

Feed-in Tariffs in the US: A Policy Update

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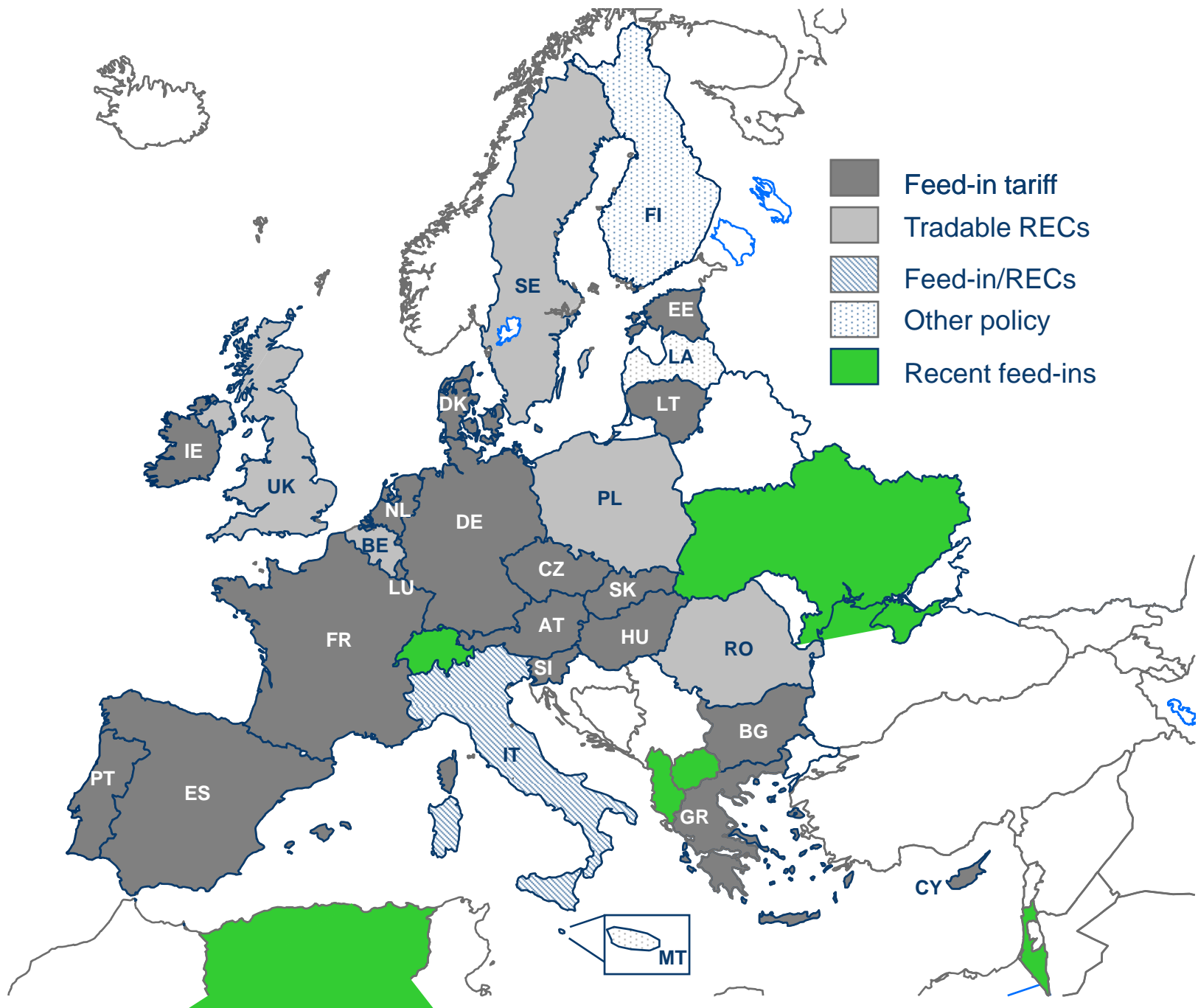


