

# LOAD FORECAST BRIEFING

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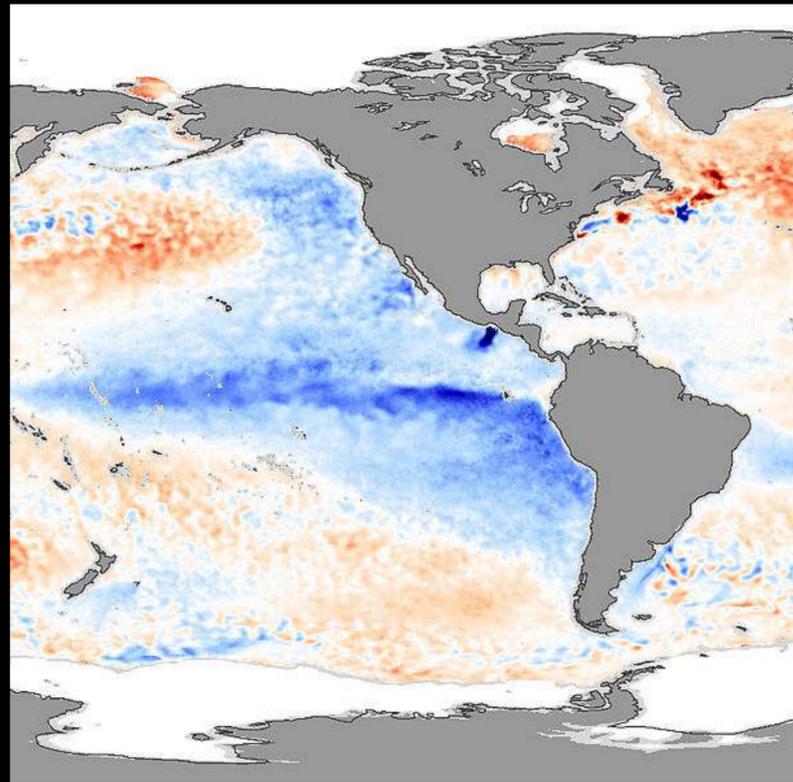
OPALCO

Board Meeting  
February 2026

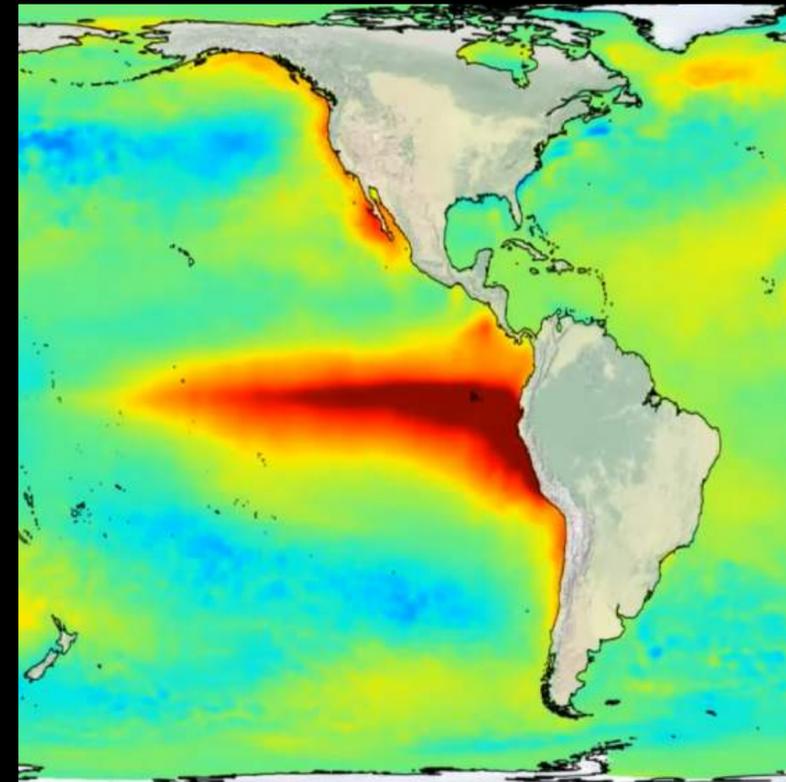
# Oceanic Niño Index (ONI): Global Weather Perspective

*Our winds prevail from the south, and the air temperature is influenced by southern hemisphere El Niño and La Niña cycles*

## Southern Hemisphere Pacific



**La Niña**  
(cooler)



**El Niño**  
(warmer)

# Oceanic Niño Index (ONI): NOAA update 9 February 2026

*There is a 75% chance of a transition from La Niña to **neutral by March 2026**.*

*The transition is projected to accelerate toward a warmer **El Niño cycle by July 2026**.*

*During the last four weeks, above-average sea surface temperatures (SST's) were prevalent over most of the global oceans.*

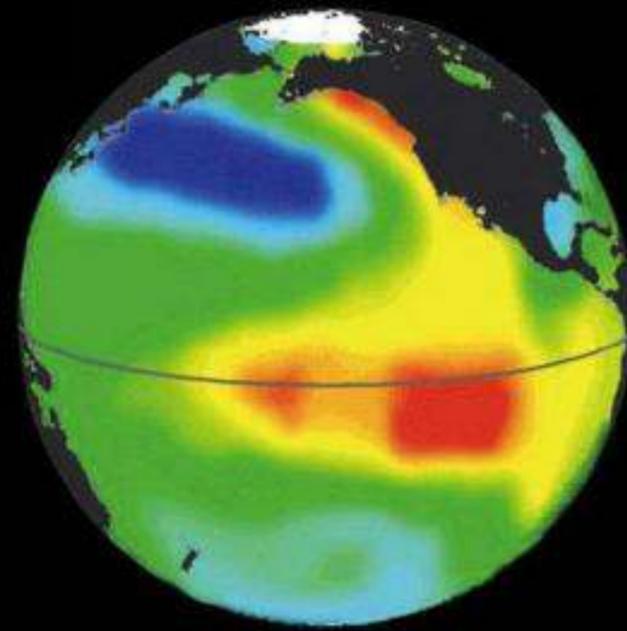
# Oceanic Niño Index (ONI): Pacific Northwest Weather Perspective

Weather Variable	El Niño (Positive ONI)	La Niña (Negative ONI)
Temperature	<b>Warmer than average.</b> Winter temperatures are typically milder, leading to fewer extreme cold events.	<b>Cooler than average.</b> Increased likelihood of arctic air intrusions and lower overall temperatures.
Precipitation	<b>Drier than average.</b> PNW often experiences below-normal rainfall and mountain snow during these cycles.	<b>Wetter than average.</b> Stronger storms often bring above-normal rain and heavy mountain snowpack.
Snowpack	<b>Reduced.</b> Warmer air shifts the freezing level higher, meaning more precipitation falls as rain than snow at mid-elevations.	<b>Enhanced.</b> The combination of cool air and high moisture favors a deeper, longer-lasting snowpack.

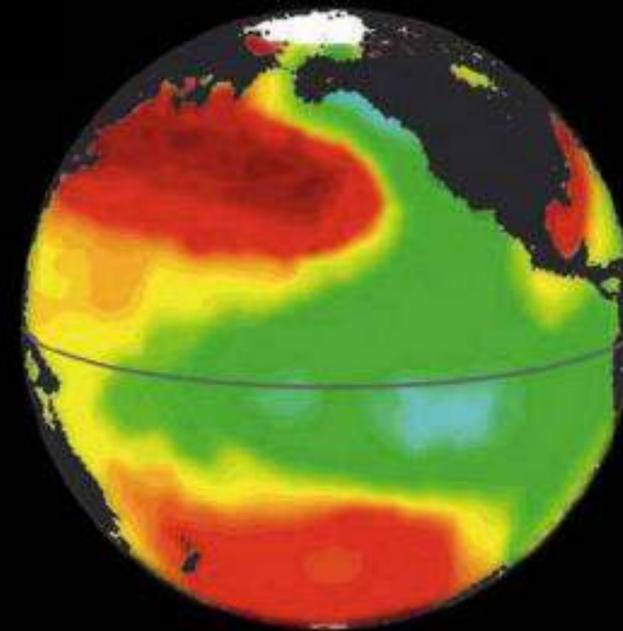
# NW Weather Perspective: Pacific Decadal Oscillation (PDO)

*Our air temperature is also influenced by northern hemisphere PDO which effects nearby ocean temperatures*

