State Leadership in Renewable Energy

Presentation to Information Technology Industry (ITI) Environmental Leadership Council
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Sue Gander, NGA Center for Best Practices
# About the National Governors Association

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<th>Center for Best Practices</th>
<th>Office of Federal Relations</th>
<th>Office of Management Consulting &amp; Training</th>
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<tr>
<td>• Comparative policy consulting shop</td>
<td>• Collective, bi-partisan, voice of governors in DC</td>
<td>• Internal management consultants</td>
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<td>• Provides governors and staff technical assistance based on state direction</td>
<td>• Builds consensus on Federal issues</td>
<td>• Training and advice for governors, chiefs of staff, schedulers, spouses, legal counsels</td>
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**ENVIRONMENT, ENERGY & TRANSPORTATION DIVISION**
Governor Brian Sandoval's 2017-2018 NGA Chair's Initiative

- Help governors prepare for energy & transportation technology transformation
  - Renewable energy, energy storage, microgrids, efficiency, smart grid and EVs
  - Drones, autonomous vehicles, electric vehicles, ride-sharing/ride-hailing
- **Energy Innovation Summit**, with solar decathlon tour, October 2017
- **Energy Innovation Story Maps**
- **Energy Innovation Policy Roadmap**, released in July 2018, to guide governors’ actions in:
  - Supporting technology transformation
  - Modernizing policy processes
  - Preparing and educating the workforce
  - Updating communications and data
  - Protecting systems from cyber threats
  - Informing citizens about benefits and risks

www.ngaahead.org
This map displays states that have established either an EERS, RPS, or both.

- Energy Efficiency Resource Standards
- Renewables Portfolio Standard
- Both
- N/A
- others
NGA Chair’s Initiative Story Map Example

This map highlights the growth in distributed solar generation between 2014 and 2016. The states marked with a darker shade of orange had a greater increase in generation from distributed solar over that time period than states with lighter shading.

- More than 10-fold Increase
- 5 to 10-fold Increase
- 2 to 5-fold Increase
- Less than Doubled

Increase in electricity generated from distributed solar resources from 2014 to 2016.
Renewable build also neared a record in 2017, amidst policy uncertainty

U.S. renewable build by technology

U.S. cumulative renewable capacity

Source: Bloomberg New Energy Finance, EIA. Notes: All values are shown in AC except solar, which is included as DC capacity. Numbers include utility-scale (>1MW) projects of all types, rooftop solar, and small- and medium-sized wind.

Source: Bloomberg New Energy Finance, EIA. Notes: All values are shown in AC except solar, which is included as DC capacity. Hydropower capacity and generation exclude pumped storage facilities (unlike in past Factbooks). Totals may not sum due to rounding.
### Energy Policy Drivers Unique to Each State

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<th>Natural resource mix</th>
<th>Resiliency/energy assurance</th>
<th>State Members of U.S. Climate Alliance (+ Puerto Rico)</th>
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<td>Economic development goals</td>
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Governors’ State of the States - Renewable Energy

13 governors mentioned RE, out of 44 state of the state addresses in 2018 (to date):

• Hawaii Governor David Ige (January 22, 2018) – “Working with the Legislature, I was the first governor to sign into law a bill requiring 100% of Hawai‘i’s electricity to come from renewable sources by 2045. Again, this demonstrates what we can accomplish when we work together.”

• Kansas Governor Sam Brownback (January 9, 2018) – “I dream of a future Kansas exporting wind electricity across America. A Kansas known as the Renewable State. It could well be that in the future, those who have the wind resource will flourish like those who now have oil. We are growing as an energy state.”

• Virginia Governor Ralph Northam (January 16, 2018) – “With your approval, we can invest the significant revenues Clean Energy Virginia will generate to create clean energy jobs in rural communities, help families lower their electrical bills, and solidify our position as a global leader in renewable energy.”
State Renewable Policy – Emerging Trends

- On-going efforts around **power sector/grid modernization** (CA, CO, HI, MN, NY, RI et al)

- 14 states (CO, GA, KY, MI, MN, NC, NE, NM, NV, UT, VA, WA, WI, WY) allow for **utility green tariff options** to allow customers to buy large-scale RE through the grid

- Renewable build has surpassed RPS demand in a number of markets, lowering REC prices and leading some states to **consider increasing their RE targets**.

- States are considering reforms to RE programs such as **moving away from net metering**. In the past year, AZ, IN, and ME, finalized plans to move away from net metering.

- Regulators are **amending state-level implementation of PURPA** to reduce length of and rates in PURPA contracts. Four states have acted (MI, ID, NC, MT) - this past year MT and ID cut PURPA rates or restricted PURPA contracts to 2 years.

- Many states are interested in **increased electrification** such as electric vehicles charged from RE resources. CA set target for 50% of state’s electricity generated by RE by 2030, and a number of state agencies are installing solar PV chargers for their EV fleets.
NGA Power Sector Modernization RE Highlights

- NGA working with four states (KY, OR, RI & WA) over 18 months (Dec ‘16 to April ‘18) on policies to support power sector modernization, exploring how to create a cleaner, more efficient and more resilient power sector.

- Some renewable energy initiatives/goals these states are considering:
  - Outlining ways to procure RE in the state to help meet corporate sustainability goals (KY);
  - Developing a resilience guide for consumer-owned utilities, including how utilities can finance, deploy, and monetize renewable energy to improve system resilience (OR);
  - Supporting greater renewable penetration on the grid to help meet the state’s clean energy goal of 1,000 MW from clean energy resources by 2020 (RI);
  - Replacing retiring baseload plants with clean energy resources and building consensus on grid improvements to support a low-carbon future (WA).