



# Governor's Office of Energy Development

*WRP Energy Committee Webinar on State  
Energy Perspectives – Utah*

***July 29, 2015***

*Rob Simmons, Esq.*

*Energy Policy & Law Manager*



# Background on OED

- *Governor's Office of Energy Development (OED)*
  - *Serves as the “primary resource for advancing energy and mineral development in the state” through a variety of means including incentives, works to implement the state’s energy policy, advances the Governor’s goals and objectives in this area, and engages in energy and mineral education and outreach to K-12 and the broader public, including workforce development and research initiatives. (63M-4-401)*

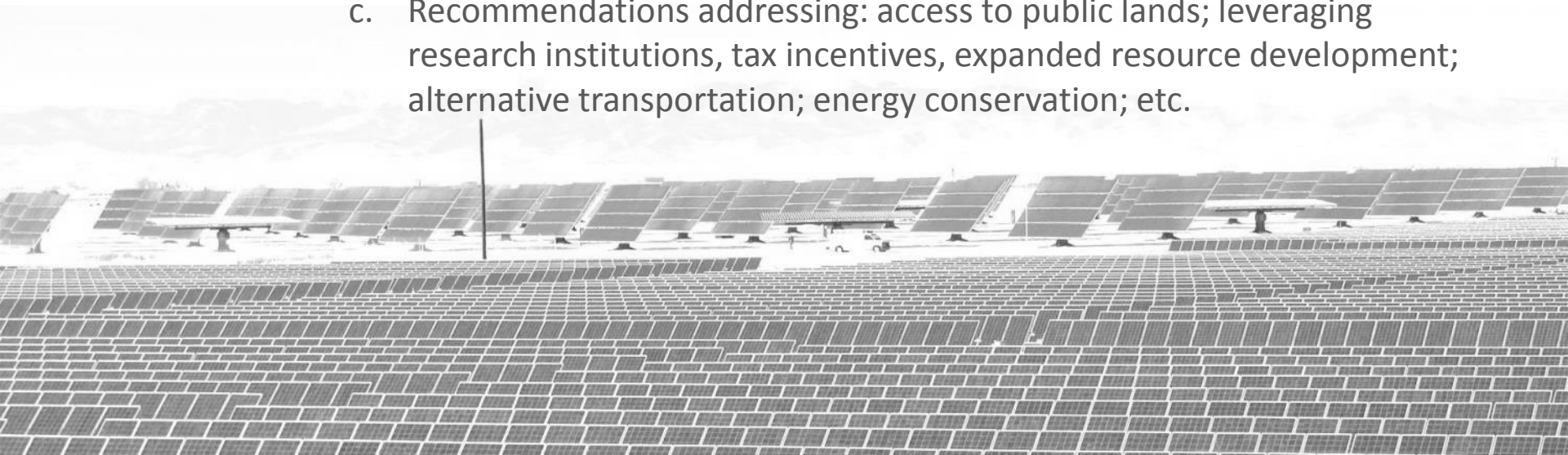
## ***Energy is one of Utah's Four Cornerstones***

### **1) Governor Herbert's Four Cornerstone's of Economic Prosperity**

- a. Education
- b. Energy**
- c. Jobs
- d. Self-Determination

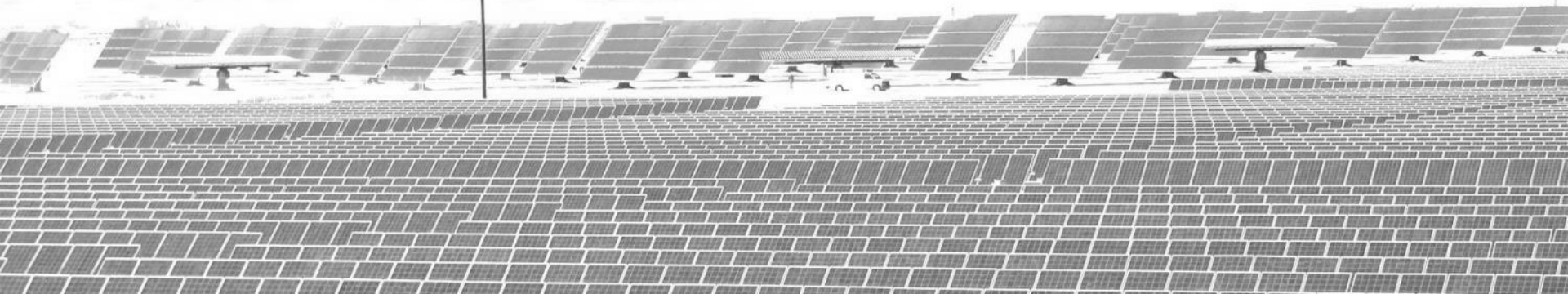
### **2) Governor Herbert's 10-Year Strategic Energy Plan**

- a. Objective #1: Advocate responsible energy resource development
- b. Objective #2: Aggressively pursue technology innovations in energy efficiency and development
- c. Recommendations addressing: access to public lands; leveraging research institutions, tax incentives, expanded resource development; alternative transportation; energy conservation; etc.



## ***UC 63M-4-301: State Energy Policy***

- 1) It is the policy of the state that Utah have adequate, reliable, affordable, sustainable, and clean energy resources
- 2) **Utah will promote the development of:**
  - a. nonrenewable energy resources, including natural gas, coal, oil, oil shale, and tar sands;
  - b. renewable energy resources**, including geothermal, **solar, wind**, biomass, biodiesel, hydroelectric, and ethanol; and
  - c. Utah will promote responsible nuclear power generation;
- 3) Utah will promote the development of resources and infrastructure sufficient to meet the state's growing demand [and reduce] dependence on international energy sources
- 4) Utah will allow market forces to drive prudent use of energy resources, although incentives and other methods may be used to ensure the state's optimal development and use of energy resources in the short- and long-term
- 5) Utah will pursue energy conservation, energy efficiency, and environmental quality