## Northern Hemisphere Pacific

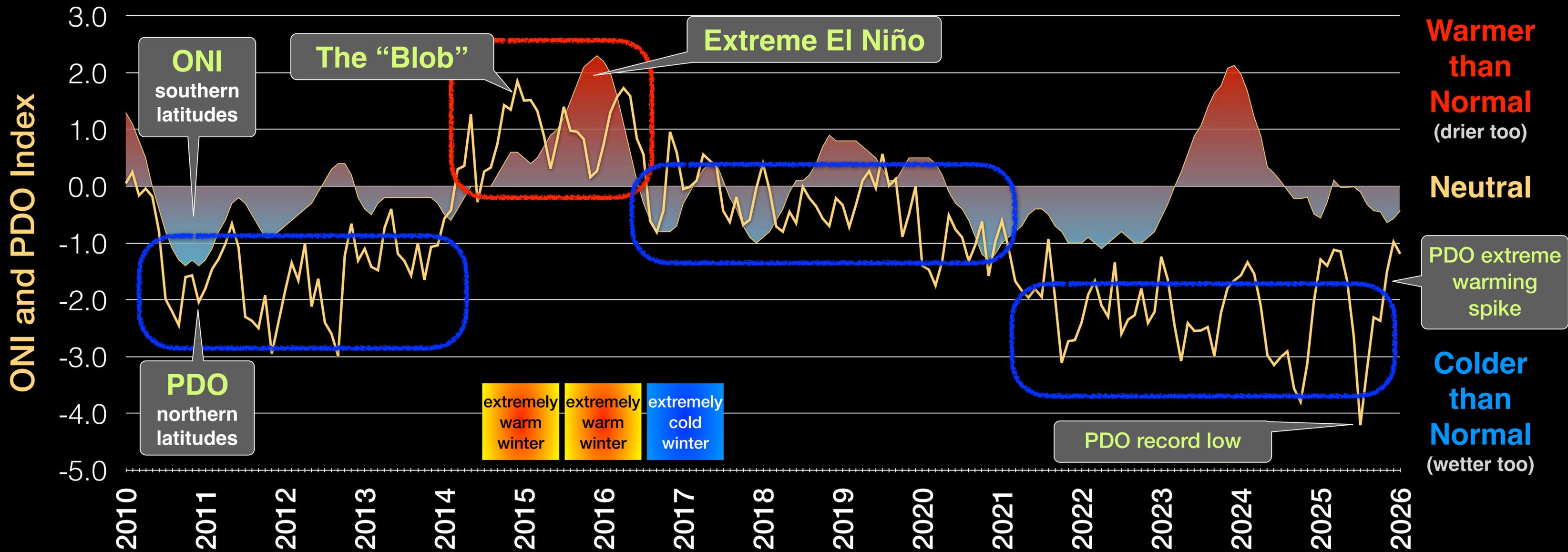


**Cold PDO**

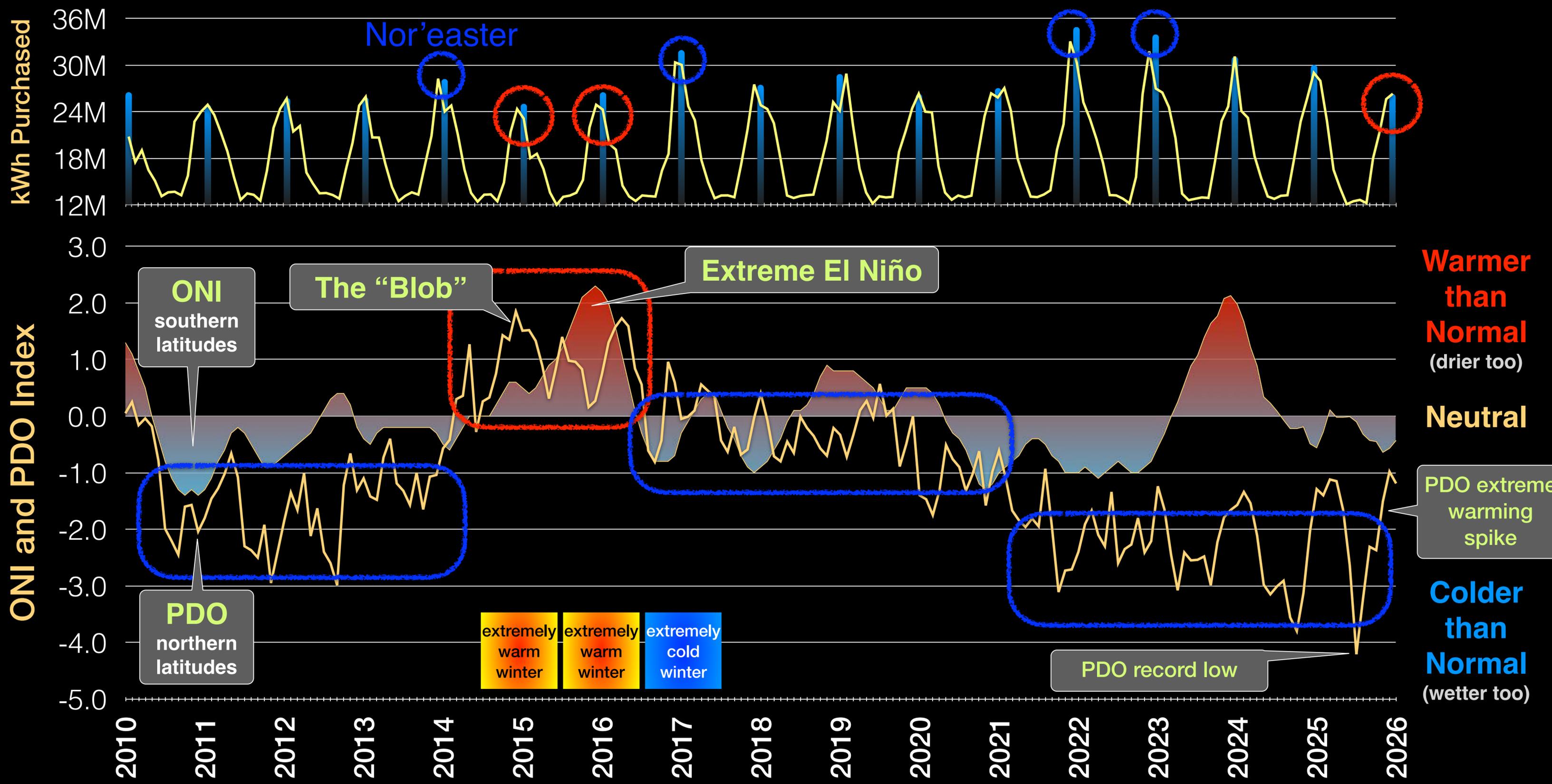


**Warm PDO**  
(The "Blob" 2016)

# Tracking the ONI and PDO

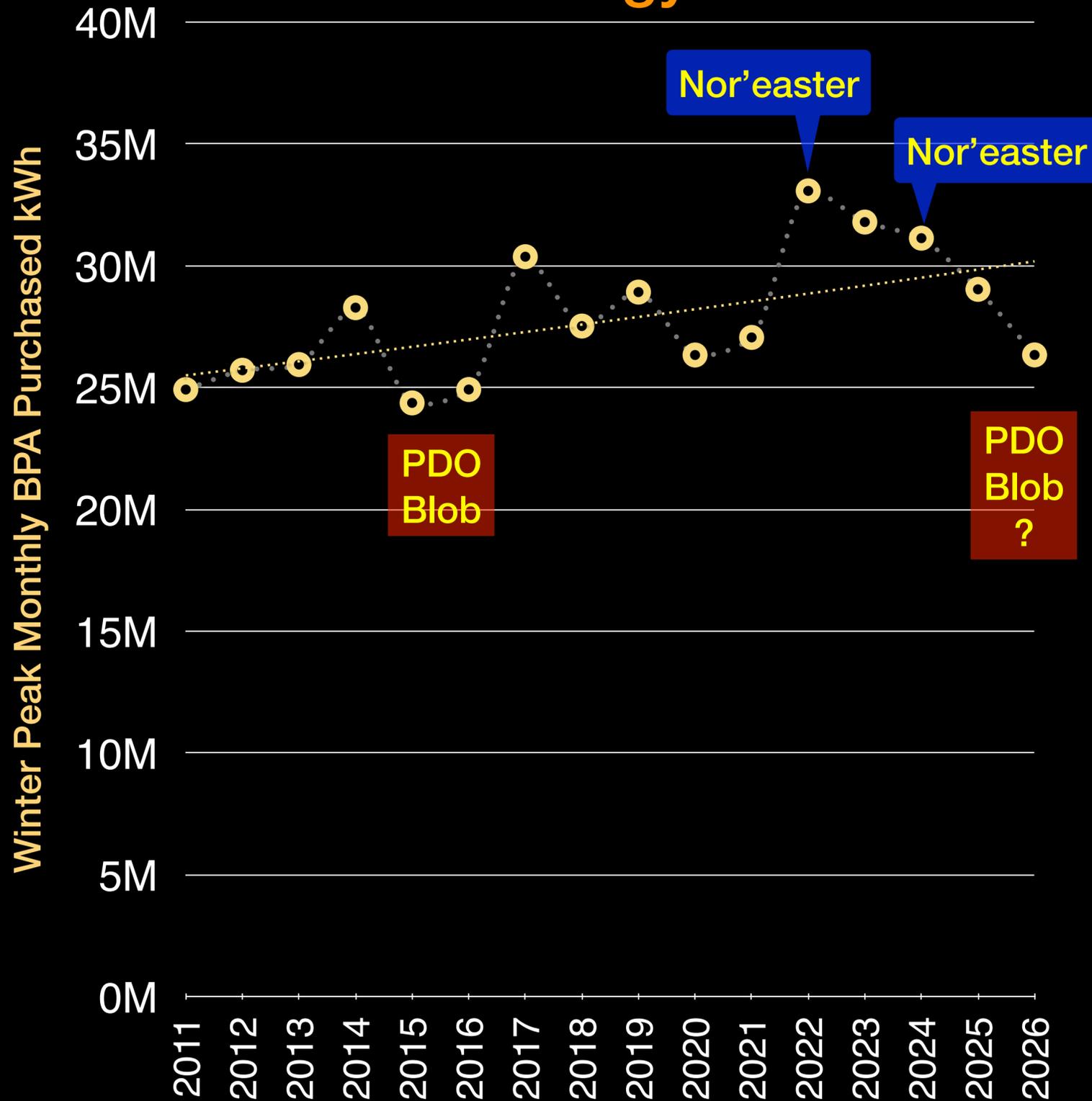


# Energy Purchased, ONI and PDO: monthly kWh and peak monthly winter kWh

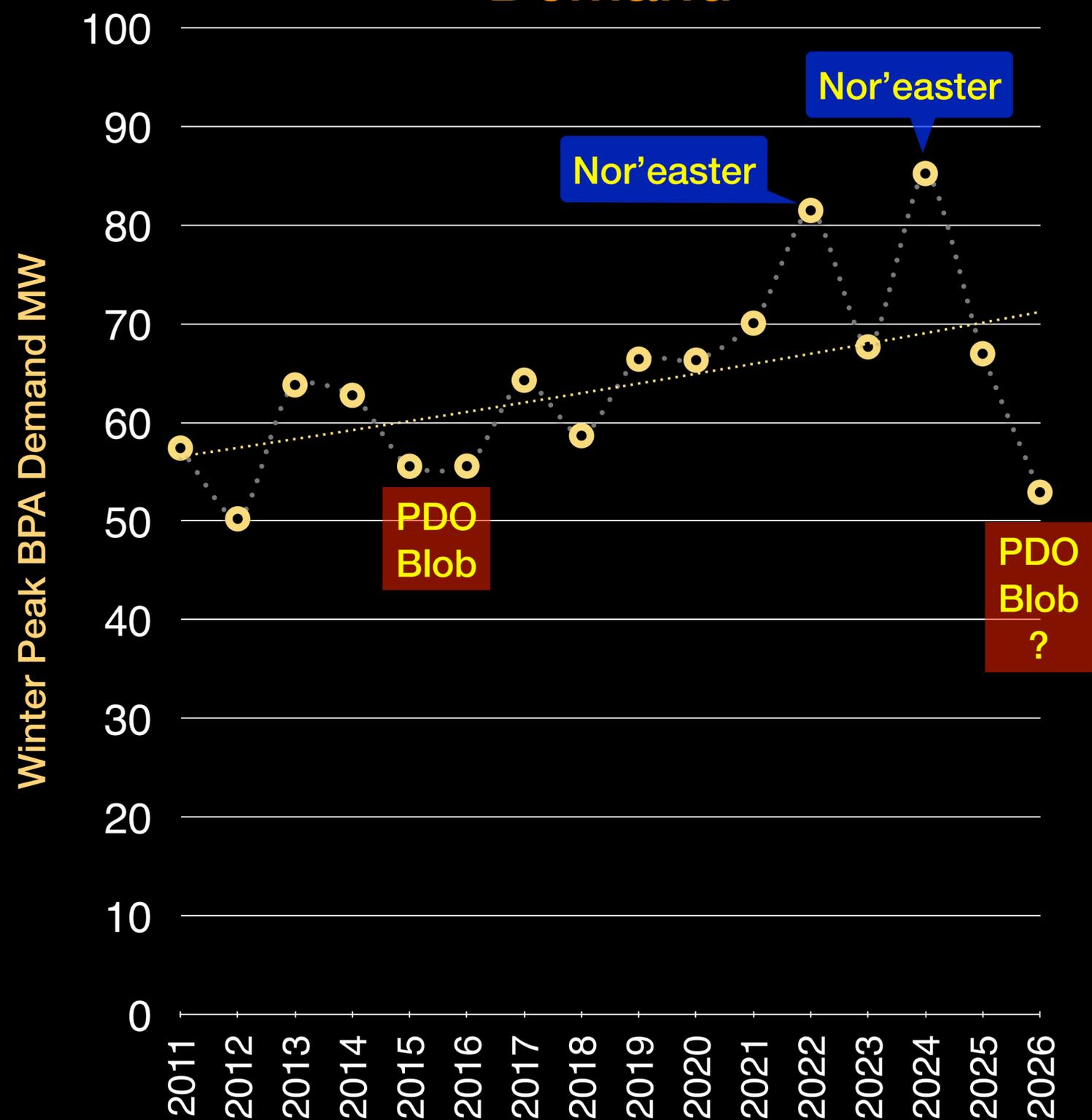


# Peak Winter Month Energy and Demand: BPA Purchased

## Energy



## Demand



