DOE Office of Indian Energy: Leveraging Tribal Resources to Support Department of Defense Strategic Energy Goals

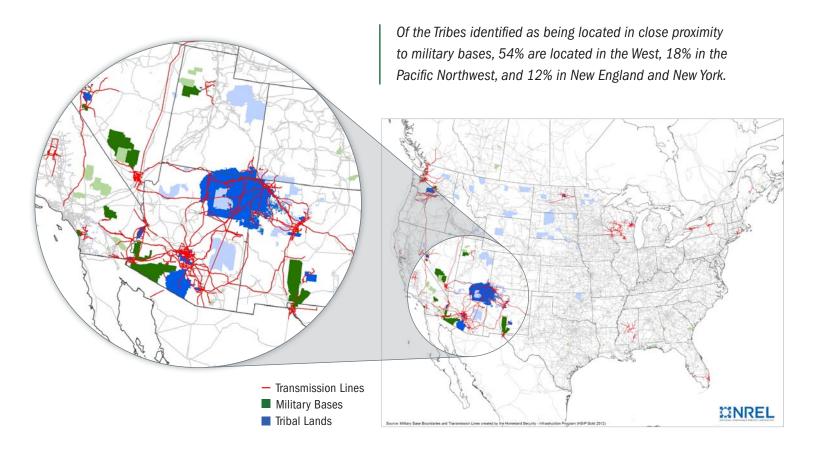
The U.S. Department of Defense (DoD) has announced several strategic energy goals including obtaining 25% of its energy from renewable energy and promoting energy security. Indian Tribes are uniquely situated to help the DoD achieve these goals. According to DoD, there are more than 50 Tribes located adjacent to or near military installations.

The DOE Office of Indian Energy has begun exploring how to leverage the considerable renewable energy resources in Indian Country to help the DoD achieve some of its strategic energy goals, including educating tribal leaders and military leaders on energy development partnerships on Indian lands, analyzing and mapping the most promising partnership opportunities, and working with the National Renewable Energy Laboratory (NREL) to provide technical assistance to Tribes on working with local military installations. NREL estimates that Indian lands have the following amounts of renewable energy generation potential:

| Tribal Technology Generation Potential ¹ | Megawatt Hours (MWh) |
|---|----------------------|
| Wind | 26,059,675 |
| Solar: Photovoltaic (PV) (Utility-Scale, Rural) | 4,372,566,050 |
| Solar: PV (Utility-Scale, Urban) | 8,432,273 |
| Solar: Concentrating Solar Power | 4,293,336,157 |
| Geothermal: Enhanced Geothermal System | 2,007,195,000 |
| Geothermal: Hydrothermal | 1,805,368 |
| Biomass: Solid | 675,136 |
| Biomass: Gaseous | 592,238 |
| Hydropower | 2,605,585 |

¹ Based on methodology from Lopez, A. et al. (2012). Forthcoming report to be published by the National Renewable Energy Laboratory.

Analysis assumes development of single technology across all available land.



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Tribes Located Near Military Bases

There are 53 reservations located within 10 miles of 65 military installations. There are 20 reservations located near multiple bases. For example, the Mashantucket Pequot reservation is within 10 miles of the Coast Guard Academy and a Naval Submarine Base.

| Tribe | Military Bases |
|---------------------------------------|--|
| Arizona | |
| Cocopah | Barry M Goldwater Air Force Range USMC Air Station-Yuma |
| Colorado River | Yuma Proving Ground |
| Fort Vuma (Quahan) | Barry M Goldwater Air Force Range National Guard Rifle Range |
| Fort Yuma (Quechan) | USMC Air Station-Yuma Yuma Proving Ground |
| Gila Bend | Barry M Goldwater Air Force Range |
| Gila River | Casa Grande Military Reservation Florence Military Reservation Luke Air Force Base |
| Pascua Yaqui** | Davis-Monthan Air Force Base |
| Salt River | Papago Park Military Reservation |
| San Xavier | Davis-Monthan Air Force Base Sahuarita Air Force Range |
| Tohono O'odham* | Barry M Goldwater Air Force Range Casa Grande Military Reservation Florence Military Reservation |
| British Columbia | |
| Nooksack | CFB Esquimalt-Matsqui |
| California | |
| Manchester (Point Arena) Rancheria | Point Arena Airforce Station |
| Middletown Rancheria | |
| Pala | Camp Pendleton Marine Corps Base |
| Pechanga | Camp Pendleton Marine Corps Base |
| Santa Rosa Rancheria | Lemoore Naval Air Station |
| Twenty-Nine Palms | Marine Corps AGCC Twentynine Palms |
| Connecticut | |
| Mashantucket Pequot | New London Naval Submarine Base United States Coast Guard Academy S |
| Florida | |
| Hollywood | Navsea Warfare Center Fort Lauderdale U.S. Coast Guard Station Fort Lauderdale |
| Seminole Homestead Trust Lands | Navsea Warfare Center Fort Lauderdale U.S. Coast Guard Station Fort Lauderdale |

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| Tribe | Military Bases |
|-----------------------|--|
| Texas | |
| Ysleta Del Sur Pueblo | Fort Bliss |
| Utah | |
| Skull Valley | Dugway Proving Grounds |
| Washington | |
| Muckleshoot | Kent Army National Guard Armory |
| Nisqually* | Camp Murray National Guard Fort Lewis Military Reservation Mcchord Air Force Base |
| Port Gamble | Bangor Naval Reservation Naval Undersea Engineering Station U.S. Naval Reservation |
| Port Madison | Bangor Naval Reservation Camp Mckean Naval Recreation Camp Camp Wesley Harris Naval Reserve Fort Lawton Jackson Park Naval Reservation Middle Point And Orchard Point Military Reservation Naval Undersea Engineering Station Puget Sound Naval Shipyard U.S. Naval Reservation Camp Murray National Guard Fort Lawis Military Reservation |
| Puyallup | Fort Lewis Military Reservation Kent Army National Guard Armory |
| | Mcchord Air Force Base |
| Swinomish | Whidbey Island Naval Air Station |
| Tulalip | U.S. Lighthouse Reservation U.S. Naval Station Everett |
| Yakama | Boardman Bombing Range |
| Yakama | Yakima Firing Center |
| Wisconsin | |
| Ho-Chunk | Badger Army Ammunition Plant Camp Williams Fort Mccoy Madison Truax Field Army National Guard |
| Oneida (West) | Denis J Murphy Army Reserve |

Analysis conducted by the U.S. Department of Energy National Renewable Energy Laboratory using the 2012 Homeland Security Infrastructure Protection geospatial dataset.

*Tribe located adjacent to a military base. **DOE Office of Indian Energy Strategic Technical Assistance Response Team (START) Project



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