



## Utah, Transmission, & Operation Gigawatt

ENERGY DEVELOPMENT

October 10, 2025 | CREPC TC Tim Kowalchik | Research Director tkowalchik@utah.gov, energy.utah.gov

## The Office



# Utah Office of Energy Development

Two main portions of the Office

Programs and Grants - Federal and state incentive, grants, education efforts

O High cost infrastructure tax credit , rural EV infrastructure , STEMfest

Research – In-house expertise on energy issues and guiding policy or initiatives

O Operation Gigawatt, Publications, SB 132

#### Self-contained entities

- San Rafael Energy Research Center Research center for energy-related projects like supercritical CO2, pilot nuclear projects
- Nuclear Consortium Foster statewide coordination between nuclear stakeholders to drive to nuclear deployments
- Advanced Energy and Nuclear Institute Similar to the consortium, but between academia and the national labs and focusing on research



The High Cost Infrastructure Tax Credit (HCITC) supports significant infrastructure investments in the state; bolstering the cost-effective and sustainable delivery of Utah's commodities to domestic and global markets.

#### **ELIGIBLE PROJECTS:**

- ✓ ENERGY DELIVERY
- ✓TIER-III FUEL STANDARD COMPLIANCE
- ✓ MINERAL PROCESSING
- **✓ UNDERGROUND MINE INFRASTRUCTURE**
- ✓ EMISSIONS REDUCTION
- **✓WATER PURIFICATION**
- ✓WATER RESOURCE FORECASTING





# Operation Gigawatt



## **Operation Gigawatt**

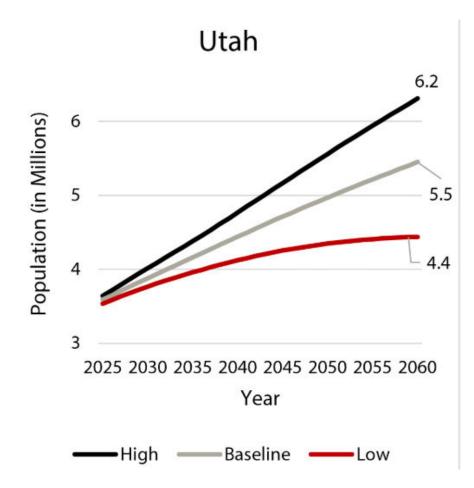
"Energy is the engine that drives our society forward, we need more energy at a time when our supply is decreasing. We will build upon Utah's 'any of the above' energy policy with a 'more of the above' approach by doubling our energy-generating capacity over the next 10 years." - Gov. Cox, Press Release, October 8, 2024

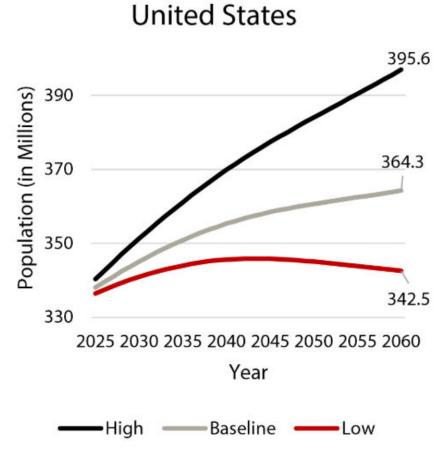
#### Four Pillars to Energy Abundance

- O Increasing transmission capacity so more power can be placed on the grid and moved to where it is needed
- Expanding energy production, including investing in the state's current energy infrastructure while developing new sustainable sources
- O Enhancing Utah's policies to enable clean, reliable energy like nuclear, geothermal, battery storage and natural gas
- O **Investing in innovation** and **research** that aligns with the state's energy policies