# PDO Overview: 2025 extreme warming spike

Aside from the current 2025 event, a 5-month rebound this sudden has only occurred 4 times since 1854

**1869** Record solar storms supercharged El Niño

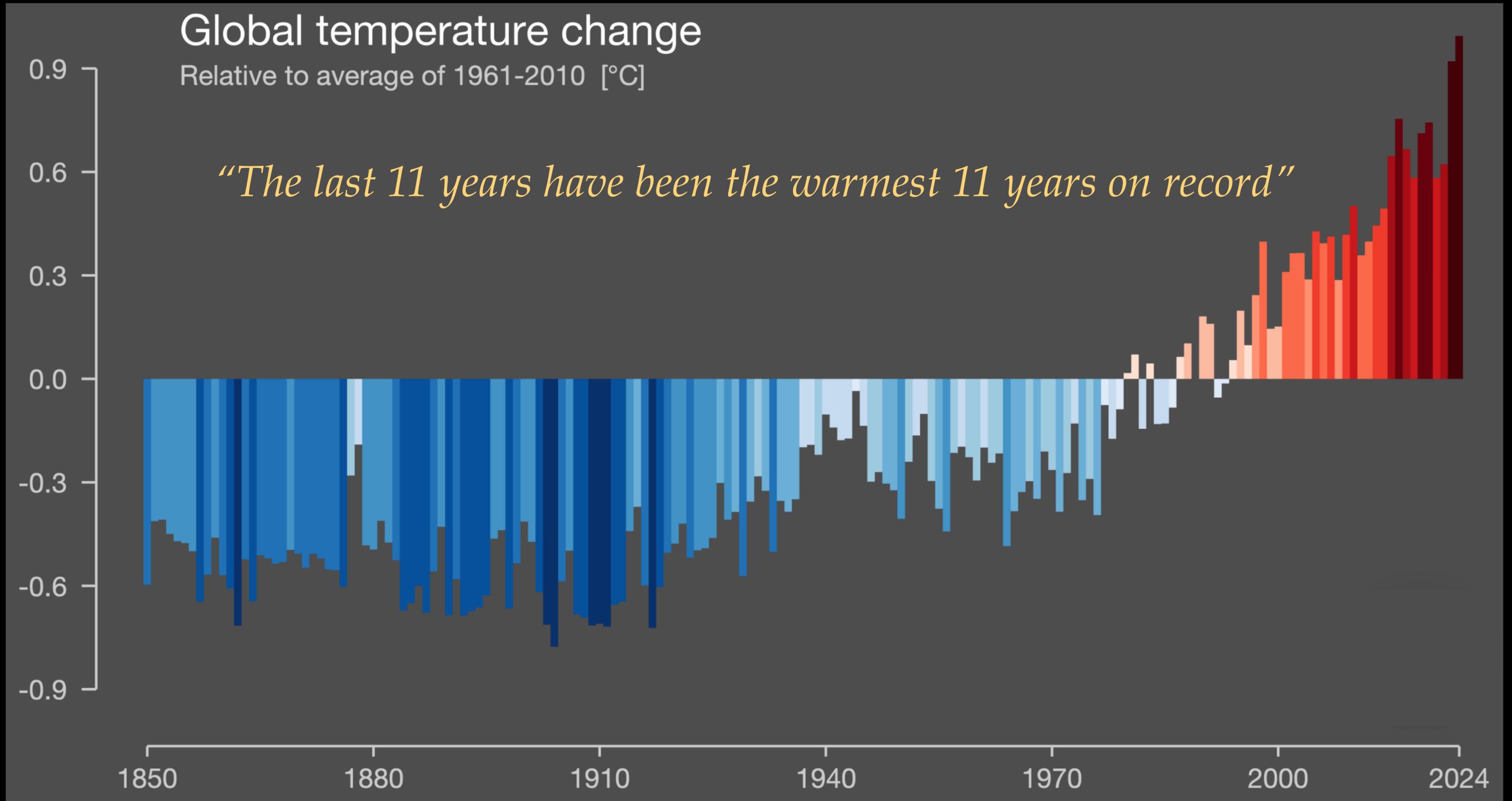
**1882** Massive Krakatoa volcanic-aerosol event

**1940** The start of a 40-year warming phase

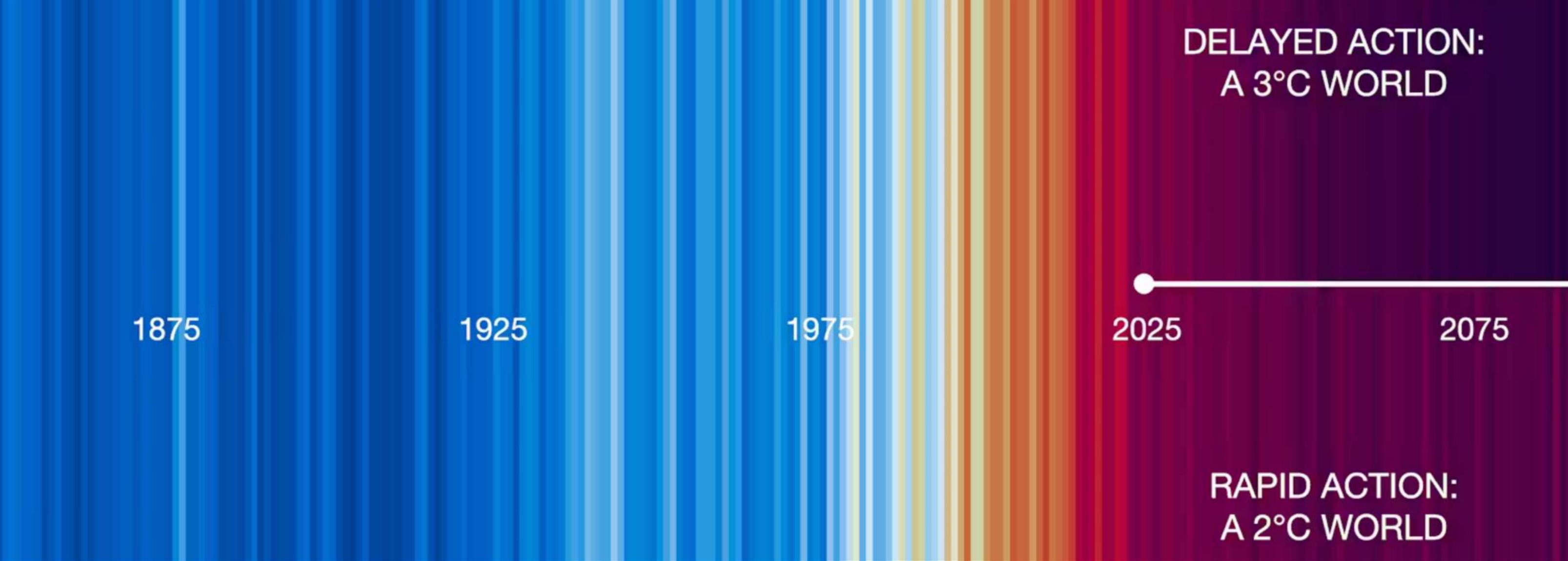
**1944** Major El Niño period + pacific war pollution

