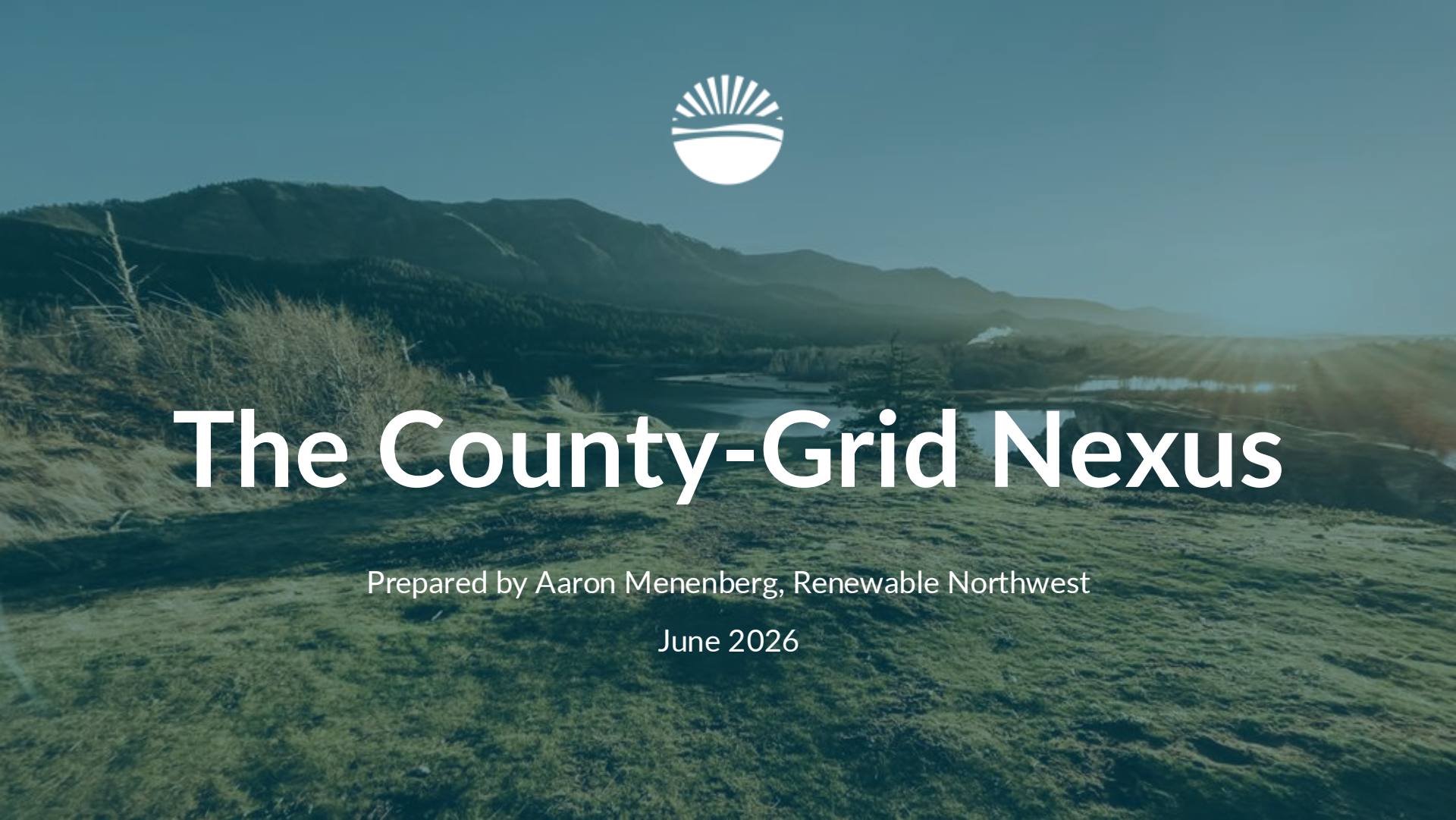
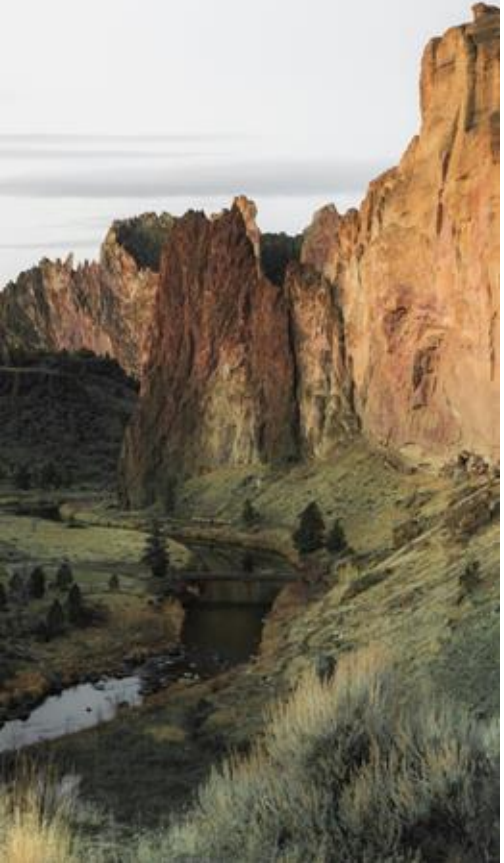


