



# Saving Hydropower in the Pacific Northwest

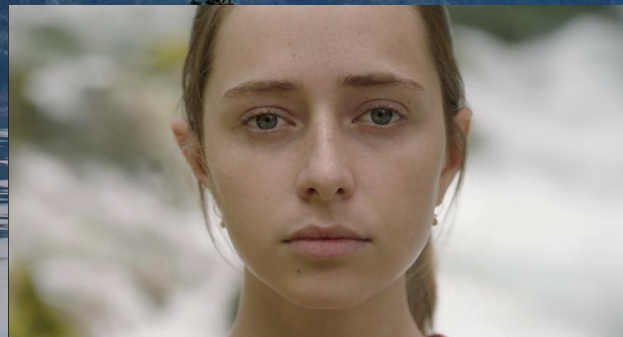
Why Advocacy Matters

8/02/2022 Presentation to Pend Oreille PUD Commission

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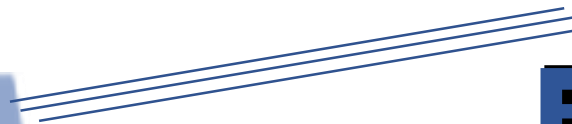
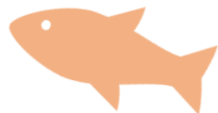


*“Lead the charge for the Northwest to realize its clean energy potential with hydroelectricity as the cornerstone”*



 Northwest  
**RIVERPARTNERS**  
*Hydropower for a better Northwest*

# Hydropower: The Superpower of Renewables





# About the PNW

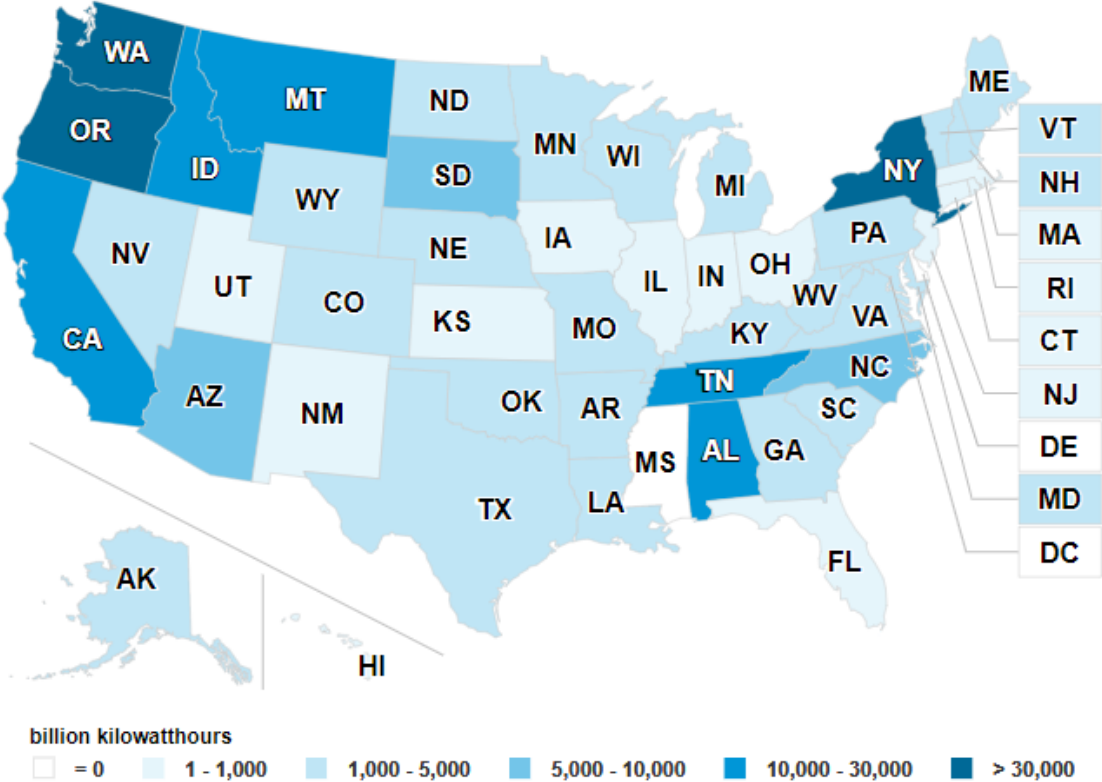
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# US Hydropower Production

Hydroelectricity generation by state in 2020



 Note: Includes utility-scale conventional hydropower.  
Source: U.S. Energy Information Administration, *Electric Power Monthly*, Table 1.10.B, February 2021, preliminary data

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# We're #1!



Most Hydropower  
Produced in the  
USA

Lowest Cost Clean  
Energy in USA

Least Carbon-  
Intensive Grid in  
the USA

Lowest Energy  
Burden in the USA



# Challenge

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# The \$1.6 Billion Funding Challenge

The Northwest's hydropower system brings tremendous value to communities across our region, but it will take an investment to protect that value.

Huge amounts of advocacy dollars are spent each year to persuade policymakers to eliminate productive hydropower resources.