*This is a "Black Swan" event*

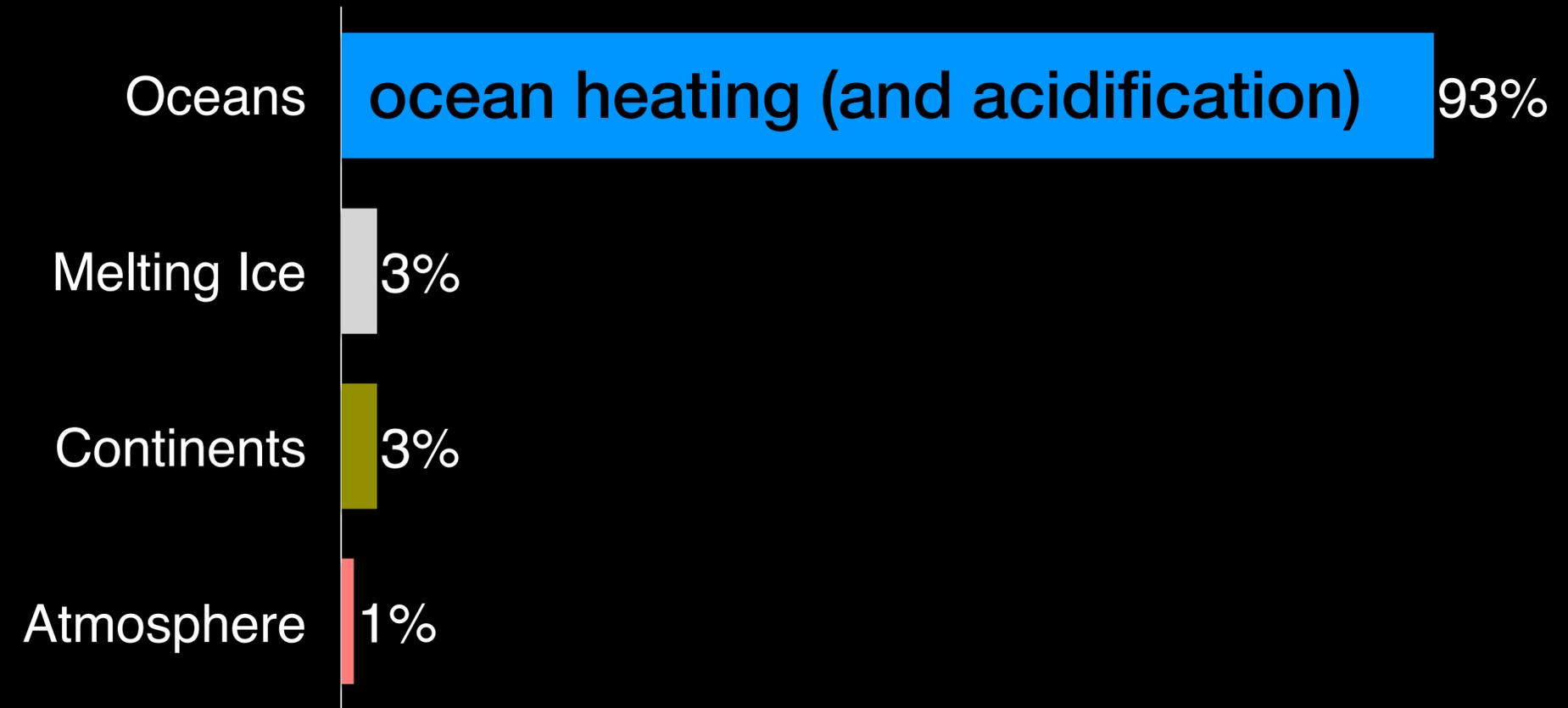
# PDO Drivers: Global Average Surface Temperatures from 1850 to 2024



# PDO Drivers: Global Average Surface Temperatures 2025 and beyond



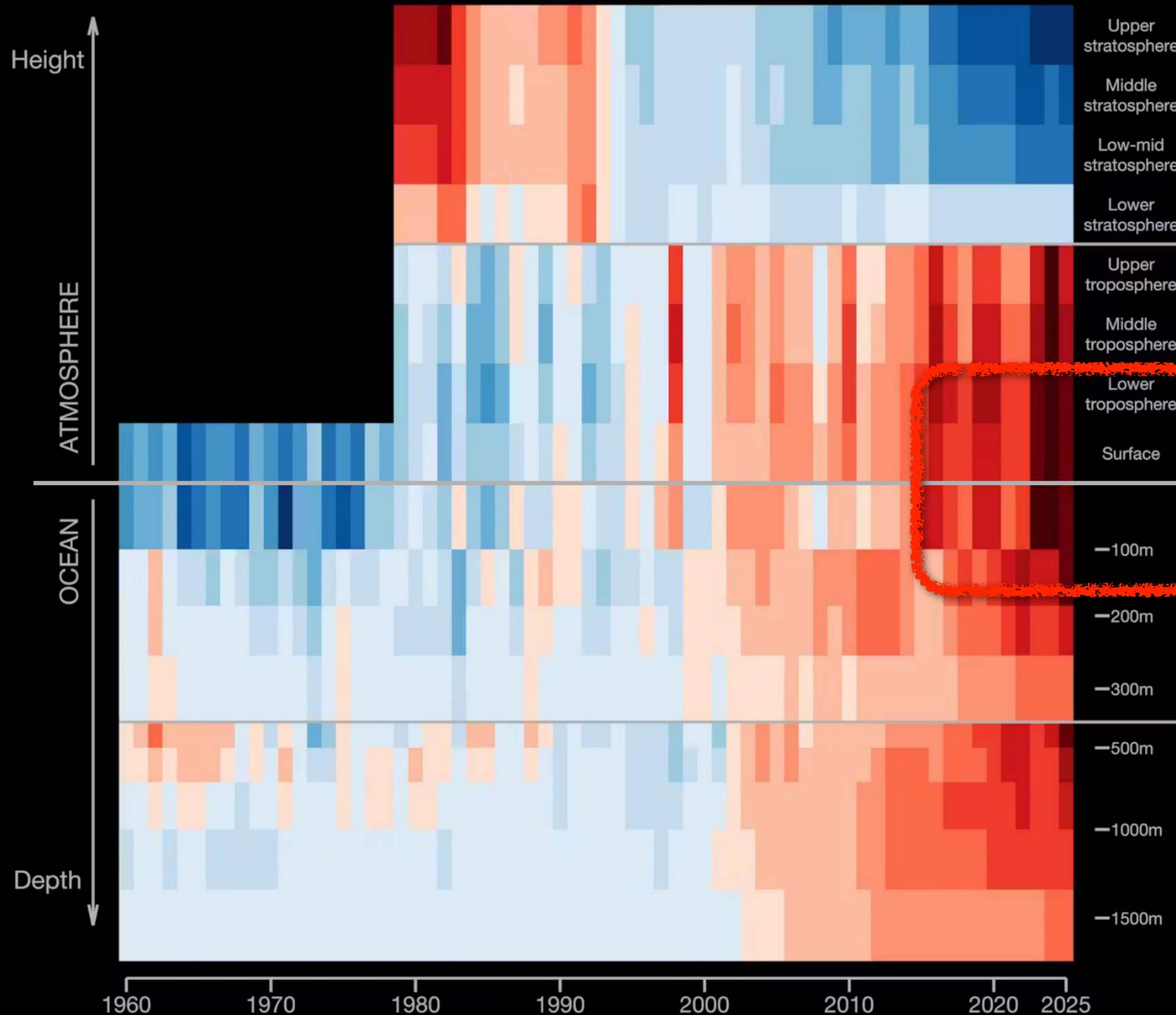
# PDO Drivers: Where has the heat gone?



*In 2025, the heat content of the entire upper ocean reached a record high for the fifth consecutive year*

**NOAA**

# PDO Drivers: Climate energizing atmosphere and ocean volatility

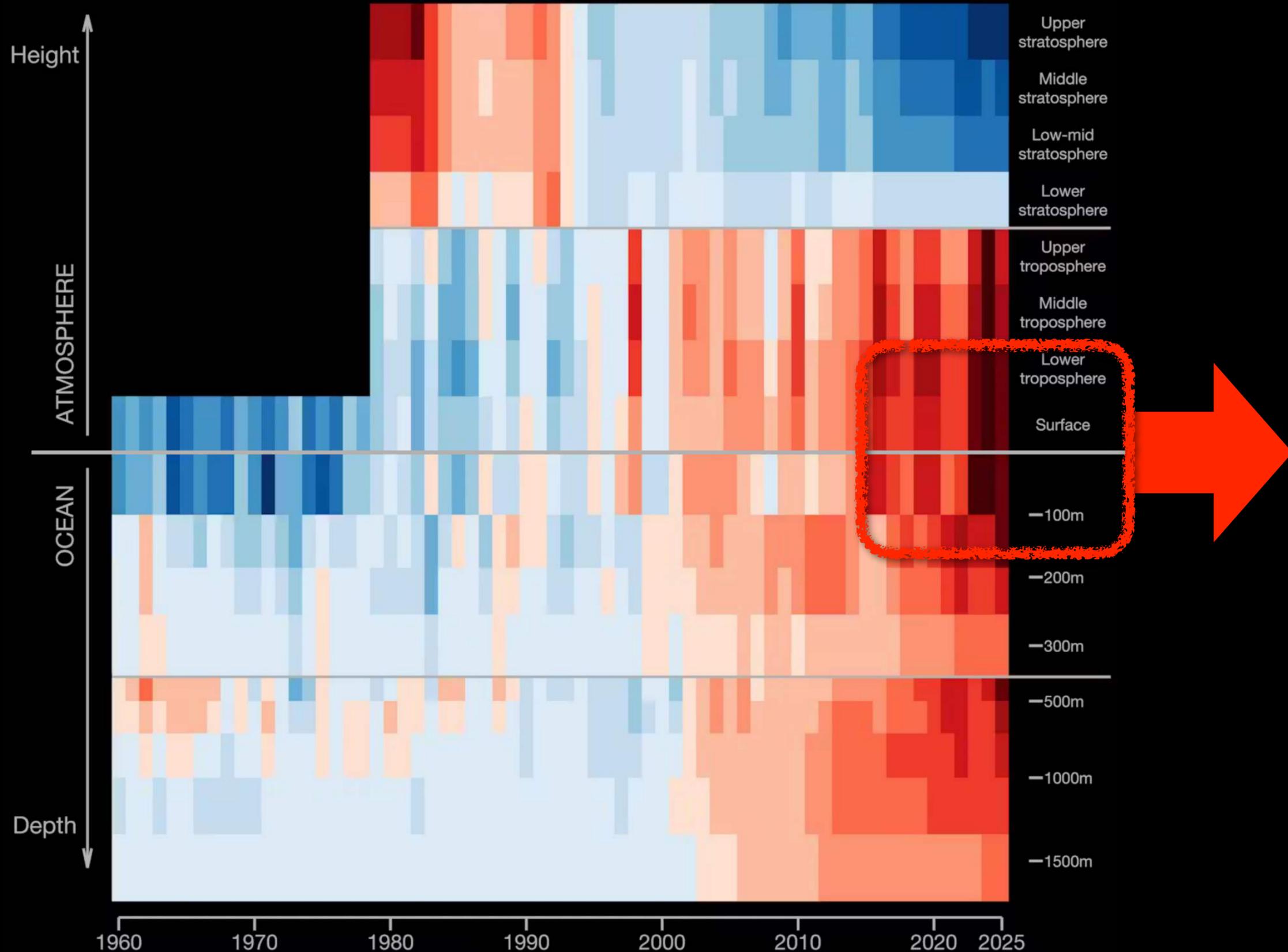


- 1) Greenhouse Effect warms surface temperatures.
- 2) Surface heating is warming the upper ocean layer.
- 3) The upper ocean layer is becoming more stratified and, in some areas, thinner.
- 4) A thinner layer of water has less thermal inertia, meaning it takes less energy to move the temperature needle significantly.
- 5) This makes the index more "twitchy" — it can swing faster and further than it did in the 19th or early 20th centuries.