Credit: PPM Energy/NREL PIX #15238

Wilson Rickerson

**California Feed-In Tariff Design and Policy Options CEC Staff Workshop
December 1st, 2008**





The Latest from Around the World

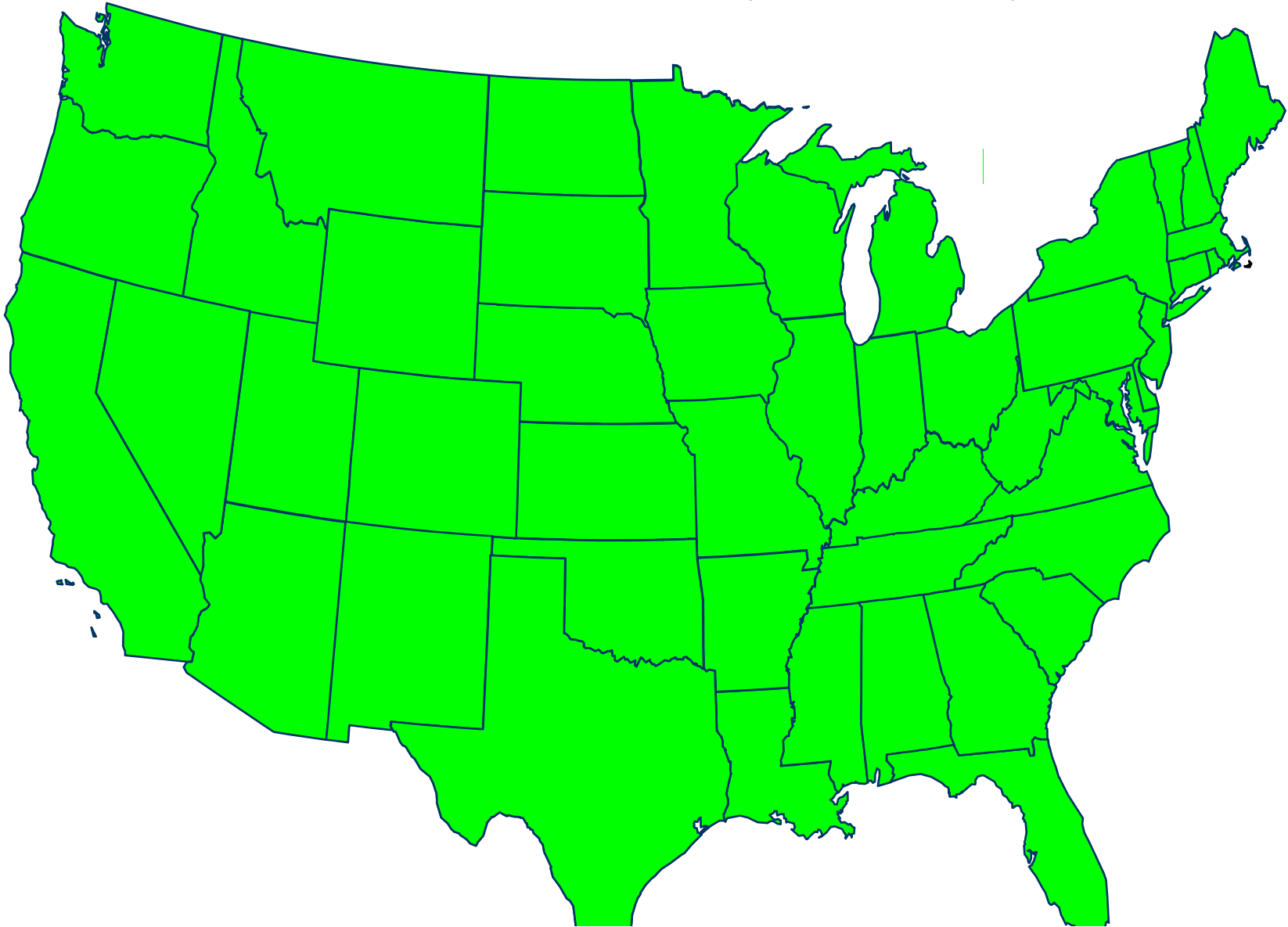
- New feed-in tariffs
 - Israel
 - Switzerland
 - Ukraine
 - Algeria
 - South Africa exploring FIT
- Solar FIT adjustments
 - Spain reduces solar FIT levels
 - Germany increases rate of FIT level decline
 - France increases FIT (!)
- UK switching from tradable credits to FITs for 5 MW and under
- Increased momentum for FITs in the US

Big Ideas

- 10% by 2012
- 25% by 2025
- Plug-in hybrids and energy independence
- So how do we get there?

