

How Does PSE Compare to Public Power on Carbon, Cost and Reliability?



Randal Samstag, P.E.
Clean Energy Thurston Forum
10 November 2018



Friends of Island Power
<http://www.island-power.org/>

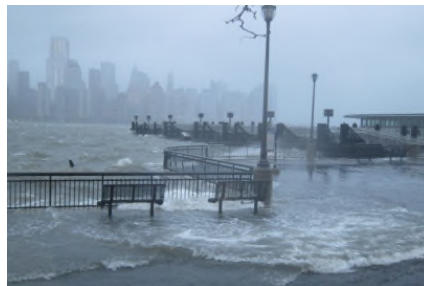


Bainbridge Climate and Energy Forum
<http://www.bainbridgeislandforum.org/>

Edward Teller warned of global warming and sea level rise in a speech to the American Petroleum Institute in 1959.

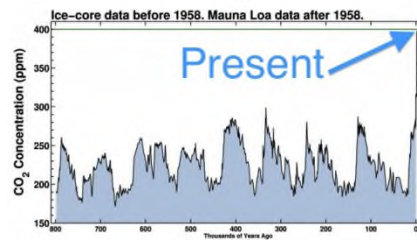
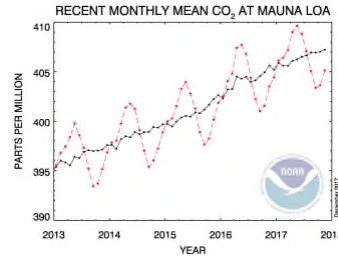
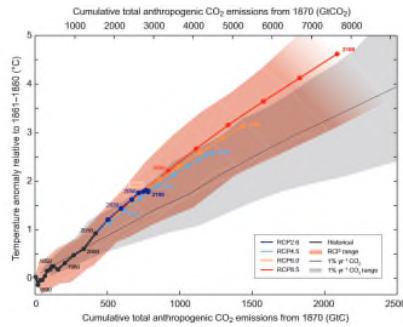


“Carbon dioxide has a strange property. It transmits visible light but it absorbs the infrared radiation which is emitted from the earth. Its presence in the atmosphere causes a greenhouse effect [...] It has been calculated that a temperature rise corresponding to a 10 per cent increase in carbon dioxide will be sufficient to melt the icecap and submerge New York. All the coastal cities would be covered, and since a considerable percentage of the human race lives in coastal regions, I think that this chemical contamination is more serious than most people tend to believe.”



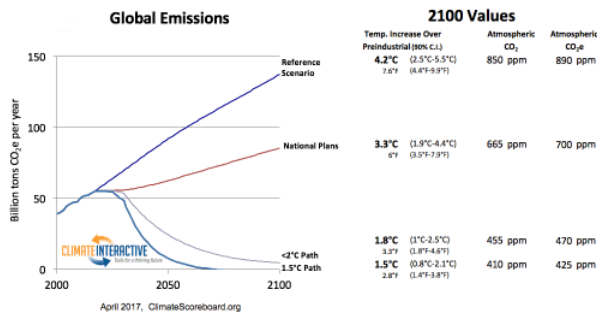
<https://www.theguardian.com/environment/climate-consensus-97-per-cent/2018/jan/01/on-its-hundredth-birthday-in-1959-edward-teller-warned-the-oil-industry-about-global-warming>

We now know that burning fossil fuels causes sea level and temperature rise (and ocean acidification and other bad things).



Sources: <http://www.climatecentral.org/news/the-last-time-co2-was-this-high-humans-didnt-exist-15938>; IPCC Reports
<https://www.esrl.noaa.gov/emd/ccg/trends/>

Where are we headed if we don't stop?



- **National Plans – 3.3°C (6.0°F)** – No change after national contribution pledge period.
- **<2.0°C Path – 1.8°C (3.3°F)** – All countries peak by 2030 and then reduce steadily, with rates in the post-2030 period faster in the developed countries (5%/yr) than in the developing countries (3.5%/yr).
- **1.5°C Path – 1.5°C (2.8°F)** – All developed countries peak by 2025 and then reduce steadily at 10%/yr; all developing countries peak no later than 2030 and then reduce steadily at 8%/yr.