# PDO Drivers: Climate energizing atmosphere and ocean volatility

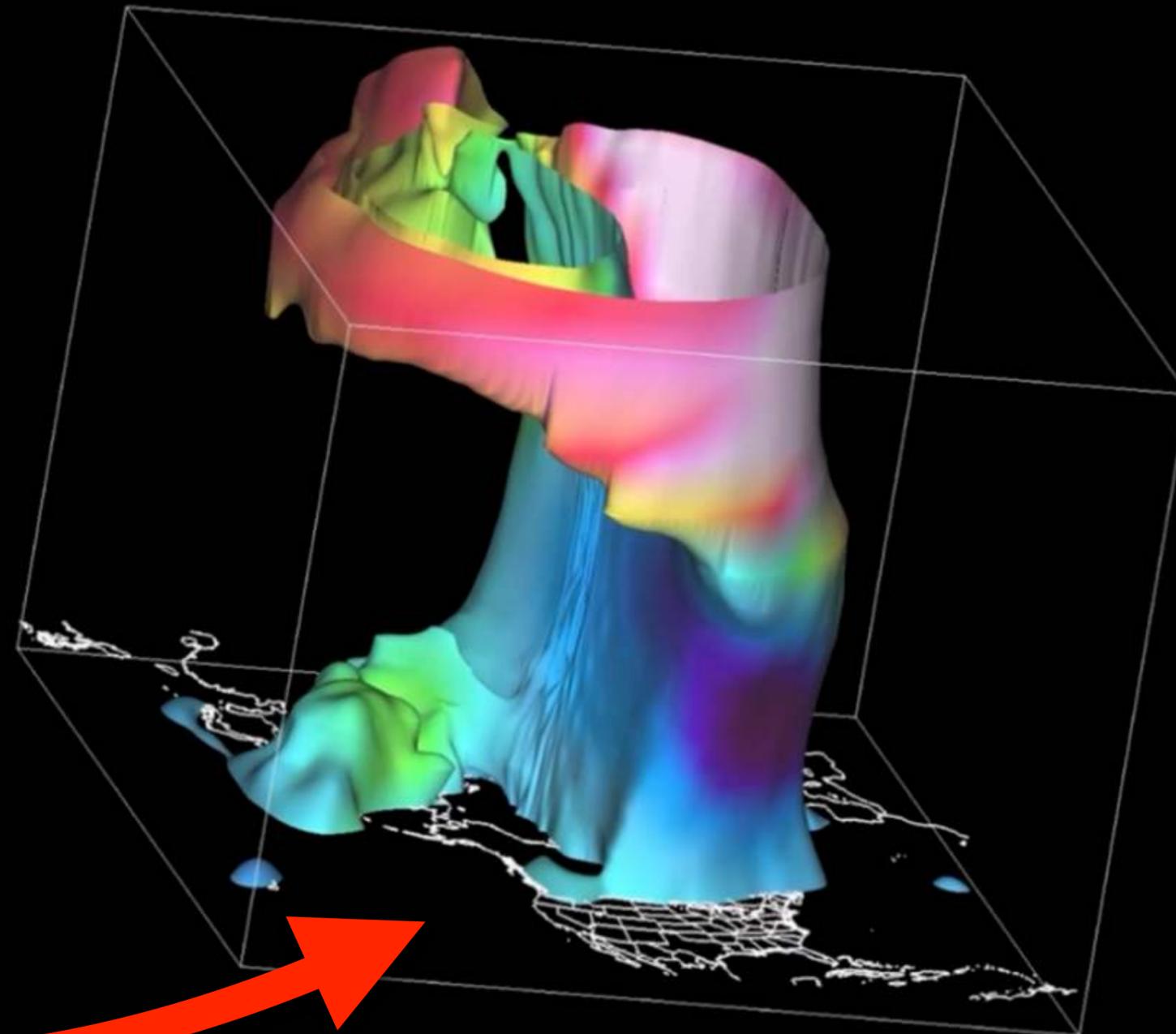
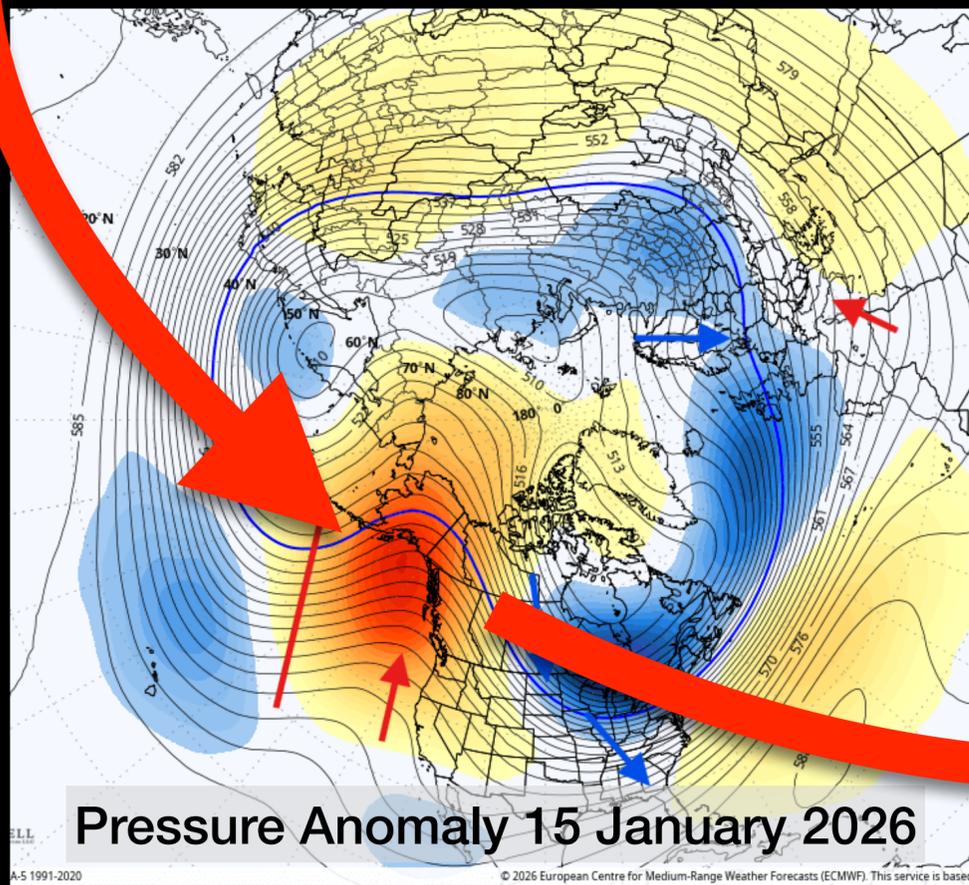
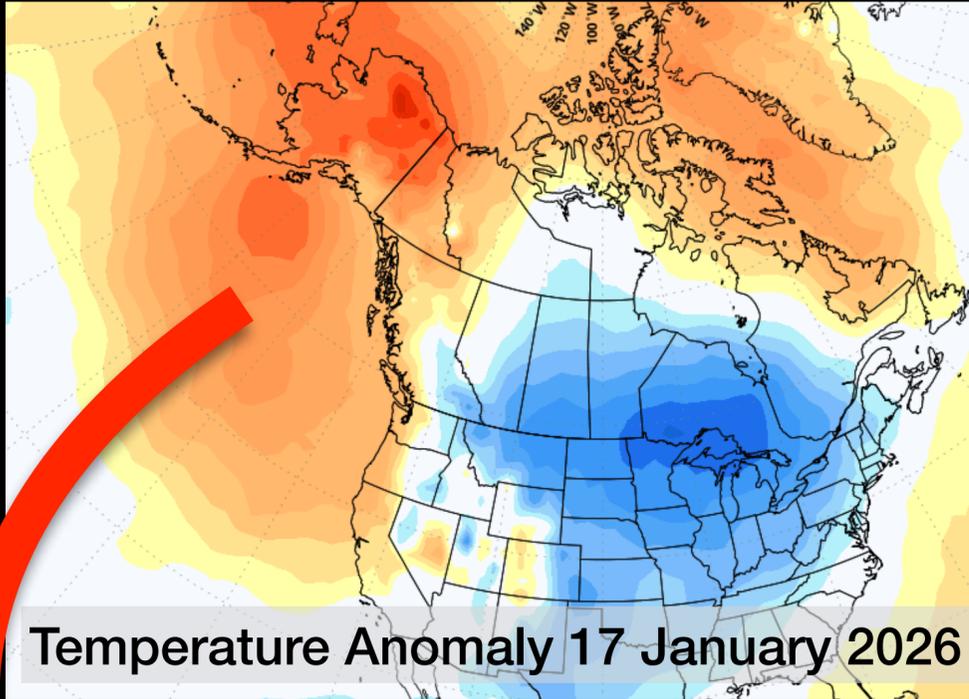
- The PDO is like a giant flywheel
- Historically, it moved slowly and predictably.
- But because the atmosphere is now warmer and more energetic (more 'fuel in the engine'), and the top layer of the ocean is more volatile, that flywheel is now spinning with unprecedented velocity.

