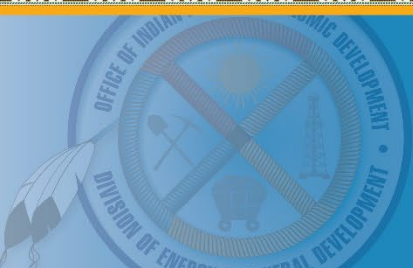




DEPARTMENT OF THE INTERIOR



Oil and Gas on Indian Lands Overview



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

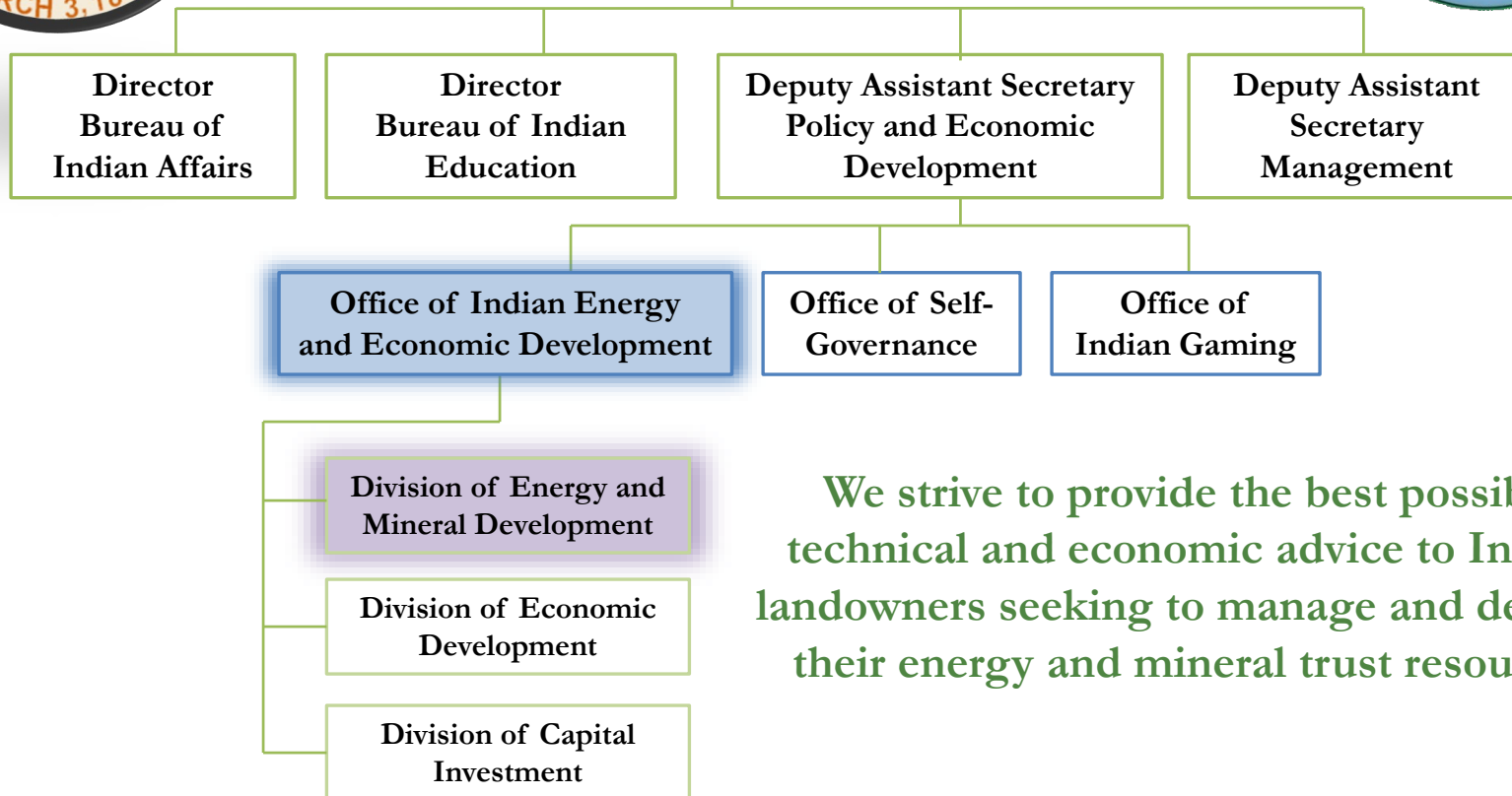


Assistant Secretary – Indian Affairs

(Michael Black - Acting)



Principal Deputy – Assistant Secretary



We strive to provide the best possible technical and economic advice to Indian landowners seeking to manage and develop their energy and mineral trust resources

DEMD's Mission Statement

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.