Organization	Assets	Annual Revenues	Combined Assets + Revenues
Natural Resources Defense Council	\$467,000,000	\$263,000,000	\$730,000,000
Earthjustice	\$247,000,000	\$147,000,000	\$394,000,000
Sierra Club	\$130,000,000	\$167,000,000	\$297,000,000
Trout Unlimited	\$31,000,000	\$66,000,000	\$97,000,000
American Rivers	\$17,500,000	\$17,000,000	\$34,500,000
Idaho Conservation League	\$7,500,000	\$3,300,000	\$10,800,000
Columbia Riverkeeper	\$4,200,000	\$3,000,000	\$7,200,000
Northwest Energy Coalition	\$1,400,000	\$1,200,000	\$2,600,000
<b>Northwest RiverPartners</b>	<b>\$500,000</b>	<b>\$1,500,000</b>	<b>\$2,000,000</b>
Save Our Wild Salmon	\$250,000	\$470,000	\$720,000

With the exception of Northwest RiverPartners, the groups listed above submitted comments in favor of breaching the lower Snake River dams as part of the 2022 CRSO EIS process.

The financial figures listed come from publicly available data for 2020.

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# Anti-Dam Campaigns


Removing the lower Snake River dams would restore salmon populations in Washington.

Show decision makers this matters by quickly submitting a form here.

Learn More

Paid for by The Idaho Conservation League


**SAVE SALMON. DELIVER JUSTICE. INVEST IN THE NORTHWEST.**




**Affiliated Tribes of Northwest Indians** is "calling on the President of the United States and the 117th Congress to seize the once-in-a-lifetime congressional opportunity to invest in salmon and river restoration in the Pacific Northwest, charting a stronger, better future for the Northwest, and bringing long-ignored tribal justice to our peoples and homelands."

