



Public Utilities Energy, Infrastructure and Technology Interim Committee

June 21, 2017

**Long-Term Planning: Governor's Office of
Energy Development**

Dr. Laura Nelson, Energy Advisor

The Governor's Office of Energy Development (OED)

- OED's role per 63M-4-401
 - A) Serve as resource for advancing energy and mineral development in the state; B) implement state energy policy and governor's energy and mineral goals; C) advance energy education, outreach, and research; D) promote energy and mineral development workforce initiatives
- State Energy Policy per 63M-4-301
 - Utah shall have/promote adequate, reliable, affordable, sustainable and clean energy resources;
 - Will promote all-of-the-above development;
 - Will be conservative in use of incentives;
 - Will promote infrastructure deployment, conservation, education

Vision

Utahns envision being self-sufficient with energy that is affordable, reliable, and clean. Diverse energy source options improve our environment and our health while keeping energy costs relatively low and help Utahns maintain their quality of life.



GOVERNOR'S OFFICE OF
ENERGY DEVELOPMENT
Advancing Utah's Energy Future



OED Top 3 Goals (Long Term Planning)

- ***Advancing sound energy policy*** that promotes affordable, reliable and abundant energy that supports state economic goals and mitigates unnecessary regulatory constraints to responsible energy development
- **Seeking economic opportunities** through innovation and business development in the energy and minerals sector
- **Advancing education and workforce development** within the energy and minerals sectors

Issues Impacting Goals

- Local Considerations
- Regional Issues
- Federal Policies

Local Considerations

- Impacts on energy producing counties
- Air quality considerations
 - Wasatch Front
 - Uinta Basin
- Land ownership and management
- Community choice initiatives

Regional Considerations



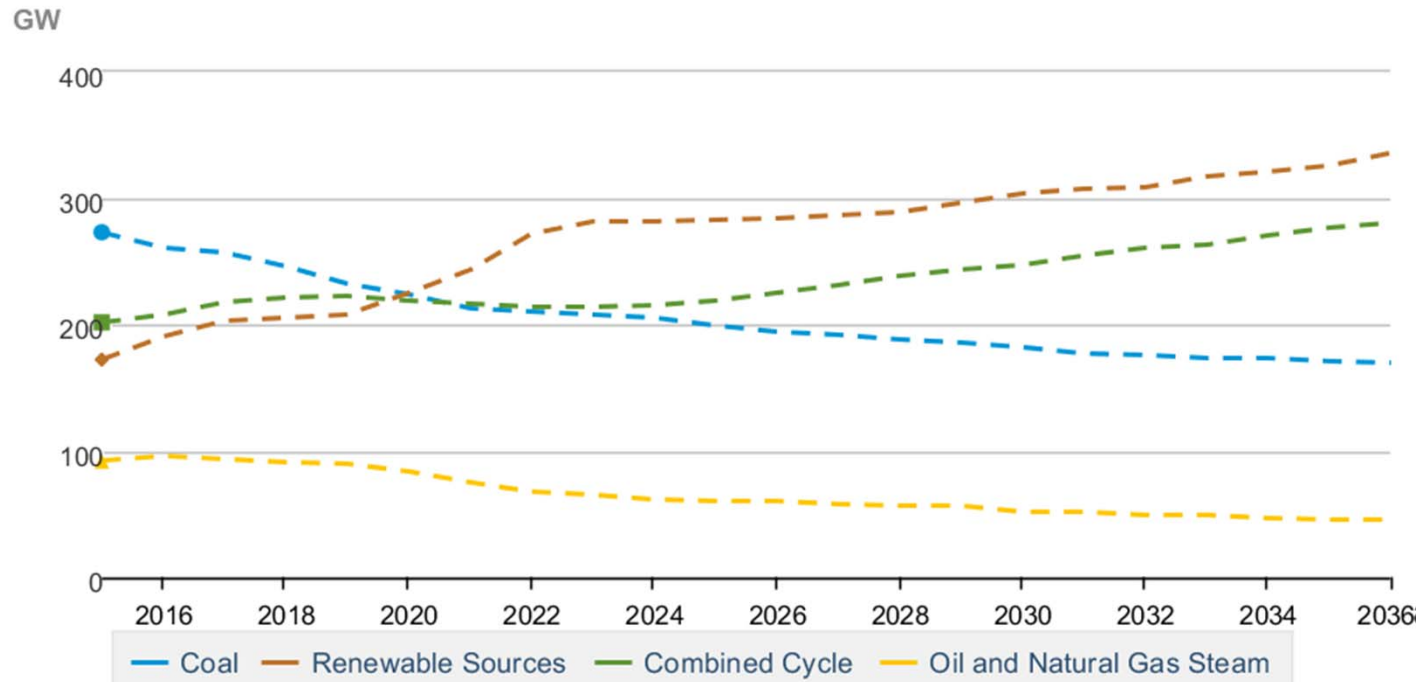
- Plant retirements—Coal and Nuclear
- Substantial growth in DER
- Regional Transmission Matters
 - Energy Imbalance Market
 - CA-Independent System Operator
 - Mountain West Transmission Group
- Emerging Storage Technologies
- Electric Vehicles