We serve tribal communities by helping to stimulate job creation and economic development



DEMD is part of the mandates of the Indian Mineral Development Act of 1982, which in part states at Section 7:

“...the Secretary shall ensure that upon the request of an Indian tribe or individual Indian and to the extent of his available resources, such tribe or individual Indian shall have available advice, assistance, and information during the negotiation of a Minerals Agreement. The Secretary may fulfill this responsibility either directly through the use of Federal officials and resources or indirectly by providing financial assistance to the Indian tribe or individual Indian to secure independent assistance.”

DEMD also carry out mandates in Section 2602 of the “Indian Tribal Energy Development and Self-Determination Act of 2005” to

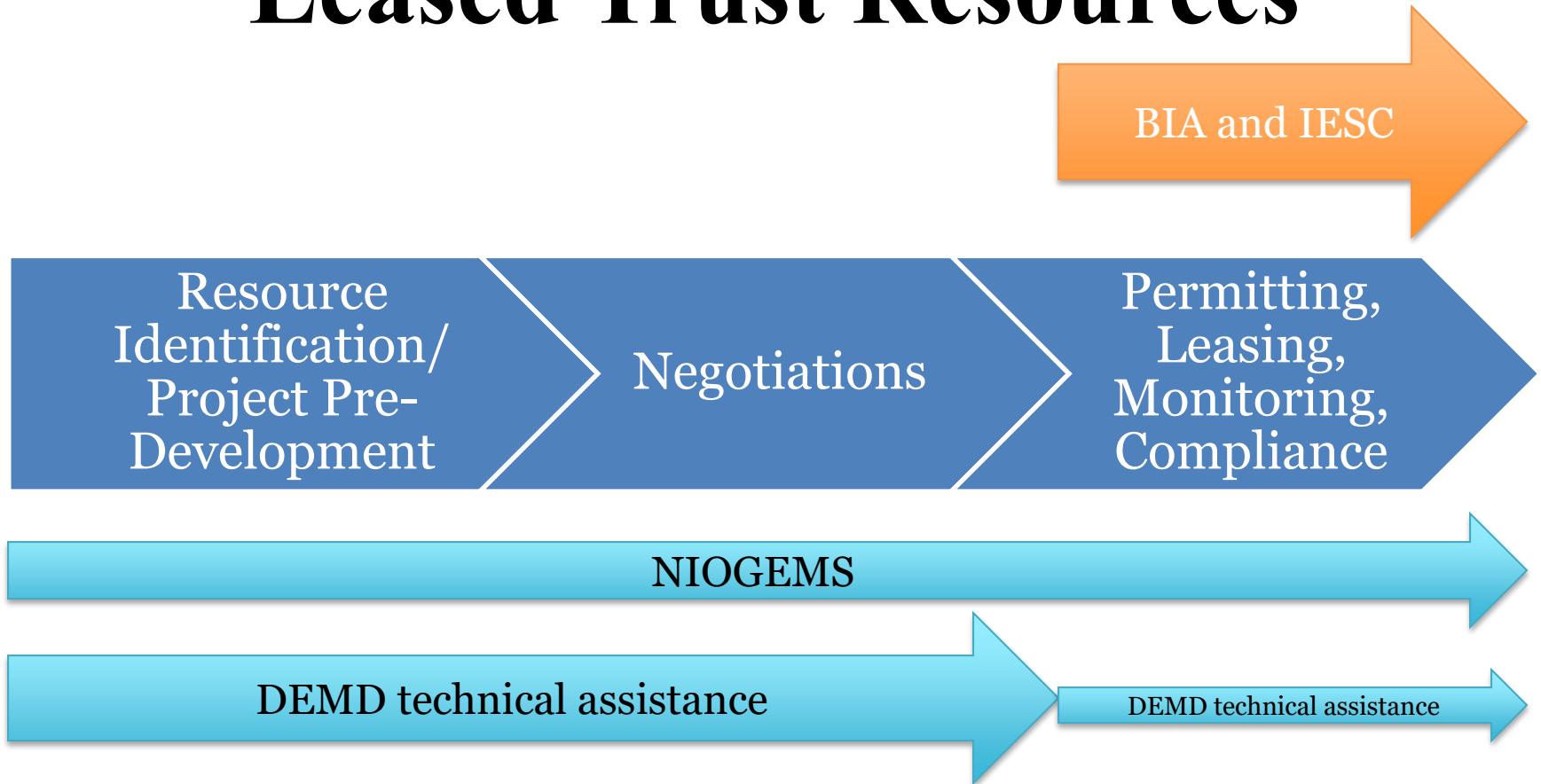
“...provide development grants to Indian tribes and tribal Energy resource development organizations for use in developing or obtaining the managerial and technical capacity needed to develop energy resources on Indian land, and to properly account for resulting energy production and revenues