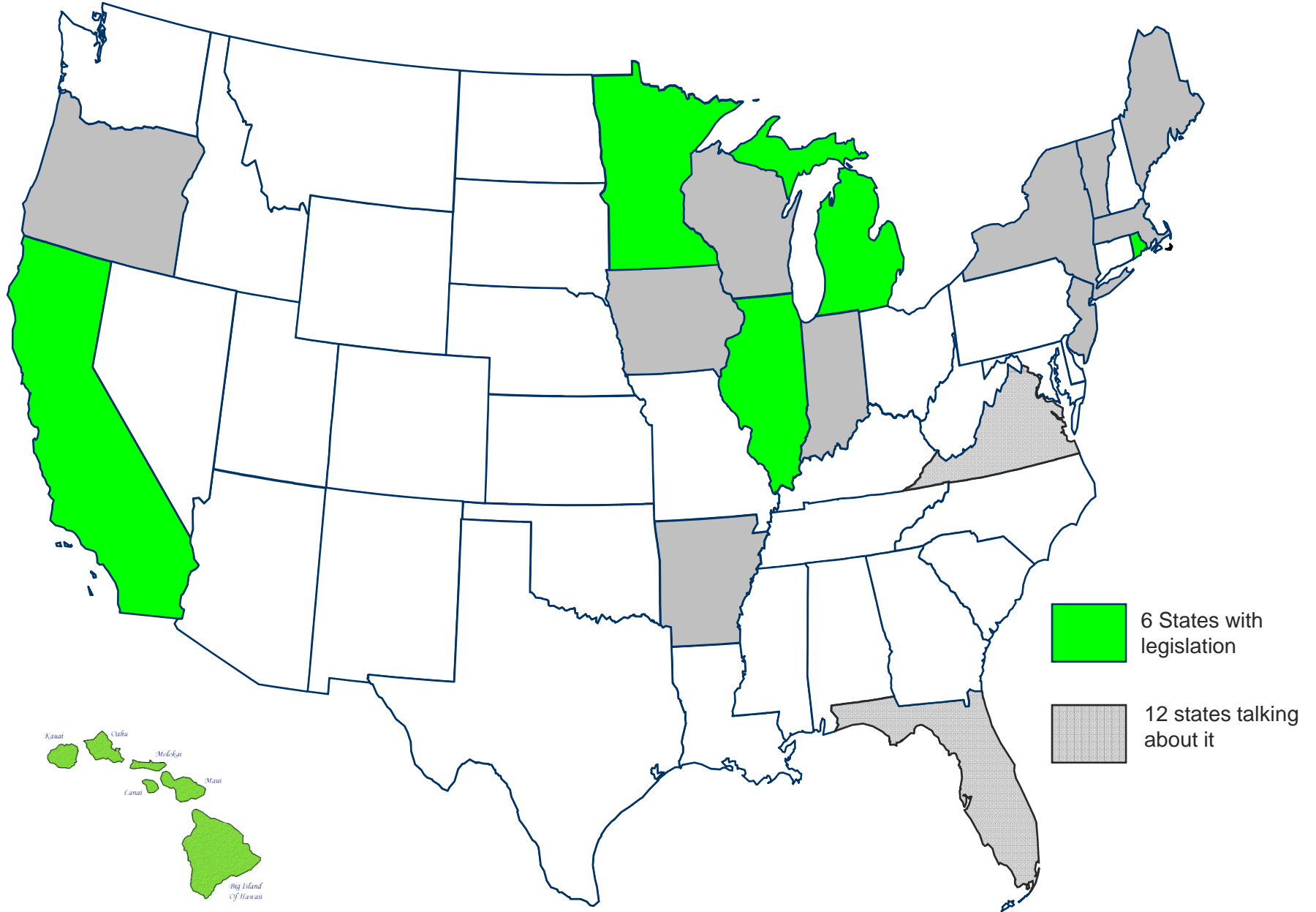


Federal Feed-in Tariff (Inslee, D-WA)



INTRODUCED, BUT NOT VOTED ON

FITS PROPOSED AS RPS MECHANISM



Recent Feed-in Tariff Legislation

“Michigan model” (MI, RI, MN, IL)

- Cost-based
- Technology + size differentiated
- \$0.08 to \$0.14/kWh wind/biomass
- \$0.25 for small wind
- \$0.48-\$0.71 for PV
- 20 year contracts
- MN would be community-owned



NOT PASSED TO DATE

Hawaii

- 4 unsuccessful bills (2006-2008)
- Premium net metering for PV only
- 20 year contracts
- \$0.45 - \$0.70/kWh



NOT PASSED TO DATE

Hawaii Clean Energy Initiative

- “The parties agree that feed-in tariffs are beneficial for the development of renewable energy...[and] that feed-in tariffs should be designed to cover the renewable energy producer’s costs of energy production plus some reasonable profit
- “the benefits...from lowering oil imports, increasing energy security, and increasing both jobs and tax base for the state, exceed the potential incremental rents paid...”
- Utility purchases under a feed-in tariff shall be counted towards the utility’s [RPS] requirements
- By July 2009, the Commission will adopt a set of feed-in tariffs

Recent Gubernatorial Initiatives

- Wisconsin Governor's Task Force on Global Warming recommends feed-in tariffs for distributed generators (<15 MW, "based upon the specific production costs of each particular generation technology, include a return comparable to the utilities' allowed returns")
- Oregon Governor Kulongoski's 2009 legislative proposal "will create a production incentive pilot program that will pay for the electricity produced by a solar project...Known also as a feed-in tariff, this type of incentive program has led to the installation of more than 2,500 megawatts of solar electricity in Germany."
- Virginia Governor's Commission on Climate Change Draft Recommendations for a feed-in tariff feasibility study

