

# Governor's Energy Advisor & Office of Energy Development

*FY15 Annual Report to the Natural Resources,  
Agriculture & Environment Interim Committee*

*July 15, 2015*

*Cody B. Stewart, Policy Director & Energy Advisor*

*Dr. Laura Nelson, Executive Director*

# Background on Energy Advisor & OED

- *Governor's Energy Advisor*
  - *Advise the Governor on energy matters, promote responsible energy development and conservation, coordinate state agencies to ensure consistency with state energy policy, engage as appropriate in regulatory matters, serve as a resource on energy information to the public, etc. (63M-4-201)*
- *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)*

# 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 7,900 MWs to 8,700 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*

# OED Updates: Administrative & Staffing

- *New Executive Director*
  - *Dr. Nelson was appointed to lead the OED team in July of 2014*
- *Other New Staff*
  - *Stuart Clason, Conventional Energy; Jennifer Gardner, Federal Programs; Blake Thomas, Alternative Transportation; Dianna Gethers, Building Energy Efficiency; Teresa Pinkal, Revolving Loan Fund*
- *Purview Expanded to Include Minerals*
  - *Senator Hinkins' SB 280 provides a series of updates to the Utah Energy Act, including the expansion of OED's purview to include non-energy minerals.*
  - *OED looks forward to representing these industries in collaboration with the Utah Mining Association and other key partners.*

# OED Updates: Activities & Accomplishments

- Planning & Policy
  - *SB 280, Utah Energy Act Updates*
  - *Leadership on Clean Power Plan (111.d) comments and modeling efforts*
  - *Formation of the Energy Advisory Council*
  - *Formation of the Combined Heat & Power Working Group*
  - *Providing support for the efforts of the Six Counties Infrastructure Coalition and for HB 323 planning efforts*



# OED Updates: Activities & Accomplishments

- *Direct Engagement & Industry Assistance*
  - *SB 216, High Cost Infrastructure Tax Credit Program*
  - *Authorization of tax credits under the Alternative Energy Development Incentive*
  - *Installation of multiple electric vehicle charging stations, launch of Utah Drives Electric website: [utahdriveselectric.org](http://utahdriveselectric.org)*
  - *Administration of new Commercial Property Assessed Clean Energy (C-PACE) program*
  - *Development of programs focused on agricultural and water efficiency*



## Charging Stations in Utah



Use the map below to identify the charging stations that best fit your needs in the neighborhoods where you live and work. Click on the various station "pins" for detailed facility information, including pricing, charge-times, etc.

As you search, be mindful that unlike gasoline filling stations there is significant variation among electric charging stations. EV charging stations are classified into three levels according to output voltage and the rate at which they can charge a battery. **Level 1** charging uses a standard 120V outlet and takes 11 to 20 hours to charge a battery. **Level 2** charging is done at less than or equal to 240 volts and can power up the battery in 3 to 8 hours. **Level 3** charging uses a power output of greater than 14.4 kW and can charge a battery in approximately 30 minutes.



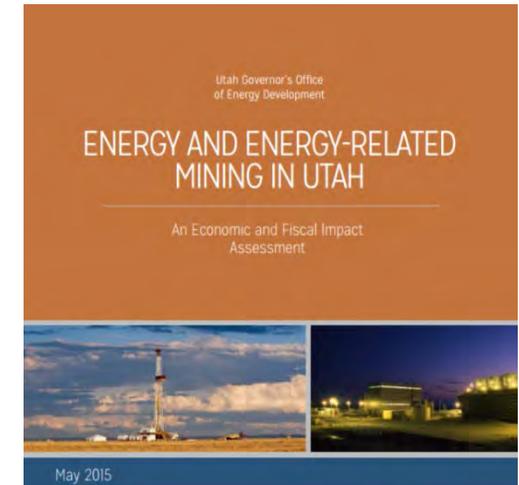
# OED Updates: Activities & Accomplishments

- *Outreach & Education*
  - *Governor's Utah Energy Development Summit featuring CEOs of Tesoro, the American Petroleum Institute, and many other industry leaders*
  - *Launched the "Energy Success Stories" video project*
  - *Formed partnership with Salt Lake Chamber to host regular two-day energy tours around the state*
  - *Partnered to host the Water-Energy Nexus Summit and the Idle-Free Conference*
  - *Release of energy sector economic impact assessment*