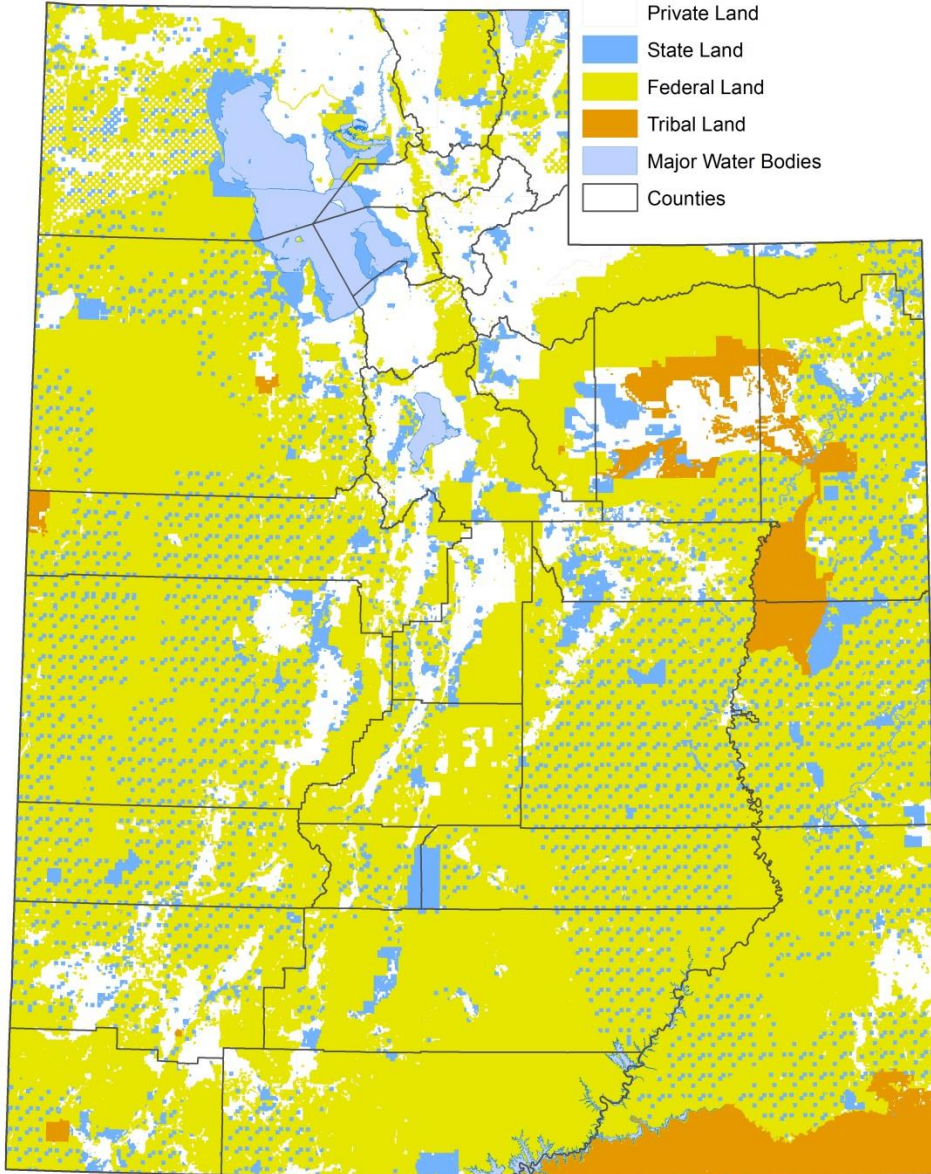




# Land Ownership

## Legend

- Private Land
- State Land
- Federal Land
- Tribal Land
- Major Water Bodies
- Counties



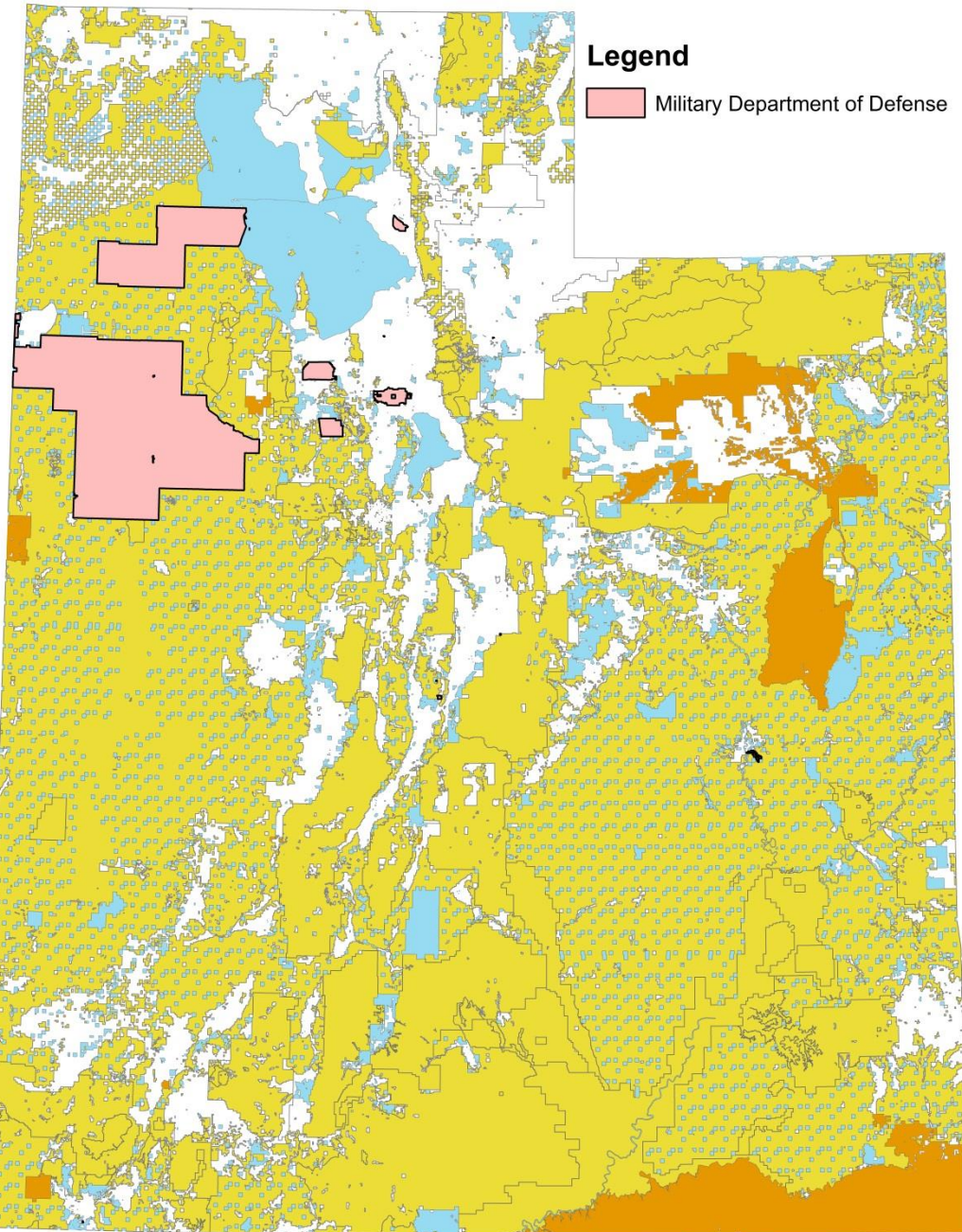
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# Land Ownership