The County-Grid Nexus

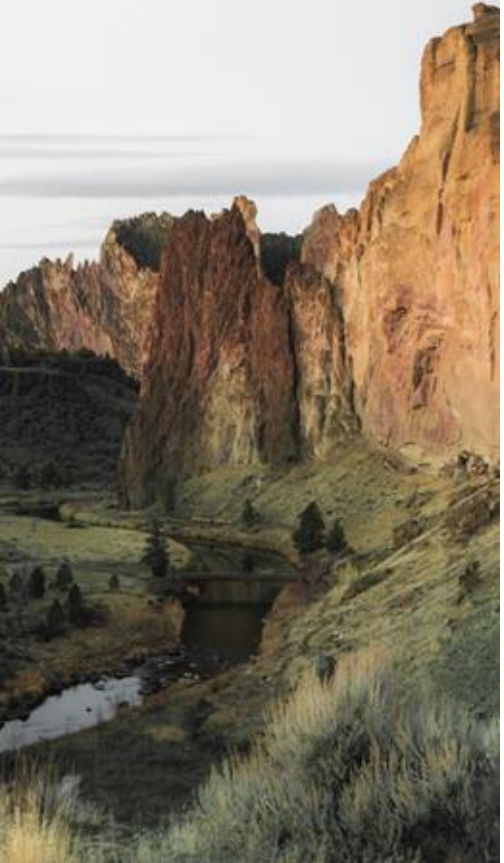
Prepared by Aaron Menenberg, Renewable Northwest

June 2026



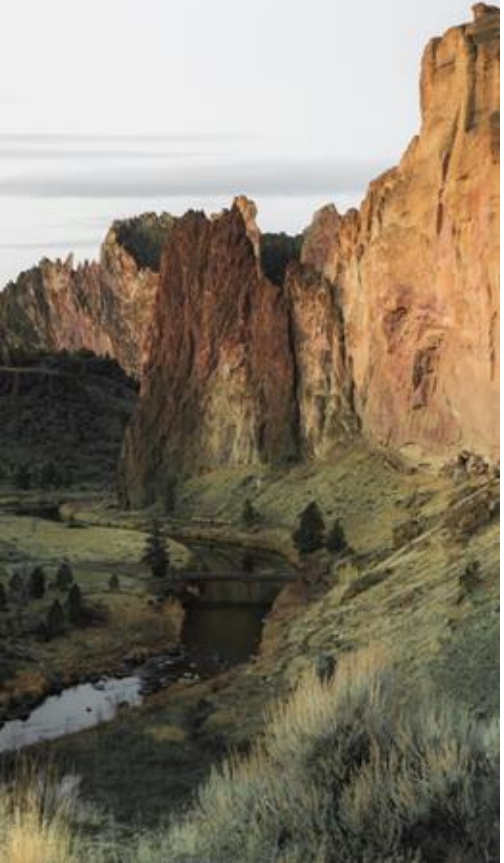
Agenda

- Introduction
- Context: energy demand, economic impact, and decision-making process, and rates
- Siting Energy Infrastructure
- Transmission
- Conclusion



Introduction

- Renewable Northwest
  - Advocacy organization: meet the region's growing demand with reliable, affordable, and increasingly clean energy
  - Support all-of-the-above policy and regulation
  - Utility-scale only
  - ID, MT, OR, WA
  - Who we represent:
    - Renewable developers (wind, solar, geothermal, storage)
    - Large energy users
    - Engineering and law firms
    - Public Interest Organizations
- Me
  - Idaho Policy Manager: keep the state open for renewable energy development



Context: Demand Is Going Up, Up, Up…

Idaho Power

- 2021-2025: 1.9% growth
- 2026-2045: annual growth of 2.3%
- 2025-2029 demand: 8.3% (same as 1985-2025 *combined)*

Rocky Mountain Power

- 2026-2045: 2.3% (PacifiCorp system-wide)

Perspective: Avista (Northern Idaho)

- 2014-2025: 0.63% annual growth
- 2023-2026: 4.5% annual growth
- 2026-2035: 0.91% annual growth
- 2036-2045: 1.4% annual growth

…and we don't have enough infrastructure to meet it

Context: Economic Consequences

Electrons and Dollars Are Intimately Connected

- 0.86 correlation between GDP and electricity sales (1976-2014)
  - Generally: economic activity drives electricity purchasing

- Idaho's 2026-2030 demand growth is worth $84-168 million in new economic activity each year