Gainesville, Florida

- Gainesville Regional Utility established a feed-in tariff
- PV only
- \$0.26/kWh – replaces both rebate and net metering
- 20 years

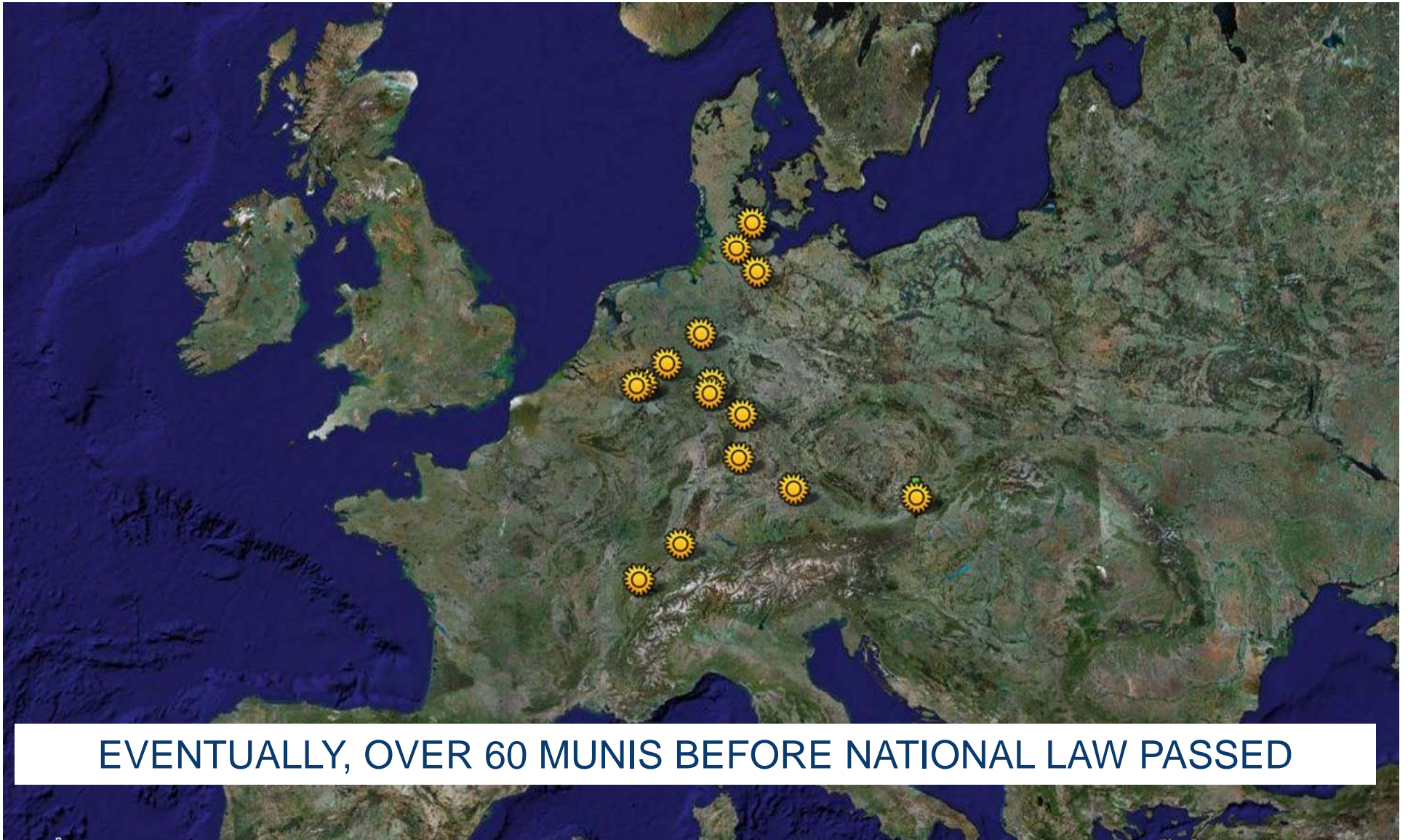
“In 1993, the city of Aachen, Germany, was the first to enact the renewable energy policy Gainesville is considering.”

-Kellyn Eberhardt, Gainesville Sun



1st PV Feed-in Tariff in 1993





EVENTUALLY, OVER 60 MUNIS BEFORE NATIONAL LAW PASSED



Source: Rickerson, based on Solarenergie-Förderverein (1994)

Conclusions

- Rapid diffusion of feed-in tariff concept during the last 24 months – California is not alone
- Feed-in tariffs proposed as mechanisms to meet state RPS goals
- To date, most FITs target specific technologies (e.g. PV), specific sizes (e.g. under 20 MW), and/or certain ownership structures (e.g. community)
- FITs gaining recognition because of the financial crisis – they provide investor security in a period of uncertainty regarding tax equity financing

Thank You



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