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Tribal Renewable Energy Development Technical Assistance

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Alaska Native Villages – Microgrid Systems

Venetie, Alaska, Energy Assessment

- Greater operational efficiencies = annual cost savings
 - Upgrading to new generators that match the given loads
- Installing photovoltaic (PV) systems will foster more savings
 - Long payback period



Early Stage: Partnership with Alaska Center for Energy & Power (ACEP), University of Alaska–Fairbanks

- Dynamic microgrid systems optimization via computer modeling
 - Modeled microgrids will use renewable energy: PV and wind turbines



Tribal Strategic Energy Planning



- Tribal Staff and Leadership
- Collaborative process for strategic energy planning and action plans

- Navajo Nation* of Arizona, New Mexico, Utah
- Hopi Tribe of Arizona*
- Wind River* – Eastern Shoshone and Arapahoe
- Mescalero Apache of New Mexico
- Yankton Sioux of South Dakota
- Klamath Tribes of Oregon
- Bear River Band - Rohnerville Rancheria of CA
- Menominee Tribe of Wisconsin
- Delaware Tribe of Oklahoma & Kansas
- Picuris Pueblo of New Mexico
- Shoshone-Bannock of Idaho
- Akwesasne (Mohawk) of New York

* Sandia sponsored

College Student Internship Program

- First-hand experience with existing tribal renewable-energy projects
- Indian hiring preference used

2002–2014

- ✧ 31 undergraduate & graduate interns have participated
- ✧ 18 different tribal affiliations
- ✧ 15 different majors
- ✧ 29% of the interns were converted to year-round status (9 of 31)
- ✧ 13% of the interns were hired as FTEs or Sandia contractor (4 of 31)
- ✧ 55% female interns (17 of 31)