Source: <https://www.climateinteractive.org/programs/scoreboard/scoreboard-science-and-data/>

Puget Sound Energy



- Sold to private equity Macquarie Capital of Sydney, AU and Canadian pension funds in 2009.
- Macquarie's 44 percent share was sold to Canadian and Dutch investment funds in 2018.
- 10 percent ROI allowed by UTC
- Largest carbon polluter of all utilities in Washington
- PSE CEO is Chairperson of American Gas Assoc.
- 1.2 million electricity customers in 8 counties
- Rates and Bills: 25% above state average
- Poor reliability compared to public power



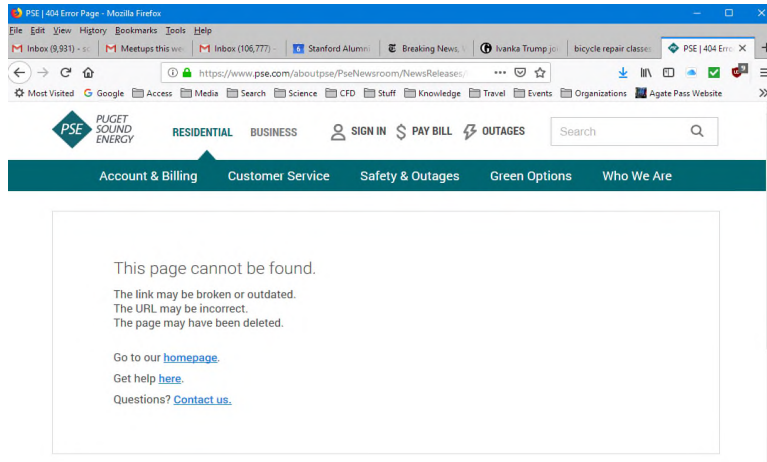
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PSE's Current Owners



- Alberta Investment Management Corporation (AIMCo - 13.6%): Canadian oil patch investment firm
- British Columbia Investment Management Corporation (BCI - 20.9%): Canadian public sector investment firm
- Ontario Municipal Employees Retirement System (OMERS – 23.9%): Canadian public sector investment corporation
- (PGGM – 10%): Dutch cooperative: “Making a profit is not of itself an objective, but a means employed to ensure the cooperative’s members are continually being given a better service.”
- Canada Pension Plan Investment Board (CPPIB – 32.6%): “A professional investment management organization that invests the funds of the Canada Pension Plan on behalf of its 20 million Canadian contributors and beneficiaries.”

This is what you will find if you search for information about PSE's new owners on their website.



Public Power Utilities



- 62 Public Power Utilities In Washington State
- Public Ownership and Management
- Public Utility Districts, Municipal Utilities, Coops
- 60 Percent of Washington Load
- Rates and Bills: State average 25% less than PSE
- BPA-supplied public utilities average 15 times less carbon pollution than PSE per customer.

Counties Served by Electricity PUDS



This is the website for Jefferson County's new publicly owned electricity utility.

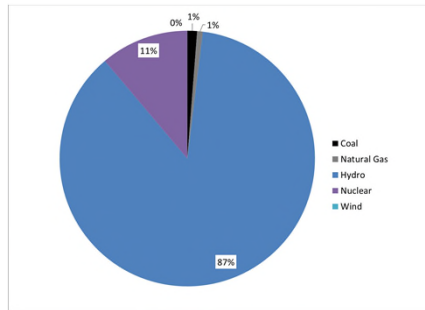
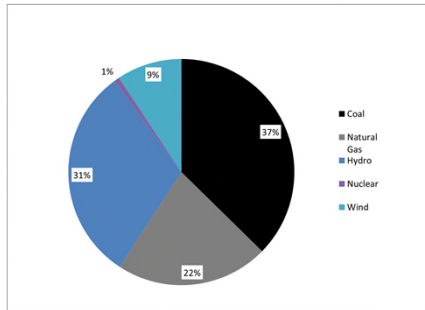