Nationwide Coal Retirements



Electricity Capacity: Electric Power Sector: Power Only

Case: Reference case



 Source: U.S. Energy Information Administration

UTAH COAL RETIREMENTS



- **Utah**
 - **Carbon (189 MW)** retired in 2015
 - **Intermountain Power Plant (1,800 MW)** announced retirements in 2025
 - **Huntington (1,037 MW)** to be retired after 2036
 - **Hunter (1,577 MW)** expected end of life 2042

Federal Matters



- WOTUS—rule repealed and anticipate a new rule
 - States have been asked to provide input
- Regional Haze
- Possible Ozone rule
- Species (e.g. sage grouse)
- Policies impacting resource access
- Infrastructure investments—opportunities, timing and location

Short Term Objectives



- Track and report on Utah energy data
- Promote energy/minerals diversity and resiliency through innovation
- Support energy self-sufficiency
 - Including increasing EE, expanding fuel options, and delivering energy services
- Maintain/Grow strong economies in energy producing communities
 - Including advancing energy export options
- Expand energy/minerals education
- Advise on energy policy

Innovation Fueling Our Future

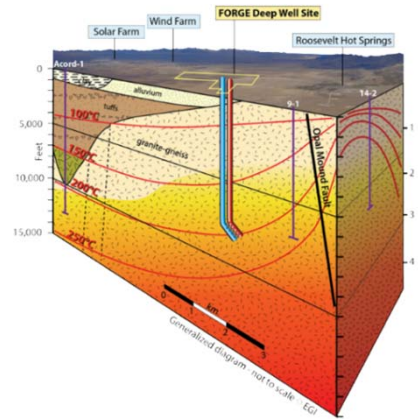


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Coal Combustion & Gasification



Geothermal FORGE Project



New Flyer Electric Bus



Building Efficiency



SES: Carbon Capture



Smart Window Tinting





Questions

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ADDITIONAL INFORMATION:
Incentives Programs