How is DEMD Unique

- **DEMD is unique within the Federal government, and 90% of its senior staff comes from the energy and minerals private sector.**
- **It is akin to a medium sized consulting firm consisting of geologists, engineers, marketers, and economists.**
- **The technical assistance covers the entire spectrum of energy and mineral resource development.**
- **The assistance is hands-on, project specific, and lasts throughout the life of projects, beginning with resource assessment and culminating in signed agreements to develop tribal resources.**



Energy and Mineral Development Responsibilities for Leased Trust Resources



Tribal Energy Drivers

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

- **Enhance Sovereignty**
- **Energy Independence**
- **Environmental Benefits**
- **Economic Impacts**
 - Reduce costs for local users
 - Improve security and reliability
 - Revenue and jobs through resource development
 - Energy for new development

Tribal Consultation

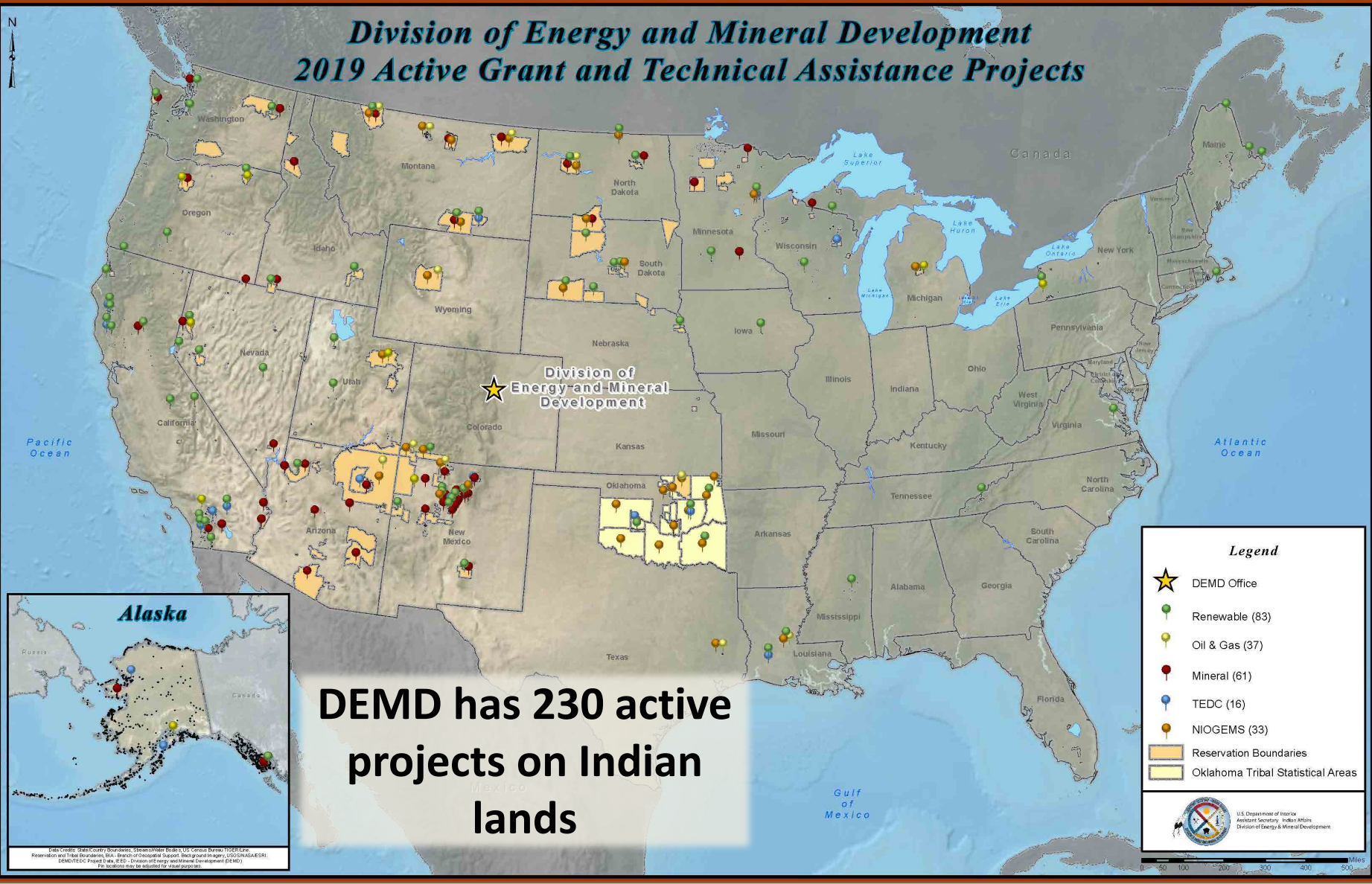
One project often cannot address all of these topics – must prioritize goals and assess opportunities that align with top goal(s).

