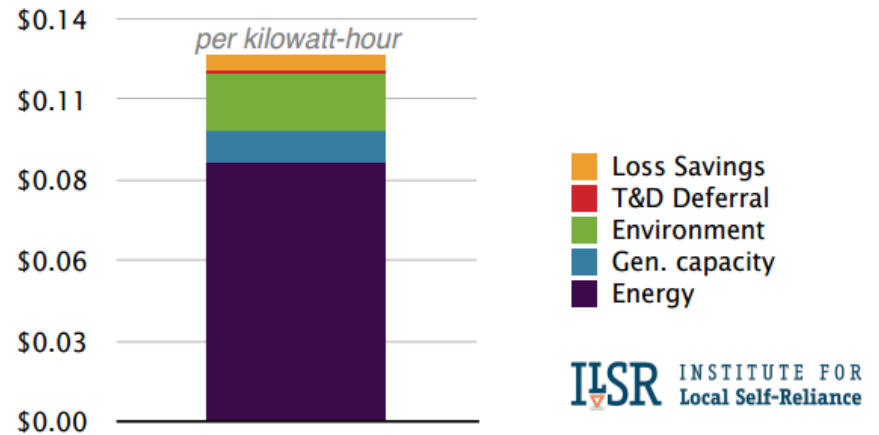


Figure 5. Austin Energy Value of Solar, 2013





# Rethinking Fixed Charge Costs

Figure 5 (Example Not Drawn to Scale)

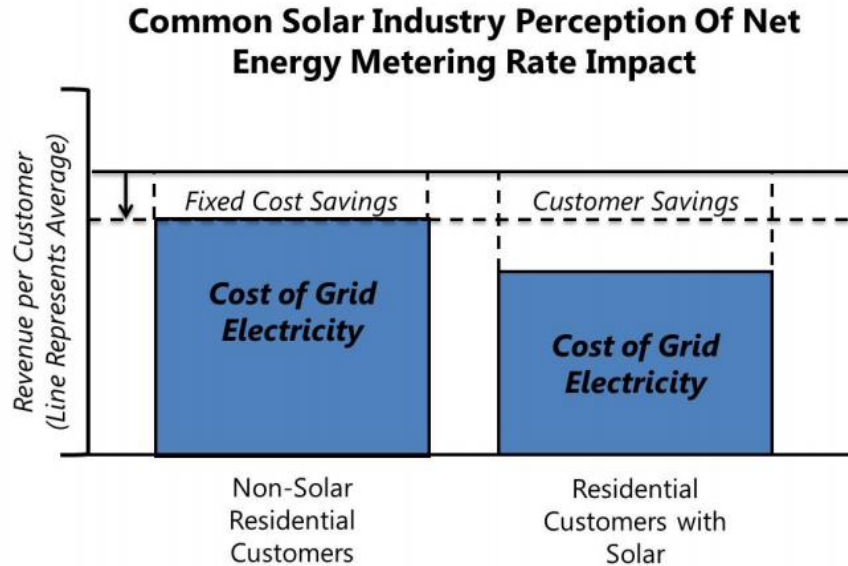
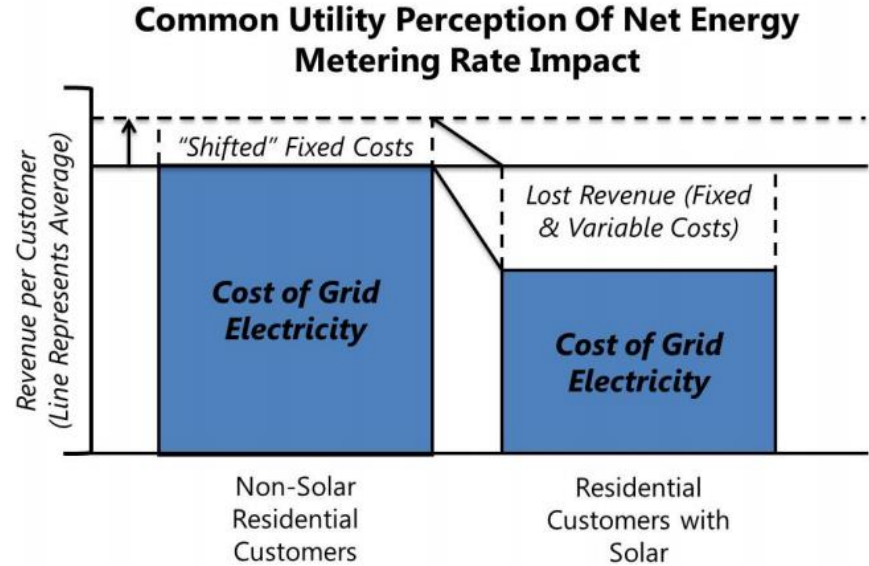


Figure 4 (Example Not Drawn to Scale)



What is a reasonable fixed charge cost for distributed wind?



