



DEPARTMENT OF THE INTERIOR



Energy Development Strategies and Considerations

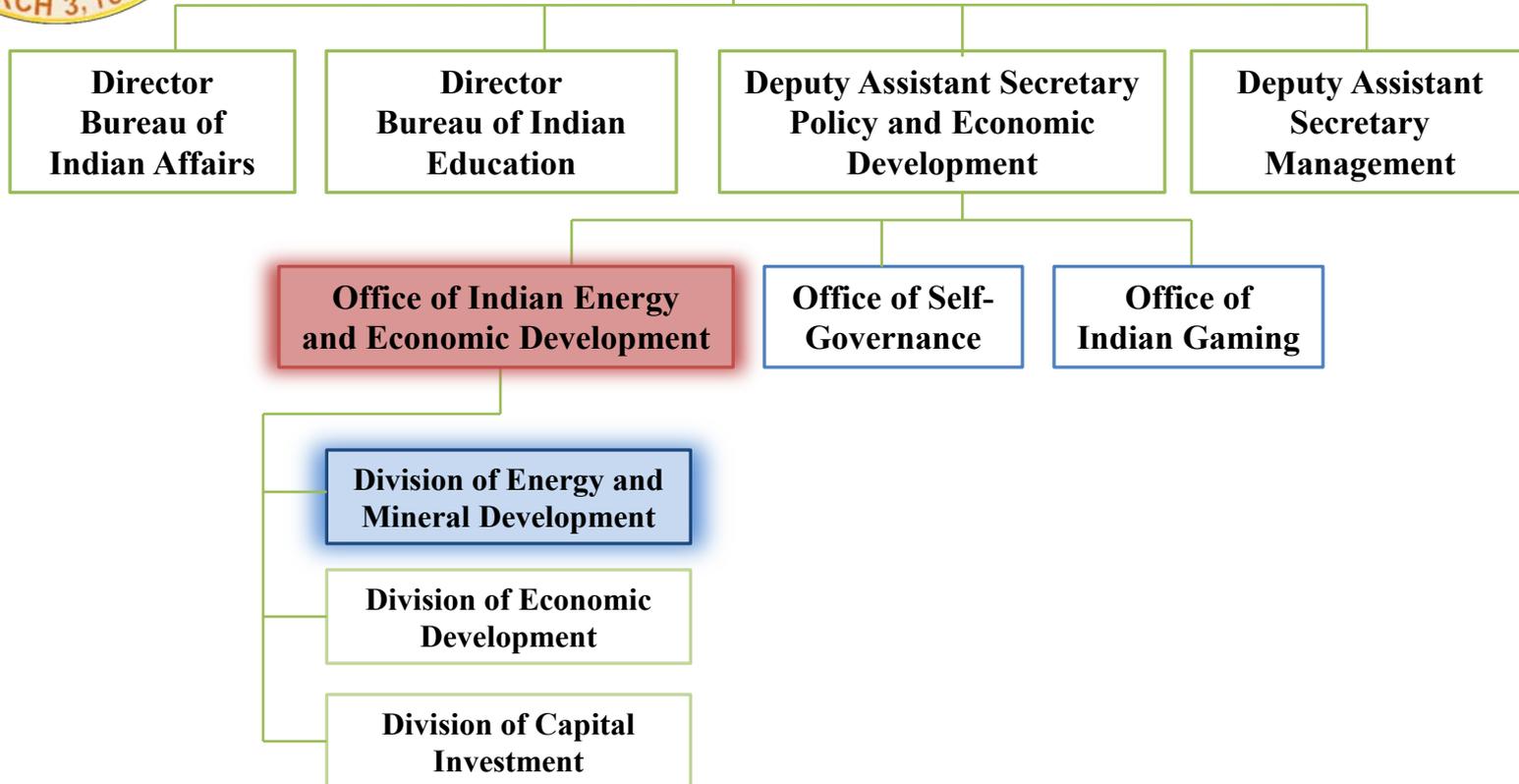


Assistant Secretary – Indian Affairs
Office of Indian Energy and Economic Development
DIVISION OF ENERGY & MINERAL DEVELOPMENT



Assistant Secretary – Indian Affairs
(Michael Black - Acting)