# PDO Drivers: Climate energizing atmosphere and ocean volatility



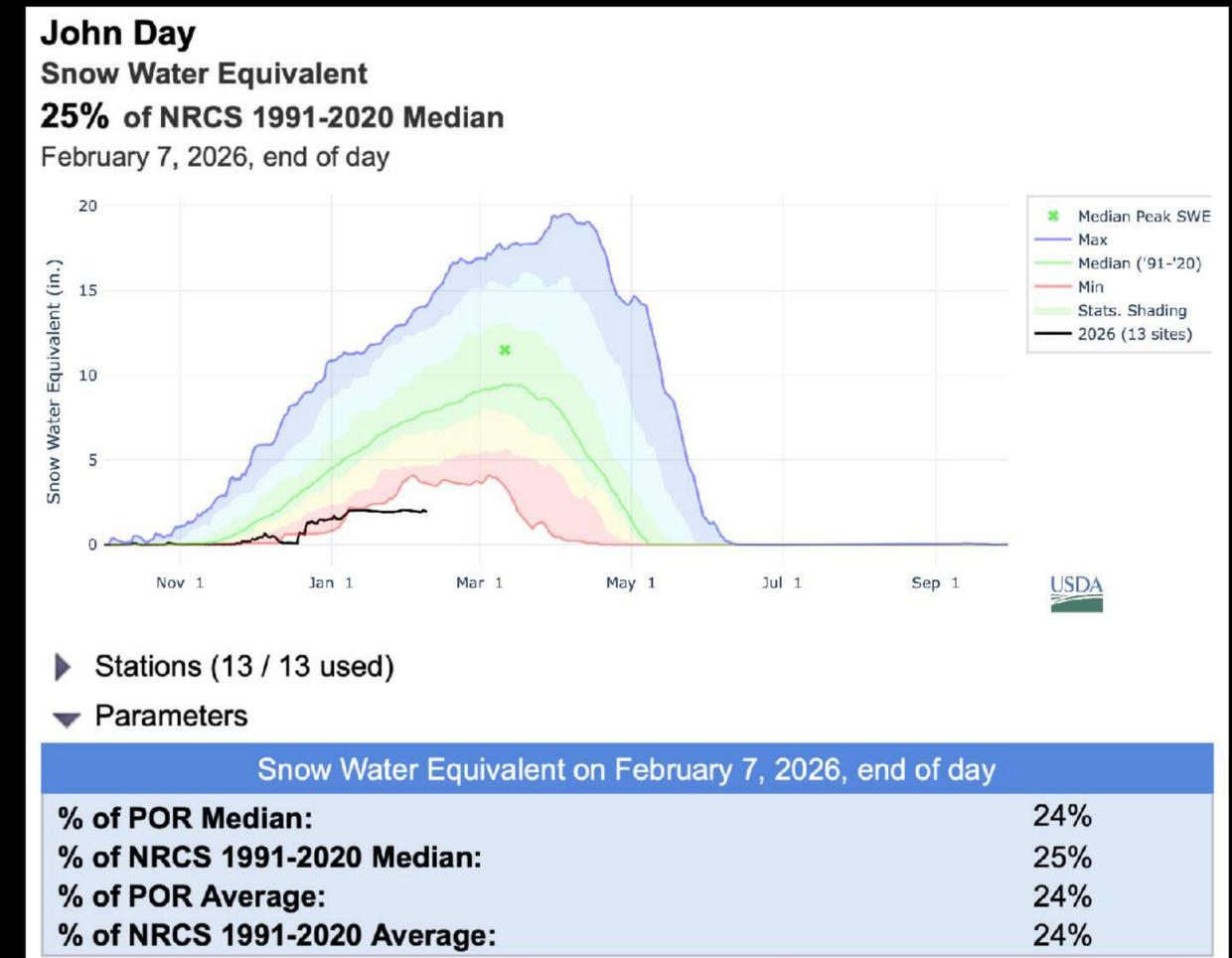
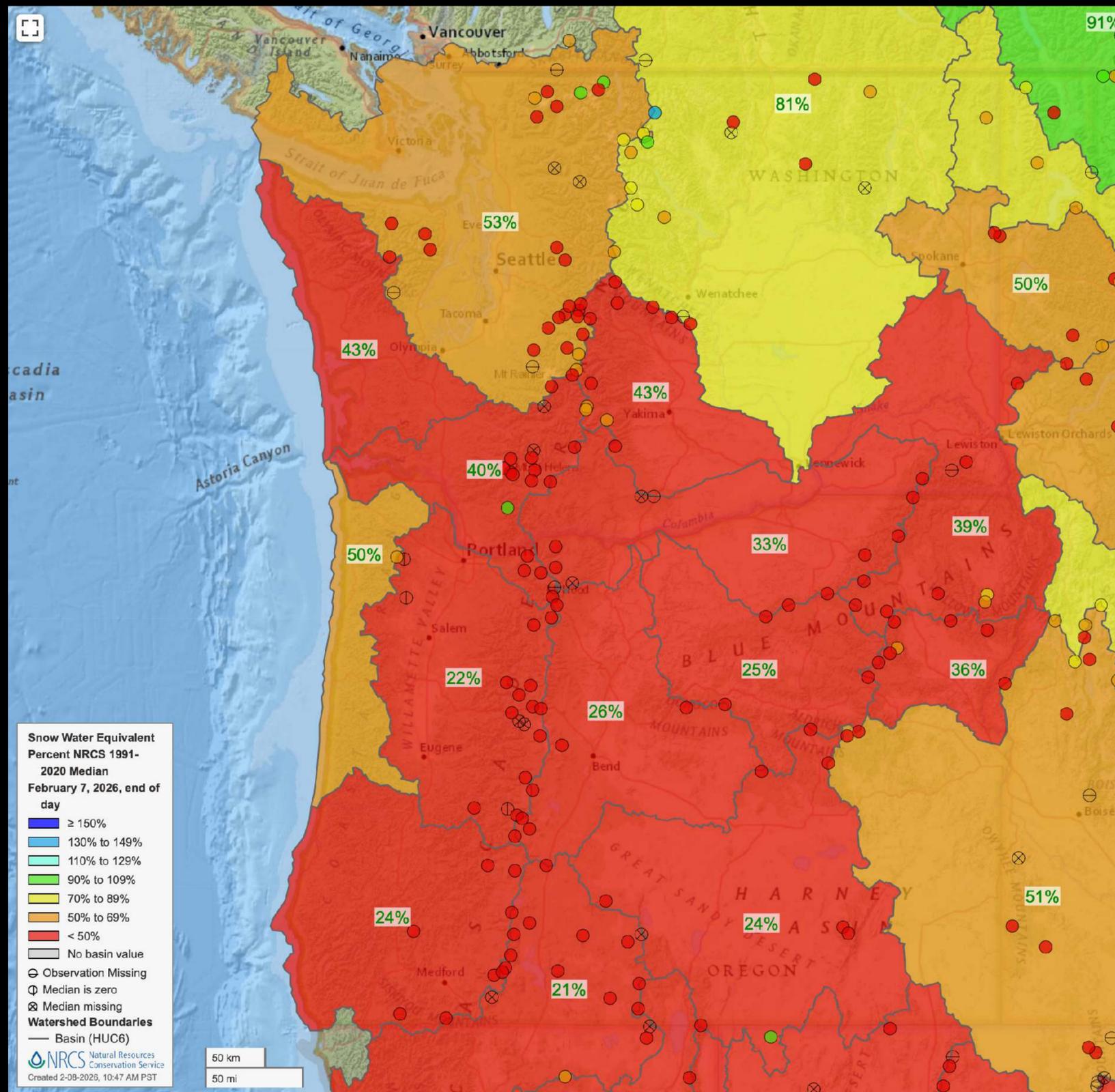
- Extreme atmospheric and oceanic temperature and wind volatility
- Increased summer heat domes and winter cold snaps
- Steadily warming winters
- Increasing hydro low-water years from warm winters producing less mountain snowpack.

# Mid-January 2026: PDO Analysis



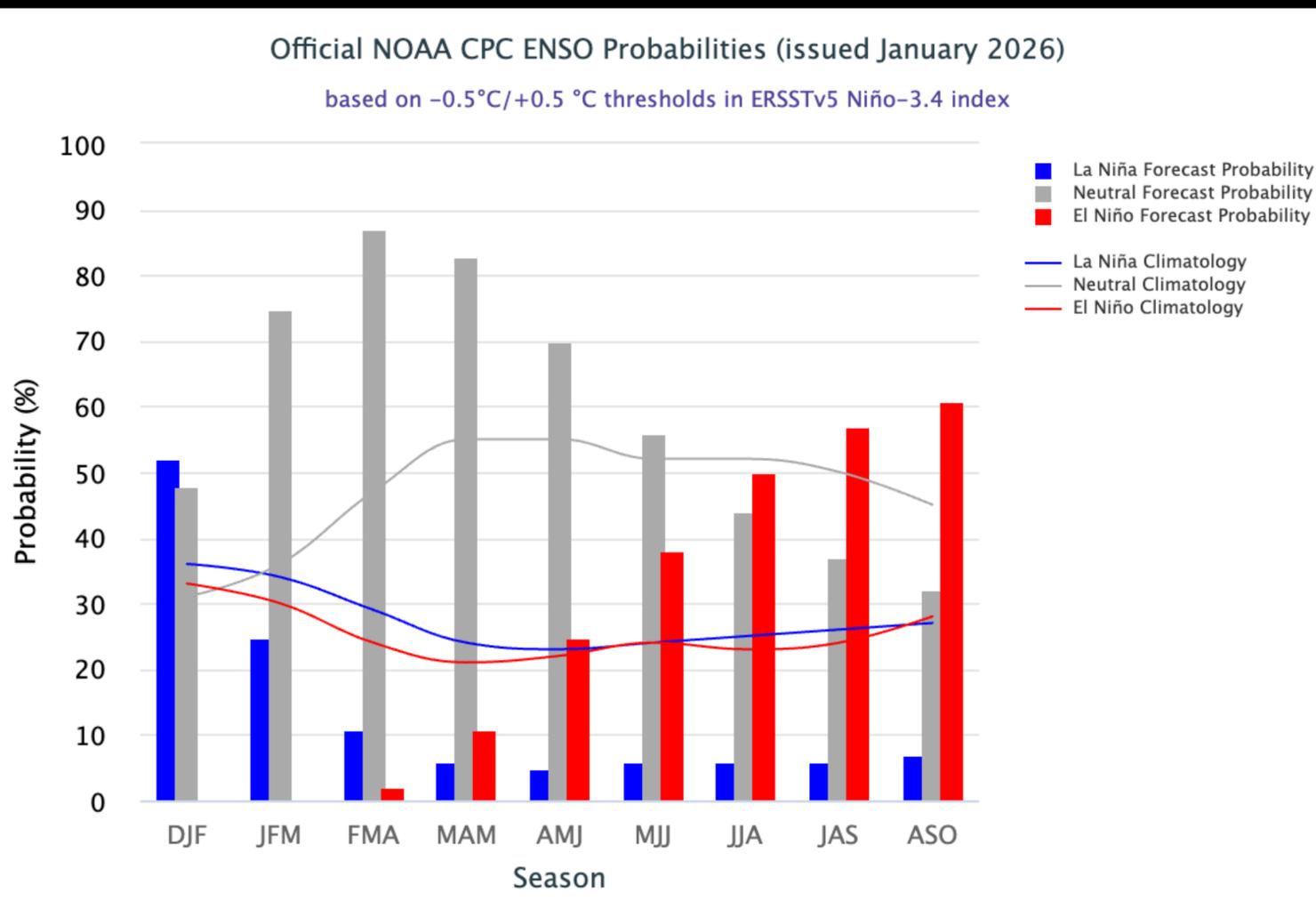
# Snow Water Equivalent Snapshot: 7 February 2026

- Northwest River Forecast Center (NWRFC) and NRCS basin maps show a **significant "snow drought" across much of the region**
- **Washington** Approximately 82% of stations are in a snow drought. Statewide snow water equivalent (SWE) is hovering around 62% of the median, which marks this as **one of the worst snow years since 1985**.
- **Oregon** Conditions are even more severe, with 86% of stations in snow drought. Many basins are reporting just 35% of the median SWE, **trending toward record lows for early February**.