- **Federal Land: 67%**
- **Tribal Land: 5%**
- **State & Private Land: 28%**



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# Military





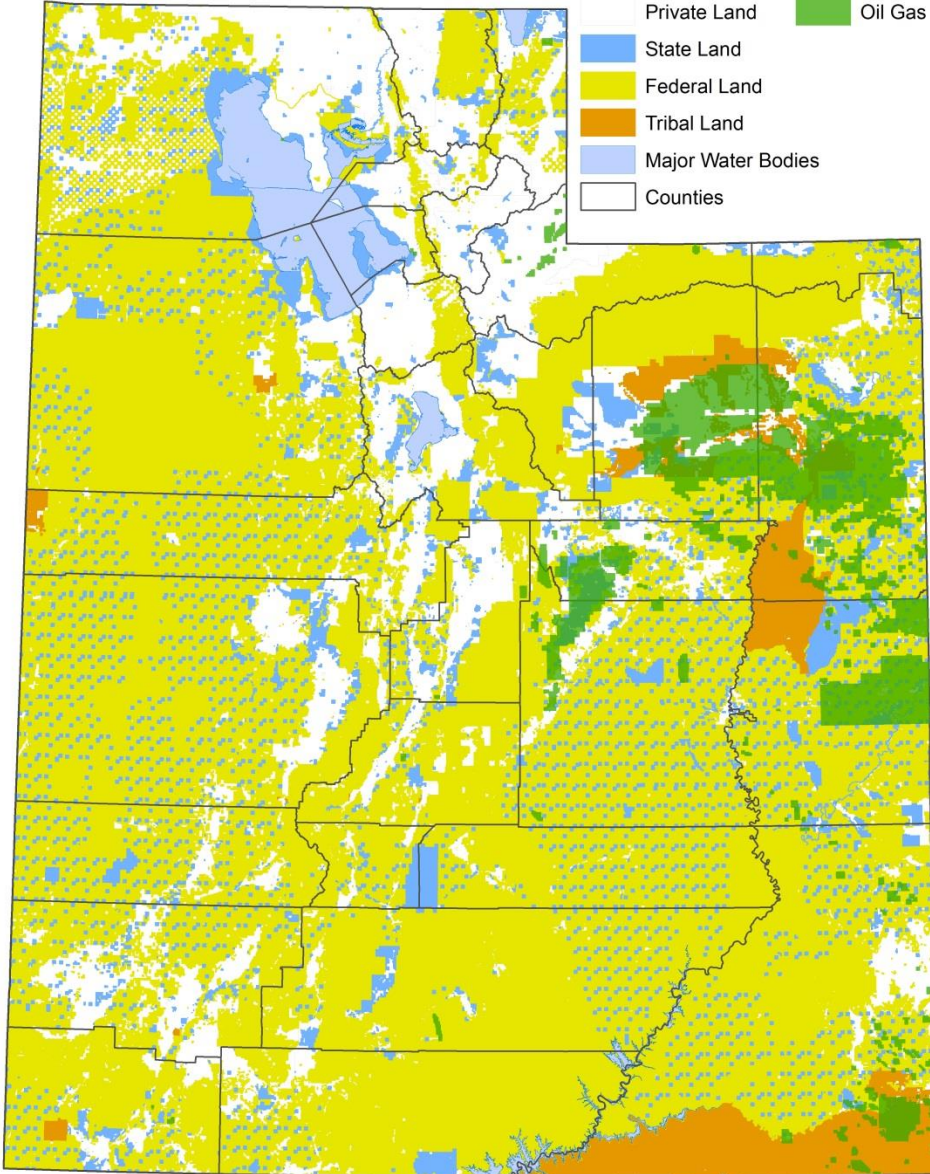
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## Energy Resource