Principal Deputy – Assistant Secretary

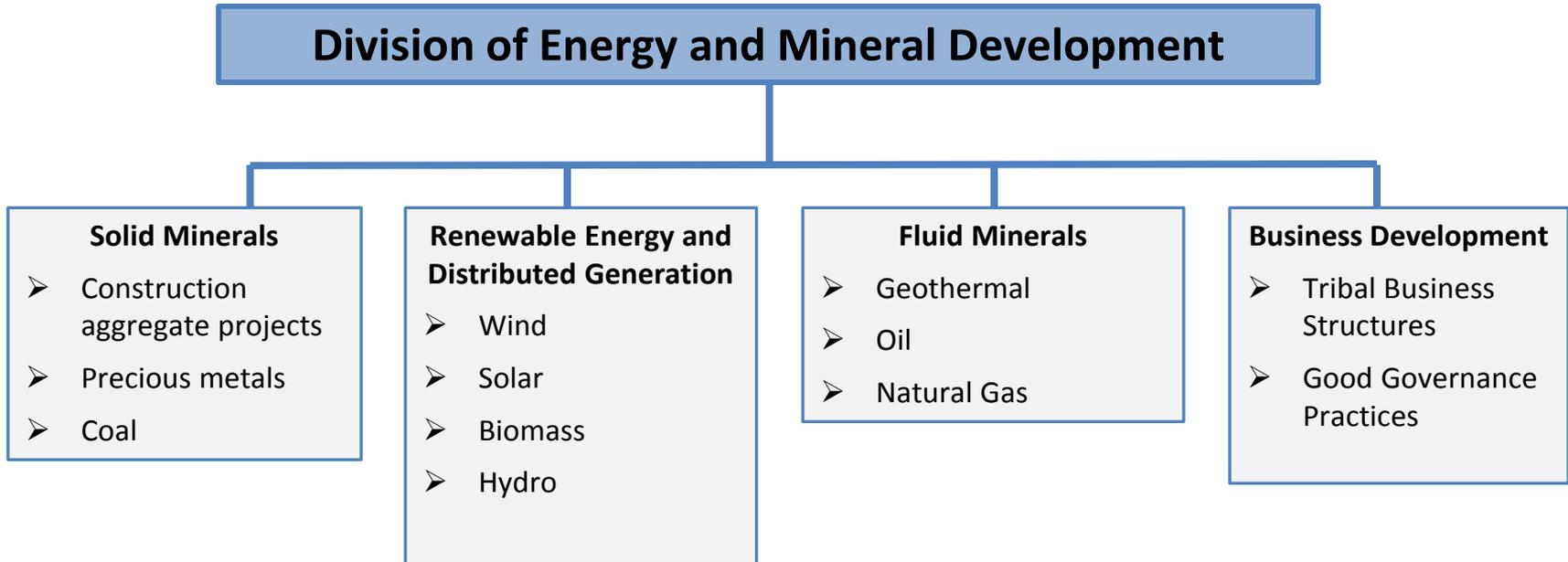


Mission

Provide the best possible technical and economic advice and services in assisting Indian mineral owners to achieve economic self-sufficiency by creating sustainable economies through the environmentally sound development of their energy and mineral resources.