High Cost Infrastructure

Tax Credit Program: *How it Works*

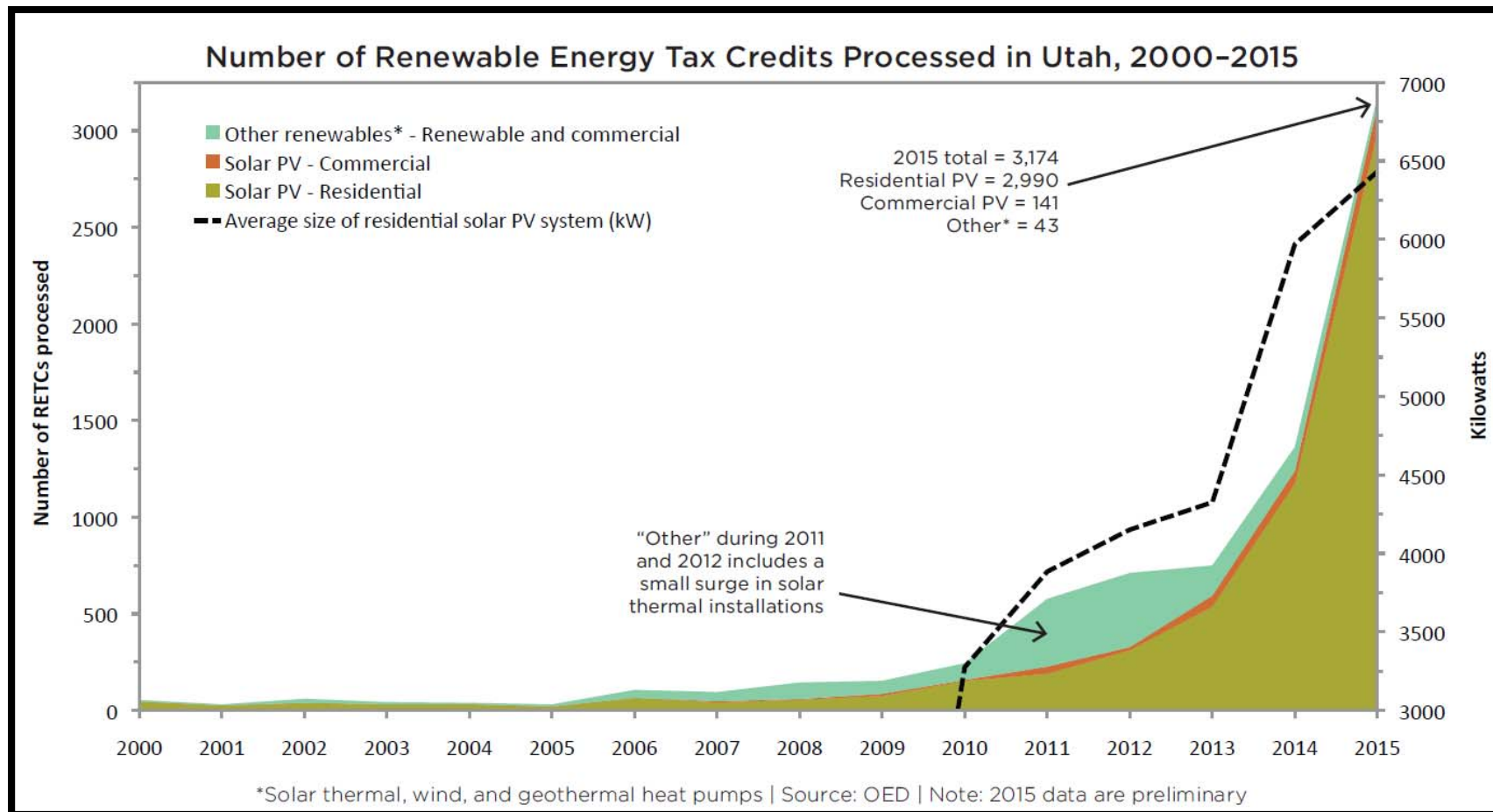


- Standard eligibility
 - Project types: New or expanding industrial, manufacturing, mining & agricultural projects for which infrastructure costs represent >10% of capital expenditure
 - Qualifying infrastructure: road, rail, transmission, pipeline, water line
 - Tax Credits: 30% of newly generated state revenue each year for 20 years or until 50% of infrastructure investments are recovered
- Refinery/Tier 3 eligibility
 - Project types: Fuel standards compliance projects that transition fuel products to Tier 3
 - Qualifying infrastructure: Equipment necessary to achieve Tier 3
 - Tax Credits: Up to 30% of state revenue each year for 20 years or until 30% of the infrastructure investments are recovered



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Renewable Energy Tax Credits



Vanden Berg, Michael, "Utah's Energy Landscape, 4th ed.", UGS, 2016.

Renewable Energy Systems Tax Credit

TAX YEAR	INVESTMENT	TAX CREDITS ISSUED	TAX CREDIT VALUE
2013	\$ 20,510,831.26	813	\$ 1,897,013.97
2014	\$ 43,840,748.30	1,484	\$ 3,769,456.05
2015	\$ 126,642,061.11	3,413	\$ 8,145,444.43
2016	\$ 222,790,659.44	7,089	\$ 15,557,909.24
2017 (to 6/5/17)	\$ 16,095,855.00	562	\$ 1,125,074.50
TOTAL	<u>\$ 429,880,155.11</u>	13,361	<u>\$ 30,494,898.19</u>

Production Tax Credit

- Renewable systems larger than 660 kW
- 0.35 cents/kWh over 48 months of operation
- Many new solar PV systems came online in 2015 and 2016
- In light of increased number of applications...
 - OED processing temporarily paused
 - Reviewing procedures
 - Will resume processing tax credits in late summer

PTC Projects