- Oil Gas Fields

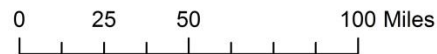


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# Oil & Gas Fields

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 Data Source: AGRC





# Land Ownership

## Legend

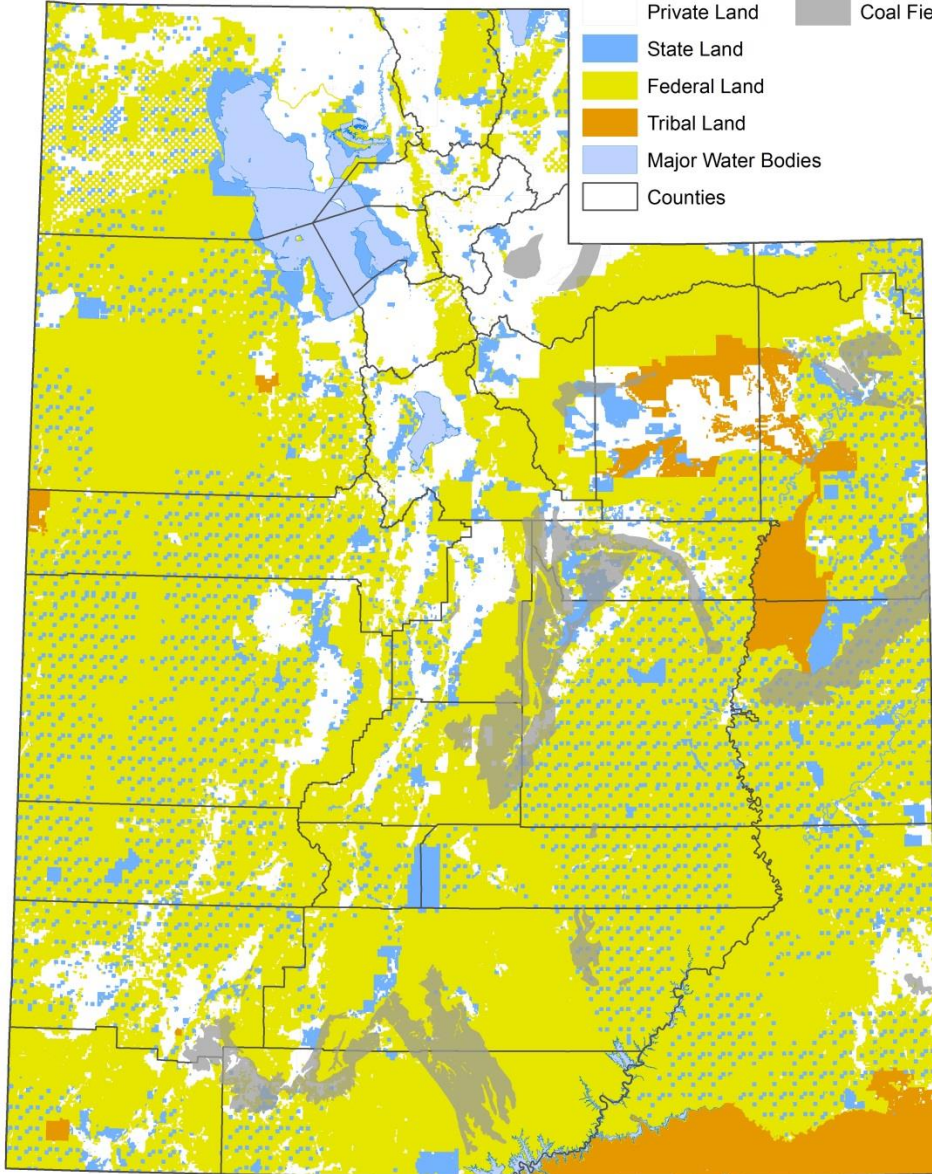
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## Energy Resource

- Coal Fields

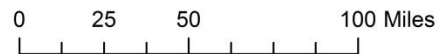


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# Coal Fields

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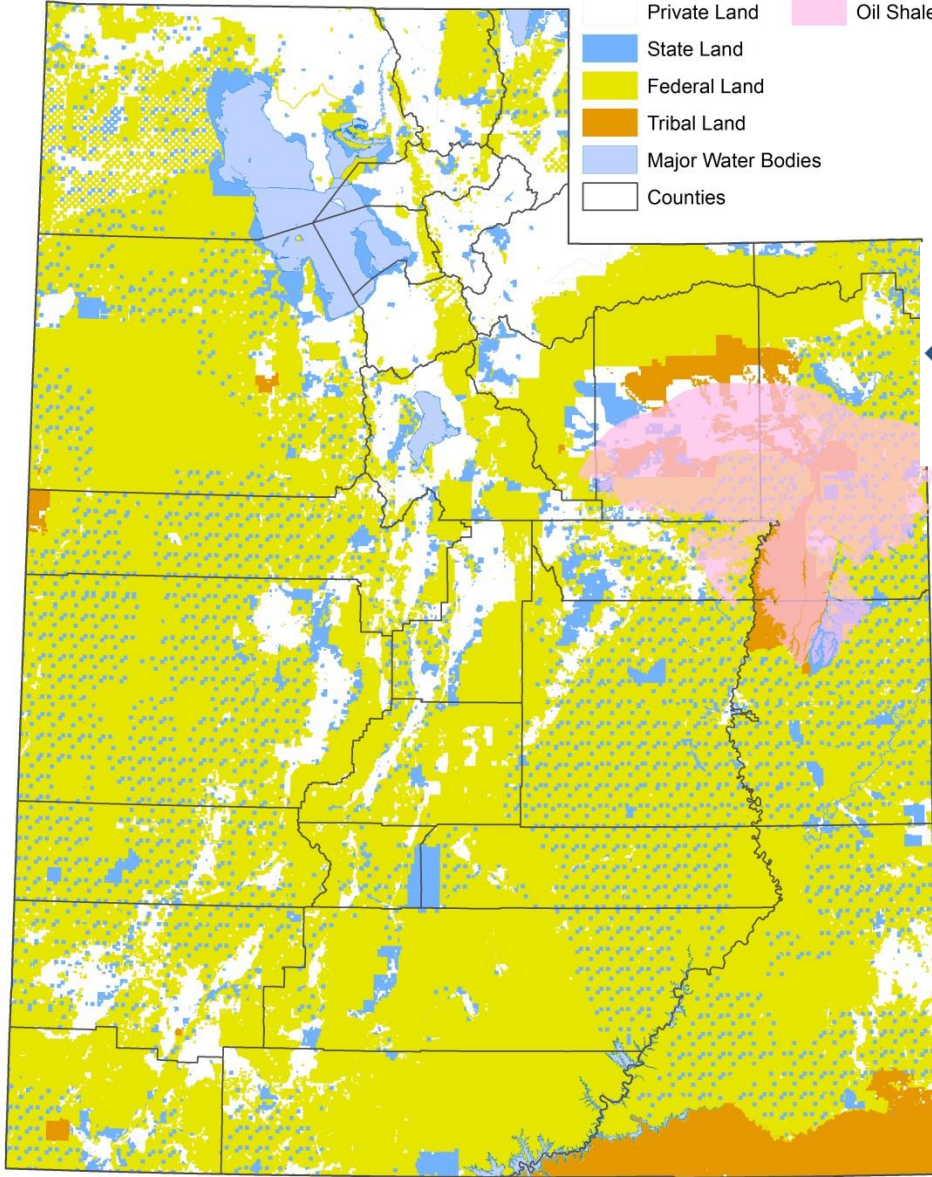
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## Energy Resource