- For each megawatt of demand not met, Idaho is at risk of losing economic activity and the prosperity we enjoy

Context: Decision-Making Process

Utilities Shop The Market

1. Periodic Integrated Resource Plan (IRP) process: utilities identify the least cost, least risk portfolio that reliably meets future demand
2. This "preferred portfolio" of resources gets presented to the Idaho Public Utility Commission (PUC)
    1. Combo: reliable, affordable, and timely

Utilities Present The Menu

1. The PUC reviews the IRP and acknowledges it for planning purposes but does not approve specific resources
2. Informed by the IRP, utilities begin to procure resources
    1. Requests for proposal to developers
    2. Bilateral negotiations
    3. Mandatory PURPA contracts
    4. DIY

Context: Decision-Making Process

The Utilities Place Orders

1. Preferred resources selected
2. Contracts negotiated

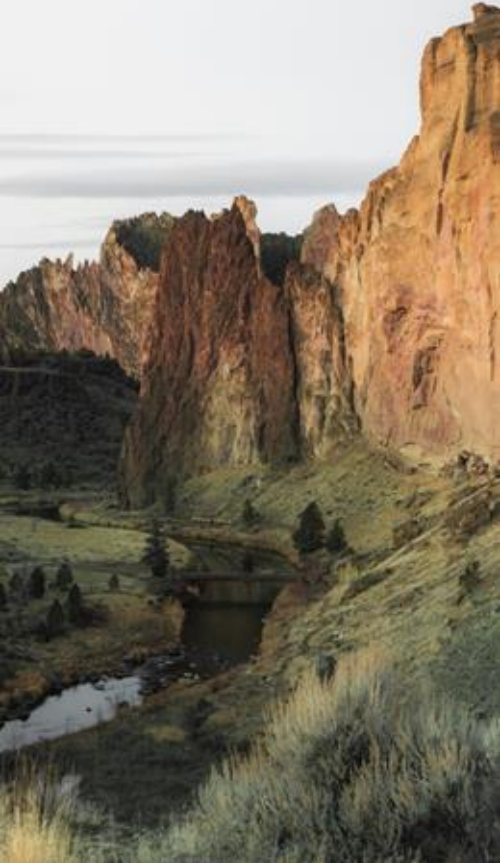
Things Get Built and Go Operational

The Utilities Seek Reimbursement

1. The PUC reviews procurement decisions o determine whether costs are recoverable from customers through rates (”rate-based”)

Context: Electricity Rates

1. Across the United States, ratepayers pay for the system
2. In Idaho, the PUC regulates rates
    - Utilities request prices that reflect costs and the PUC decides
3. Rates are retroactive – they reflect past costs
4. Investor Owned Utilities earn a non-guaranteed variable rate of return
5. Large loads must work one-on-one with utilities and the PUC to pay their way (work in progress)
6. Absent rate increases, the system falls behind demand



Context: Decision-Making Process

Communities Weigh In

1. Non-sequential: projects go through siting and permitting processes that can determine project feasibility

Throughout:

1. Developers assess utility needs, scout for good locations, sign land leases, start siting/permitting processes, etc. so that they can deliver projects for utilities
2. Projects complete the interconnection process to connect to the grid (bureaucratic + political influences)

Context Summary: The Decision Funnel

The Market

- Reveals relative costs, build times, risks, and availability of resources

Utilities

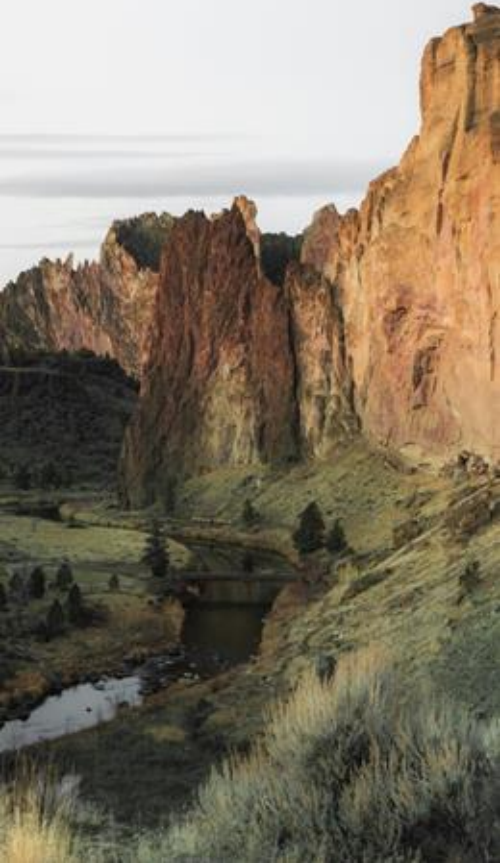
- Select a least-cost, least-risk portfolio to meet system needs