# Many possible approaches.

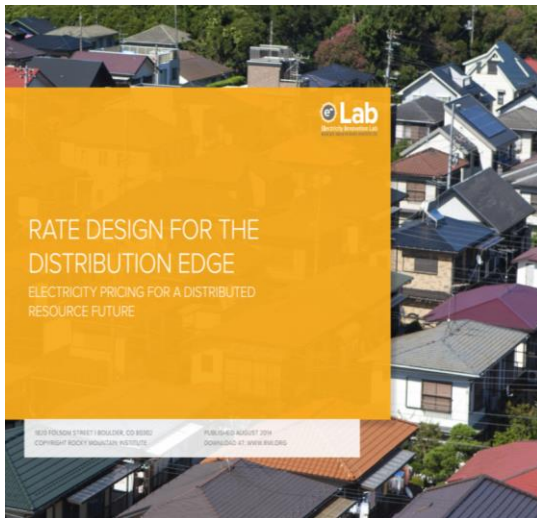


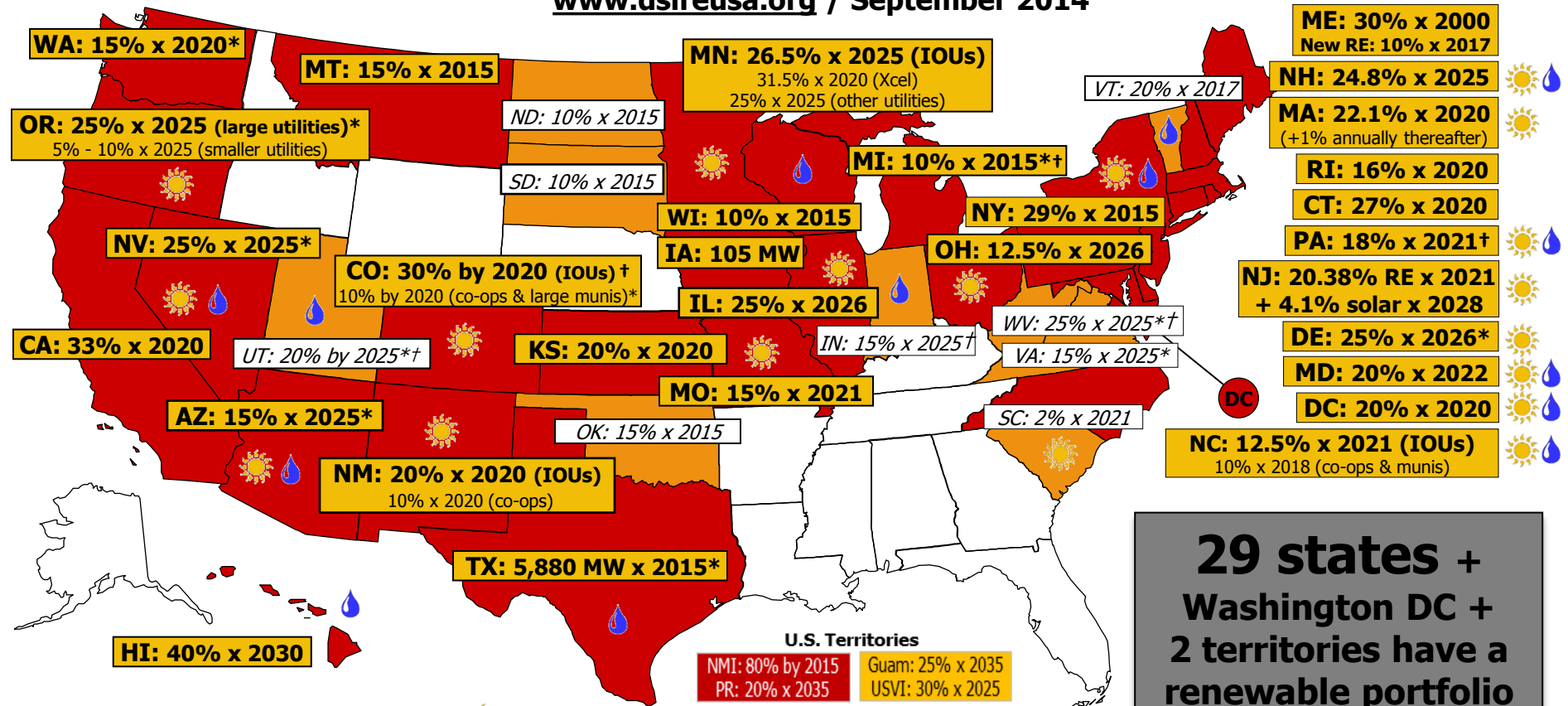
TABLE 1: NEAR- AND LONGER-TERM EVOLUTIONARY RATE STRUCTURES

NEAR-TERM DEFAULT OR OPT-IN POSSIBILITIES	LONGER-TERM, MORE SOPHISTICATED POSSIBILITIES
Time-of-Use Pricing	Real-Time Pricing
Energy + Capacity Pricing (i.e., demand charges)	Attribute-Based Pricing
Distribution "Hot Spot" Credits	Distribution Locational Marginal Pricing

**Consensus and strategy are essential for a good outcome.**

## Renewable Portfolio Standard Policies

[www.dsireusa.org](http://www.dsireusa.org) / September 2014



**29 states + Washington DC + 2 territories have a renewable portfolio standard**  
*(9 states and 2 territories have renewable portfolio goals)*

- Renewable portfolio standard
- Renewable portfolio goal
- Solar water heating eligible
- Minimum solar or customer-sited requirement
- Extra credit for solar or customer-sited renewables
- Includes non-renewable alternative resources

# Renewable Portfolio Standard Developments

- South Carolina – New Distributed Energy Resource Program
- Ohio – Passage of SB 310 froze RPS for 2 years and removed in-state requirements
- Legal challenges to RPS policies



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# Financing Distributed Generation

- Community Solar Gardens / Aggregated Net Metering
  - Movement in DC, MN, CO, elsewhere
- YieldCos and the Securitization of Renewable Assets
- Federal Loan Guarantees to Institutions Investing in Distributed Renewable Generation
- Expiration of Federal and State Incentives for Renewables

# The 111 D Climate Rule is coming.

## Timeline

- June 2, 2014 – Rule Proposed
- October 2014 – Supplemental Notice of Proposed Rulemaking (projected)
- December 1, 2014 – Comments Due (extended deadline)
- June 1, 2015 - Final Rule Published in Federal Register (proposed)



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# Thank You!

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# California's Duck Curve

Growing need for flexibility starting 2015

