



# Renewable Energy Best Practices in Promotion and Use for Latin America and the Caribbean

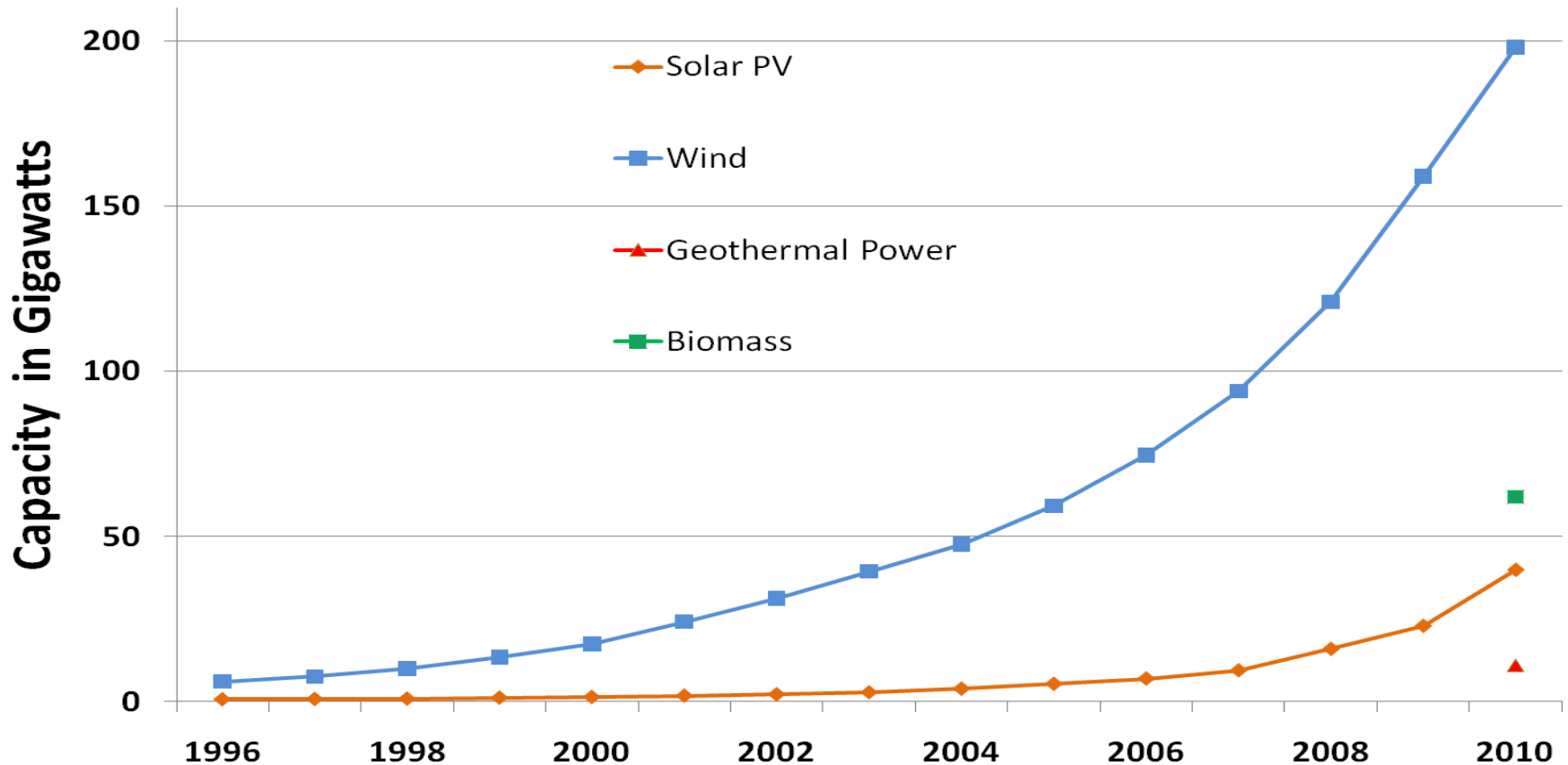


Andrea Luecke, Executive Director



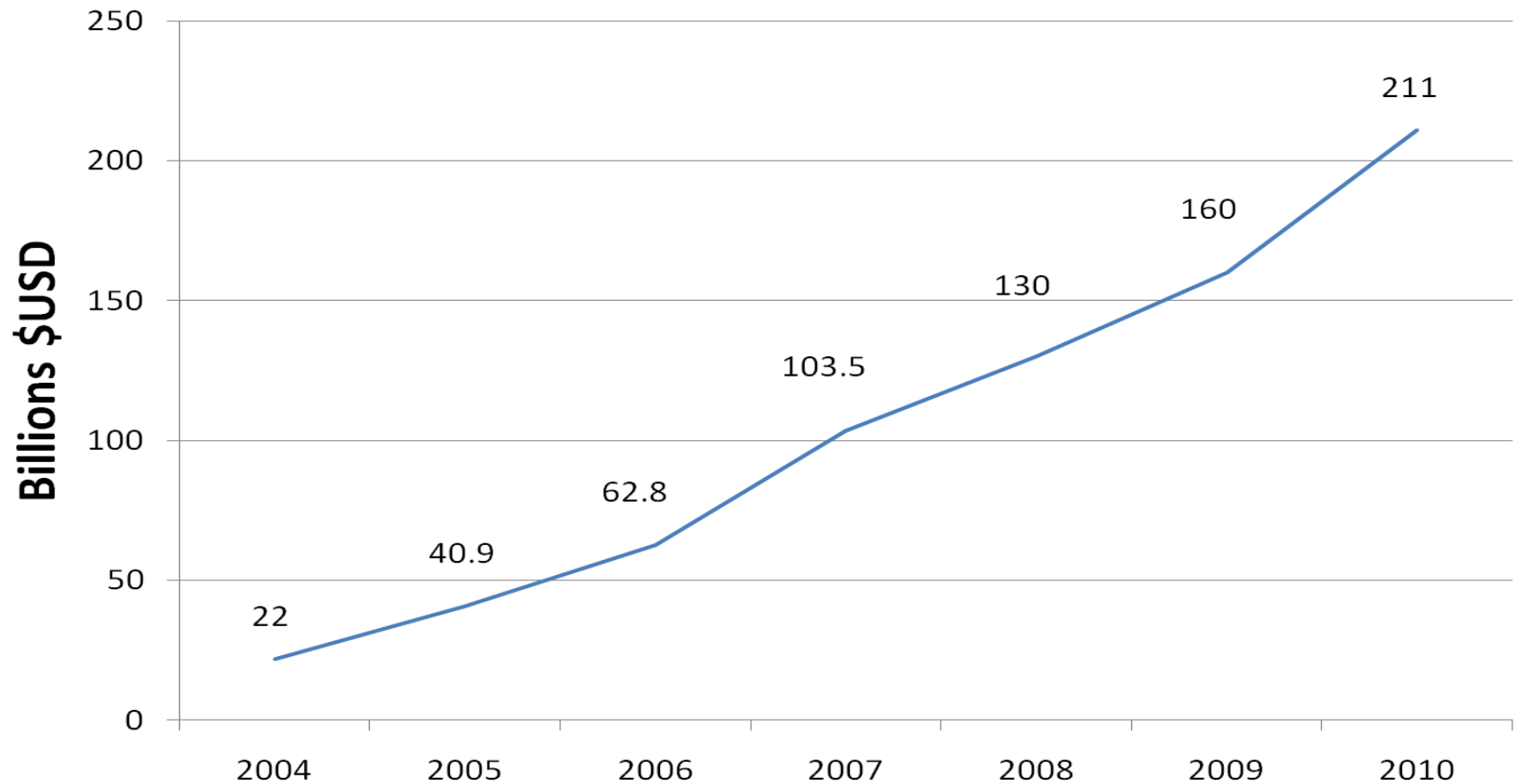