Fuel Mix Comparison - 2016



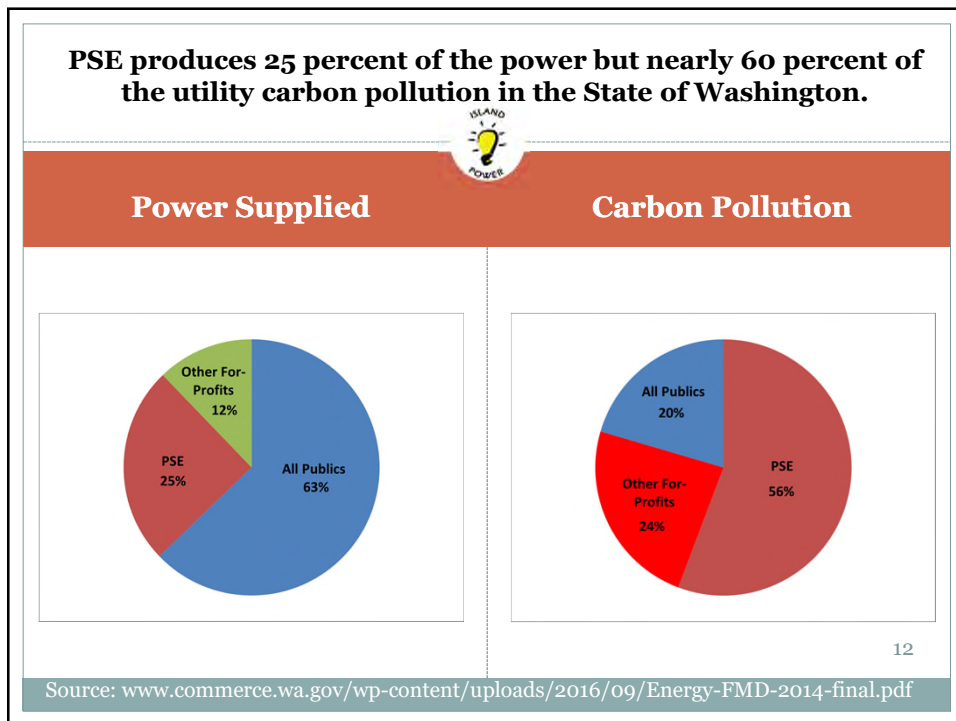
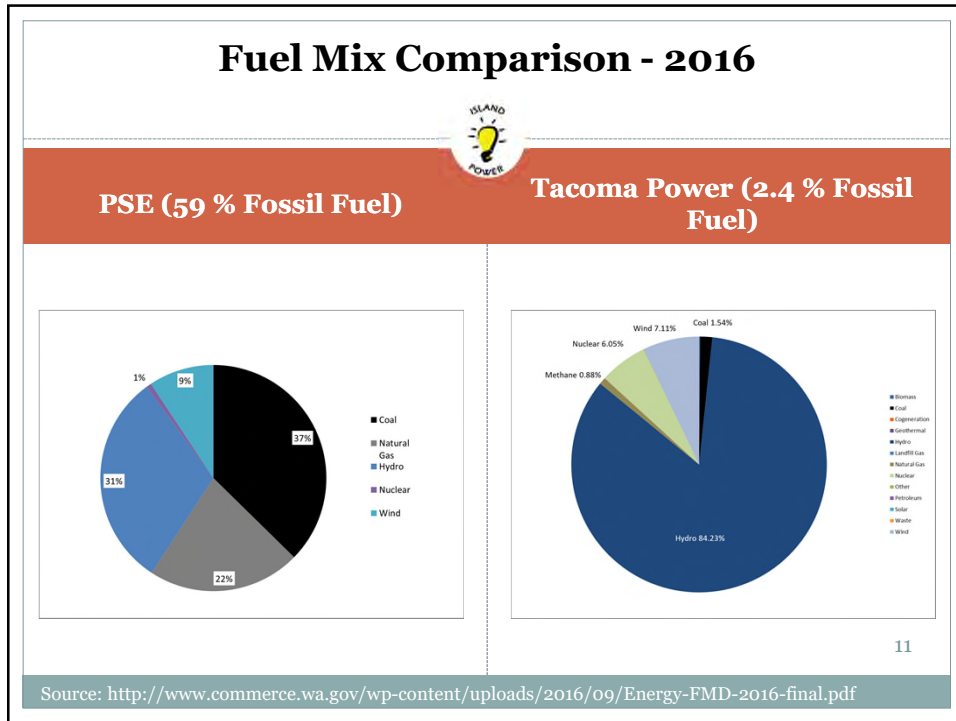
PSE (59 % Fossil Fuel)