- Oil Shale



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# Oil Shale Resource

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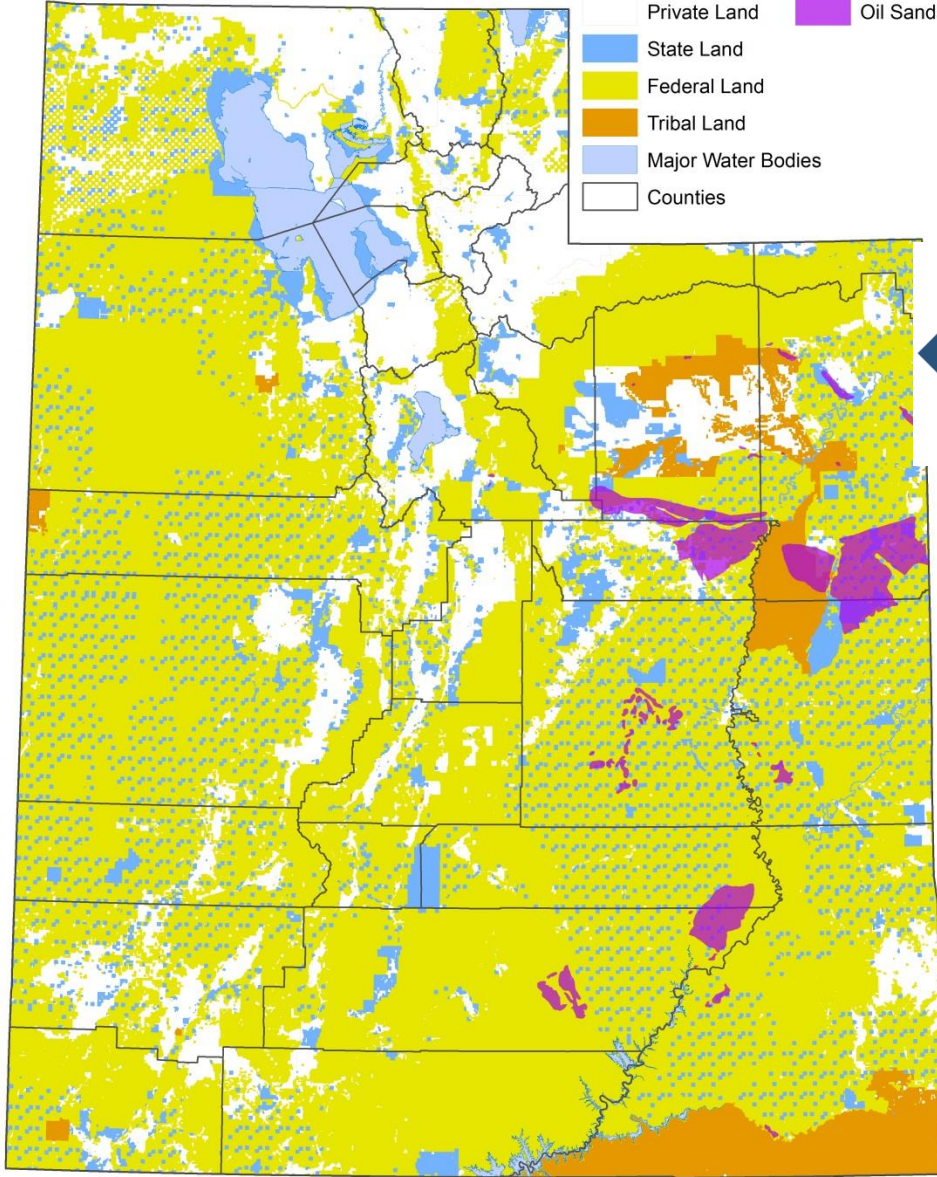
# Land Ownership