# Global Renewable Energy Capacity



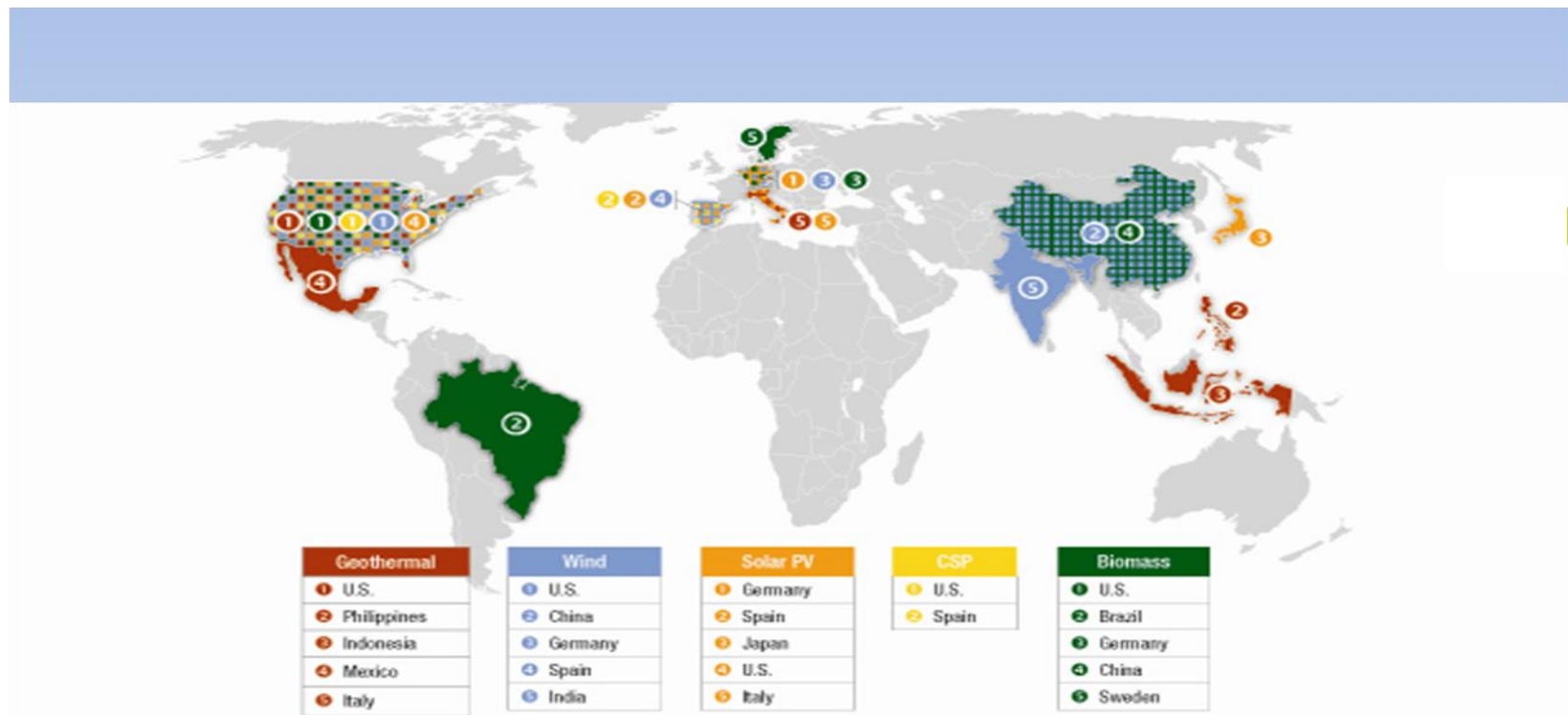
Source: REN21. 2011. *Renewables 2011 Global Status Report* (Paris: REN21 Secretariat).

# Global Investment



Source: REN21. 2011. *Renewables 2011 Global Status Report* (Paris: REN21 Secretariat).