# Update on the State of Energy Development in Utah: New Study

- *New OED Study on Utah's Energy Economy*
  - *"Energy & Energy-Related Mining in Utah: An Economic & Fiscal Impact Assessment"*
  - *\$20.9 Billion impact, meaning energy development drives nearly 15% of the state's economy (\$15.5 Billion in direct economic impact)*
  - *\$655 Million in revenue to state and local governments*
- *Study's Findings on Resource Contributions:*
  - *Oil & Gas Downstream, \$7.2 Billion;*
  - *Oil and Gas Upstream, \$5.2 Billion;*
  - *Electricity Production/Transmission/Distribution, \$7 Billion;*
  - *Coal Production, \$887 Million;*
  - *Other, ~\$1 Billion*



APPLIED  
ANALYSIS



# 2015 Energy Summit



# OED & Advisor Priorities & Recommendations

- *Supporting Conventional Energy Production*
  - *Priority: Sustaining drilling activity to the extent possible through this current period of low oil prices; recognizing that Utah's production basin is typically hit first and hardest by such pricing.*
  - *Recommendation: Partner with industry for short-term opportunities to lower the cost of production with an eye to sustained activity through period of low pricing, while at the same time focusing on infrastructure solutions that may insulate Utah from future downturns.*



# OED & Advisor Priorities & Recommendations

- *Integrating Distributed Resources*
  - *Priority: Facilitating the deployment of distributed solar resources on homes and businesses in such a way as to maintain an integrated and healthy utility*
  - *Recommendation: Ideal to avoid legislation moving the needle one way or another in this arena, as economic regulation through the Public Service Commission is a better fit. Best approach here is to provide support as needed/requested for the PSC and DPU.*



# OED & Advisor Priorities & Recommendations

- *Prioritizing Infrastructure*
  - *OED Priority: SB 216, High Cost Infrastructure Tax Credits, will require tweaks in order for OED to implement efficiently and responsibly*
  - *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.*



# OED & Advisor Priorities & Recommendations

- *Further Diversifying Utah's Transportation Options*
  - *Priority: Reduction of tailpipe emissions and further diversification of transportation fuels to provide Utahns with greater choice at the pump.*
  - *Recommendation: Seek to align incentives with emissions reduction goals and to tier them appropriately, while at the same time ensuring new vehicle types pay their fair share for the utilization of Utah's roadways.*



# OED & Advisor Priorities & Recommendations

- *Prioritizing Energy Efficiency in New Construction*
  - *Priority: As we continue to expand our communities' footprints or to redevelop and increase density in existing urban areas to serve Utah's growing population, it's essential that we invest in efficiency at the outset when the greatest benefit can be realized at the cheapest cost.*
  - *Recommendation: The legislature should not move to pass HB 285 Third Substitute without first giving adoption of the 2015 code full procedural consideration.*
    - *A recent study commissioned by OED suggests that any costs borne in meeting the 2015 commercial energy code would be fully recovered through energy savings in less than a year; residential cost would be recovered through savings in ~7 years.*

# Questions?

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# Report on Infrastructure

*Public Utilities & Technology  
Interim Committee*

**July 15, 2015**

*Governor's Office of Energy Development (OED)*

Dr. Laura Nelson – *Executive Director, OED*



# Major Transmission Projects: Permitting



## The PacifiCorp Gateway West (GWW)

- GWW will move power from Glenrock, WY to Boise, ID.
- The path has been in permitting for about 8 years (applied in 2007).
- Currently, the portion of the project from Glenrock to American Falls, ID has been completed (ROD issued).
- A supplemental EIS has been required for the segment proposed to go through Morley Nelson birds of prey area conservation; this is expected to cause another two year delay, so a total permit time of 9 years for this 500kV AC line.

## The PacifiCorp Gateway South (GWS)

- GWS is a 500 kV AC line to take power from the Aeolus substation in WY to a new substation near Mona, Utah.
- GWS has also been in permitting for 7 years. The final EIS is expected in fall 2015 with a ROD issued by the end of the year.

***Both projects cover significant amounts of public land, making the permitting process quite complex.***

***Both projects will support moving renewable power from where it is produced most efficiently to the load centers.***

# 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.



# Transmission Projects: Proposed



## Zephyr/Pathfinder project (DATC project)

- 500 KV DC line to connect the Pathfinder Wind Project (WY), also through Delta, to deliver power to the market hub in the southwest US and to CA.
- In 2014 DATC announced a partnership with Magnum Energy and Dresser-Rand, in addition to Pathfinder, to deliver renewable energy in combination with UT energy storage to the southern CA market (*These partners presented to this Committee last year*).