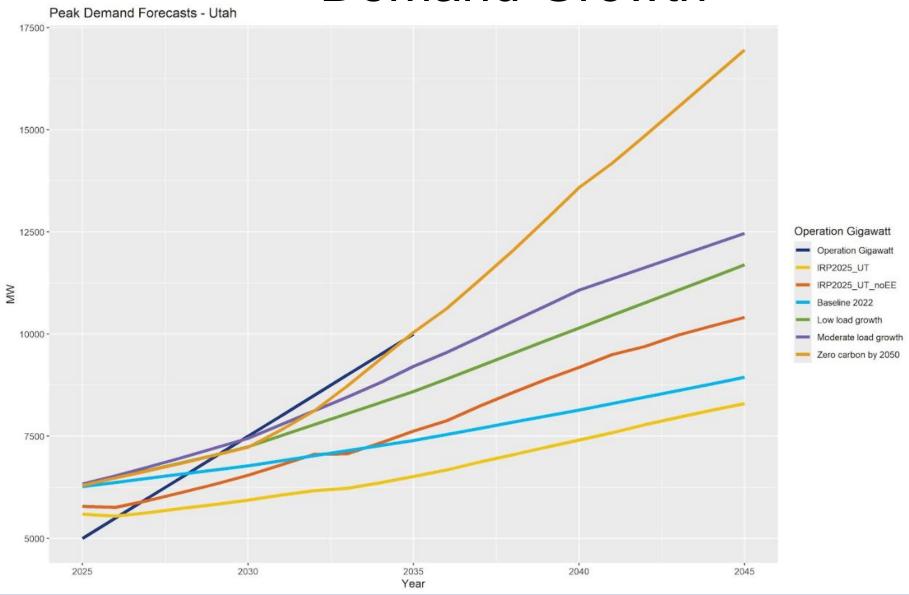
## Population Growth







#### **Demand Growth**





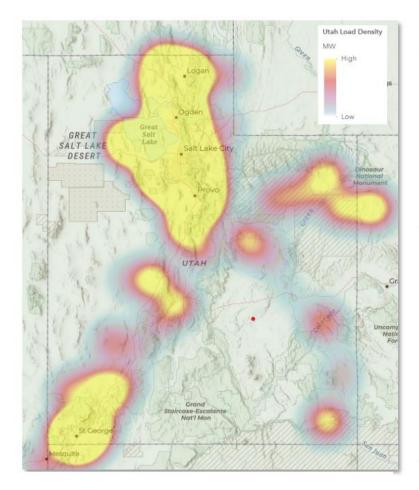
## Transmission



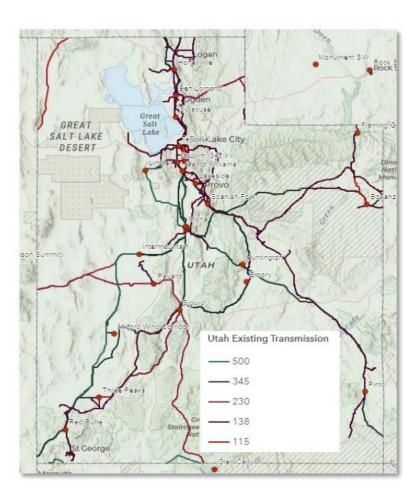
#### core **National Transmission Needs** PV + battery low cost Electrolyzer low cost + Nuclear SMR + DAC Wind low cost No interface expansion limit CTS high cost Transmission 2× cost No RA sharing Siting limited Many challenges No H2 No CCS No H2 or CCS No H2 or new nuclear Climate



#### **Utah's Transmission Network**



Heatmap of Utah Load 2021 Utah Transmission Needs Study



**80%** owned by PacifiCorp

**20%** owned by cooperatives

**Existing Transmission** 

2021 Utah Transmission Needs Study

#### State Touchpoints











State regulation (<a href="https://le.utah.gov/xcode/Title54/Chapter18/54-18.html">https://le.utah.gov/xcode/Title54/Chapter4/54-4-S25.html</a>, <a href="https://le.utah.gov/xcode/Title11/Chapter13/11-13-S304.html">https://le.utah.gov/xcode/Title11/Chapter13/11-13-S304.html</a>)

Local regulation (<a href="https://le.utah.gov/xcode/Title10/Chapter9A/10-9a.html">https://le.utah.gov/xcode/Title17/Chapter27A/17-27a.html</a>, <a href="https://le.utah.gov/xcode/Title17/Chapter27A/17-27a.html">https://le.utah.gov/xcode/Title17/Chapter27A/17-27a.html</a>, <a href="https://le.utah.gov/xcode/Title17/Chapter27A/17-27a.html">https://le.utah.gov/xcode/Title17/Chapter27A/17-27a.html</a>, <a href="https://le.utah.gov/xcode/Title17/Chapter27A/17-27a.html">https://le.utah.gov/xcode/Title17/Chapter27A/17-27a.html</a>, <a href="https://le.utah.gov/xcode/Title17/Chapter27A/17-27a.html">https://le.utah.gov/xcode/Title17/Chapter27A/17-27a.html</a>,

