DOE OFFICE OF INDIAN ENERGY

Energy Water Nexus In The Southwest

September 8, 2016

Christopher Deschene
Director, Office of Indian Energy





OUR MISSION

To maximize the development and deployment of energy solutions for the benefit of American Indians and Alaska Natives

OUR VISION

To be the premier federal office for providing tribal communities and Alaska Native villages with the knowledge, skills and resources needed to implement successful strategic energy solutions



Rosebud Sioux's (SD) Little Soldier Turbine (First 750 kW Turbine on Tribal Lands in contiguous U.S.)

Strengthening Tribal Communities, Sustaining Future Generations



Authorized under Title V of the Energy Policy Act (EPAct) to provide, direct, foster, coordinate, and implement energy planning, education, management, conservation, and delivery programs of the Department that—

- 1. promote Indian tribal energy development, efficiency, and use;
- 2. reduce or stabilize energy costs;
- 3. enhance and strengthen Indian tribal energy and economic infrastructure relating to natural resource development and electrification; and
- 4. bring electrical power and service to Indian land and the homes of tribal members located on Indian lands or acquired, constructed, or improved (in whole or in part) with Federal funds.



Reality of 567 Federally Recognized Tribes

Staggering gaps between Indian Country and the rest of the U.S.



American Indian and Alaska Native households in large tribal areas are more than 3 times as likely to live in overcrowded housing and more than 11 times as likely to live in housing without adequate plumbing



Poverty and unemployment rates among American Indian and Alaska Natives living in tribal areas in 2006–2010 were at least twice as high as those among non-Indians nationally



Ready access to electricity is still considered a luxury in many tribal communities ... as many as 15,000 Navajo homes — about 30% — still lack electricity



More than 175 remote Alaska village populations rely almost exclusively on diesel fuel for electricity generation and heating oil for heat. In some rural Alaska communities, electricity costs exceed \$1.00/kilowatthour (kWh)—more than 8 times the national average of \$0.12/kWh

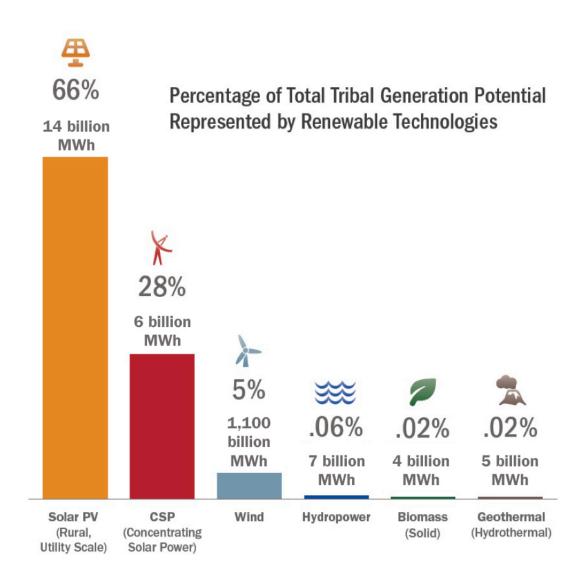




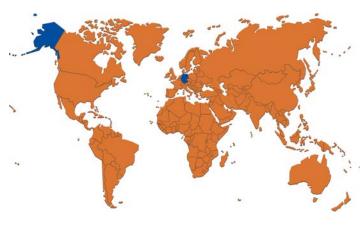
Resource Potential: 48 Contiguous States

While American Indian land comprises ~2% of the total U.S. land base, it represents an estimated 5% of the total U.S. renewable energy generation potential.

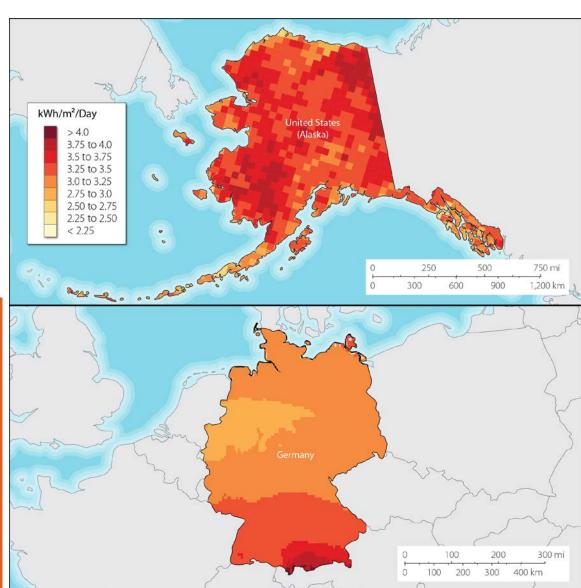
The total generation potential for renewable energy generation on tribal lands is 21 billion megawatt hours (MWh).



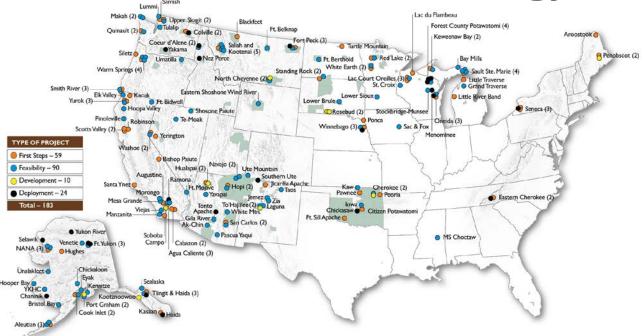
Resource Potential: Alaska



Alaska's solar resource is comparable to that of Germany, which leads the world in PV installations with more than 38,500 megawatts (MW) of solar installed as of October 2015.



DOE's Investment in Tribal Energy Projects



DOE has invested **\$48** million in **183** tribal clean energy projects valued at **\$93.6** million (2002–2014). DOE's investments were leveraged by **\$45.6** million in tribal cost-share. Tangible results of those shared investments include:

- Retrofitting 70 tribal buildings saving tribes more than 10 million kilowatt-hours of energy and
 \$2.5 million per year
- Completing energy audits on more than 250 tribal buildings
- Moving more than 580 MW of potential new renewable energy generation into development
- Supporting tribes and Alaska Native villages in assessing the potential for more than 4 gigawatts of new renewable energy generation
- Providing training to more than 170 tribal project participants





U.S. Department of Energy Office of Indian Energy Policy and Programs

Strategic Roadmap 2025



Promote Energy Development

Reduce or Stabilize **Energy Costs**

3

Enhance Energy and Economic Infrastructure

Foster Electrification

Support Energy **Initiatives**



A Path to Economic Sovereignty: Everyone has a Role

Strategic Target Areas



People, Communications, **Operational Structure**



Partnerships, Relationships, Communications, Reputation



Institutionalize the Office of Indian Energy



Advance Indian Energy Policy



Maximize Services to Indian Country