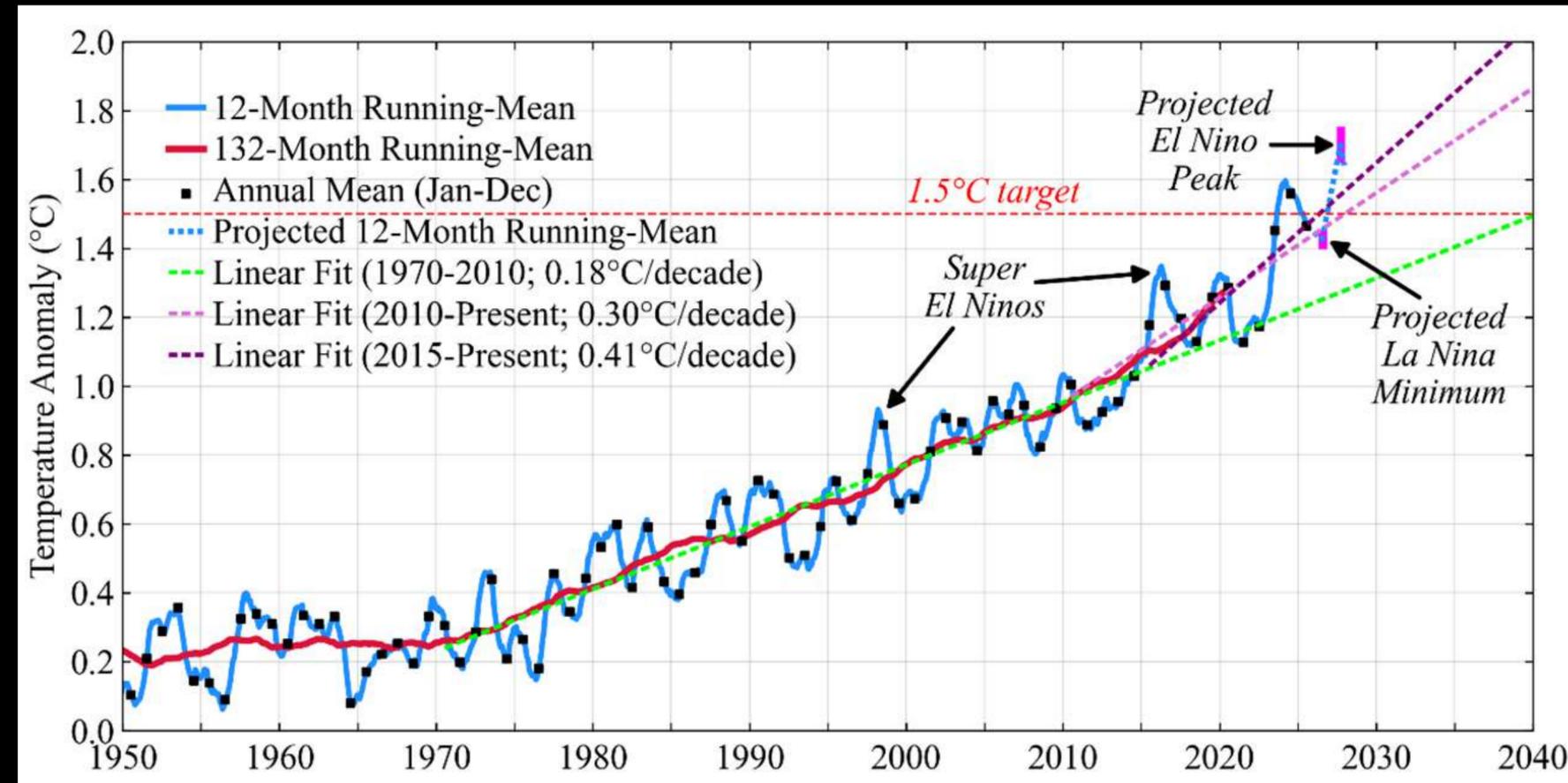


# Oceanic Niño Index (ONI) Forecast: Shifting to El Niño this summer

## Late January Update



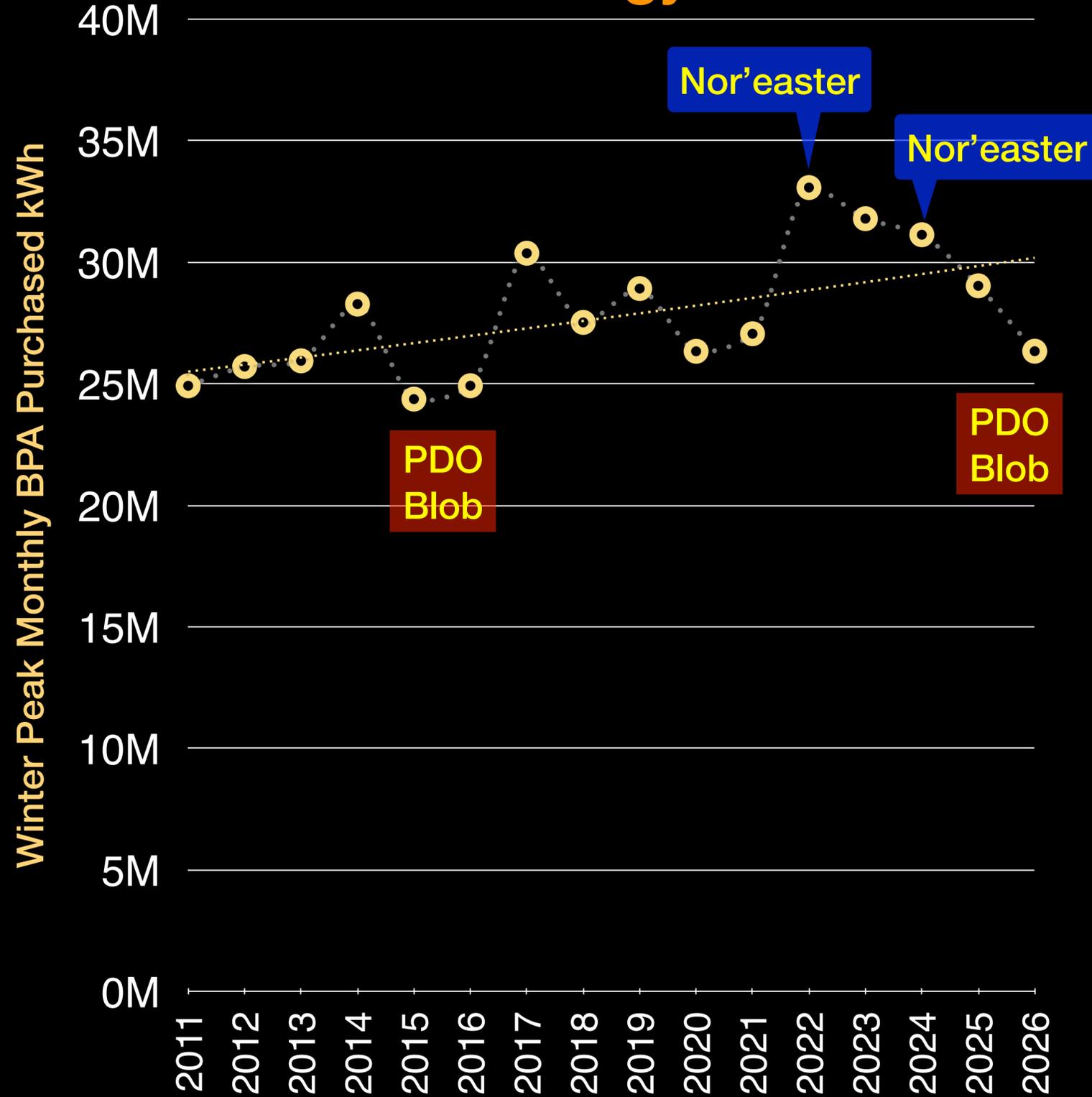
## Global Surface Temperature Change (relative to 1880-1920 base period)