**The fate of our Tribes and the Northwest salmon are intertwined."**


**-AFFILIATED TRIBES OF NORTHWEST INDIANS, Resolution #2021-00, May 2021**



**We Stand With 60 Northwest Tribal Nations**




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The way forward is together

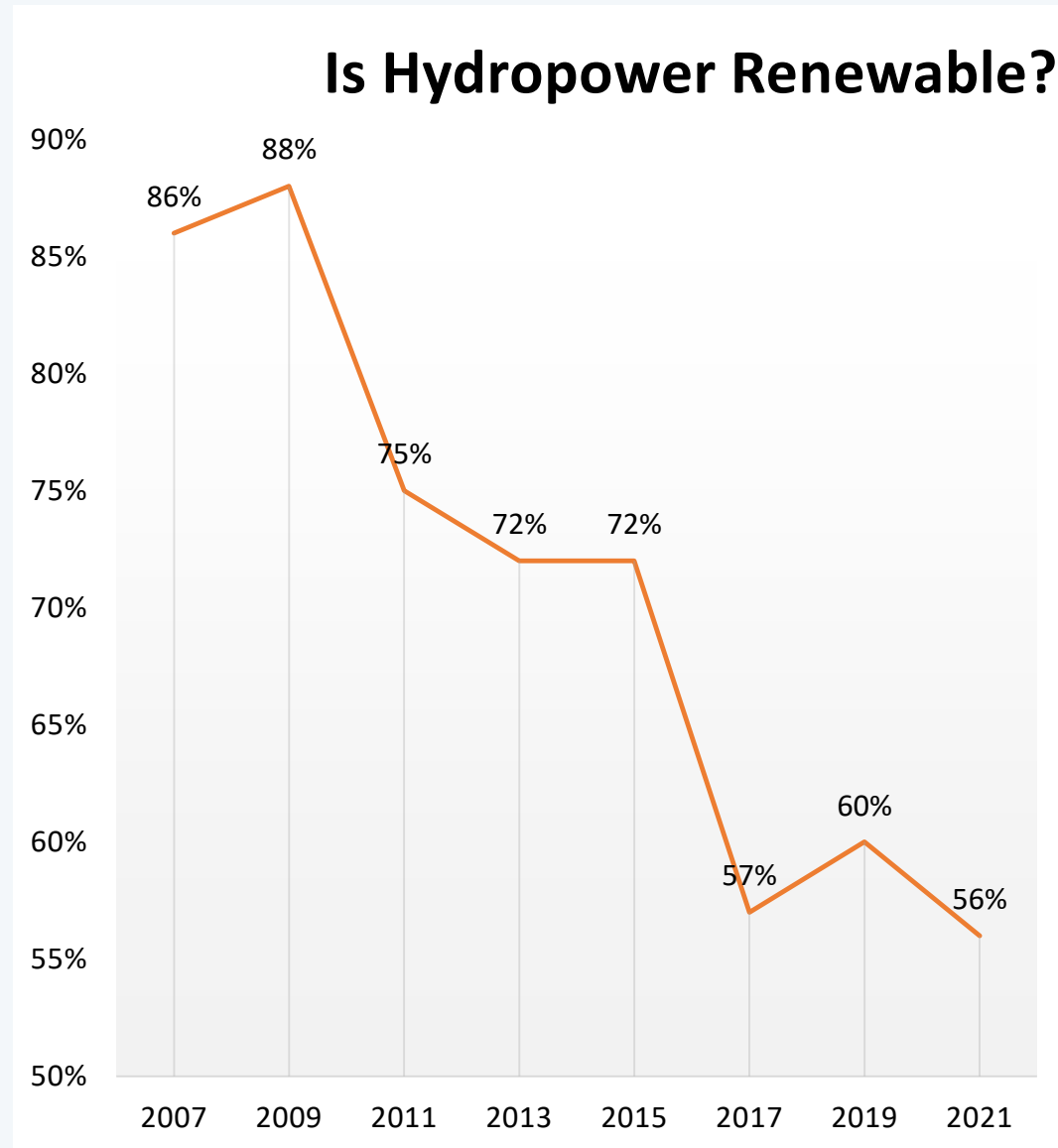
We have a rare opportunity to make the



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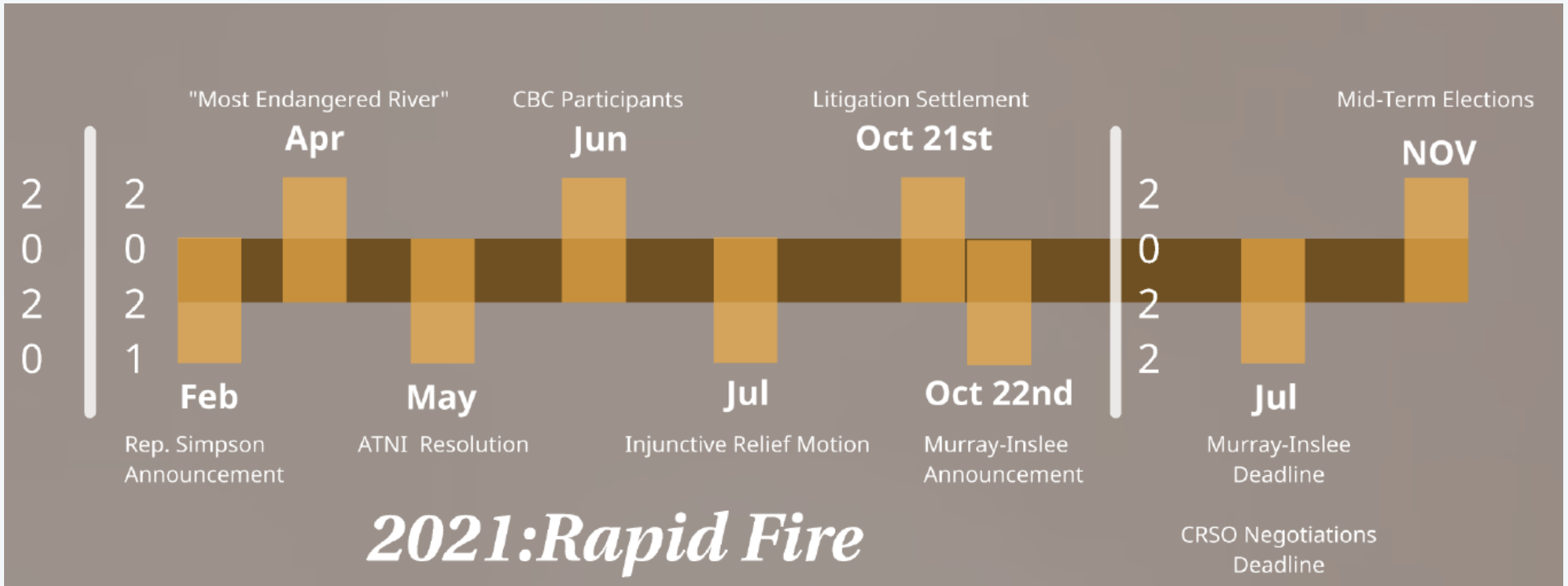
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# The Trend Is *Not* Our Friend