Utility Facility Review Board (https://le.utah.gov/xcode/Title54/Chapter14/54-14.html)



### Utah's Land Ownership

#### 64% Federal Lands:

BLM, US Forest Service, National Park Services, Department of Defense, U.S. Fish and Wildlife Service

#### 10% State Lands:

SITLA, Division of Forestry, Fire, and State Lands, Department of Natural Resources

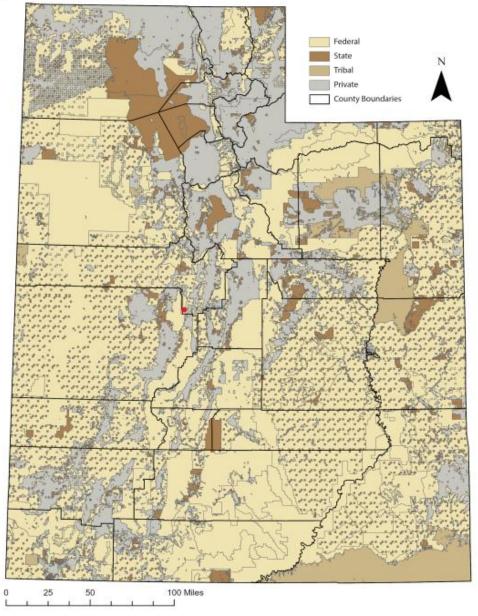
#### 4.5% Tribal Lands:

Bureau of Indian Affairs, Native American Tribes

#### 21% Privately Owned



Figure 3: Land Ownership by Type in Utah, 2024



Source: Utah Geospatial Resource Center. (2024). Utah Land Ownership

#### TransWest Express

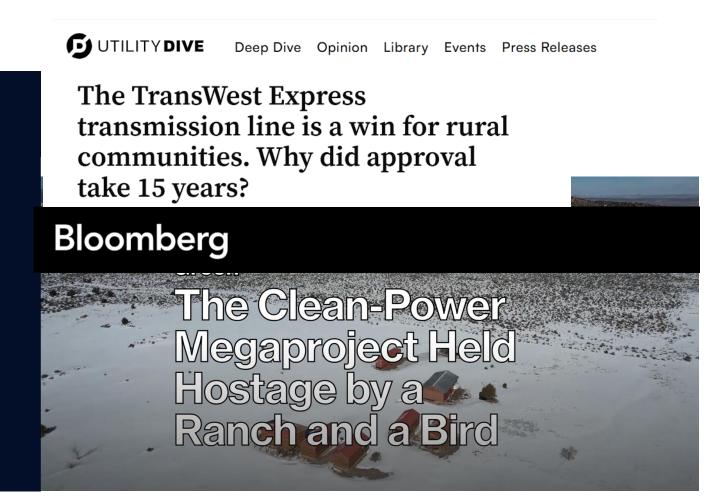


**ENERGY** WIRE

Western transmission line breaks ground after 18-year wait

By JASON PLAUTZ | 06/21/2023 06:42 AM EDT

Interior Secretary Deb Haaland and Energy Secretary Jennifer Granholm traveled to Wyoming to hail the project and call for faster electric transmission development.





## TransWest Express Overview





## Permitting Timeline

Concept initiated in **2005**, with **BLM-led NEPA process** starting in 2008.

Final **EIS** completed in **2015**; Record of Decision (ROD) issued in **2016** — **11** years total permitting duration.

Required **over 100 separate permits**, **authorizations**, **and agreements** across jurisdictions.