# Top Countries with Installed Renewable Electricity by Technology (2009)



Source: Gelman, R., Kubik, M., and Buchanan, S. Washington, D.C., USA. 2010. "2009 Renewable Energy Data Book." National Renewable Energy Laboratory. <http://www.nrel.gov>

## Energy in the US



- Renewable energy accounted for 11% of all energy in 2010
- \$30 billion USD investment in renewable energy
- 31% of California's energy is renewable

## Energy in LAC



### Latin America

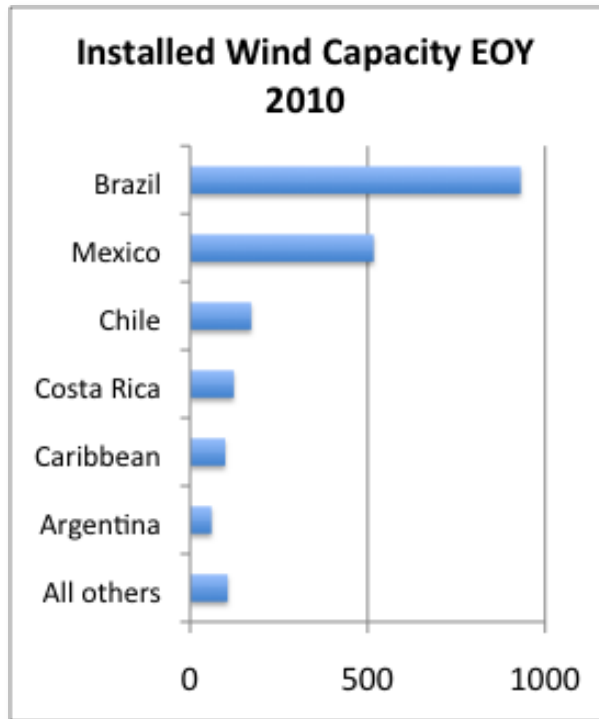
- Net exporter of oil
- Has 9.7 % world's proven oil reserves
- 29% of total energy supply is renewable

### Caribbean

- 93% of energy consumed from petroleum
- 97% electricity from fossil fuels
- Electrical costs:
  - Trinidad & Tobago: \$0.20 per kWh - lowest
  - Barbados: \$0.38 per kWh – highest

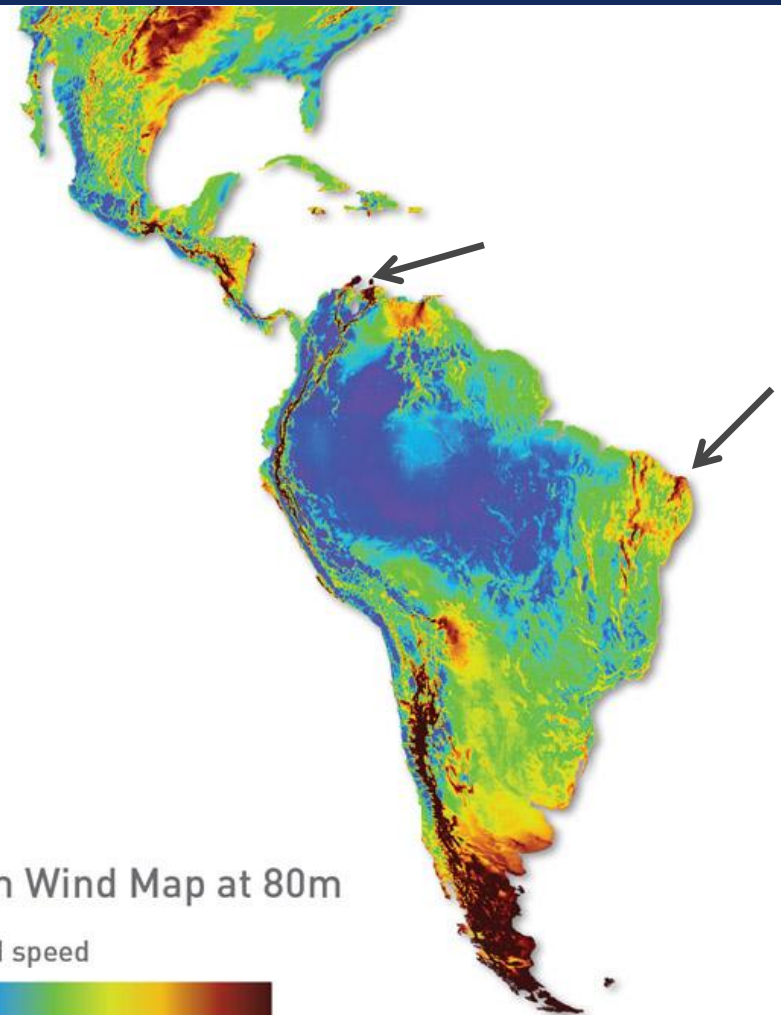
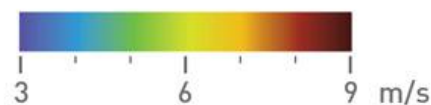
Population: 590,000,000  
~8% of population lacks access to electricity