PUC

- Sets guardrails through oversight and cost recovery

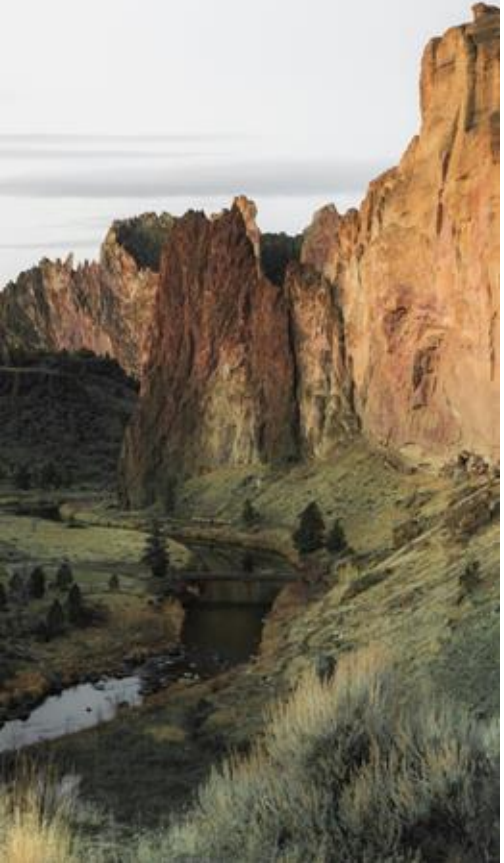
YOU (Communities):

- Shape where, how, and whether projects can be built



The National Results

	November 2025		January – November 2025 Cumulative	
Primary Fuel Type	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)
Coal	0	0	3	-40
Natural Gas	11	283	84	4,179
Nuclear	0	0	0	0
Oil	0	0	14	66
Water	0	0	1	4
Wind	4	818	35	5,563
Biomass	0	0	3	6
Geothermal Steam	0	0	0	0
Solar	38	2,879	690	25,467
Waste Heat	0	0	4	17
Other *	12	0	188	0
Total	65	3,980	1,022	35,262



Siting Energy Infrastructure

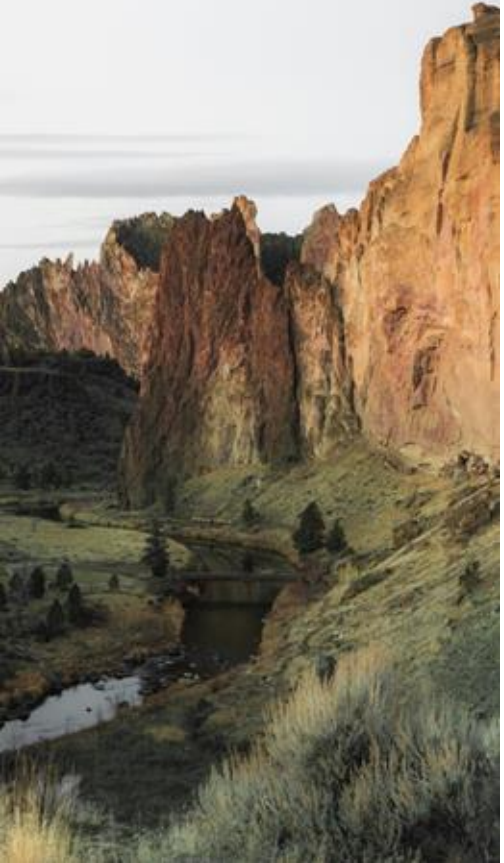
Counties play a big role in Idaho (and most states)

You:

- Control private land development
- Determine what generation gets added and how quickly it gets added through ordinances and project applications
- Operate based on your county boundaries, but your decisions impact everyone in your utility's service territory
    - Example: Idaho Power service territory is 24 counties

Bottom line:

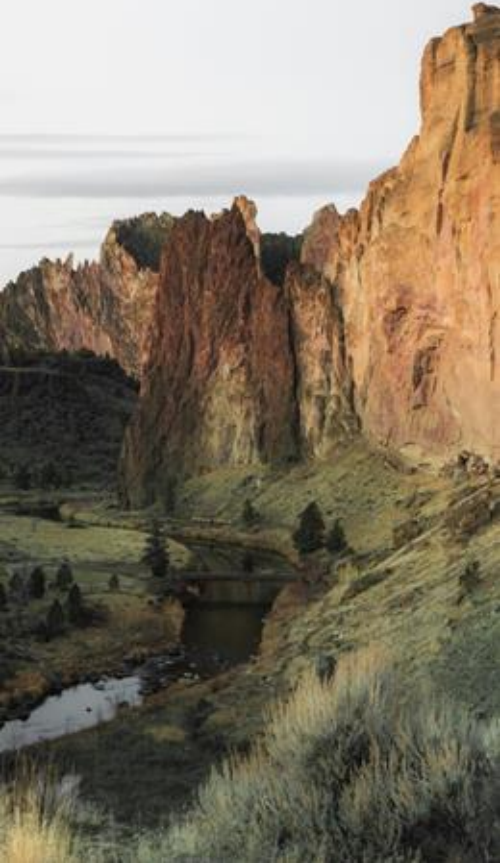
- You directly influence electricity rates