Steps for Generating Effective Development Strategies

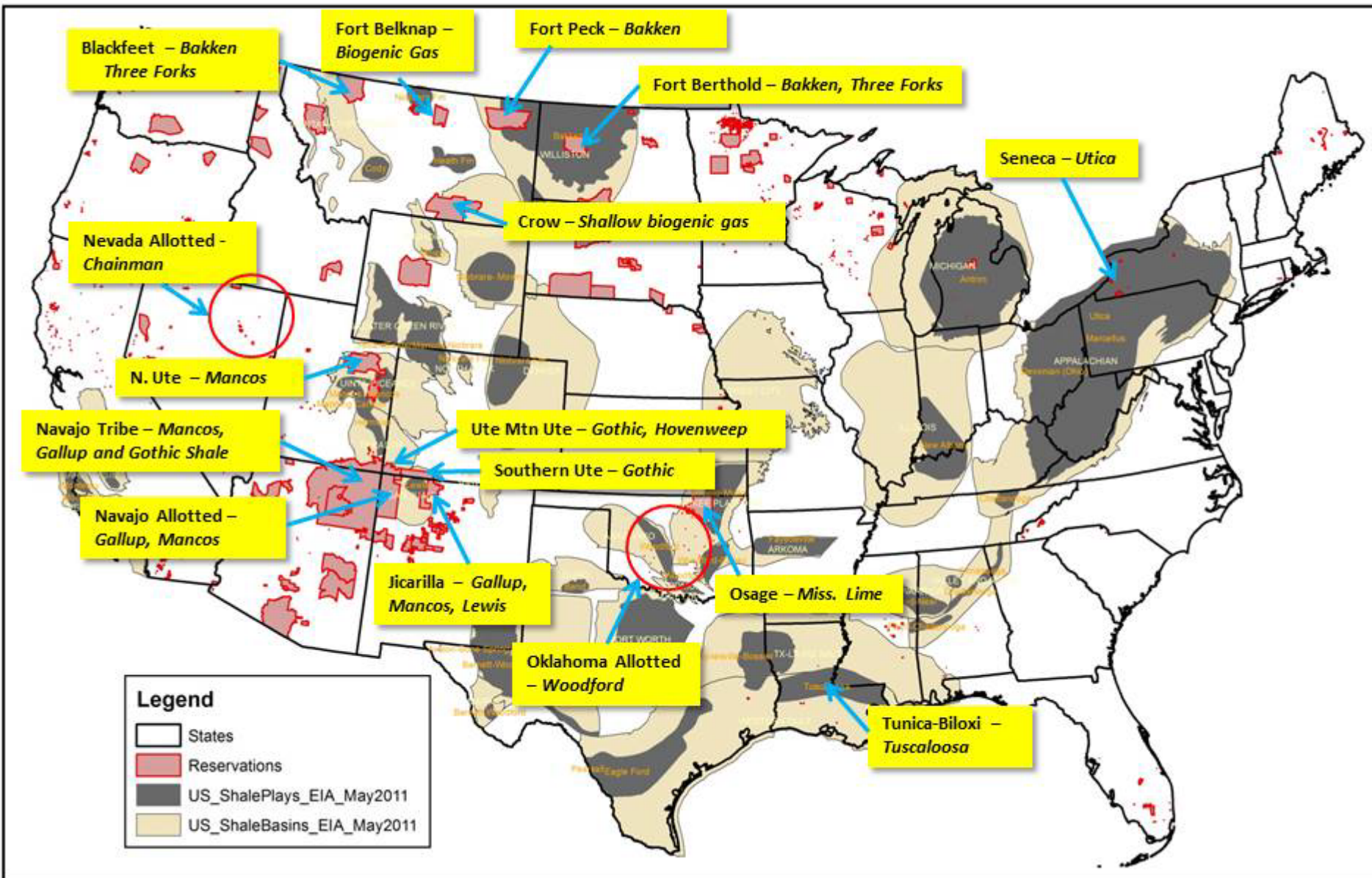
1. **Identify long term community goals and priorities**
2. **Identify available resources**
 - **Energy resources**
 - **Business resources (investment capital, business capacity, etc.)**
 - **Tribal government resources**
3. **Evaluate options**
 - **Iterative process of feasibility studies**