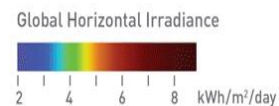
5km Wind Map at 80m

Wind speed

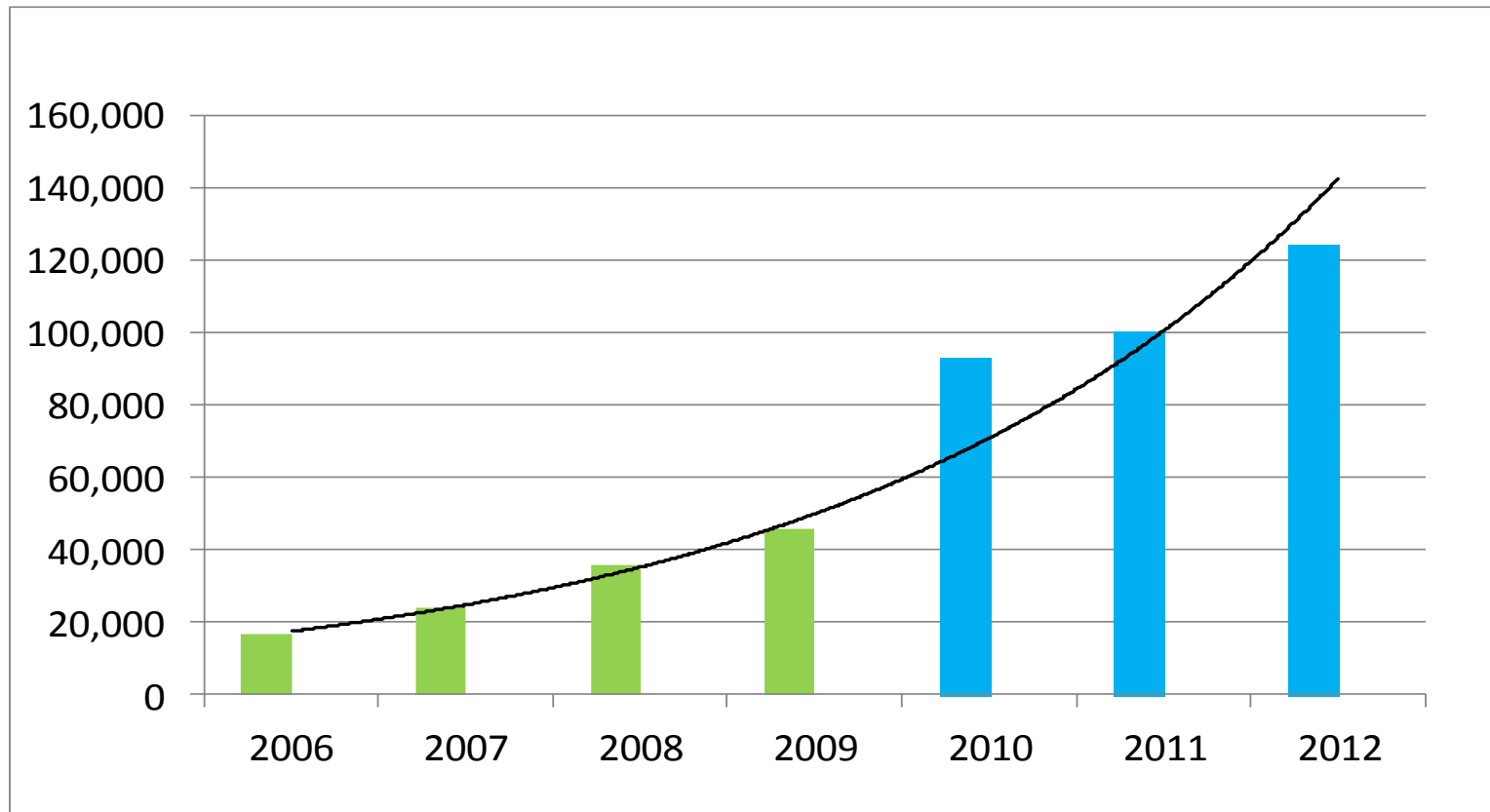




# LAC's Solar Resource

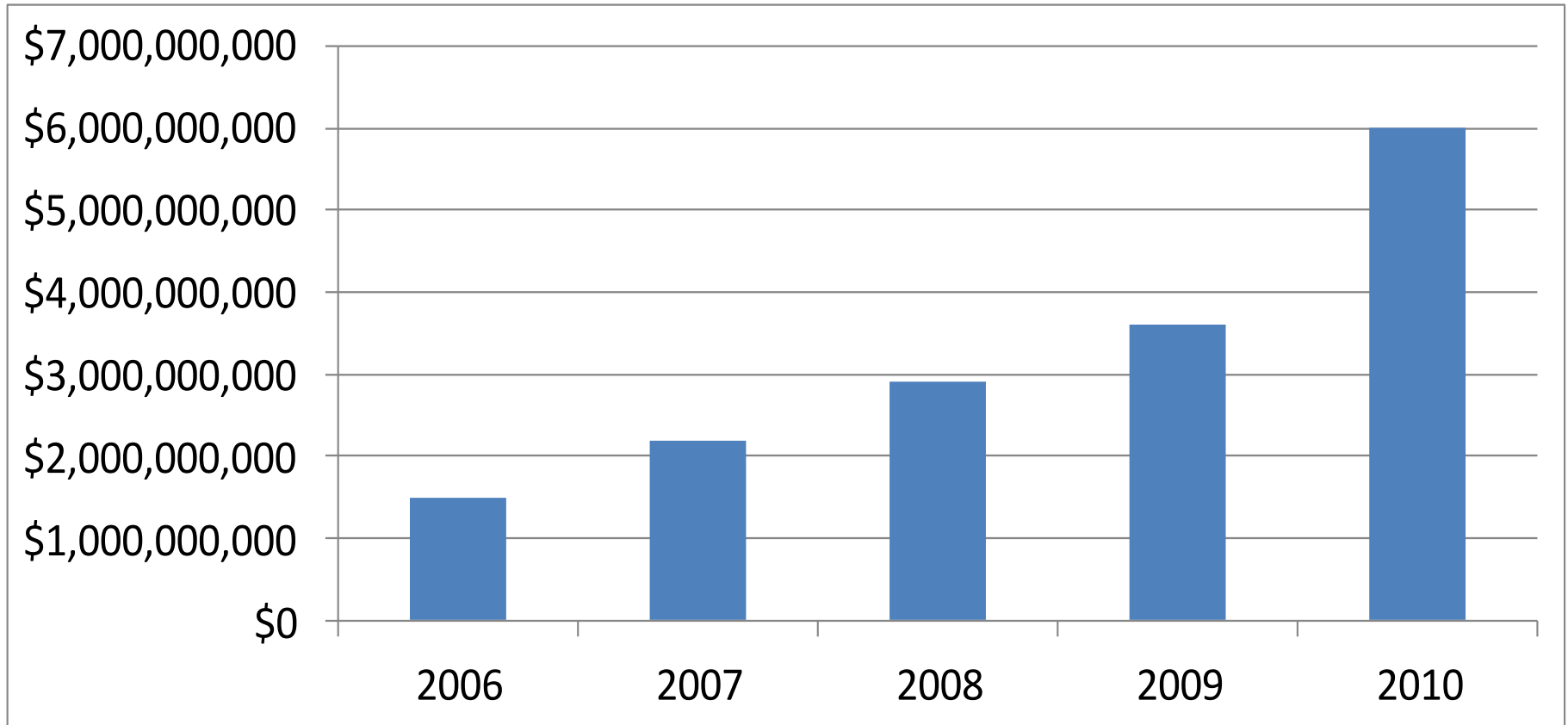


# Job Creation: US Solar Industry



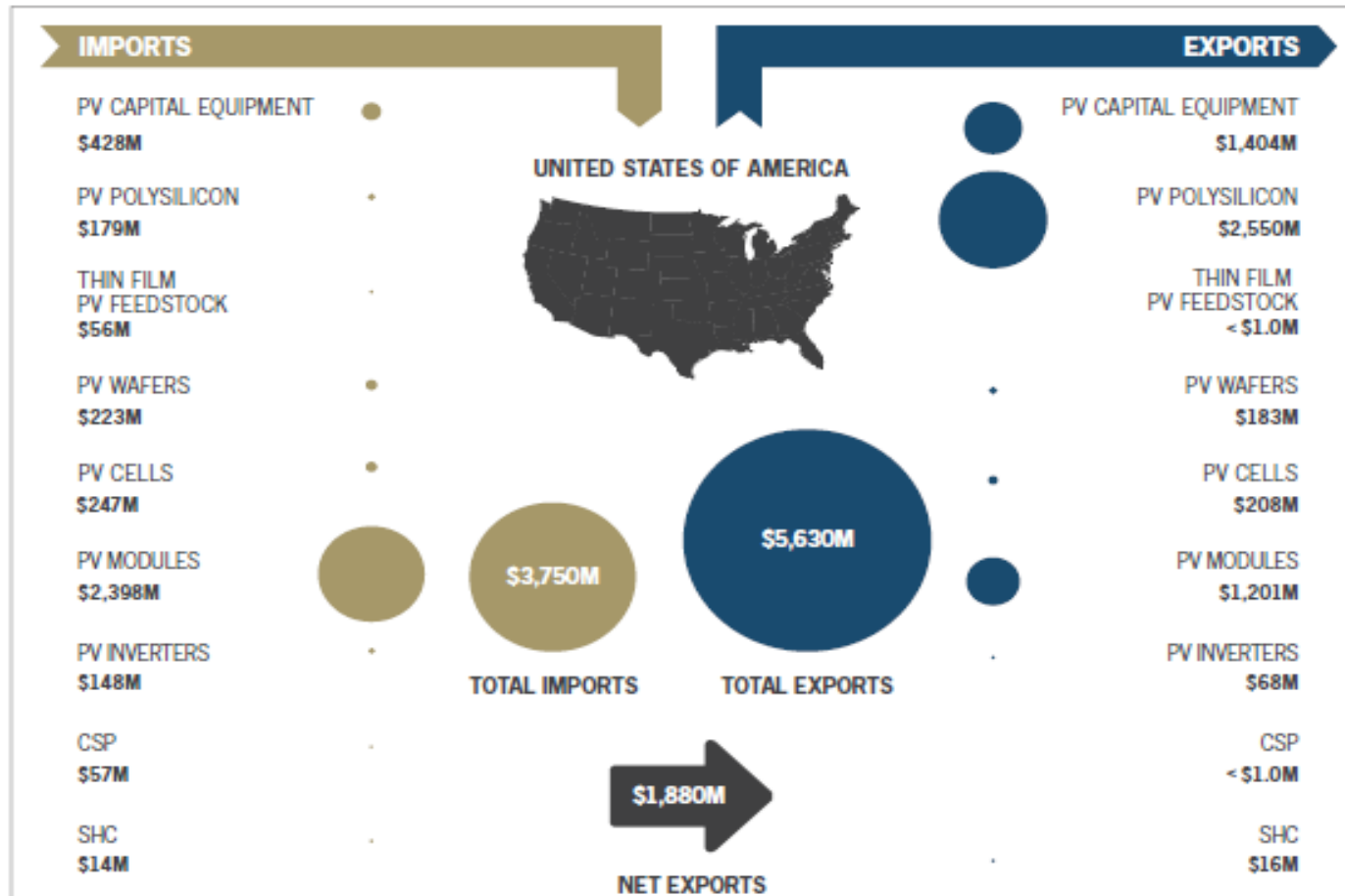
Source: Green columns are estimates from the Solar Energy Industries Association. Blue columns are from The Solar Foundation's National Solar Jobs Census 2010 and 2011 reports.

# Revenue Generation: US Solar Industry



Source: SEIA/GTM Research - 2010 Year in Review Report <http://www.seia.org/galleries/pdf/SMI-YIR-2010-ES.pdf>  
SEIA/GTM Research- 2009 year in Review Supplemental Charts