Siting Energy Infrastructure

County-Rates Nexus

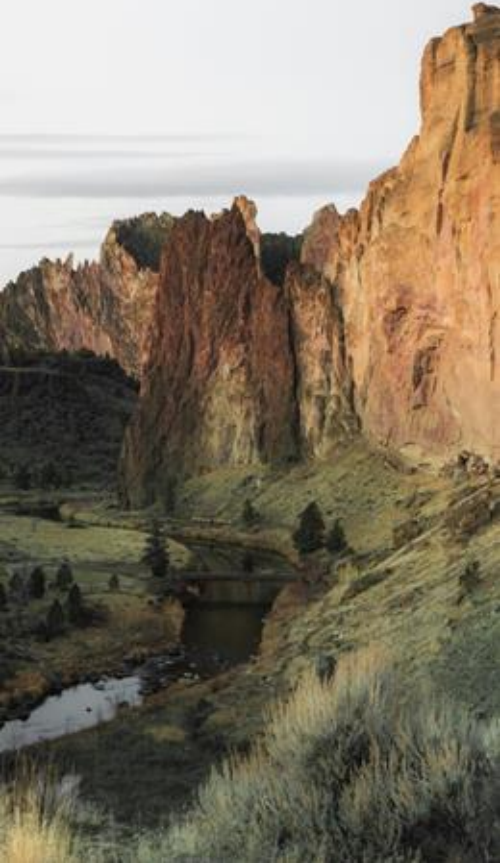
- Each type of generation has different costs (which get rate-based)
- Distance from generation to grid infrastructure affects costs (which get rate-based)
- Siting and permitting processes durations affects costs (which get rate-based)
- Every non-linear mile of transmission line costs extra (which gets rate-based)



Siting Energy Infrastructure

Start with

- Let's meet; I provide non-biased information and can be a conduit to the industry and other resources
- Understanding the need and impact of new energy
- Having reasonable, responsible comp plan, ordinance, and CUP – it protects you and establishes basic expectations for us
- Think big picture and long-term



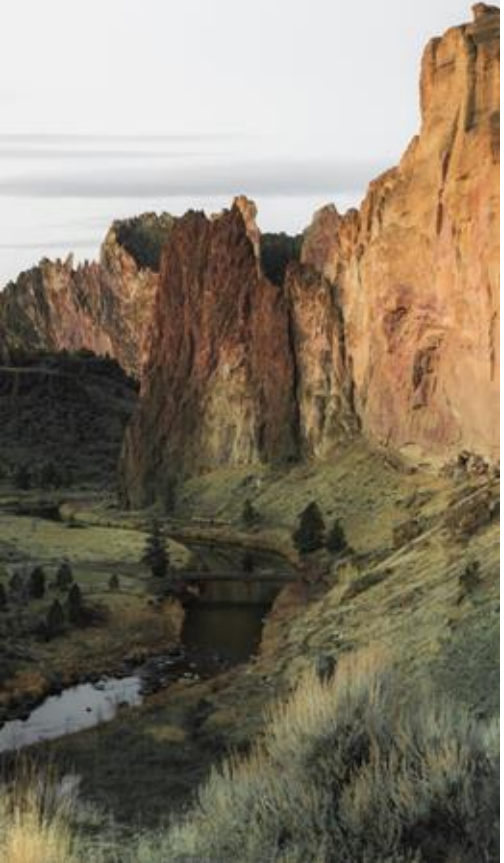
Large Scale Users

Talk of the town: large-scale users

- Micron
- Food-processing and dairy
- Data centers/AI

These are real, but they're not foundational to demand growth

- Top-10 fastest growing state
- Not over-built grid but didn't under-build it either
- Starting from a place of nationally-low rates
- Remember: rate increases are retroactive cost recovery



Large Scale Users

House Bill 911

- Passed in 2026
- Codifies the PUC large load review process in law
- Establishes a “no harm” test to protect existing ratepayers
- Requires Large loads to negotiate a unique electricity rate with their utility, which the PUC must approve