## Legend

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## Energy Resource

- Oil Sands

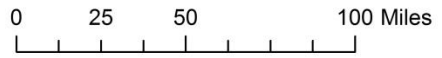


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# Oil Sands Resource

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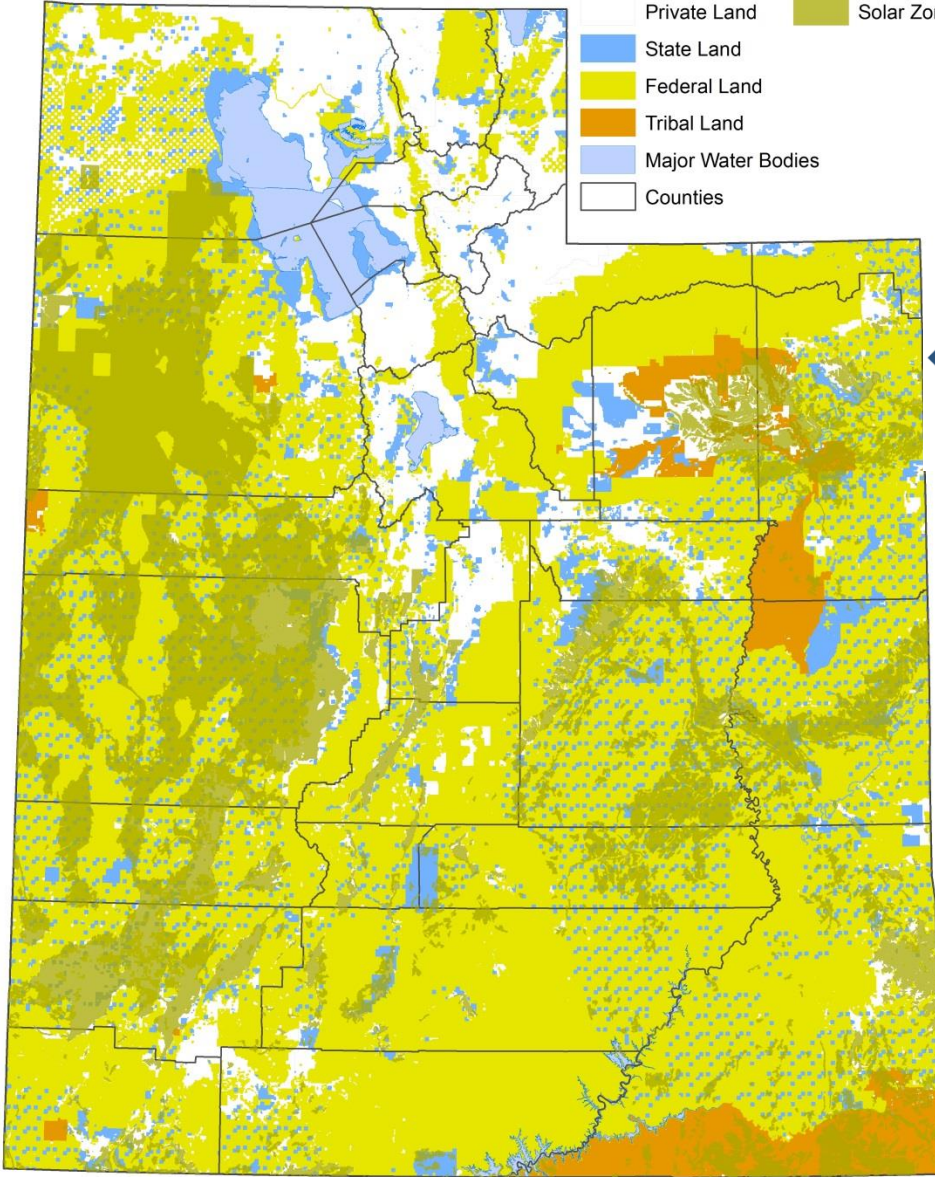
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## Energy Resource

- Solar Zones

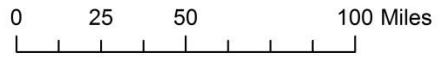


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# Solar Zones

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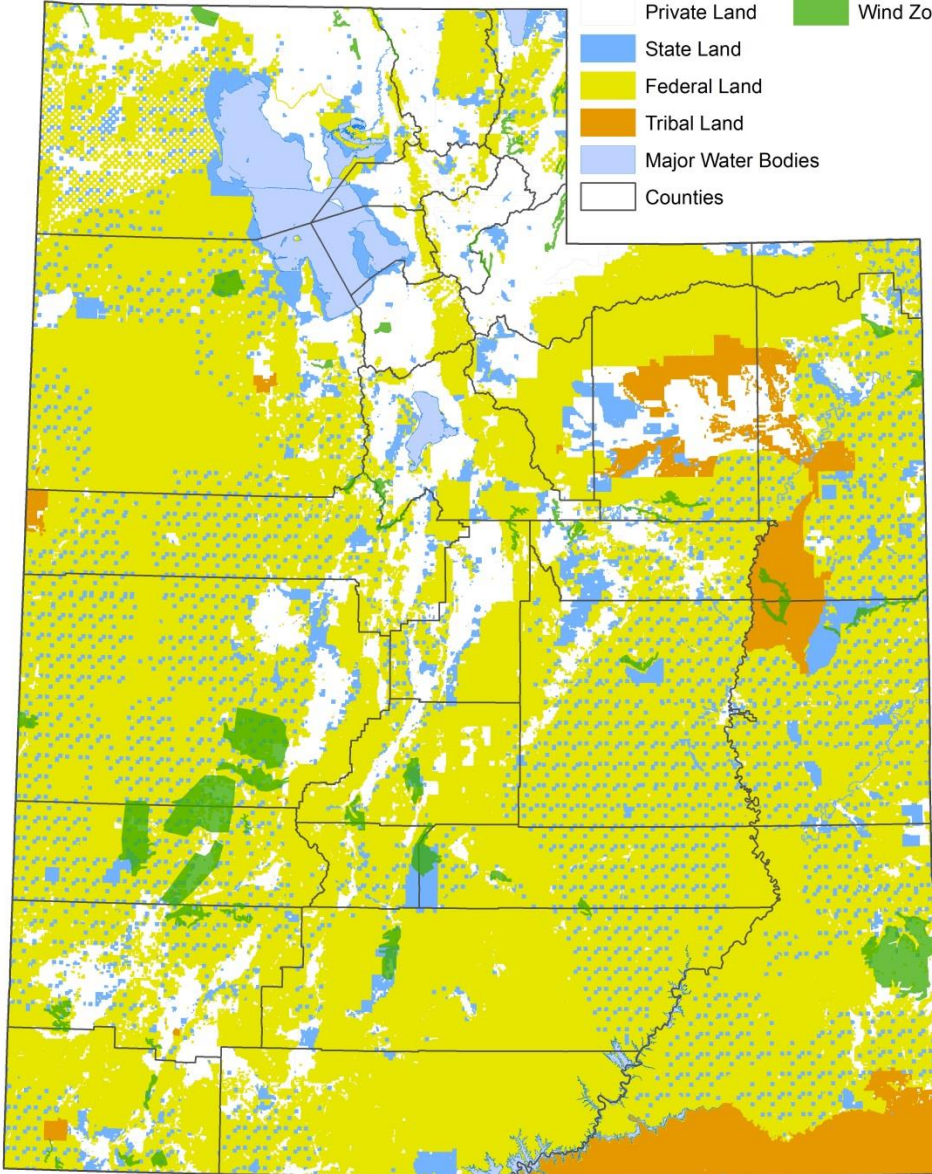
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## Energy Resource