Division of Energy and Mineral Development 2019 Active Grant and Technical Assistance Projects



Oil & Gas Shale Plays (Dark Grey); SHALE BASINS (Tan)



Summary of Economic Activity on Indian Lands (FY 2019)

DOI Activity (FY 2019)	Direct Economic Contribution (sales in billions)	Jobs	Value Added (billions, \$)	Total Economic Contribution (billions, \$)
Grazing	0.03	864	n/a	0.07
Irrigation water*	1.07	28,331	1.57	2.86
Energy**	6.63 (83%)	46,946 (60%)	7.82 (81%)	12.59 (78%)
Other minerals***	0.20(2%)	1,714(2%)	0.24(2%)	0.41(3%)
Timber	0.05	465	0.03	0.13
Total Contributions to the National Economy	7.98	78,320	9.66	16.06

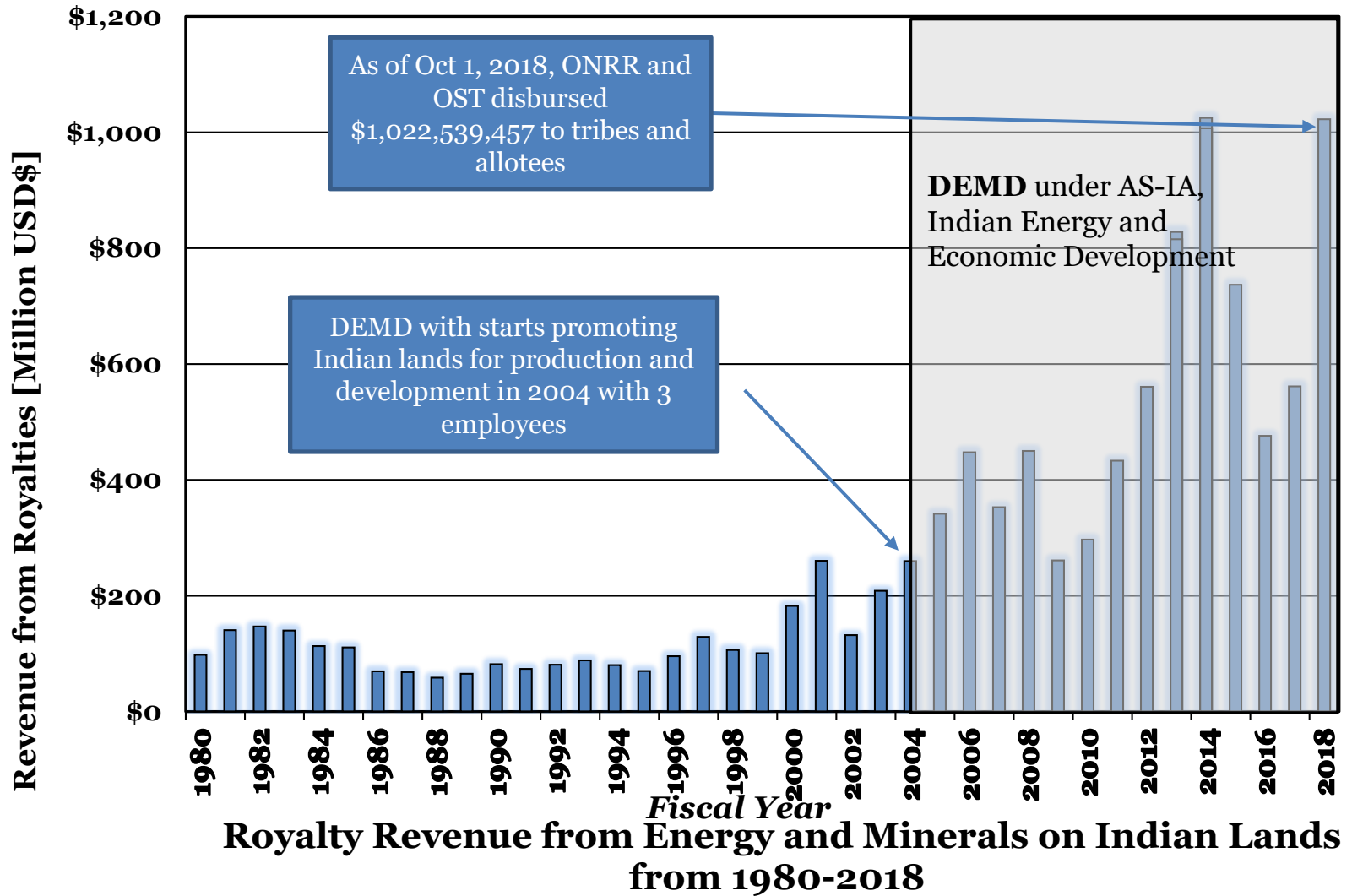
* Includes value of crops and jobs produced from irrigation water

