

The title "Hydrogeneration Update" is centered in a large, white, sans-serif font. It is overlaid on a dark teal, wavy graphic element that separates the top header from the main image. The background image shows a large waterfall cascading over rocky terrain, with a sun low on the horizon to the left, creating a warm, golden glow and mist rising from the base of the falls.

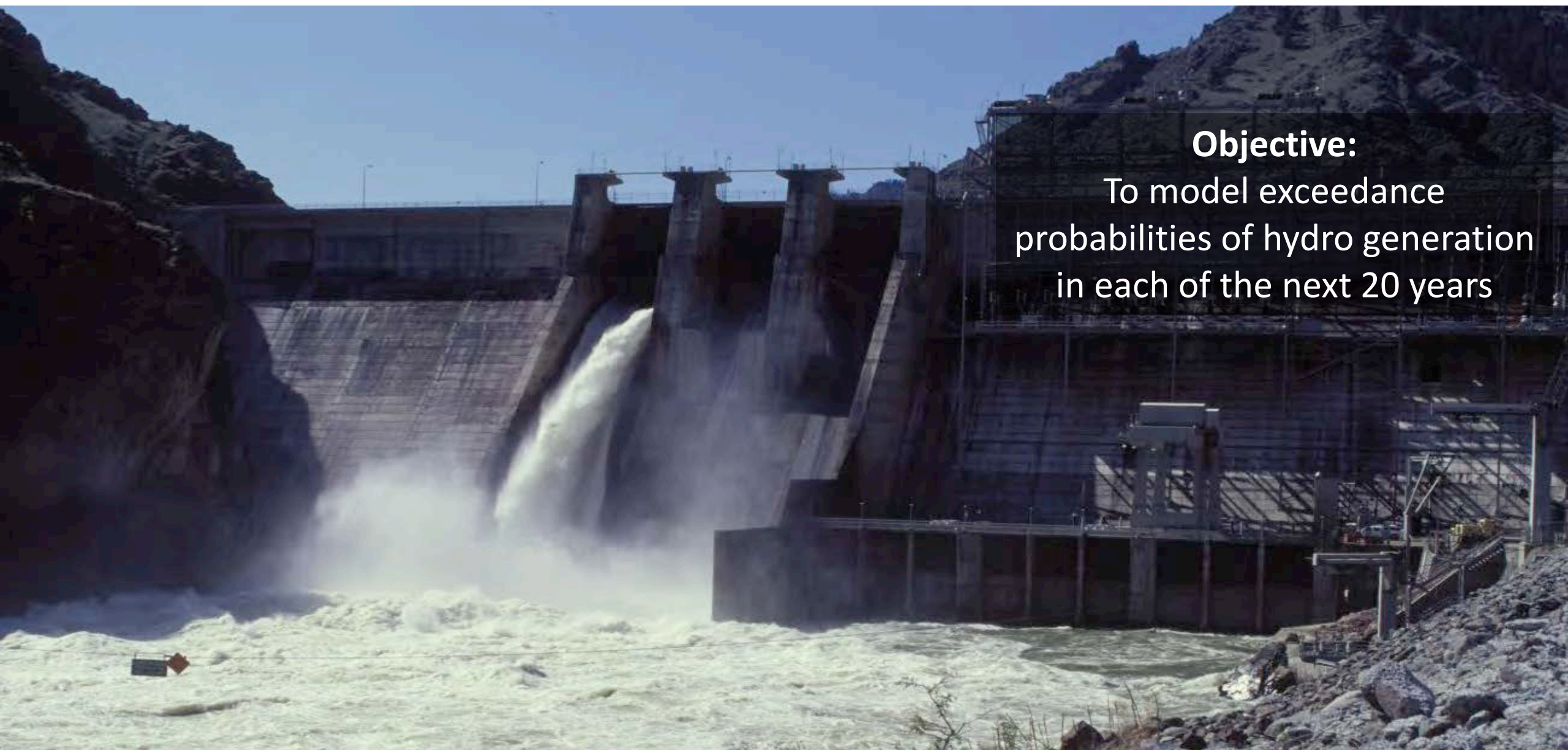
**John Hildreth**  
*Principal Engineer*

IRP Advisory Council  
Dec. 12, 2024

# Importance

- Hydro generation modeling that goes into Aurora lays the building blocks for all other resources in the IRP.
- Idaho Power has almost 1,800 megawatts (MW) of hydroelectric generation capacity.
- Hydro is our largest energy resource.
- Hydro is an inexpensive fuel source and is a key factor in Idaho Power's ability to keep rates low for our customers.
- Hydro is a highly flexible resource that supports reliability of the system.