#### TransWest EIS/Development Timeline Summary

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Nov. 30, 2007	National Grid filed a Preliminary Right-of-Way application and a Plan of Development Bureau of Land Management, which will prepare an EIS for the TWE Project.
July 2008	TransWest acquired the TWE Project.
Dec. 12, 2008	TransWest filed amended Preliminary ROW application with BLM.
January 2009	TransWest filed amended Preliminary Plan of Development with BLM.
Summer 2010	Western Area Power Administration joined BLM as joint lead agency for the preparation EIS.
January 2011	BLM/WAPA published the <u>Notice of Intent</u> to prepare an EIS on Jan. 4; initiated a 90-c scoping period; held 23 <u>public scoping meetings</u> .
October 2011	Federal interagency Rapid Response Team for Transmission selected the TWE Project
2008-2013	BLM/WAPA conducting studies and surveys; reviewing and developing alternatives; p Draft EIS.
July 2013	BLM/WAPA published the Notice of Availability of the Draft EIS on July 3; initiated a 90 comment period; held 13 <u>Draft EIS public meetings/hearings</u> .
May 2015	BLM/WAPA published the Notice of Availability of the Final EIS on May 1, initiated a 3 public availability period.
Dec. 13, 2016	BLM published its Record of Decision approving issuing rights-of-way for the TWE Protection published a Notice of Availability on Dec. 16.
Jan. 13, 2017	WAPA published its Record of Decision selecting the TWE Project route. WAPA then pa Notice of Availability on April 3.
May 31, 2017	USFS published its Record of Decision approving use of USFS land for the TWE Proj
June 19, 2017	BOR published its Record of Decision approving issuing rights-of-use for the TWE Pro
June 23, 2017	BLM issued the right-of-way grant for the TWE Project.
July 6, 2017	BOR issued the right-of-use license for the TWE Project.
June 26, 2018	USFS granted the Electric Transmission Line Easement for the TWE Project.
April 19, 2019	State of Wyoming Industrial Siting Council unanimously approved a permit to construct operate the transmission project. The permit was signed and granted May 29.
2017-2020	State and county permitting completed, with the first county authorization received De 2018 and the last received January 2020.
April 10, 2023	BLM issued the Notice to Proceed for the TWE Project.
Sept. 19, 2023	Construction activity started in Wyoming.
April 9, 2025	BLM issued the Notice to Proceed for additional substation facilities near Crystal, New
2023-2029	Project is constructed.

TransWest Express History and Timeline



# State Energy Offices



## Strategic Energy Plan: Main Elements

Industry
Standard Data

National Lab Partnerships Optimized Investment

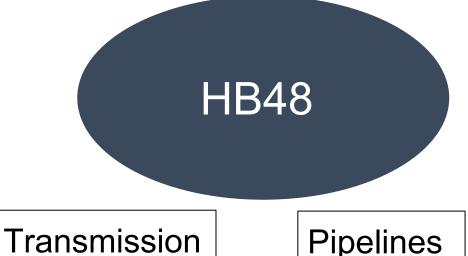
Infrastructure Innovation

Energy Needs

eeds

Energy Services

Academic Research



Budget

Technology Innovation

Resource Development

Workforce Development



### Regional Engagement

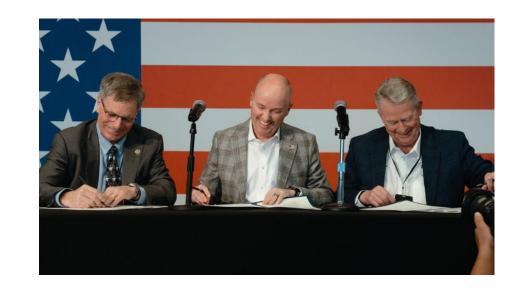
Future work on external engagements to offer modeling scenarios

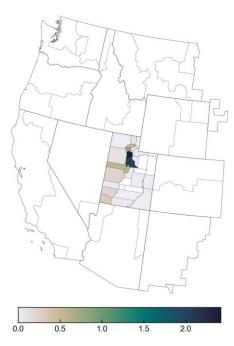
- Tri-state engagement with Wyoming and Idaho already
- Engage with state energy office/equivalents for regional perspective

Work with national labs on modeling and potential grant partners

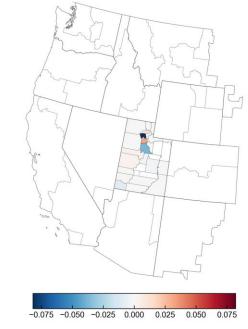
Engage with NGOs, WECC, WIEB

Partner with local universities on general energy issues beyond grid





baseline



add25in2

## Thank You

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