Protecting Salmon in the Columbia and Snake Rivers
They talk about cheap electricity. Hydropower. It's not cheap. It's all been paid for by the salmon. When these lights come on, a salmon comes flying out.

> Billy Frank, Jr. Nisqually Tribe
“The many failures in the past .... appear to some parties to be a strategy intended to avoid making hard choices and offending those who favor the status quo. Without real action ... the result will be the loss of the wild salmon.”

Judge James Redden, 2005
“NOAA Fisheries also failed to consider the potentially catastrophic impact of climate change.”
Northwest electricity generation

- Lower Snake River dams
- NW Power Pool

Average Megawatts

- Jan
- Feb
- Mar
- Apr
- May
- Jun
- Jul
- Aug
- Sep
- Oct
- Nov
- Dec
The new NW energy universe:

*Only 1000 aMW of energy comes from the four LSR dams, and:*

- The NW Power & Conservation Council reports all load growth for the next 20 years can be met through energy efficiency.
- Energy efficiency since 1978 already accounts for 5800 aMW, with 1500 aMW more in the pipeline now – dwarfing LSR energy contributions of 1000 aMW.
- A NWEC study shows that, if needed, energy from LSR dams can be replaced by solar and other ‘green’ energy sources, at very low cost.
- A 2015 RME study shows a 4600 aMW generating surplus in the Northwest; with the 4 LSR dams off grid, the surplus is still 3600 aMW. Further, If needed, energy equal to the LSR dams can be purchased on the open market, at lower cost.

*We no longer need the energy from the four high-cost LSR dams; we can re-balance without difficulty.*
Yakima River wild steelhead 2002-2010 5.6%
Yakima River wild chinook 2000-2011 2.7%
above 4 dams

Snake River wild steelhead 1997-2010 1.6%
Snake River wild chinook 1994-2011 0.9%
above 8 dams

Deschutes River wild steelhead 2002-2010 7.3%
above 2 dams

John Day River wild steelhead 2002-2010 5.8%
wild chinook 2000-2011 3.7%
above 3 dams

SARs 2.5 to 3.5 times greater than the Snake

Comparative Survival Studies

SAR Goal 2-6%
“The Federal Columbia River Power System remains a system that ‘cries out’ for a new approach and for new thinking if wild Pacific salmon and steelhead, which have been in these waters since well before the arrival of _homo sapiens_, are to have any reasonable chance of surviving their encounter with modern man.”

- Judge Michael Simon, 2016
“The option of breaching, bypassing, or removing one or more of the Snake River dams may be considered more financially prudent and environmentally effective versus spending additional hundreds of millions of dollars on uncertain habitat restoration.”

Rendering of Lower Granite Dam if earthen portion were removed.
Federal processes underway now

- **NEPA**: a public process, reviewing all salmon recovery options, with a full cost/benefit analysis

- **New “Biological Opinion”**: for the Federal Columbia River Power System, governing how Snake/Columbia projects must be operated to restore ESA-listed wild salmon & steelhead stocks; due by the end of 2018

- After 25 years, the NW region can get it right, restoring valuable wild salmon populations, reducing wasteful spending, and satisfying legal and treaty requirements. A new paradigm is needed; it is at our fingertips, if we choose solutions instead of gridlock.

1% of NW dams, 2% of energy, restore 70% of Columbia Basin salmon