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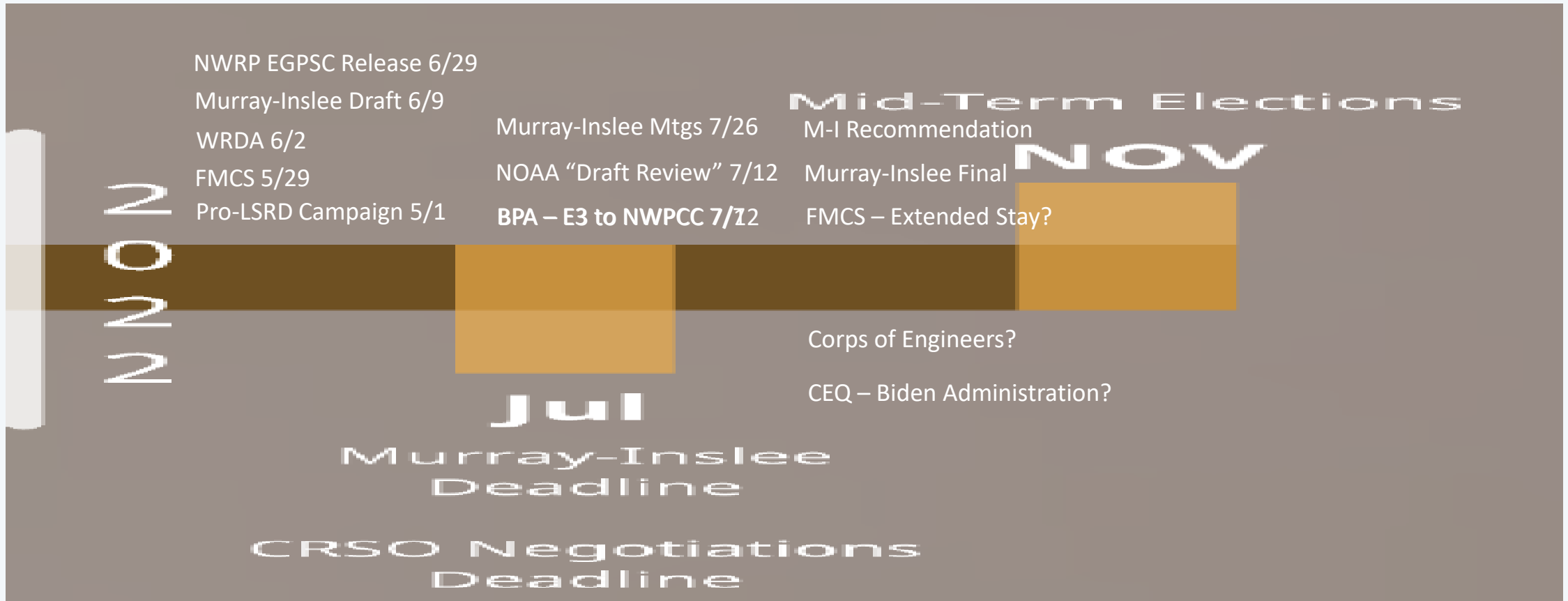
# LSRD Timeline



*2021: Rapid Fire*

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# LSRD Timeline



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# Long-Term

## End Game

*"We are looking at restoring the entire river from the gravel at the headwaters to the ocean, but the Snake populations need the most urgent action and will give us the most media attention."*

– Elliott Moffett, anti-hydropower activist

2/25/2021

- if
- Patagonia
  - SOS
  - American Rivers
  - Trout Unlimited
  - Idaho Conservation League
  - Nez Perce
  - Columbia Riverkeeper
  - Oregon

19 arguments point to misleading past "successes"  
questionable arguments used

Implications of LSRD Loss

CO2 goals

RA

Cost

Salmon

Opportunity cost

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# Lower Snake River Dams

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# Losing the Lower Snake River Dams?