** Renewable energy. Tribal renewable energy production was associated with about \$100 million in value added, about \$171 million in economic output, and supported an estimated 775 jobs.

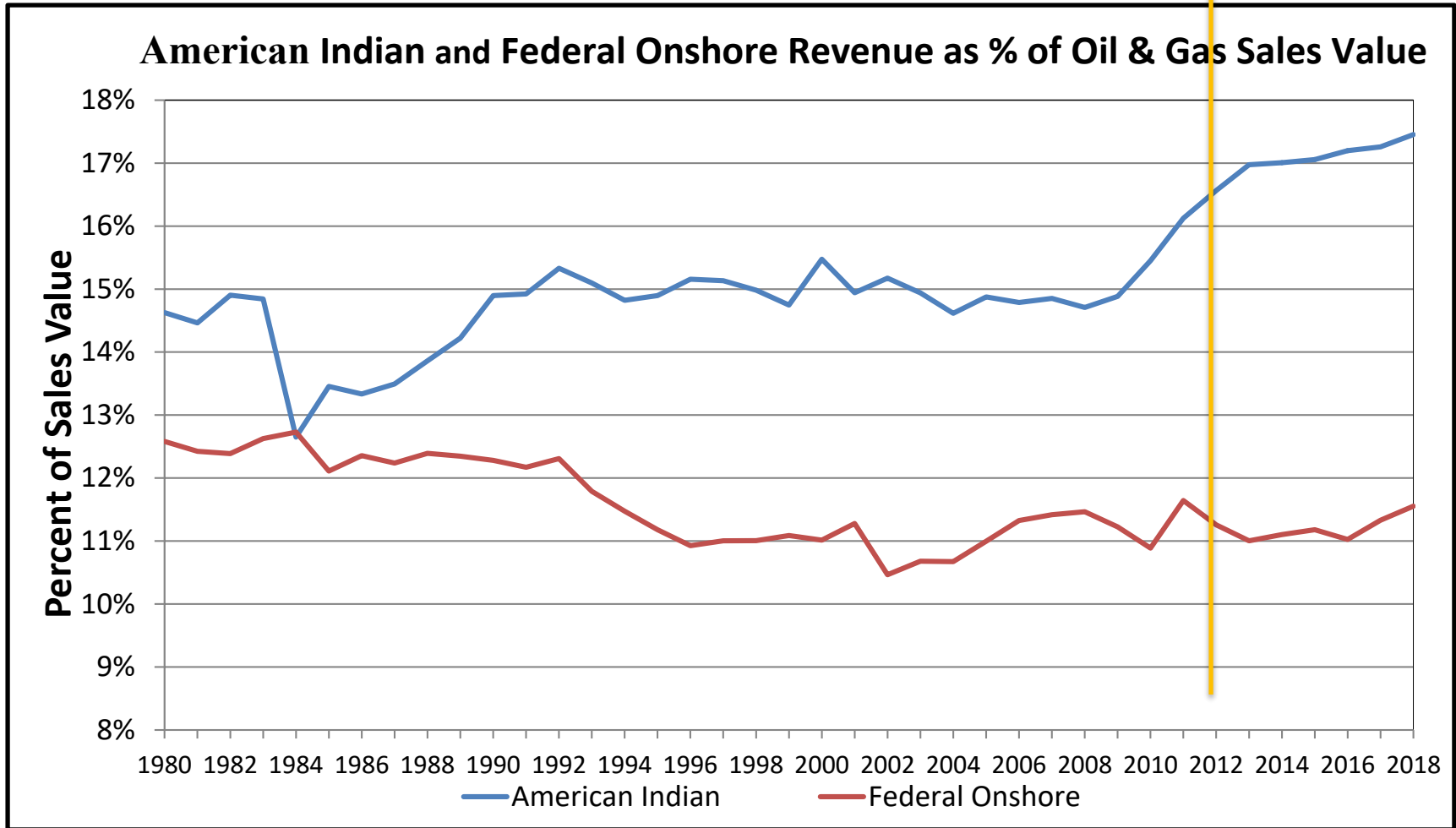
*** Sand and gravel or other industrial minerals. Tribal sand and gravel production was associated with about \$240 million in value added, about \$410 million in economic output, and supported an estimated 1,714 jobs.