Who We Are



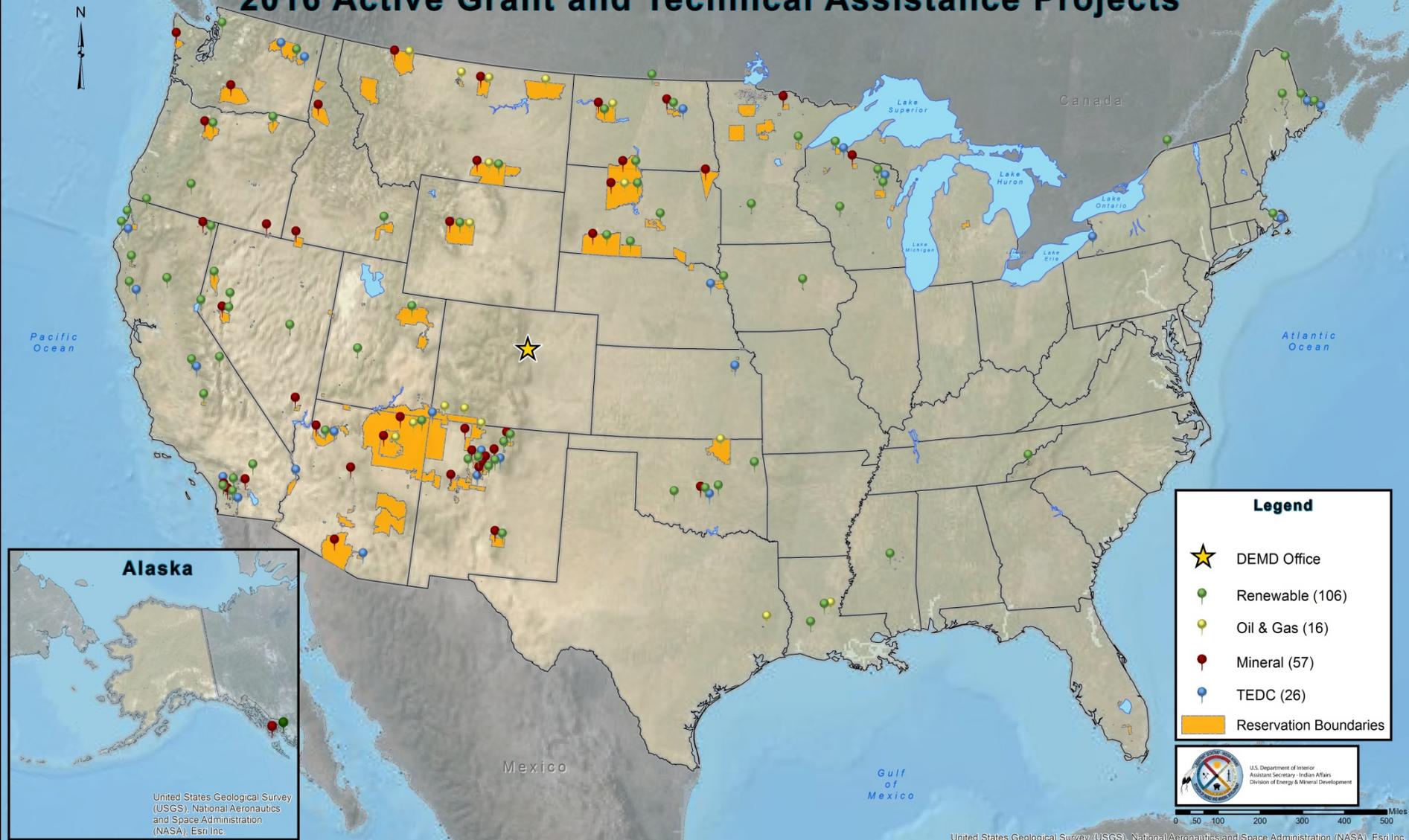
Our Staff: Geologists, Geophysicists, Mineral Economists, Mineral Marketers, Engineers, Business Development Specialists, Financial Analysts, and Policy Analysts

Programs and Services

- **Energy and Mineral Development Program**
 - Grant program to assess, evaluate and promote development of tribal energy and mineral resources
- **Tribal Energy Development Capacity Program**
 - Grant program to develop tribal managerial, organizational, and technical capacity to maximize the economic impact of energy resource development on Indian land. For more information see: <https://www.bia.gov/WhoWeAre/AS-IA/IEED/DEMD/TEDCP/index.htm>
- **Technical Assistance**
 - Technical services to Tribes concerning their energy and mineral resources
 - Liaison between Tribes and Industry
 - Consultation on developing business models on reservations
 - Assist Tribes with negotiation of resource development agreements



Division of Energy and Mineral Development 2016 Active Grant and Technical Assistance Projects



The Average Total Economic Impact per \$1 of DEMD Project Funding FROM 2003-2015: \$1,442

FY 2015 Economic Contribution on Indian Lands

Commodity	Total Economic Contribution (Billions \$)	% of Economic Contribution	Total Domestic Jobs Supported	Economic Contribution per Job (Dollars \$)	Economic Contribution per Job vs Avg
Energy and Minerals ¹	14.66	65.45%	51,695	284,000	126%
Irrigation Water ²	7.41	33.08%	45,212	164,000	73%
Grazing	0.06	0.27%	718	84,000	37%
Timber	0.27	1.21%	1,182	228,000	101%
Total	22.4	100.00%	98,807	226,000	

¹Does not include sales of renewable energy or sand and gravel on tribal land

²Includes the gross sales of crops

Source – US Department of the Interior Economic Report FY 2015,

https://www.doi.gov/sites/doi.gov/files/uploads/fy2015_doi_econ_report_2016-06-17.pdf

In FY 2016, tribal sand and gravel production was associated with about \$103 million in value added, about \$189 million in economic output, and supported an estimated 834 jobs.