Lower Granite

Little Goose

Lower Monumental

Ice Harbor



# Losing the Lower Snake River Dams?

-1000 aMW of CO<sub>2</sub> free  
electricity

-2500 MW+ of CO<sub>2</sub> free  
peaking capacity

Seattle  
+Portland  
+Spokane  
+Boise





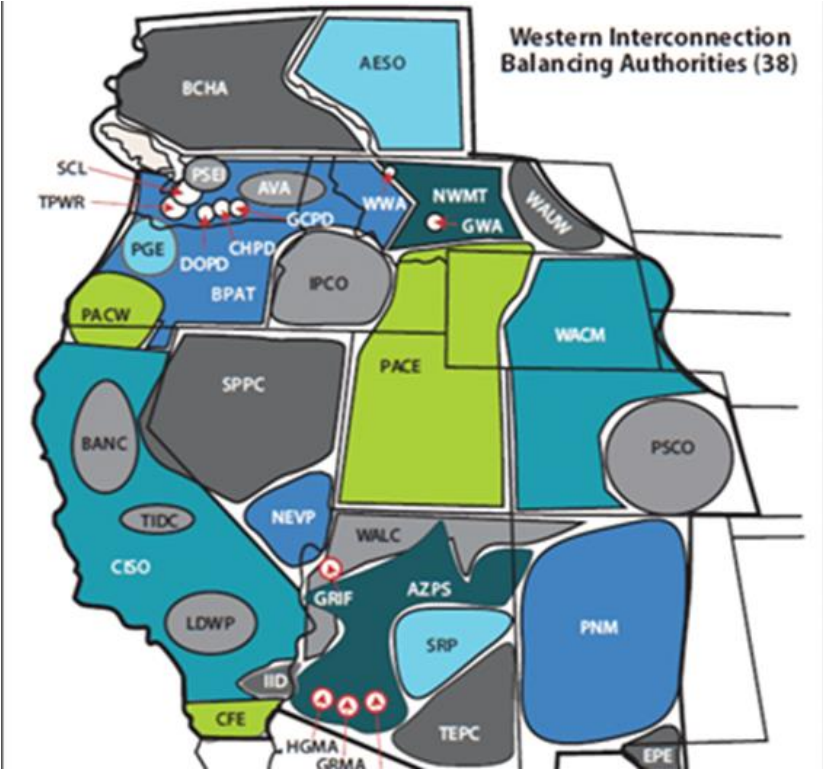
# Energy GPS Study

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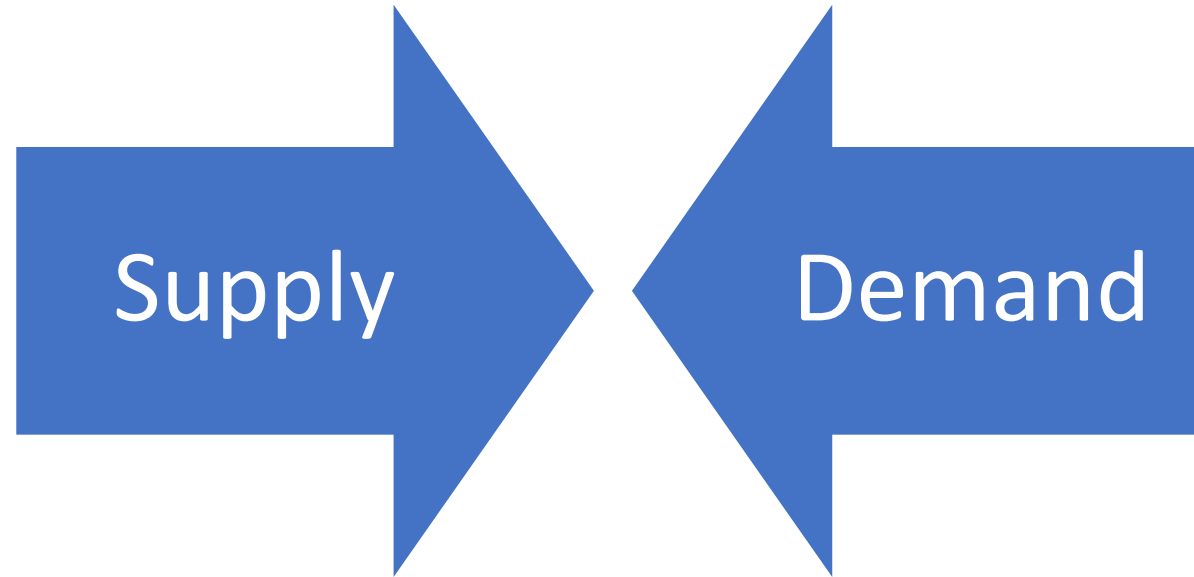
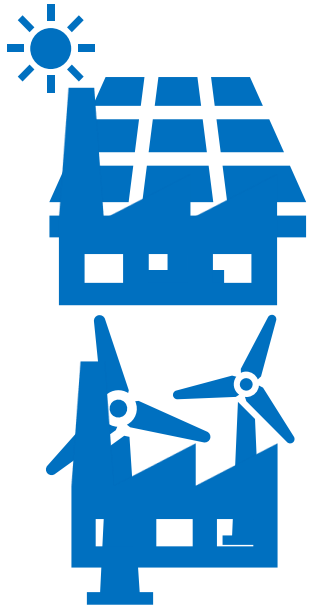
# Western Interconnect Clean Energy Mandates

State	Zero Carbon Grid Law	Zero-Carbon Grid Law Deadline
Washington	2019	2045
Oregon	2021	2040
California	2018	2045
Colorado	2019	2045
Nevada	2019	2050