# Transmission Projects: Proposed



## Moon Lake Electric Association

- The proposed line is for 138 kV transmission capacity in the Uinta Basin
  - To move power from Bonanza to Upalco, west of Roosevelt, to serve loads in both Uintah & Duchesne
  - The proposed line would cover approximately 80 miles, depending on load ultimately served.
- Capacity is critical to supporting forecasted load development for the oil and gas industry and maintaining the reliability of the electric system in the Basin.



# Proposed Transmission Projects: Summary



- All projects may not move forward completely as envisioned (e.g. due to common corridors, etc.)
- It is clear new transmission is needed in the West to most efficiently deliver energy to load centers, and support efficient development of renewable options
- New transmission can also provide more efficient options to meet changing federal regulations
- In some cases, transmission lines offer an option to more efficiently meet the requirements of Renewable Portfolio Standards (RPS)
  - Utah has renewable resources that may provide RPS options for other states but development is limited by available capacity

*Energy and transportation corridors are important assets/resources for providing long-term economic opportunities for Utah*

# Transmission Projects: Constructed



## The Sigurd to Red Butte line

- This is a 345 kV project to move 600 MW of capacity to meet expected load growth in southwestern Utah (e.g. St. George).
- It goes from Richfield to Washington, Co.
- The line was energized at the end of May.
- Permitting took about 5 years.



# Other Infrastructure



## Uinta Express Pipeline (Tesoro)

- The proposed common carrier heated pipeline was intended to move product from the Basin to the SLC refineries.
- Currently, the project is postponed indefinitely due to cost and volatile oil prices.

## Six County Infrastructure Coalition

- SCIC is hoping to facilitate a pipeline and/or rail project to move product from the Basin through high eastern Utah terrain to deliver product to new markets, possibly including the Gulf Coast.

*Pipeline and rail projects support long-term production of Utah's oil resources and can help to ease transportation bottlenecks, reduce truck traffic on Utah's roads and highways, and provide environmental solutions for transport to markets.*

# Prioritizing Infrastructure

## SB 216: High Cost Infrastructure Tax Credits

- Supports (1) new projects, (2) investment in cleaner fuel technology, and (3) new investments to expand or retain existing large projects.
- Administered by the Governor's Office of Energy Development (OED) and approved by the *Utah Energy Infrastructure Authority Board* ("the Board"),
- Post-performance tax incentive will provide non-refundable tax credits for state revenues generated from new infrastructure investment.
- *Implementation will require tweaks in order for OED to administer efficiently and responsibly*

## HB 323: Resource Management Planning by Local Governments

- 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



# High-Cost Infrastructure Incentive

- Sponsored by Sen. Okerlund and passed in the 2015 GS, **SB 216, High Cost Infrastructure Tax Credits**, was designed to encourage investment in infrastructure and lower-emitting transportation fuels that benefit Utah
  - *Development of Utah's energy & mineral resources often constrained physically & economically by lack of adequate infrastructure*
- Projects will qualify by demonstrating that the cost of the infrastructure built to serve the project exceeds 10% of the project's cost, or \$10 million
  - *Incentive will also be made available to refineries for investment in needed upgrades to produce cleaner burning Tier 3 fuels*
- Qualifying projects will receive a non-refundable credit in the amount of 30% of new state revenues that are enabled by the infrastructure investment
  - *The total tax credit available is capped at 50% of the cost of the infrastructure; fuel standard compliance projects are capped at 30%*

# Summary



- OED is supportive of the need for transportation solutions and has been working diligently diversify options.
- OED has worked to assist in the planning and development of projects in coordination with industry, USTAR, and the Utah Energy Infrastructure Authority.
- Projects can be successful, but funding and permitting are challenging
- Investors have choices about where to allocate dollars and incentives, or other state support, can help to offset some of the cost/risk of allocating dollars to projects

***Over 8-10 years of permitting the world can change considerably. BLM ROW grants provide a one time option to build. If the lines aren't built relatively soon, they likely never will be because of cost and other permit challenges occurring within a changing electric industry and evolving environmental issues.***



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

# Questions?