Source: U.S. Department of the Interior Economic Report, Fiscal Year 2019

Also evident from the chart is that tribal royalties were stagnant when the BIA had oversight over DEMD but have ballooned since DEMD was removed from the BIA and placed under AS-IA/IEED in March 2005.



Not only have energy and mineral royalties increased under DEMD's watch, but DEMD has outperformed the Bureau of Land Management (BLM) in returning value to energy mineral owners (especially since exiting BIA's oversight):



Regional Horizontal Play Status

- **Mature Stage with defined economics and defined areal extent**
 - Ft. Berthold – Bakken Three Forks
 - Osage – Mississippian Lime
- **Evolving Stage with developing economics and undefined extent**
 - Jicarilla – Gallup / Mancos play (horizontal and vertical potential)
 - Potential for horizontal gas development with stronger commodity prices
 - Navajo Allotted – Gallup / Mancos in initial stages of development
 - Strong leasing activity and interest
 - Ute Mountain Ute – Gallup / Mancos potential
 - Ute Tribe (Uintah and Ouray) Reservation – Green River Formation
 - Oklahoma Tribal and Allotted Trust Lands – Woodford
- **Untested or Undefined plays that require additional effort and Technology**
 - Blackfeet – Bakken / Exshaw
 - Ft. Peck – Bakken / Three Forks
 - Crow – Tensleep
 - Ute Mountain Ute – Gothic Shale

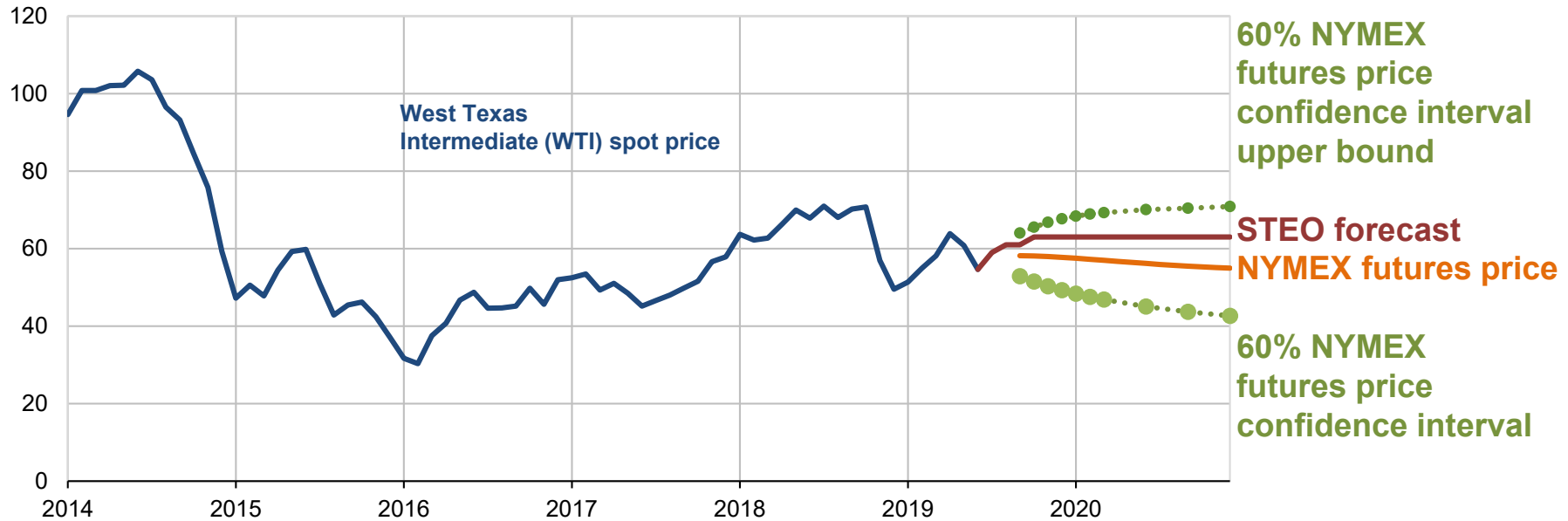
North American Prospect Exposition (NAPE)