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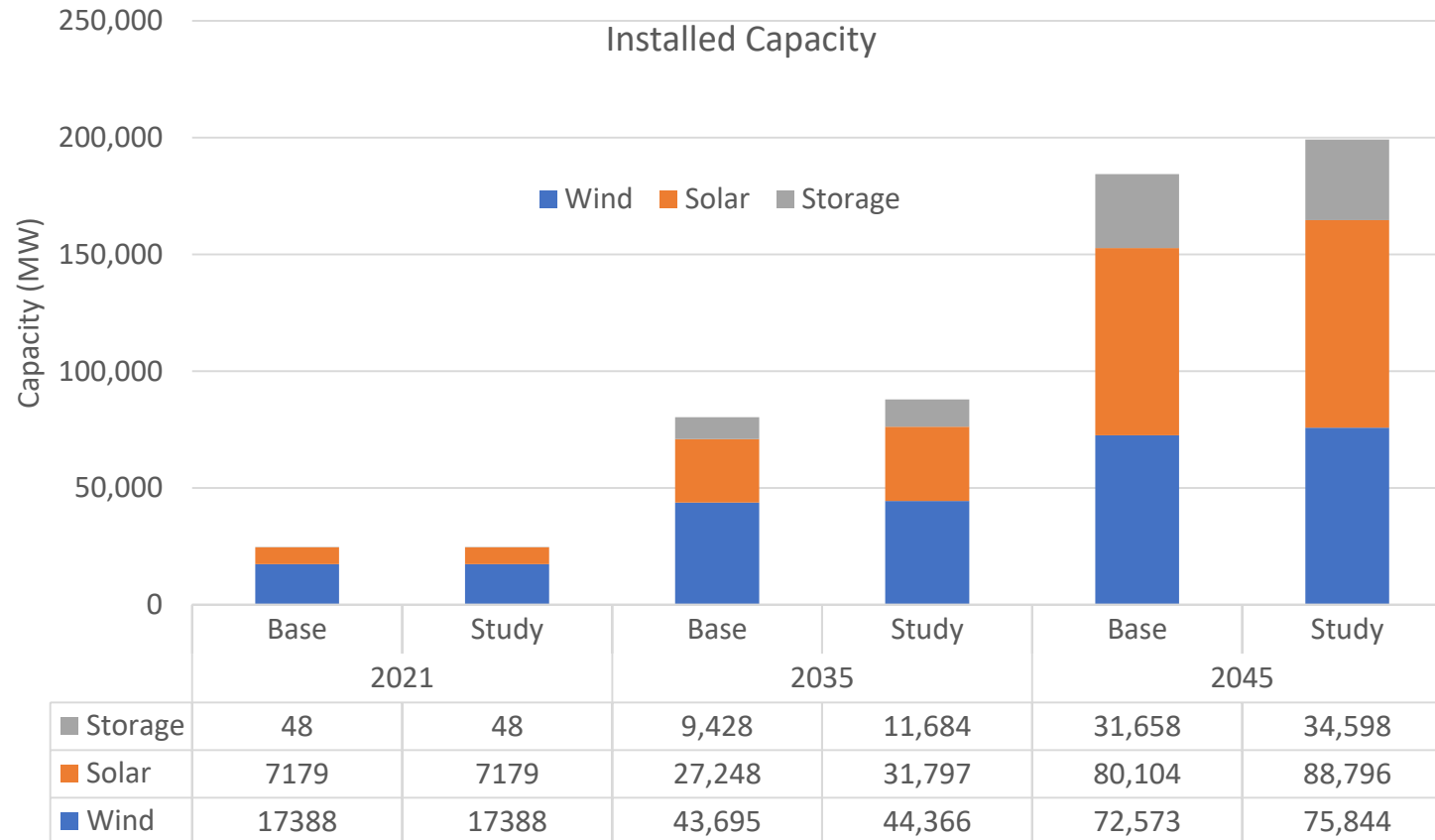
# Maintaining a Reliable Power Grid



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# WPP Renewable Build-Out



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# Incremental WPP Renewable Build-Out for LSRD Replacement

Name	Type	Renewable and Storage Capacity	Total Cost (NPV)†
<b>Base Case (with LSRD)</b>	Base expansion case to meet reliability and state clean energy laws with the LSRD	160 GW	\$142 B
<b>Study Case (Base Case without LSRD)</b>	Study expansion case to meet reliability and state clean energy laws without the LSRD	175 GW	\$157 B
<b><i>Difference</i></b>	<b><i>Impact of Breaching</i></b>	<b><i>15 GW</i></b>	<b><i>\$15 B</i></b>