- Wind Zones

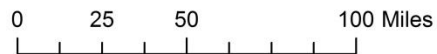


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# Wind Zones

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Data Source: AGRC





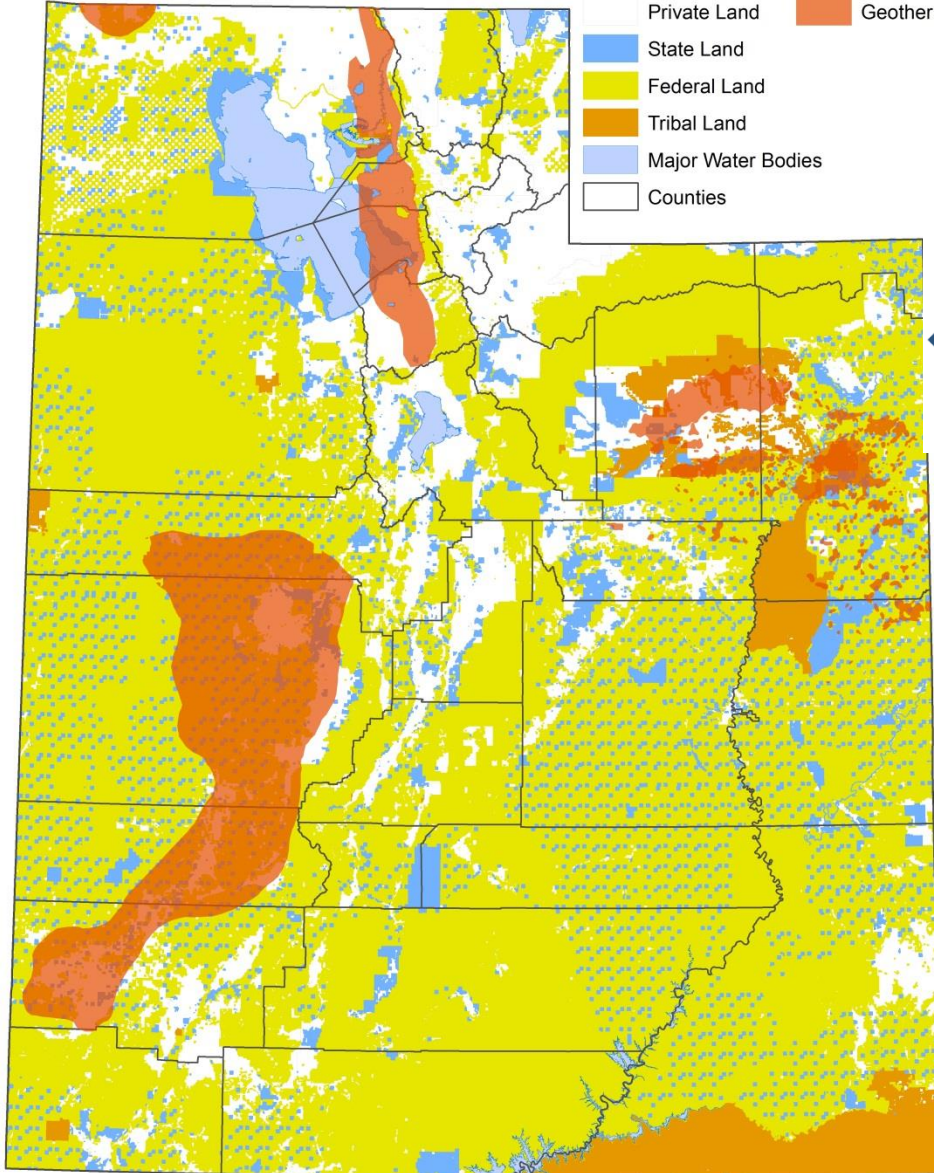
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## Energy Resource

- Geothermal Zones

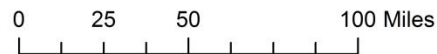


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# Geothermal Zones

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# Renewable Energy in Utah

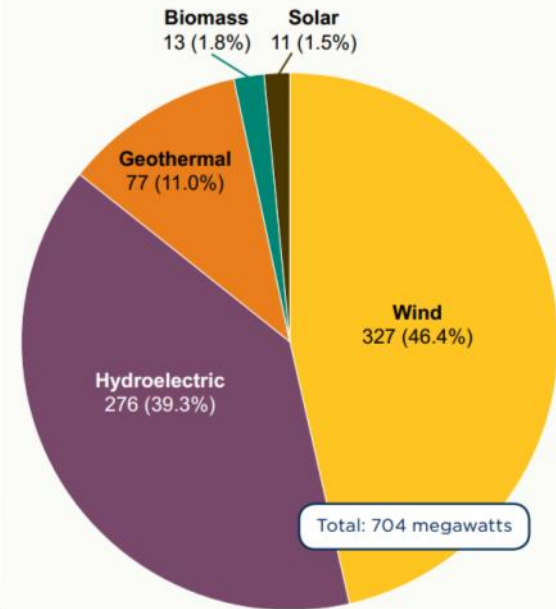


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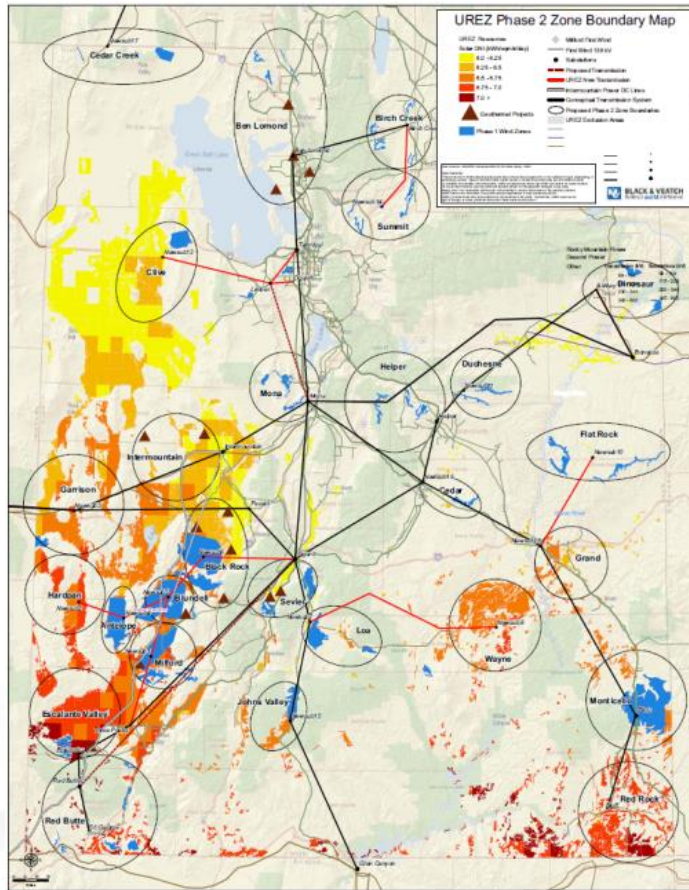
- Utah currently has approximately 700 MWs of nameplate renewable energy capacity
  - **Wind: 327 MWs**, 2 wind farms
  - **Hydro: 276 MWs**, 63 power plants
  - **Geothermal: 77 MWs**, 3 power plants
  - **Solar: 10-20MWs**, distributed generation
  - **Biomass: ~15MWs**, mostly landfill or agricultural biogas