# Export Opportunities: US Solar Industry



Source: GTM Research, US Solar Energy Trade Assessment 2011

# Offset Energy Costs



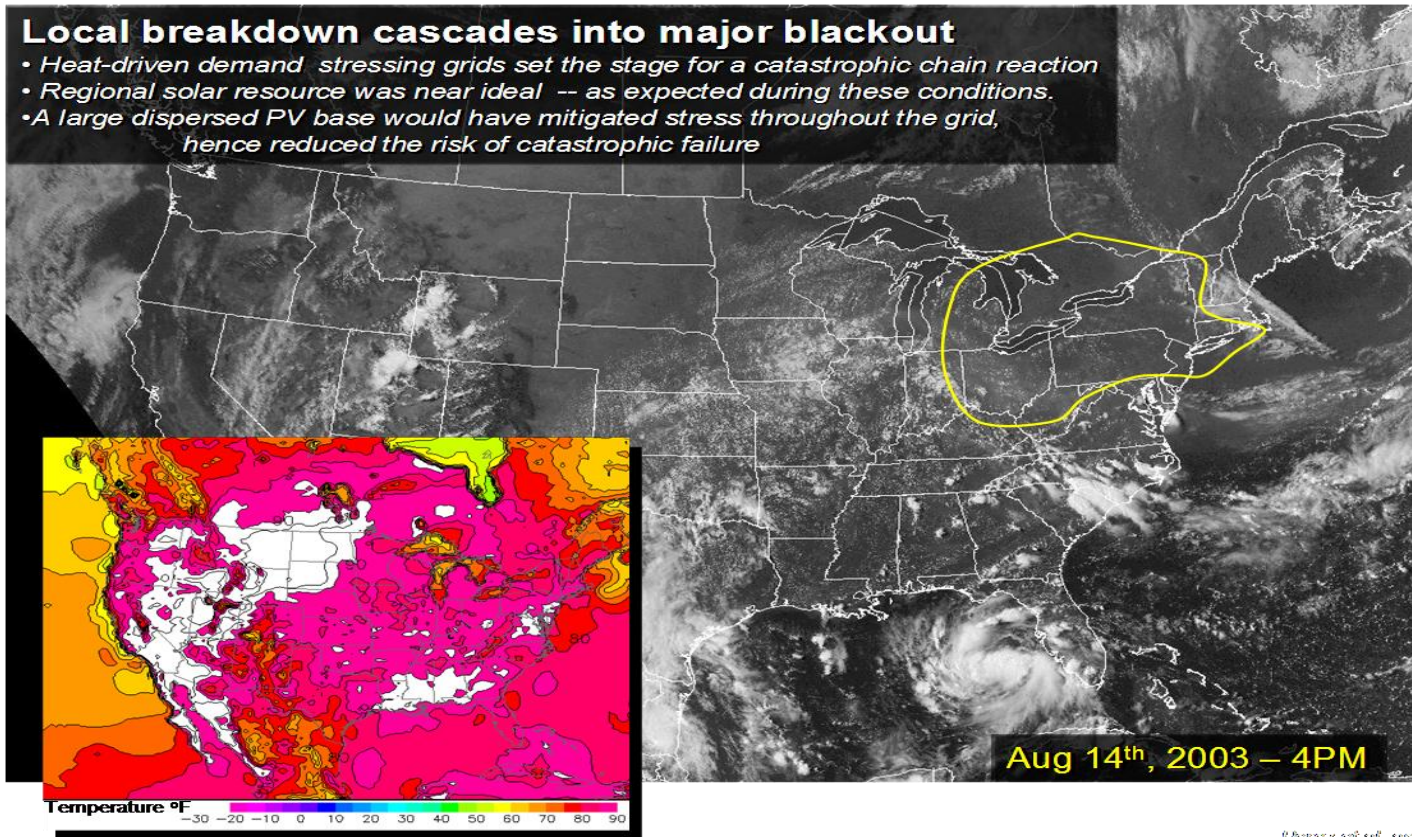
Manlius School System, Illinois  
660 kW wind turbine

\$100,000 savings per year  
tons of CO<sub>2</sub> offset per year

# Strengthen Energy Infrastructure

## Local breakdown cascades into major blackout

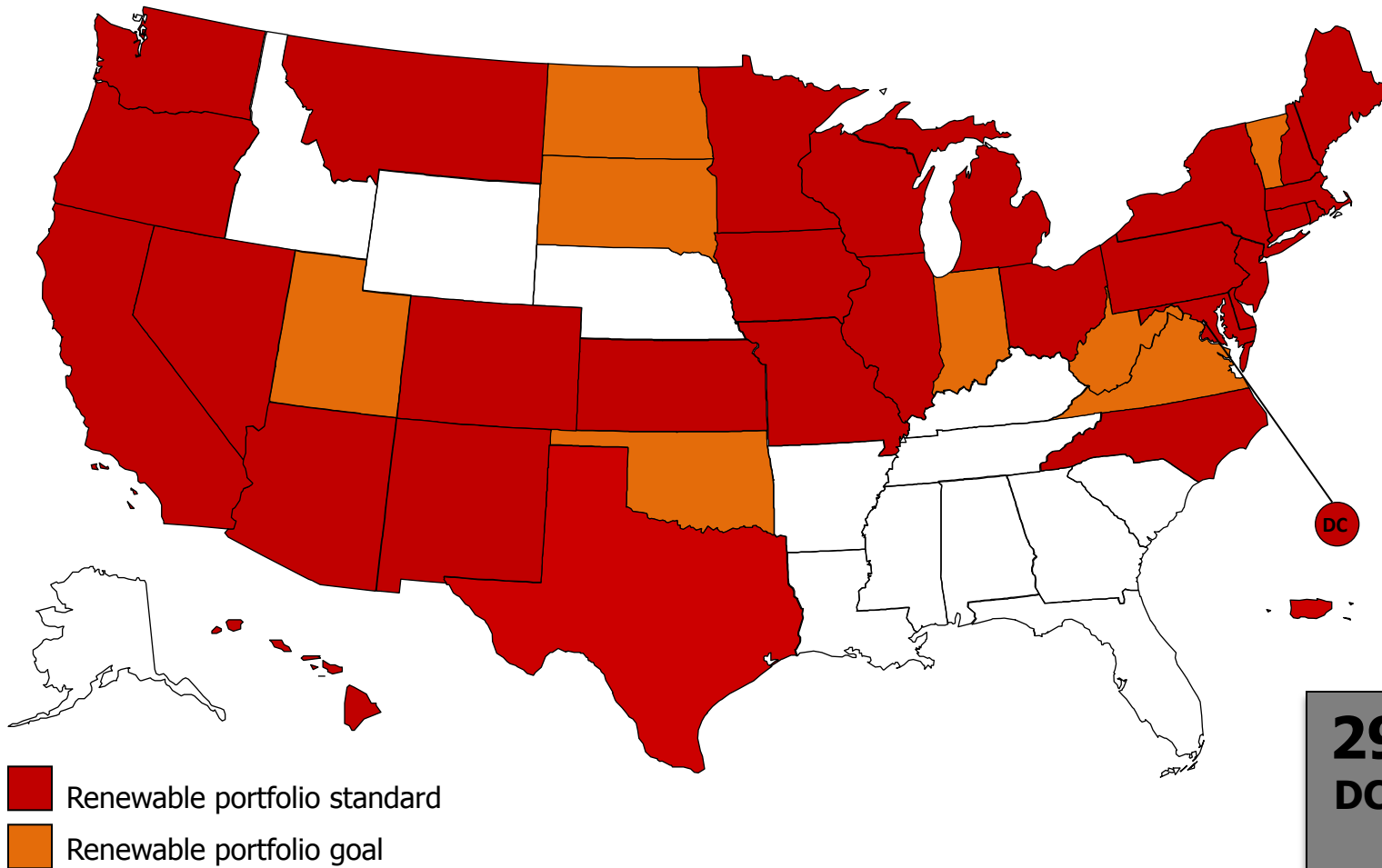
- Heat-driven demand stressing grids set the stage for a catastrophic chain reaction
- Regional solar resource was near ideal -- as expected during these conditions.
- A large dispersed PV base would have mitigated stress throughout the grid, hence reduced the risk of catastrophic failure