This means

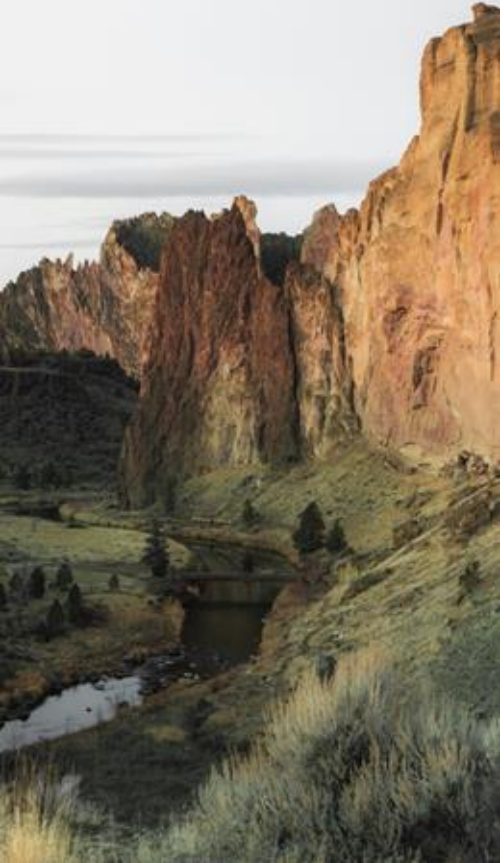
- Large loads pay for required infrastructure
- Ratepayers won’t subsidize large loads, either for new infrastructure or electricity supply
- Large-load infrastructure may benefit larger grid

Large Scale Users AP Version

- Can large loads unlock latent grid capacity?
  - Performance-based ratemaking (v. Idaho's cost of service model)?
- How do we rule out speculative load?
- What about behind the meter?
- Load interconnection reform?
  - Speed-to-power in exchange for load flexibility?
  - Alternative transmission technologies like dynamic line ratings in utility planning?
  - Load certainty requirements?

Much of this is theoretical and unproven but worth exploring

DRI: Idaho Public Utility Commission



Large Scale Users In Your Counties

- Not my place to advocate either way
- My two cents: treat them like I want you to treat us
  - Meet and discuss
  - Understand the need and impact
  - Have a reasonable ordinance
  - Think big picture and long term
- Trust the PUC process but engage the PUC to verify
- The utilities are incentivized to insulate your constituents

The Role of Transmission

- Moves electricity from generation to expanding customer base (R)
- Provides access to cost-effective imports (A)
- Reduces impact of growing demand in terms of new generation requirements by giving optionality (R) (A)
- Improves ability to meet demand spikes (R)

Boardman to Hemmingway example: inclusion in Idaho Power's preferred portfolio shaved $266 million off the portfolio's cost

The Role of Exports

Idahoans hate exporting electricity, but…

The State of Idaho and the PUC mandate a Native Load Requirement:

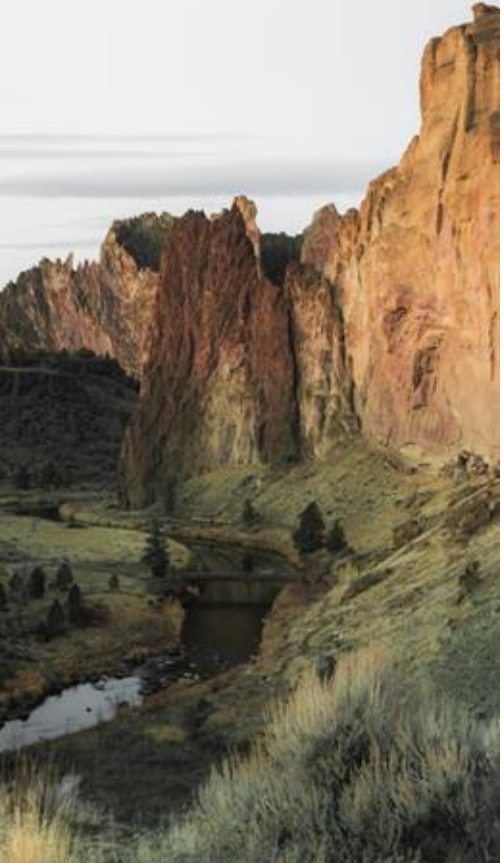
1. Utilities must serve their customers first
2. When there is surplus, utilities can export it
3. 95% of the sales go back to Idaho ratepayers
4. 5% go to the utilities to cover administrative costs associated with exporting

Playing The Market

Idaho Power participates in the Western Energy Imbalance Market:

- Balances intra-hour supply and demand across (parts of) AZ, BC, CA, ID, MT, NM, NV, OR, WA, WY
- You play the market when arbitrage is in your favor

Idaho Power Annual EIM Benefits Per Published CAISO Report Based on Counter-factual methodology ($ millions)					
2018-2019	2020	2021	2022	2023	2024
$51.11	$26.30	$52.62	$43.95	$62.92	$40.07