# Doubling the Historic Pace Doesn't Get Us There Either

Cumulative Capacity Additions vs. Historical Build Ratios

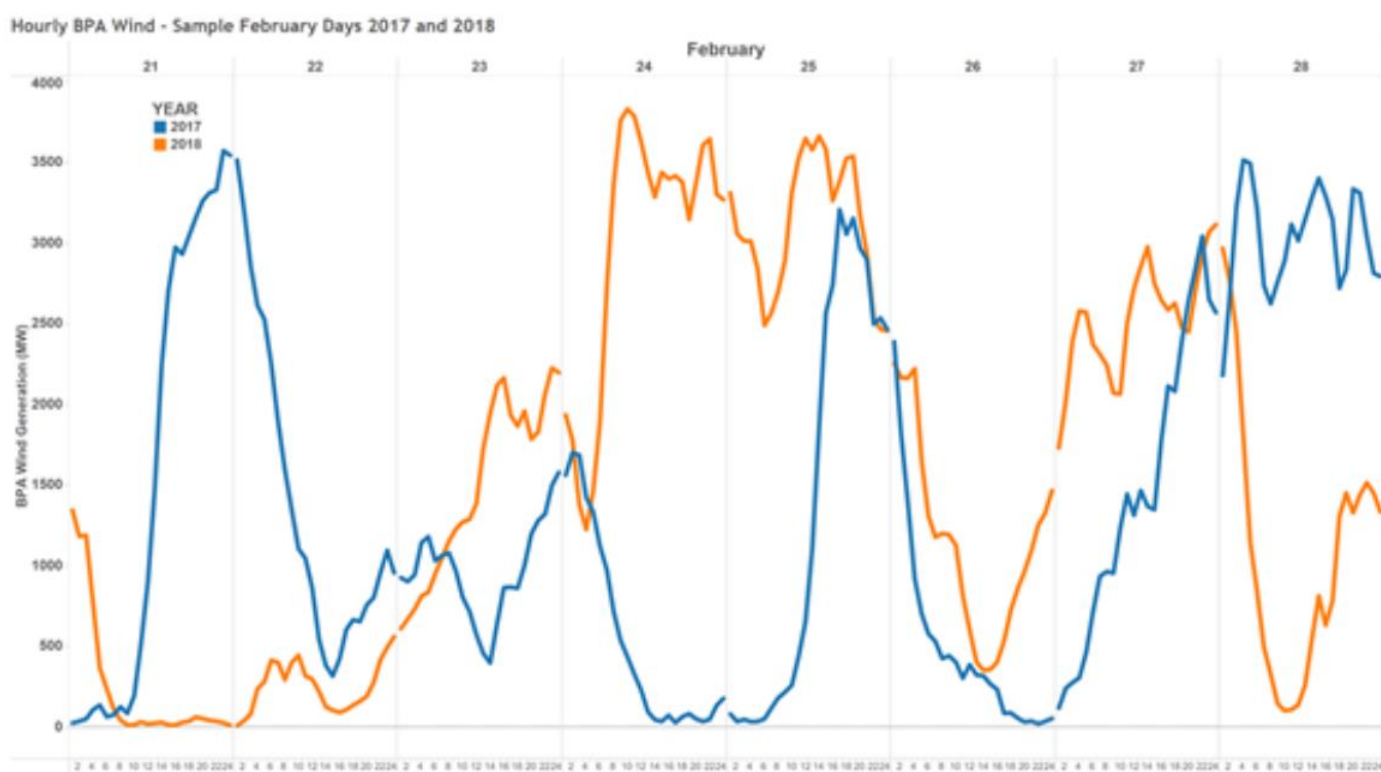


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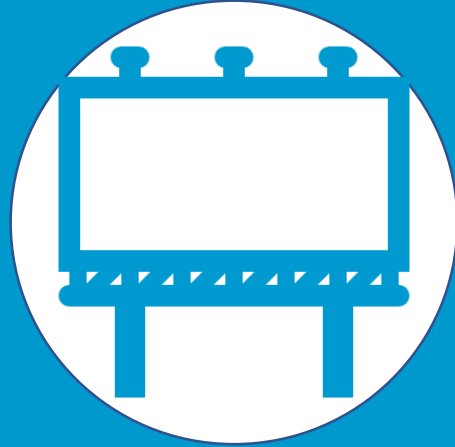
# Removing LSRD Pushes the Decarbonization Effort Back by Years

Annual Average Renewable Capacity Additions in WPP to meet Study Case			
	Using WPP Historic Buildout Pace	Using CA Historic Buildout Pace	Using ERCOT Historic Buildout Pace
Annual average renewable capacity additions from 2007 – 2021 (MW)	1512	1661	2326
Estimated achievement of clean energy laws if <b>double the historic pace</b> of capacity additions (Year)	2076	2071	2057
Added emissions due to delay (MMT)‡	136	114	55
Estimated achievement of clean energy laws and replacement of LSRD if double the historic capacity additions (Year)	2081	2076	2060
Added emissions due to delay for replacement of LSRD (MMT) ‡	8.5	8.5	5.1

# Why So Much Additional Generation?



- Intermittent generation
- Duck Curve magnified
- Huge buildout shifts “net” peak needs
- 35% is curtailed
- Only 9-12% of nameplate is useable



# Campaigns

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- Curious Caretakers, 18-42-Year-Olds
- 100% Digital Campaign
- 21 Million Completed Video Views
- Average of 10.4 Views per Curious Caretaker in Region
- 37 Million Impressions



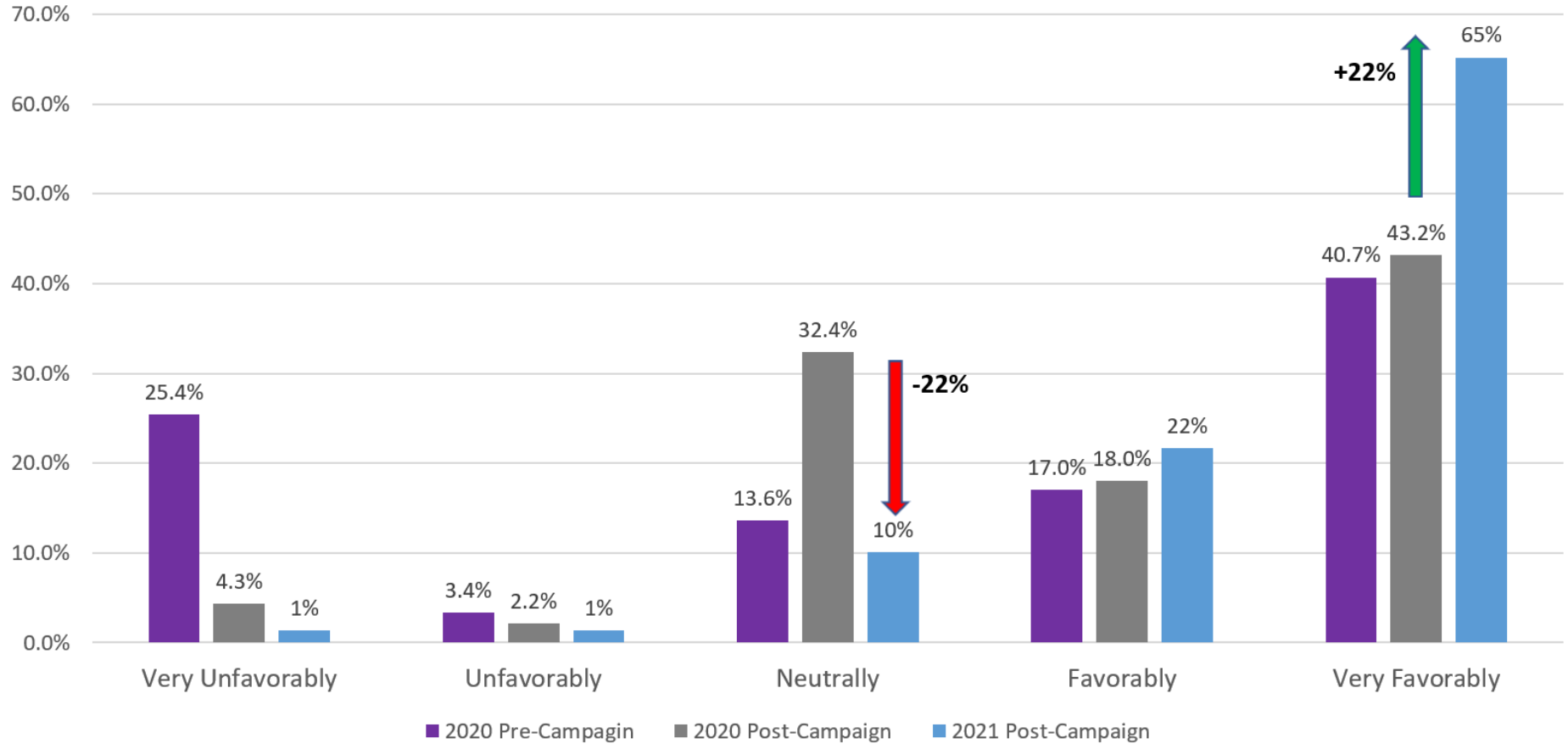
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We've proven we can make a difference