- The largest North American prospect conference
 - Twice a year (February & August) in Houston, TX
 - August 11-27, 2020 (Virtual; No physical conference)
- Tribes showcased
 - Alabama-Coushatta
 - Osage
 - Navajo Nation
 - Navajo Allottees
 - Concho Agency
 - Anadarko Agency

Oil Price Projection

West Texas Intermediate (WTI) crude oil price and NYMEX confidence intervals

dollars per barrel



Note: Confidence interval derived from options market information for the five trading days ending Jul 3,

Sources: Short-Term Energy Outlook, July 2019, and CME Group



Oil Price forecast from EIA, projection is for WTI is stable through 2020 at approximately \$65/BBL, with WTI futures slightly decreasing from \$58/BBL to \$55/BBL. The 60% confidence intervals bracket the WTI price with possible swings that may be prompted by a “Black Swan Event” or international political influences. The upper bound ranges from \$64 to \$70/BBL, whereas the lower is \$52 to \$43/BBL.

Breakeven Prices / Hotspots

Formations recently drilled and production established

Specifically analyzed horizontal wells.

		Production		IP		Realized Breakeven Wellhead Price		Assumed Royalty	Est Capex	Est Opex	Depth
TRIBE	FORMATION	OIL	GAS	OIL	GAS	OIL	GAS	%	M\$	\$	ft
		mbo	mmcf	bpd	mcf	\$/bbl	\$/mcf				
Utes of Uintah & Ouray	Wasatch	163.4	314.0	137	130	38.44	-	16.67	1900	1000	9700
	Green River	95.6	285.4	45	52	34.60	-	16.67	1100	1000	7000
Jicarilla Apache	Gallup	106.7	665.2	270	641	44.90	-	16.67	4000	1100	TVD 5300 TD 10600
Ft. Berthold	Bakken	396.2	374.8	557	397	32.83	-	16.67	6000	Depr. Schedule	TVD 10400 TD 19200
Rocky Boys	Eagle	0	2180	0	10000	-	2.82	16.67	300	1000	1800
Wind River	Fort Union	2.5	2068	40	30000	-	2.56	16.67	1000	1000	6300
Crow Nation	Tensleep	33.6	0	220		66.20	-	16.67	245	1000	2100

Opportunity

- Many oil producers are (and have been for years) financially distressed
- Oil price below most company profitability minimum
- Oil producers are asking for royalty, tax, and production suspensions
- Many oil producers in the US predicted to file bankruptcy soon

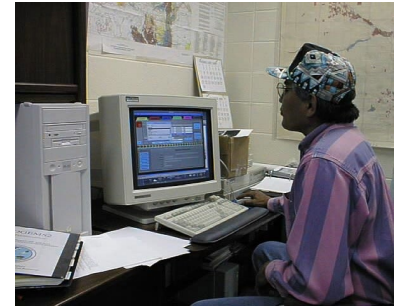
Activities - Advisement

- Technical advisement of any project dealing with oil and gas
- IMDA reviews
- Oil & gas business structures development
- Oil price forecasting
- Break-even pricing

Reservation	Operator Break-Even Wellhead (\$/BO)	Operator Abandonment (BO/Mo)	Tribal Break-Even Wellhead (\$/BO)	Tribal Abandonment (BO/Mo)
Ft. Berthold	\$32.83	102	\$20.96	63

Programs and Services

- **Technical Assistance**
 - Liaison between Tribes and Industry
 - Consultation on developing business models on reservations
 - Assist Tribes with negotiation of resource development agreements
 - Strategic and economic planning
- **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.
- **National Indian Oil and Gas Evaluation and Management System (NIOGEMS)**
 - NIOGEMS is a map-oriented computer application for managing reservation oil and gas lease, well, production, and other energy/mineral resource data.





Contact Information

Stephen Manydeeds
Division Chief

720-407-0600
Stephen.manydeeds@bia.gov

Winter Jojola-Talburt
Deputy Division Chief

720-407-0668
winter.jojola-talburt@bia.gov