Developing Transmission

Our wires are tapped; there will be new transmission in Idaho

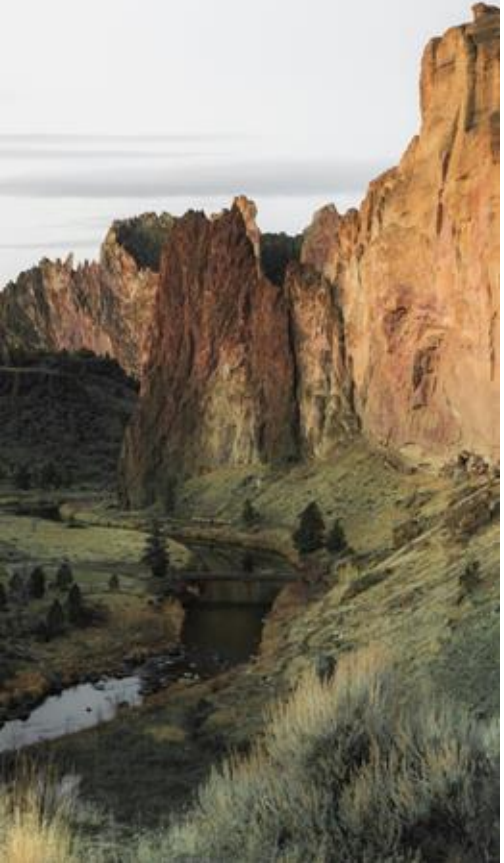
Siting it is complicated: one project goes across

- Private land (counties)
- State land (state agencies)
- Federal land (federal agencies)
- Tribal land (Tribal governments)
- Sensitive land (species and environment)

Idaho: no single authority or coordinator

Transmission Corridors

- Follow existing transmission lines or other linear infrastructure like railroads or major roads
- They already exist, are planned, or are conceptually obvious
- They can be created proactively by government and come with advantages, e.g.
  - Easier NEPA review
  - Reduced local population conflict
  - Better local land use compatibility
- Contain other grid infrastructure
- Some states designate them; Idaho has not



Transmission Corridors

- Typically are preferred by transmission developers
- Try to, but don’t always, align with local preferences

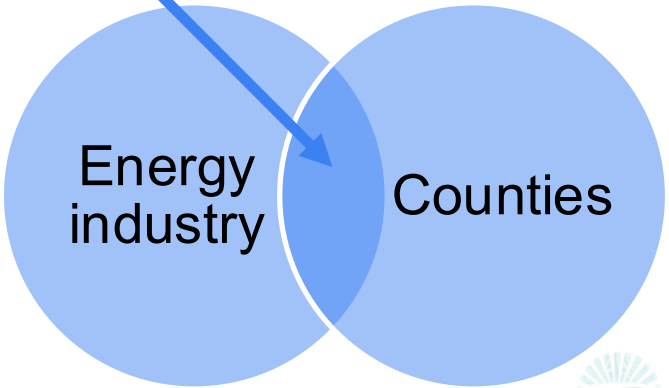
Counties can/should

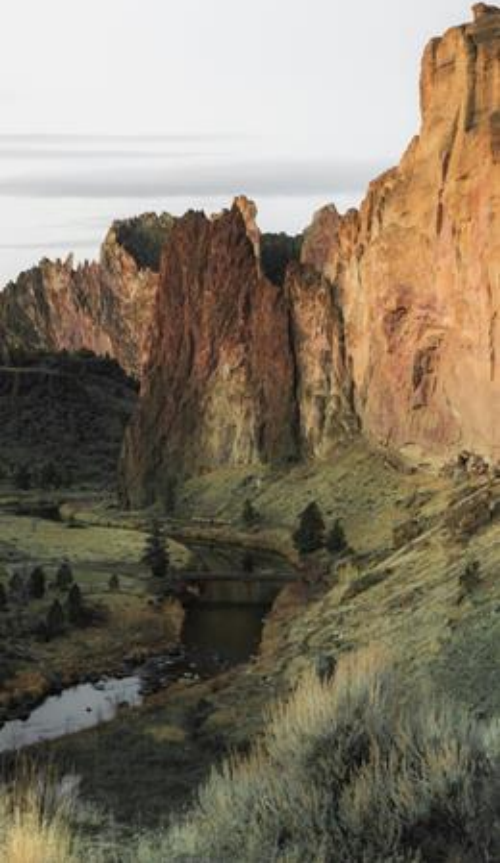
- Consider future transmission expansion in comprehensive plans and ordinances
- Proactively seek input from utilities and the PUC
- Consult with transmission developers on best practices

Working Together

Renewable Northwest is a partner

- You: doing right by your constituents means responsible development that keeps reliability up and rates down
- Us: our social license to operate depends on being responsible, respectful community members

