



Office of Indian Energy and Economic Development
Division of Energy and Mineral Development

BUILDING GREEN ECONOMIES ON TRIBAL LANDS

Using Renewable Resources to Create Sustainable Economies



THERE IS A GREAT OPPORTUNITY FOR TRIBES AND PRIVATE INDUSTRY TO TEAM UP AND TAKE ADVANTAGE OF AVAILABLE ENERGY RESOURCES.

The Division of Energy and Mineral Development (DEMD) is assisting tribes in strengthening and diversifying their economies by utilizing the power generated from renewable resources on tribal reservations. This new approach is in contrast to simply exporting power resources off the reservation which often yields lower benefits for the tribe.

Many Indian reservations are well positioned to provide access to a stable source of competitively priced energy. For example, of the 326 American Indian reservations, more than 150 have the resource capacity needed to sustain a 1 to 25 megawatt (MW) natural gas and/or renewable power generation facility.

Renewable energy resonates with the administration's green energy push. It is the future of economic development in many sectors of America.

DEVELOP YOUR RESOURCES

These resources are ideal candidates to supply base load energy to industry.

Biomass - Waste

The conversion of unusable household wastes into usable heat and/or electricity.

- 20,000 people $\approx$ 1 MW generation capacity
- Low emission technology
- 90% diversion from landfills
- 25-30 full time jobs for 5-20 MW power plant
- Levelized Cost: \$0.04 – \$0.08 / kWh

Biomass - Woody

The conversion of forest and wood product residues into heat and/or electricity.

- 15,000 tons/year $\approx$ 1 MW generation capacity
- Value added option: pellets for residential and community heating
- 5-7 jobs/MW
- Levelized Cost: \$0.10 – \$0.14 / kWh

Hydro-electric

The conversion of the natural flow of water into electricity.

- New development considerations include water ways with low potential for environmental impact
- Able to retrofit existing hydraulic structures such as dams and irrigation systems
- Levelized Cost: \$0.06 – \$0.12 / kWh

Geothermal - Direct Use

The utilization of the Earth's natural heat resources for commercial applications.

- Requires subsurface temperatures between 30°C and 150°C (85 -300°F)
- Applications may include: aquaculture, greenhouses, food processing, and heating.
- Levelized Cost: \$0.05 – \$0.10 / kWh

Geothermal - Electric

The conversion of the Earth's natural heat into electricity.

- Requires subsurface temperatures $>$ 150°C (300°F)
- 2-3 jobs/MW
- Levelized Cost: \$0.05 – \$0.12 / kWh

Natural Gas

An essential backup to many renewable energy developments.

- Used as a transitional fuel to reduce dependency on coal
- Electricity generation through the use of steam and/or gas turbines
- Levelized Cost: \$0.06 – \$0.08 / kWh



STRENGTHEN YOUR RESERVATION'S ECONOMY

Strengthen your economy by pursuing renewable energy development on reservation lands. Not only will this allow you to exercise tribal sovereignty, you can also create jobs, entice industry, and ultimately achieve energy independence. Most importantly, you can keep your dollars on the reservation, where it counts.

Development of manufacturing facilities in conjunction with renewable energy development can lead to new frontiers of employment. Job opportunities can range from:

- Manufacturing
- Engineering
- Sales and Marketing
- Transportation
- Business Management and Administration

By leveraging your base load renewable energy resource, innovative industry can also access business advantages that can only be found on reservations. Some of these advantages include:

- HUBZone Status: a Small Business Administration program known as Historically Underutilized Business Zones, or HUBZones, provides contracting assistance to small businesses located in economically distressed communities.
- 8A Business Development Program: this program was created to help small and disadvantaged businesses compete in the marketplace. It also helps these companies gain access to federal and private procurement markets.
- Small Disadvantaged Business Status: this status, given by the Small Business Administration, makes a company eligible for bidding and contracting benefit programs involved with federal procurement.

START THE JOURNEY TO YOUR GREEN ECONOMY

Now that you know the basics, contact DEMD to:

- Evaluate and confirm your energy resources
- Conduct feasibility studies
- Identify business development opportunities

In addition to these initial steps, DEMD will work closely with tribes on marketing, identifying potential partners, negotiating, accessing capital, and more.

We have an experienced staff of engineers, geologists, geophysicists, and business development specialists poised to help tribes along the path to sustainable economic development.

Be a leader in this exciting development!

You have the **resources,**

You have the **leadership,**

You have the **labor force,**

Build your **Green Economy Today!**



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