Jefferson County PUD (2.5 % Fossil Fuel)

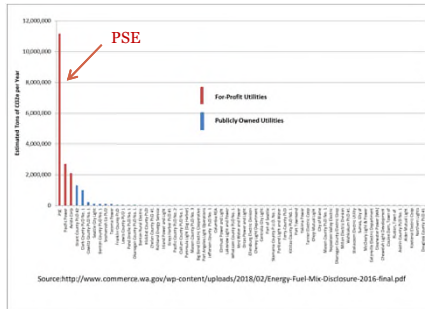


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Source: <http://www.commerce.wa.gov/wp-content/uploads/2016/09/Energy-FMD-2016-final.pdf>



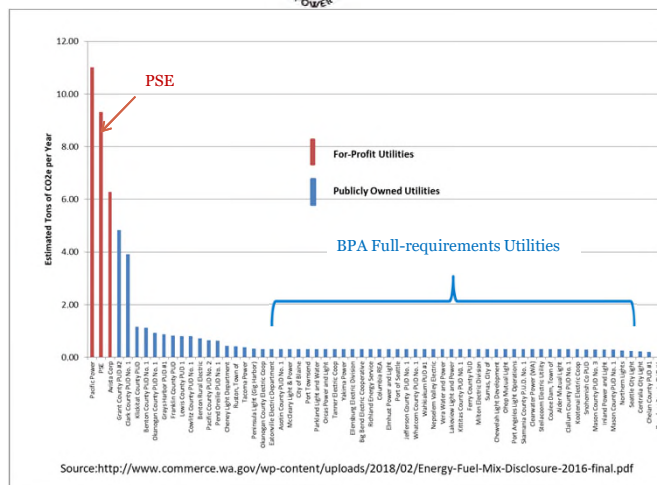
PSE is the largest carbon polluting utility in Washington State by a massive amount.



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Source: www.commerce.wa.gov/wp-content/uploads/2016/09/Energy-FMD-2016-final.pdf

PSE produced 15 times more carbon pollution on a per-customer basis than BPA full-requirements utilities in 2016.



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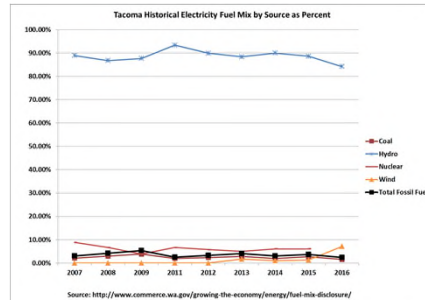
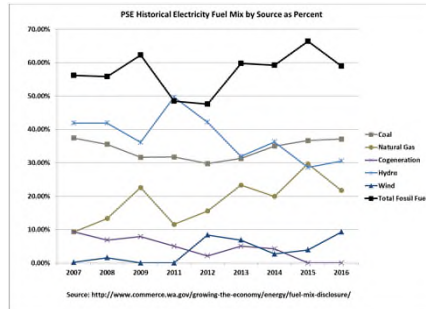
Source: www.commerce.wa.gov/wp-content/uploads/2016/09/Energy-FMD-2016-final.pdf

PSE Fuel Mix Trends Compared to Tacoma Power



PSE – 50 to 60 Percent Fossil Fuel

Tacoma – 90 Percent Hydro



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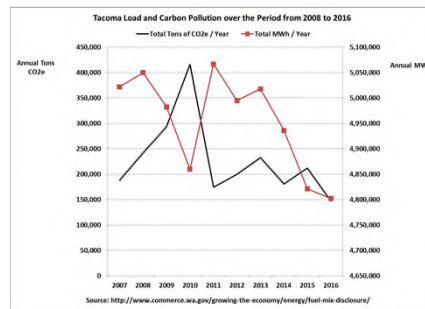
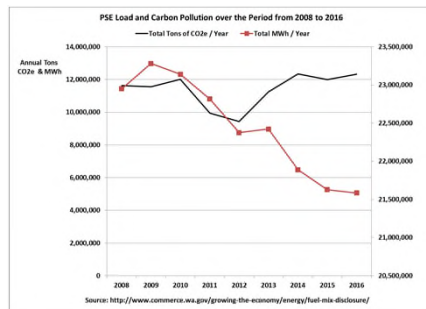
Source: www.commerce.wa.gov/wp-content/uploads/2016/09/Energy-FMD-2016-final.pdf

