The Importance of Revenue from Federal Energy Resources

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National energy markets have changed

- Moderate oil and natural gas prices and increasing onshore production.
- Our overall need for imported oil has declined; the majority of imports are heavier crudes.
- Coal use is expected to continue its decline.
Growth of Oil Production is on Private Lands

U.S. Crude Oil Production

Bbl/day


Federal Onshore  Federal Offshore  Other U.S.
Natural Gas Production is Declining on Public Lands
Federal Lands Fossil Fuel Percentage (in Trillion Btu)

*Federal lands includes both onshore and offshore submerged lands. EIA.gov 2003-14 & ONRR.gov 2015+*
Informing Federal Energy Resource Policies in an Era of Abundance

• Statutory Policy Levers
  – Taxes
  – Subsidies (tax expenditures)
  – Other mandates

• Department of the Interior (Public Lands)
  – Lease economic terms
  – Access to new acreage
  – Regulations
Era of Abundance

What is Important and Why?

Importance of fossil fuel energy:
- Energy Security?
- Economic Growth?
- Revenues?

Renewable Energy?
Benefits of Energy from Public Lands

Benefits extend far beyond the consumption of energy. These include:

- **Reducing dependence** on imported energy which increases the balance of payments and energy security
- **Contributes to the economy** for GDP, employment, and public revenues
- **Revenue sharing programs** with States & LWCF, NHPF, *Proposed* NPS Public Lands Restoration Fund (PLRF)
Energy Security

Net Domestic Energy Imports

Billion $, nominal


Net Energy Imports (X-electricity) Percent of Trade Deficit (Goods)

BEA Table 2.1: June 20, 2018
Energy Expenditures
(Percent of GDP)

Source: U.S. Energy Information Administration, Monthly Energy Review and State Energy Data System
Jobs & Economic Growth from Energy on Public Lands

• **Jobs** include direct, indirect and induced jobs.

• **Economic Output** is the total estimated value of production of goods and services supported by energy production on public lands.

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<thead>
<tr>
<th>Year</th>
<th>Jobs</th>
<th>Economic Output</th>
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<tbody>
<tr>
<td>2015</td>
<td>780,000</td>
<td>$166B</td>
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<tr>
<td>2016</td>
<td>639,000</td>
<td>$133B</td>
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<tr>
<td>2017</td>
<td>676,000</td>
<td>$134B</td>
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*Estimates from DOI Economic Contributions Report fiscal years 2015 - 2017*
Energy Revenues From Public Lands

Federal Leasing Revenues

*ONRR.gov (Leasing revenues include bonus bids, rentals and royalties)
Future Revenue from Public Lands

• Existing Areas
  – New Mexico Permian
  – Gulf of Mexico

• New Onshore Areas
  – Alaska

• New Offshore Areas
  –?
Alaska – The Last Frontier

National Petroleum Reserve Alaska & ANWR – 1002 Area

• CBO scored the opening to generate $2.18B from bonus bids over ten years
  – $1.09B Treasury, $1.09B State of Alaska

Arctic Offshore (Chukchi & Beaufort Seas)

• Royalties at least a decade away if leased, explored and developed
ANWR
Liquids forecast for the ANS Basin (credit to IHS Markit)

- **Producing Projects**: Willow, Point Thomson
- **Sanctioned**
- **Other Unsanctioned Total**: Qugruk, YTF- West & Central, YTF- ANWR 1002

Estimated minimum pipeline throughput (200,000–250,000 b/d)
OCS Areas: Arctic, EGOM, So. CA & Mid-Atlantic

Provide the greatest opportunity for production and ultimate revenues.
Oil and Gas Leasing Revenues (10-vrs)

Leasing revenues include bonus bids, rentals and royalties.
Renewable Energy on Public Lands

- **Hydroelectric** dam upgrades, dams removed
- **Geothermal** still seeing occasional projects.
- **Wind**: onshore uneven, offshore the next frontier.
- **Solar** in Southwest

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<tbody>
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<td>Hydroelectric</td>
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<td>Net generation (million MWh)</td>
<td>39.5</td>
<td>35.8</td>
<td>48.6</td>
<td>47.5</td>
<td>39.8</td>
<td>38.0</td>
<td>36.1</td>
<td>36.7</td>
<td>43.9</td>
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<td>Geothermal</td>
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<td>New approved capacity (MW)</td>
<td>67.5</td>
<td>30</td>
<td>312</td>
<td>70</td>
<td>110</td>
<td>0</td>
<td>0</td>
<td>48</td>
<td>0</td>
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<tr>
<td>Wind</td>
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<td>New approved capacity (MW)</td>
<td>4</td>
<td>150</td>
<td>654</td>
<td>1815</td>
<td>826</td>
<td>0</td>
<td>0</td>
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<td>Solar</td>
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<td>New approved capacity (MW)</td>
<td>0</td>
<td>3,662</td>
<td>850</td>
<td>0</td>
<td>1,000</td>
<td>768</td>
<td>492</td>
<td>287</td>
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*DOI Economic Contributions Report fiscal year 2017*
Era of Abundance
What is Important and Why?

Importance of fossil fuel energy from Public Lands:

**Energy Security**
- Energy production from public lands will continue to contribute, but grow less than private lands.
- New areas for leasing may contribute long term

**Economic Growth**
- GDP & Jobs – maintain and grow
- New areas would provide high paying jobs

**Revenues**
- Fund favored causes (LWCF, NHPF, PLRF)
- New areas would provide new shared revenues for states (AK, etc.)

**Renewable Energy (?)**