© 2003-2004, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100



## ***RPS Policies***

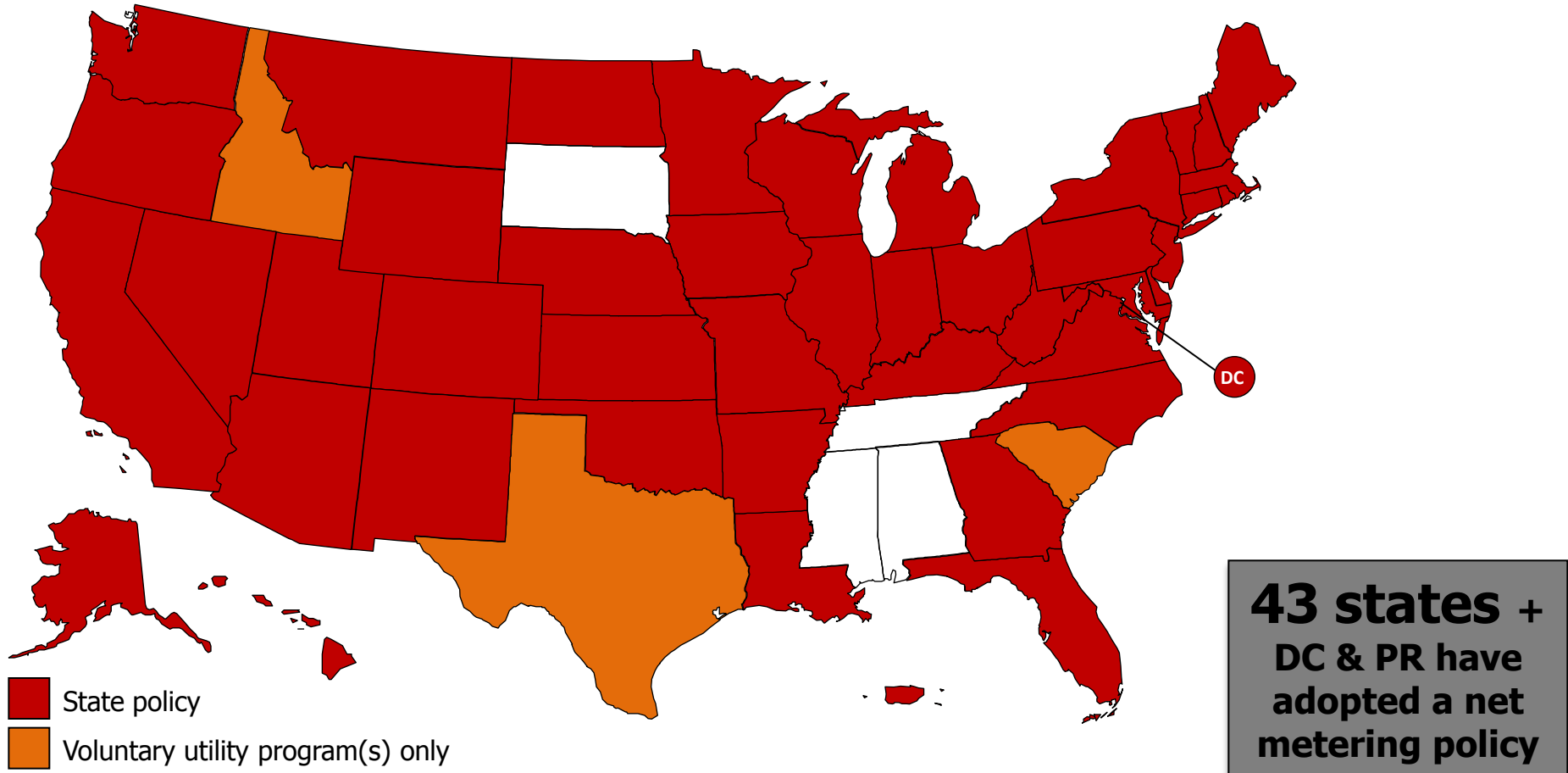


**29 states +  
DC and PR have  
an RPS**  
*(8 states have goals)*

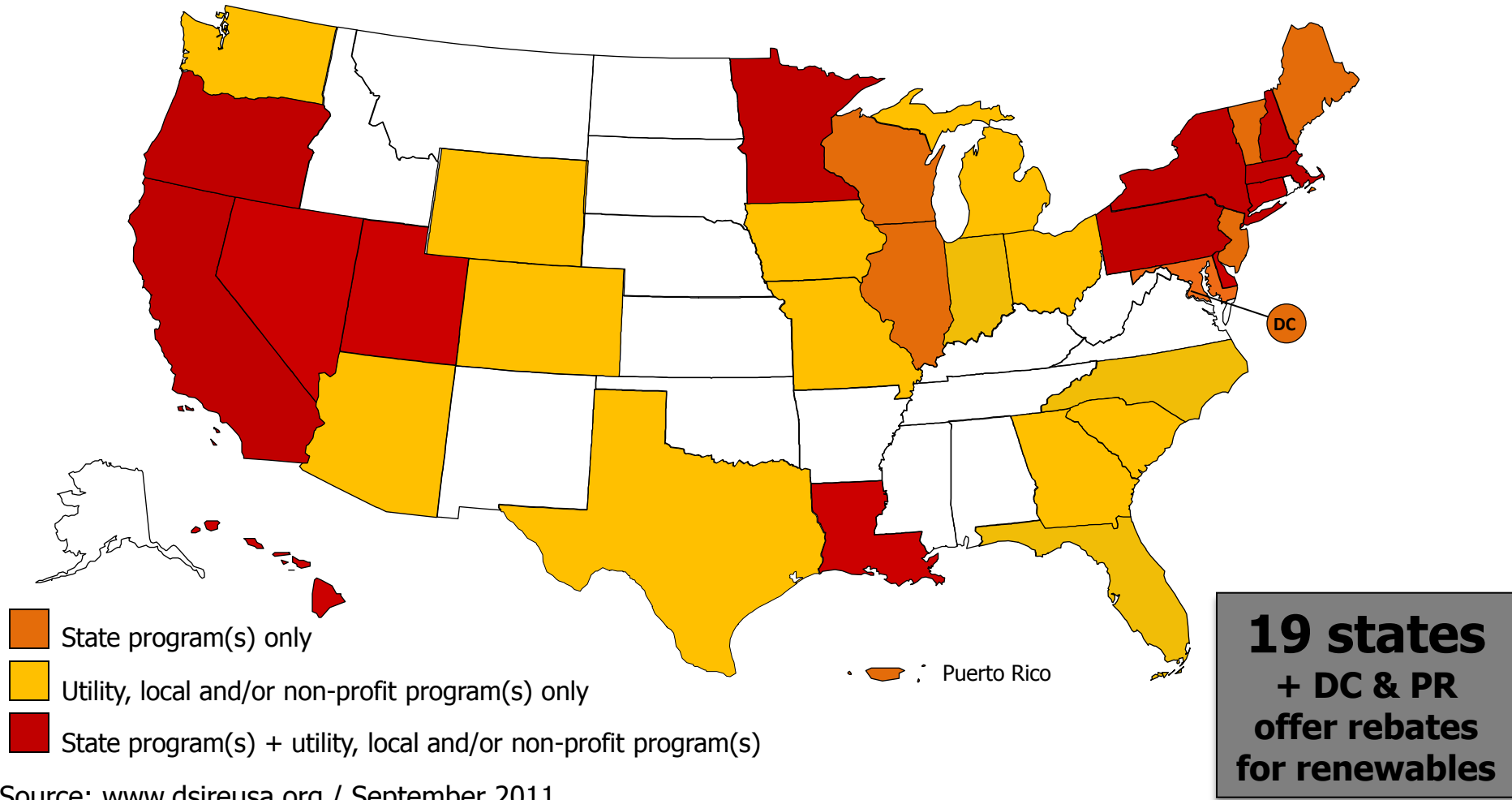
Source: [www.dsireusa.org](http://www.dsireusa.org) / September 2011