Carbon Pollution and Power Demand Trends



PSE – Carbon Pollution Up / Power Demand Down

Tacoma – Both Carbon Pollution and Demand Down



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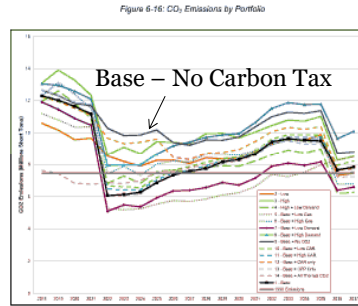
Source: www.commerce.wa.gov/wp-content/uploads/2016/09/Energy-FMD-2016-final.pdf

PSE's 2017 Integrated Resource Plan says PSE will produce 10-12 million tons per year of carbon pollution through 2035.



The Hype

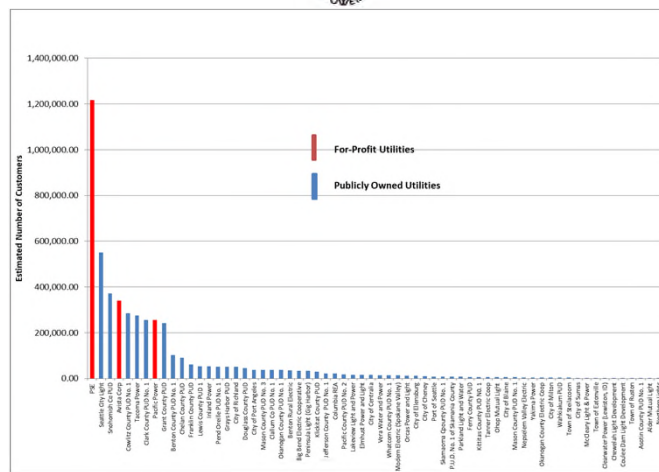
The Reality



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Source: https://pse.com/aboutpse/EnergySupply/Documents/8a_2017_PSE_IRP_Chapter_book_compressed_110717.pdf

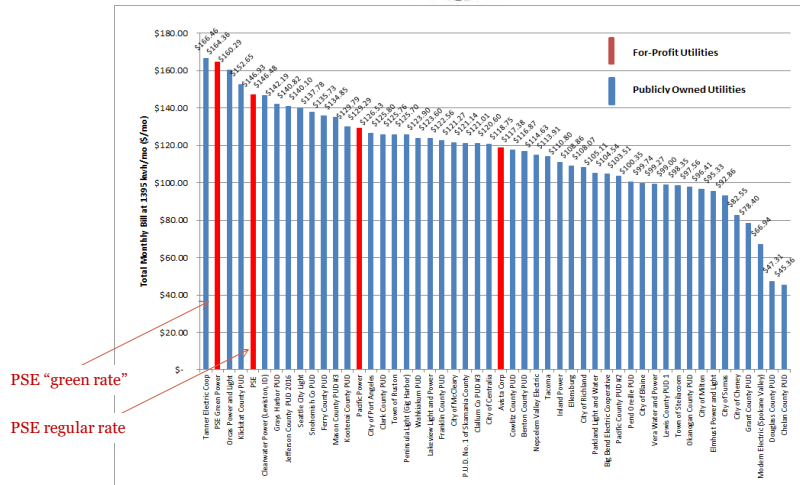
PSE has the largest number of customers of any utility in the State of Washington.



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Source: www.commerce.wa.gov/wp-content/uploads/2016/09/Energy-FMD-2014-final.pdf

Yet, in 2016 PSE's rates were among the highest in the State.