Utah's Total (All Sectors) Renewable Nameplate Capacity by Energy Source, 2012  
Megawatts (Percent of total)





# Utah's Renewable Energy Potential

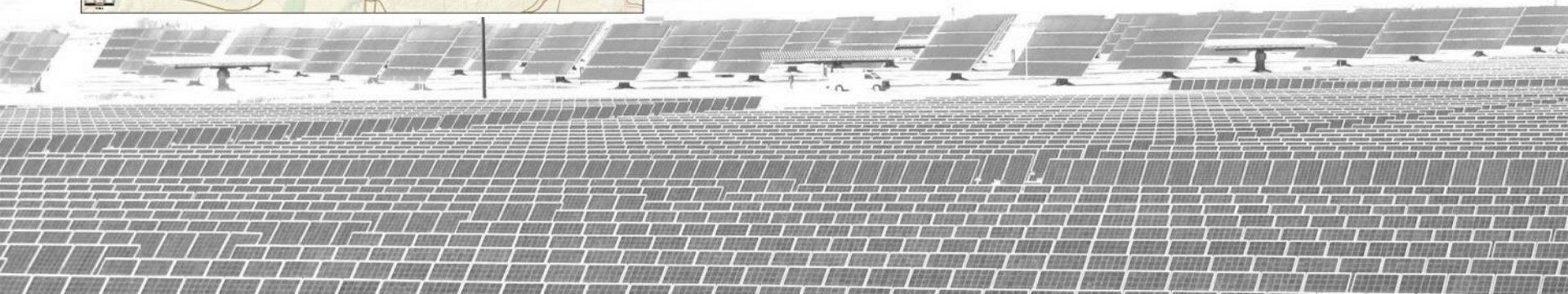


**Geothermal**  
437 MW

**Solar**  
14,700 MW

**Wind**  
8,900 MW

- Approximately 800 Megawatts of new solar currently under development





# Update on the State of Energy Development in Utah: Major Trends

- Downturn in oil price having an impact in the Uinta Basin
  - 27 drill rigs operating in the Basin 12 months ago, 7 operating in the Basin today – 75% decline.
- Coal Production Status, Export Opportunities
  - Avg. annual production from '01-'04 was 24,000 tons; Avg. annual production from '11-'14 was 18,000 tons – 25% decline.
  - California & Mexico ports likely to offer prospect of increased production.
- Solar development picking up pace in Iron, Beaver, Millard
  - Approximately 800 Megawatts of solar being developed in these three counties by just three companies
  - Another 60 MWs of wind being developed in San Juan Cty.
  - Once activity is complete, UT's nameplate capacity will have grown from 7,90 MWs to 8,70 MWs.





# State of Energy Development in Utah: Federal Regulatory Issues

- EPA Regulations:
  - *Proposed regulation of CO2 emissions from new, modified & existing power plants*
  - *Proposed standard for ozone*
  - *Mercury & air toxics standards (MATS) for power plants*
  - *Regional haze standards*
  - *EPA's & Army Corp of Engineer's "Waters of the United States" rule*
  - *Regulation of methane emissions from oil & gas operations*
- Bureau of Land Management Regulations
  - *Hydraulic fracturing rule*
  - *Sage Grouse land use plan amendments & pending decision on ESA listing*
  - *Master leasing plans*
- Other: *CEQ guidance for including greenhouse gas emission in NEPA reviews*





# Prioritizing Infrastructure

- *It is clear new infrastructure, including transmission, is needed in Utah to most efficiently develop Utah's abundant energy resources, deliver energy to load centers, and support efficient development of generation options, including renewable*
- **Recommendation:** *State and county planning efforts should identify optimal paths for energy infrastructure corridors and aim to preserve them for such use. HB 323 planning provides an opportunity for this type of planning, which could take into account developable resources, etc.*





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# Transmission Projects: Permitting

## The Transwest Express line (Anschutz project)

- A 600 kV DC line proposed to move renewable power from WY to AZ, NV and CA.
- With input from Utah and also as the result of the proposed energy storage project near Delta, TWE's plan includes a DC terminus near Delta to take power but not deliver energy at that site.
- The TWE line can deliver energy to UT, as the IPP line is tied back to the PacifiCorp system at Mona through 345 kV lines.
- This line has been in permitting for close to 8 years, with the final EIS now complete. A decision is expected fall 2015.



# Tools for Better Engagement with Military on Resource Development & Infrastructure Projects

## Military Installation Energy Coalition (MIEC)

- The purpose of MIEC is to facilitate discussion with Utah's military assets regarding energy security issues, advance energy goals and support DoD's energy efficiency and renewable energy goals. The MIEC was started in 2010 to fill a gap in coordination and meets quarterly. MIEC members include: Hill AFB, Dugway Proving Ground, Tooele Army Depot, Camp Williams, State of Utah and other stakeholders.

## Public Lands Initiative

- Pursue opportunities to exchange lands with the federal government

## MOU with the BLM

- Signed on December 17, 2014 to advance responsible energy development in Utah
- Can serve as a possible model for agreements with the military





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# Questions?