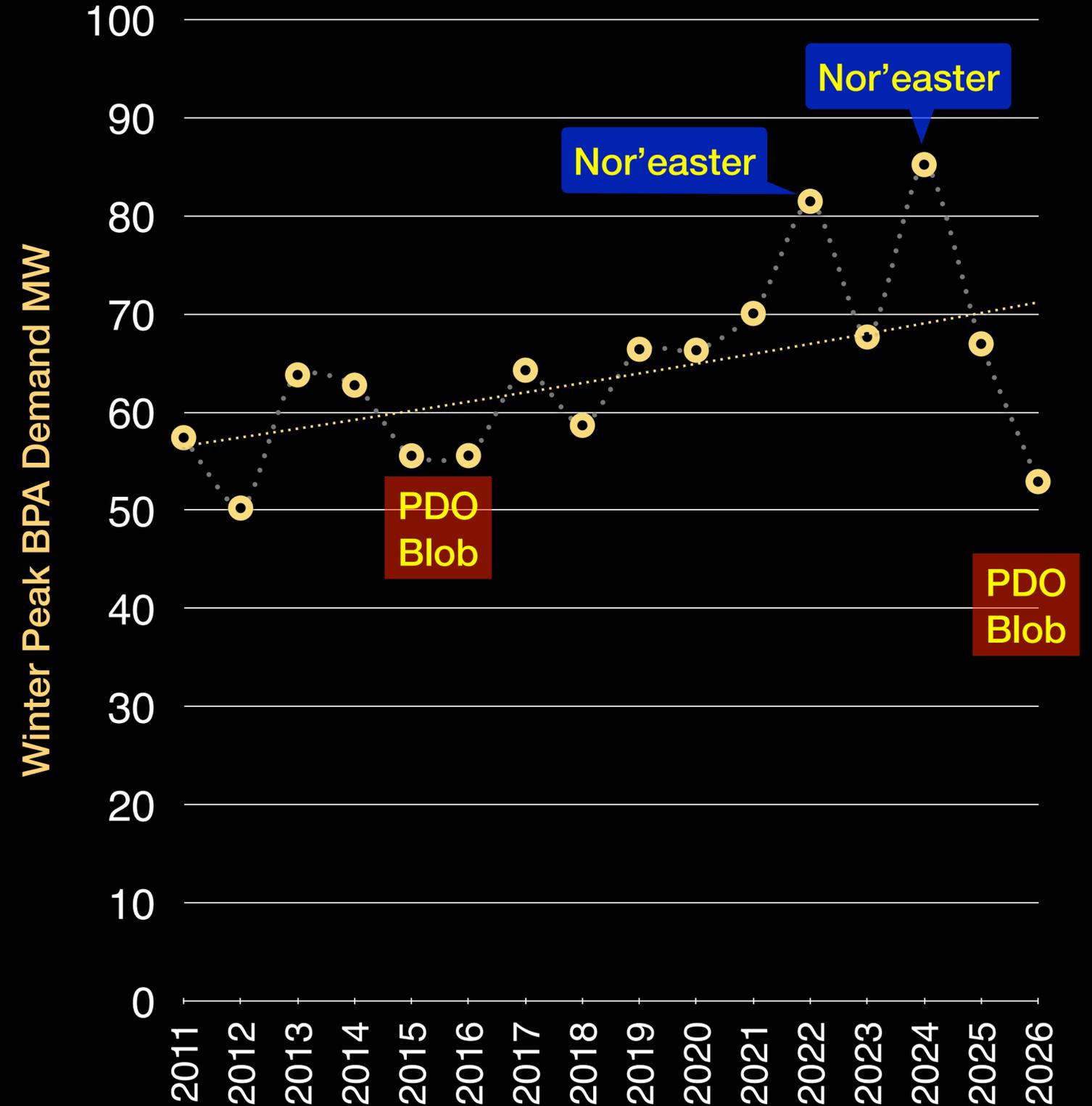
6 February 2026

# Peak Winter Month Energy and Demand: BPA Purchased

## Energy



## Demand



# *Discussion*

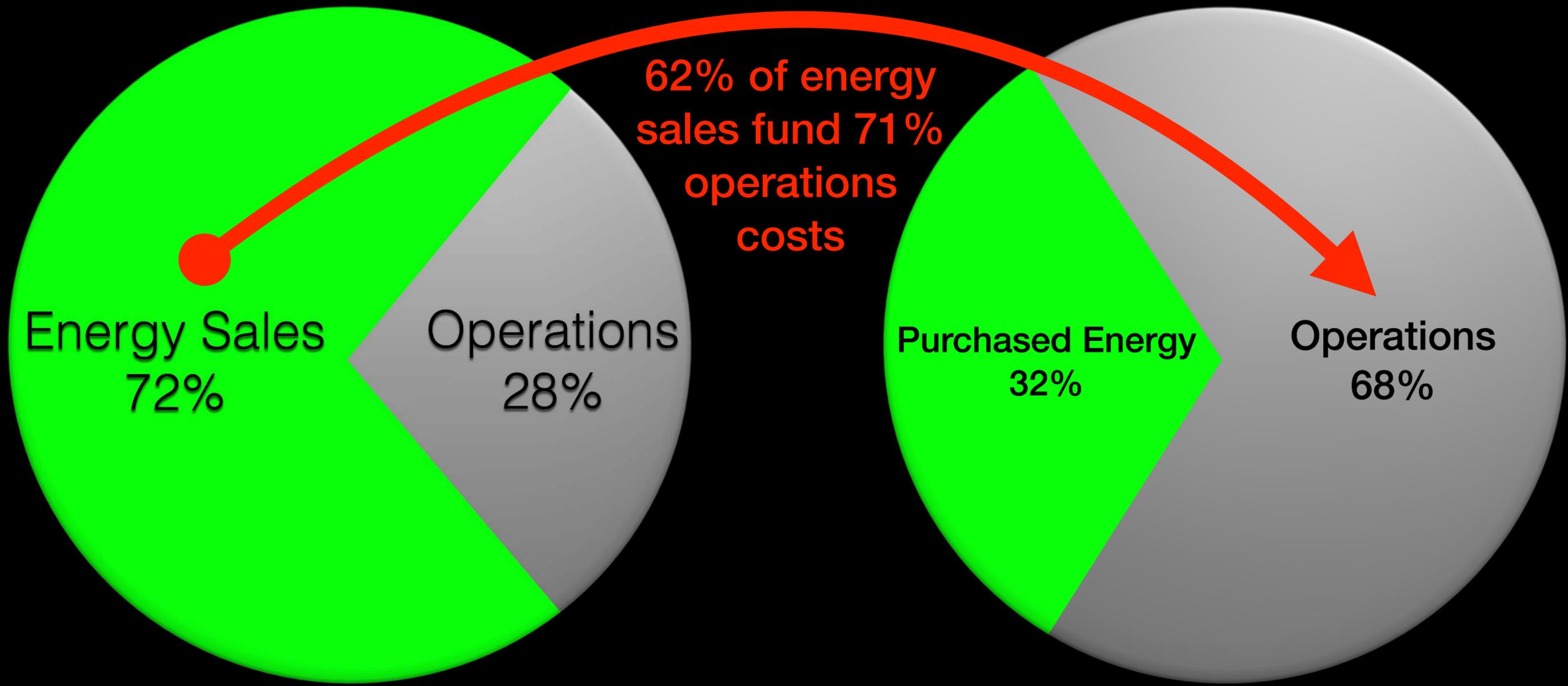
# Climate Disruption Risk Management Discussion

*How to prepare for potential disruption in operations funding?*

*Lower kWh, larger ECA.*

**Typical Co-op Revenue**

**Actual Co-op Costs**



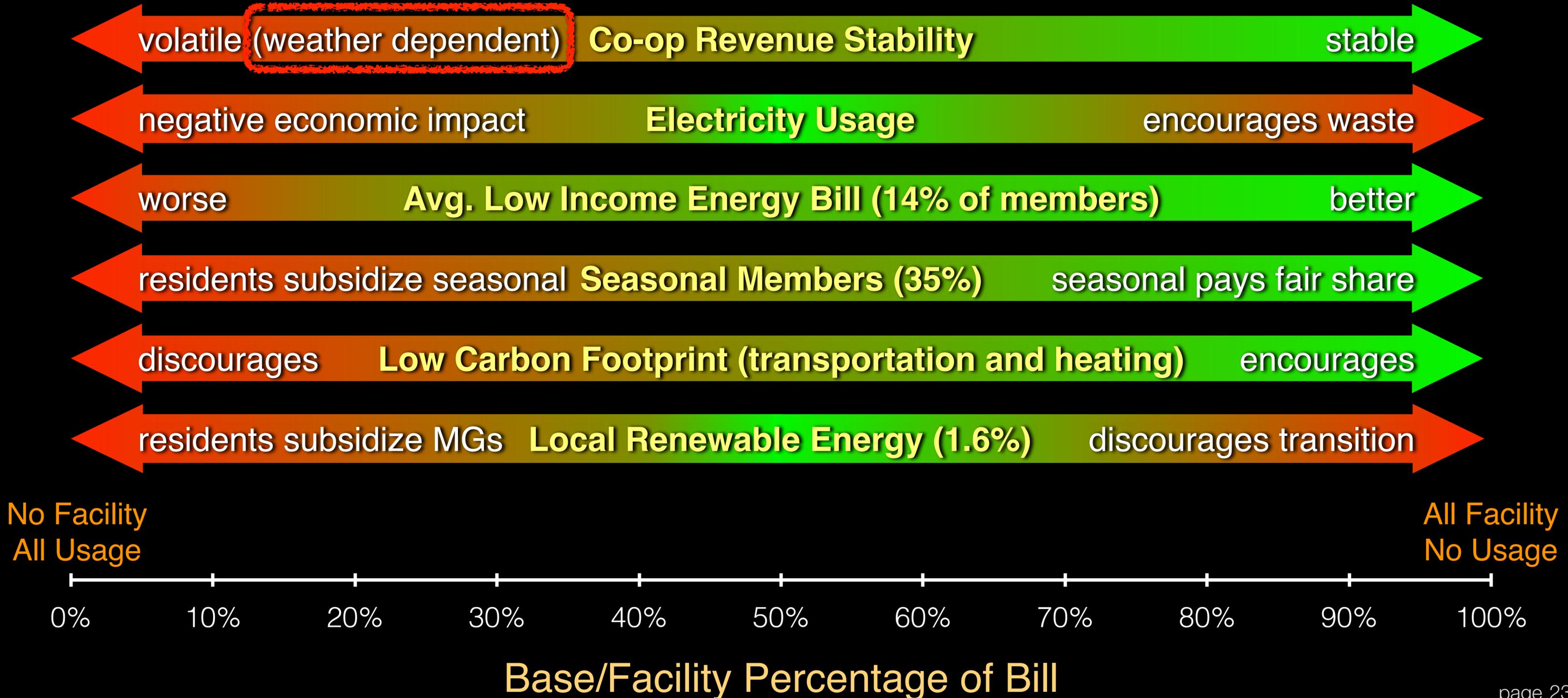
# *Rule of Thumb*

each 1 million kWh sold  
= \$190,000 in revenue  
= \$20,000 incremental Op Margin

each 1% rate increase  $\sim$  \$400,000 in revenue

# OPALCO Facility Charge Analysis

*There is no perfect rate. We balance with energy assistance, budget billing, rebates and renewable energy programs + service size and block rates.*



# Snow Bird Analysis: Percentage of residential meters that may indicate empty winter homes