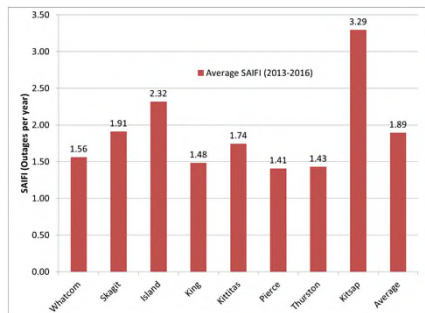
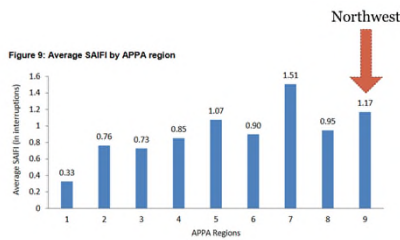
<http://www.lni.wa.gov/TradesLicensing/Electrical/Install/Puds/default.asp> and individual utility websites Dec 2016.

Reliability: Comparison of Average Frequency of Outages



Public Power

PSE



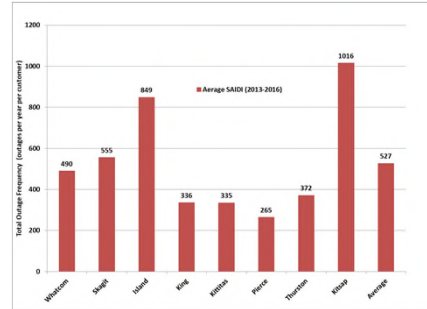
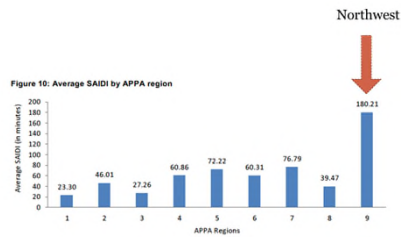
Source: APPA (American Public Power Association) *Evaluation of Data Submitted in APPA's 2013 Distribution System Reliability & Operations Survey*, Puget Sound Energy 2016 SQ Program and Electric Service Reliability Filing Attachment A: Service Quality and Electric Service Reliability Report.

Reliability: Comparison of Duration of Outages



Public Power

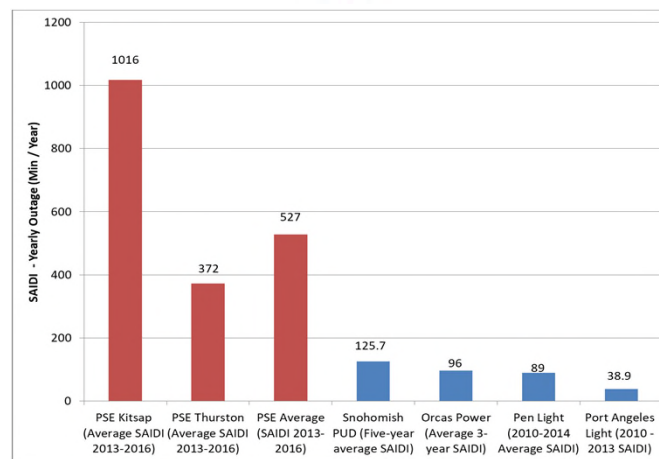
PSE



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Sources: APPA (American Public Power Association) Evaluation of Data Submitted in APPA's 2013 Distribution System Reliability & Operations Survey, Puget Sound Energy 2015 Service Quality and Electric Service Reliability Report, filed with the WUTC, March 2016.

Comparison of PSE Outage Duration Data To Some Regional Publics



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Source: PSE WUTC 2014 Reliability Report; Web and Personal Communications from Pubic Utilities.

Conclusions



- We **have to stop** carbon pollution from burning fossil fuels.
- PSE is the **largest carbon polluting utility** in the State of Washington with **15 times more carbon pollution** per customer than publics.
- PSE is planning to continue to pollute **beyond 2035**.
- PSE rate structures are among **highest** in Washington in spite of “economies of scale.”
- PSE’s system-wide reliability is **four to fourteen times worse** than comparable regional public utilities.
- Public power utilities have a much **better record** than PSE on **carbon impact, rates & reliability**.

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Thank You!



Randal W. Samstag, P.E.

rsamstag@rsamstag.com

+1(206)851-0094



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Power
[http://www.island-
power.org/](http://www.island-power.org/)



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