# Our Power Is Water

How Do You View Hydropower?



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NEWv1\_1080x1080



## 90% of Renewable Energy from Hydropower

LEARN MORE ABOUT NORTHWEST HYDROPOWER

NEWv2\_1080x1080



## Removing the Dams Means Burning More Fossil Fuel

LEARN MORE ABOUT NORTHWEST HYDROPOWER

NEWv3\_1080x1080



## Hydropower is Essential to Address Climate Change

LEARN MORE ABOUT NORTHWEST HYDROPOWER

NEWv4\_1080x1080



## Removing Dams Could Raise Rates 25%

LEARN MORE ABOUT NORTHWEST HYDROPOWER

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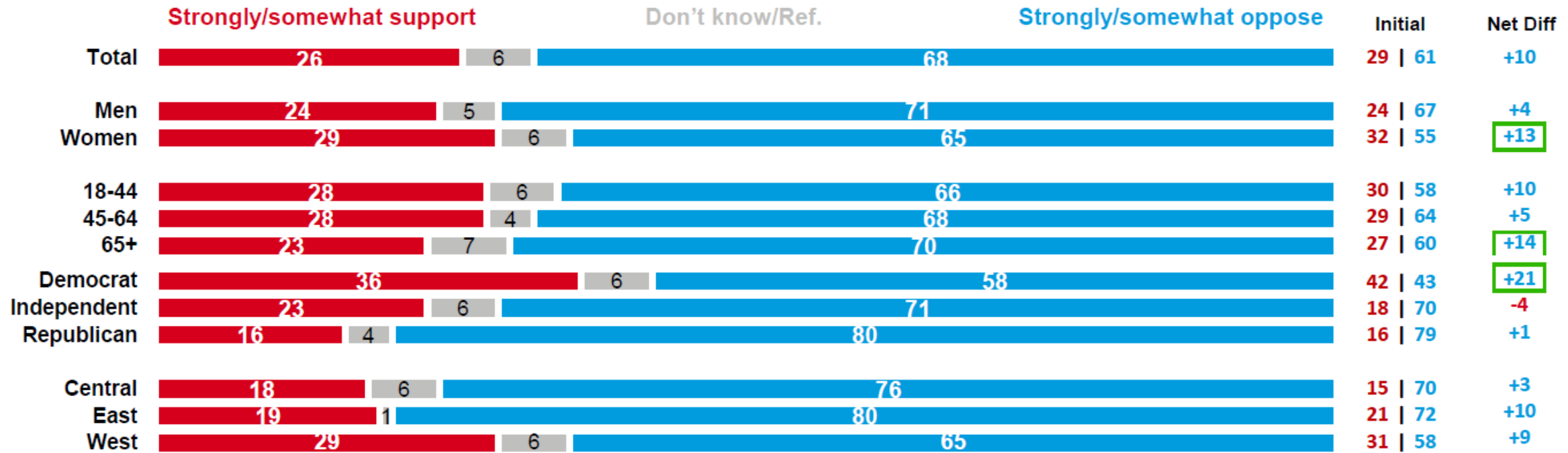
# Final Thoughts

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# Our Messages Our Powerful

## Do you support or oppose removing the Lower Snake River hydropower dams? – Final Vote



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nwriverpartners.org