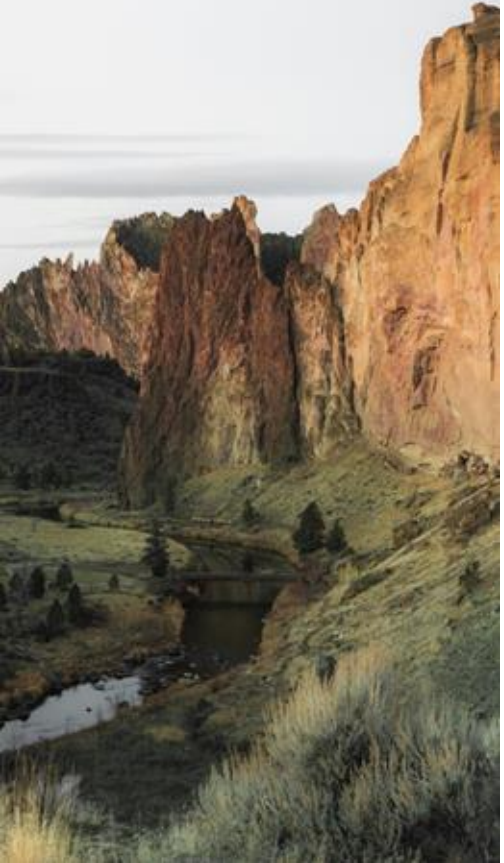




Working Together

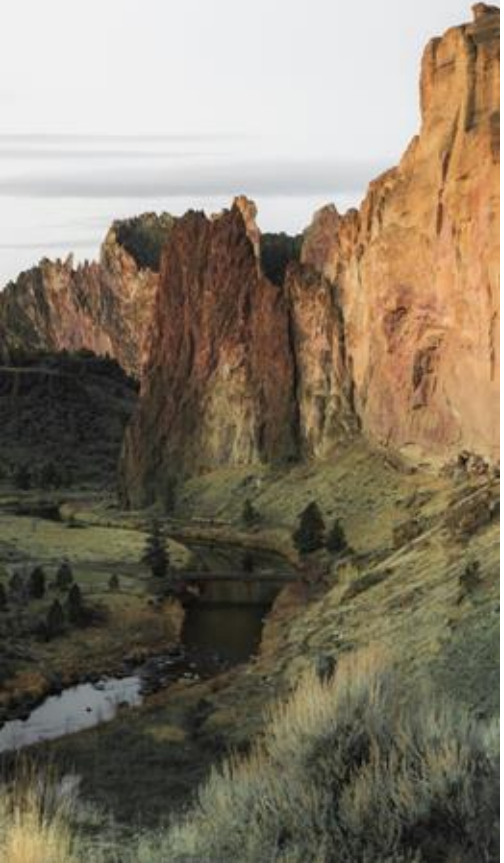
We can:

- Adopt reasonable, responsible comprehensive plans, ordinances, and conditional use permits
  - We want these things on the books
- Transparently address government and community concerns
- Find the good locations for development
- Identify and address local needs and benefits



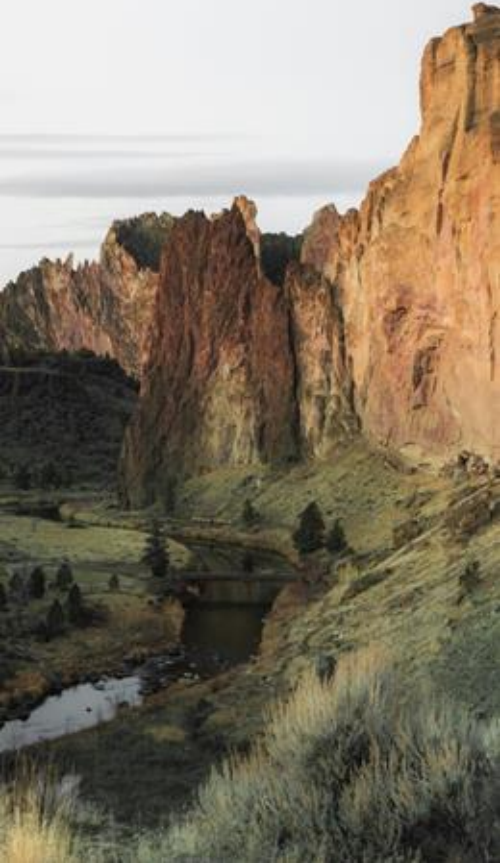
Things to Know

- Finding the best locations
  - Close to grid infrastructure means smaller footprint and lower costs (rates)
  - Where agriculture is a concern
    - Less productive/profitable soils
    - Landowners looking to exit
- Addressing government and community concerns through a transparent process
  - Development is competitive; developers won't show their hands until land leases/purchases are contractually secure
- Identifying and addressing local benefits
  - How can developers have certainty in knowing they're doing what the whole community wants?
  - Benefits raise costs, costs raise rates
- Comp plans, ordinances, and CUPs
  - You're in control, you set the guardrails and pass judgement
  - Give us a fair shot to prove our case



Final Words and Thoughts

- Idaho needs more energy: work from how, not if
- You're part of the process; do you want to be part of the solution or the problem?
- Understand what's real and what's not, what matters and what doesn't
- Work with regulators, utilities, and private sector for better outcomes
- My job is to help you navigate this stuff with fidelity to your constituents – we're on the same side



Thank You

Questions?

www.renewablenw.org/Idaho