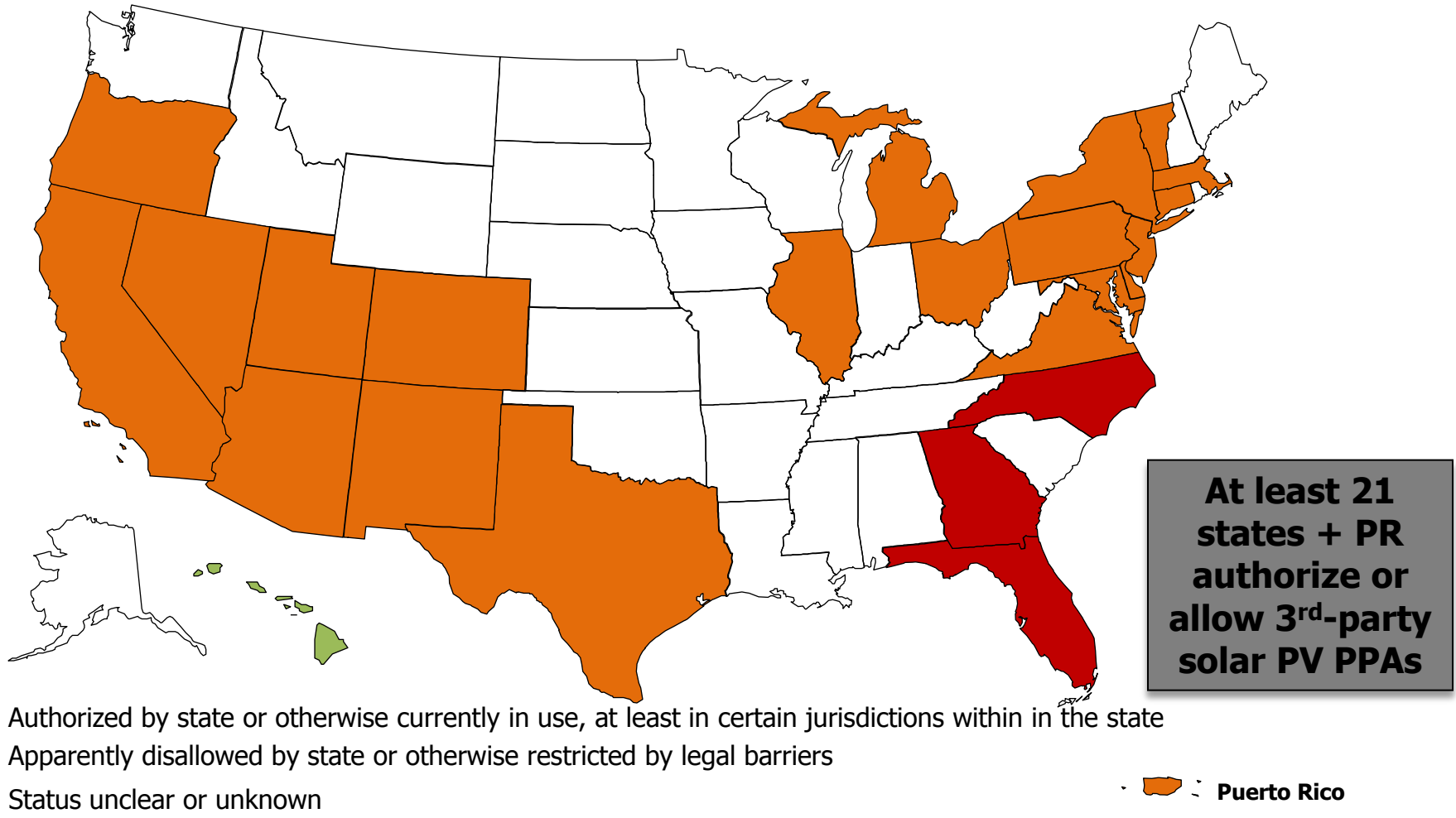
## ***Net Metering***



## ***Rebate Programs for Renewables***



## ***3<sup>rd</sup>-Party Solar PV Power Purchase Agreements (PPAs)***



# Recommendations

- Create transparent public/private advisory committee
- Conduct needs assessment
- Establish realistic renewable energy targets
- Monitor and track performance
- Launch public education campaign
- Encourage private investments via smart policies
- Collaborate with neighbors to ensure policy uniformity
- Long-term policy certainty is key



*Thank you*

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