Economic Impact of Tribal Renewable Energy

Resource	Installed Capacity Prior to 2016 (MW)	Installed Capacity in 2016 (MW)	2016 Renewable Generation (kWh)
Hydro	491.77	0	2,589,061,806
Solar	4.69	253.87	336,685,703
Wind	51.73	1.80	105,051,125
Biomass	2.17	0	13,311,988
Sum	550.36	255.67	
TOTAL		806 MW	3,044,110,622

Tribal renewable energy production was associated with about \$100 million in value added, about \$171 million in economic output, and supported an estimated 638 jobs.

Project Development Strategy



- Develop the resource and the business together
- Integrate with long term economic development plans
- Build tribal capacity to match the development strategy
- Technical assistance throughout project lifecycle

Steps for Generating Effective Development Strategies

1. Identify long term community goals and priorities
2. Identify available resources
 - Energy resources
 - Business resources (investment capital, business capacity, etc.)
3. Evaluate options
 - Iterative process of feasibility studies



Tribal Economic Development through Energy and Mineral Development

Primary reasons behind a Tribe's desire to develop energy and mineral projects included one or more of the following topics:

- **Enhance Sovereignty**
- **Energy Independence**
- **Environmental Benefits**
- **Economic Impacts**
 - Reduce Energy Costs
 - Generate Revenue
 - Create jobs
 - Energy for new development

Tribal Consultation

One project often cannot address all of these topics – so must either:

- assess opportunities and match to goals, or
- prioritize goals and assess opportunities that align with top goal(s).

Renewable Energy Strategies

Every tribe has renewable energy development potential.

Scale	Residential/ Commercial	Industrial	Utility
Purpose	- Offsetting community energy needs	- Supplying energy to local industrial user - Fuels production	- Generating and exporting energy to distant users
Potential Economic Benefits	- Cost savings to consumers	- Energy sales revenue - Operation jobs - Energy for businesses on the reservation - Ancillary revenue and job creation	- Revenue from land lease payments and/or energy sales - Construction and operation jobs
Resource/ Technology	Biomass heating; Geothermal heat pumps; Solar	Biomass; Geothermal; Hydro; Natural Gas	Wind; Solar; Geothermal; Hydro; Biomass



Oil and Gas Strategies

Exploration and Well Production for Global Markets

Strategy	Tribal Ownership	Third Party Lease
Scope of Activities	<ul style="list-style-type: none">- Exploration data collection and drilling- Well operation- Reclamation	<ul style="list-style-type: none">- Lease agreement negotiations
Revenue	<ul style="list-style-type: none">- Sales revenue	<ul style="list-style-type: none">- Revenue from royalty payments
Risk to Tribe	<p>High</p> <ul style="list-style-type: none">- Exploration costs- Liability	<p>Low</p> <ul style="list-style-type: none">- Negotiation costs

Additional Considerations

- **Infrastructure availability**
- **Local policies and standards**
- **Market forces**
 - Current local energy supply mix
 - Power of current utility provider
 - Emerging technologies
 - Industry rivalry
 - Oil Prices (*Supply / Demand; Strength of Dollar; OPEC / NOPEC cuts*)
 - Gas Prices (*Weather; New natural gas power plants; Increase in manufacturing*)
- **Risk tolerance**
- **Tribal capacity** (*technical, financial, and business*)
- **Alignment with long term development plans**

Energy and Mineral Development Program (EMDP)

- **Purpose:** Provides financial assistance and in-house technical support to Tribes for pre-development studies, analysis, and design
- An annual program using a competitive evaluation process to select proposed projects from tribes
- Tribes use this information to:
 - plan where they want development to occur
 - promote their lands to industry partners
 - negotiate the best economically beneficial agreement with partners
 - develop the resource themselves



Tribal Energy Development Capacity Program (TEDC)

Grant program to develop tribal managerial, organizational and technical capacity to maximize the economic impact of energy resource development on Indian land

Business Entity Formation Activities

- Develop legal infrastructure for business formation
- Establish tribally chartered corporations under tribal corporation codes
- Establish tribal business charters under federal law (IRA Section 17 Corp)
- Establish Tribal Utility Authority

Regulatory Activities

- Developing or enhancing tribal policies, codes, regulations, or ordinances for regulating and developing energy resources
 - Land lease regulations, HEARTH Act
- Adopting secured transaction codes and subsequent joint power agreement with the tribe's respective state.



Contact Us!

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