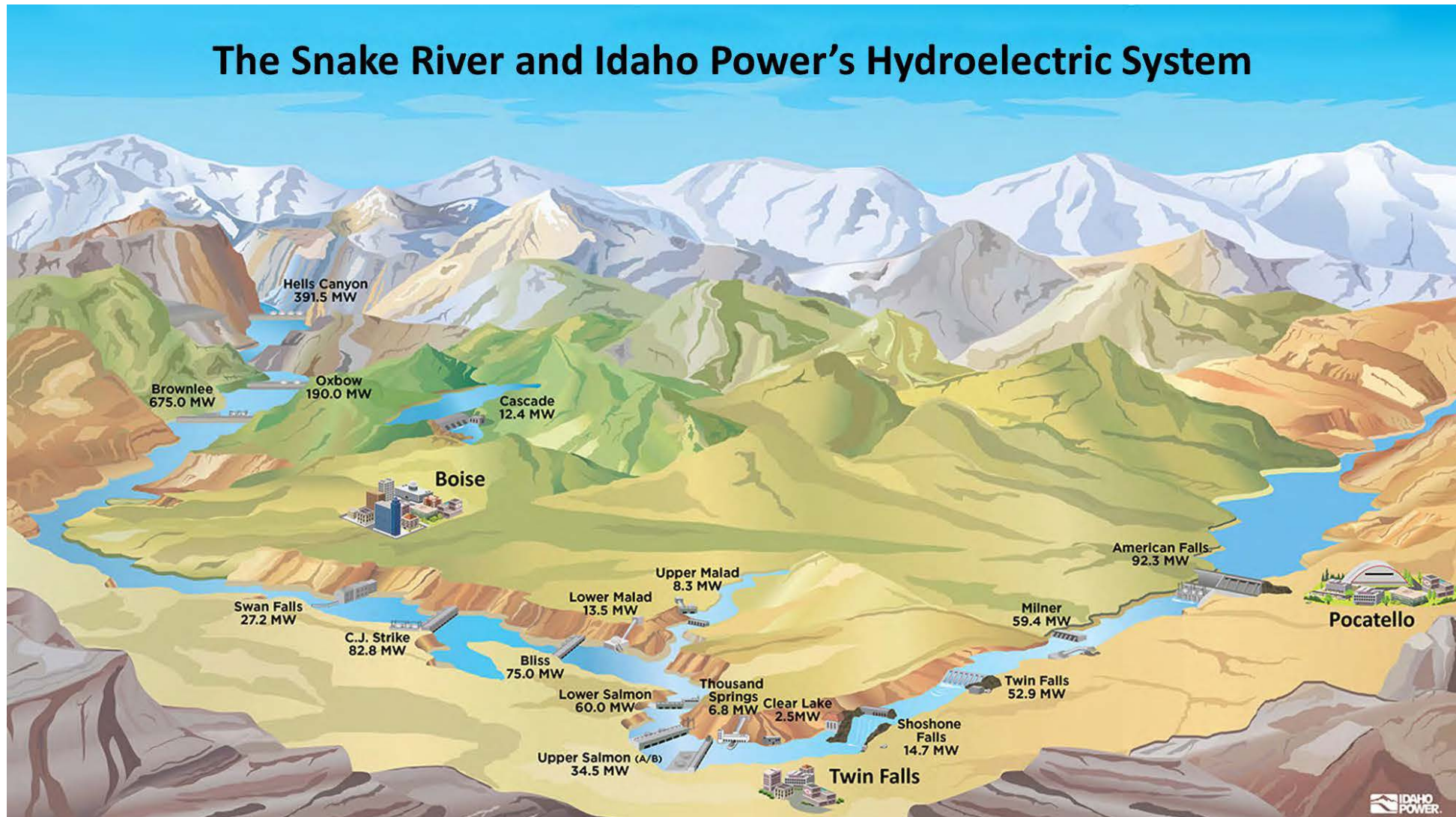
# IRP Hydro Generation Planning



## Objective:

To model exceedance probabilities of hydro generation in each of the next 20 years

# Hydro Part 1: Snake River and Hydro Generation Overview



# Hydro Part 2: Federal Climate Change Study



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## Climate Change

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### Climate Change

Supplemental Sustainability  
Reporting

Climate change is a significant policy issue that will have major implications for Idaho Power and may transform the energy industry.

Policy and societal decisions made about climate change policy will significantly affect our customers and the future prices they pay for energy.

For more than 100 years, Idaho Power has relied on clean generation resources like our hydroelectric plants that have little if any greenhouse gas emissions.

Although our generation portfolio currently includes fossil fuel generation, our carbon emissions are [some of the lowest](#) in the utility industry.

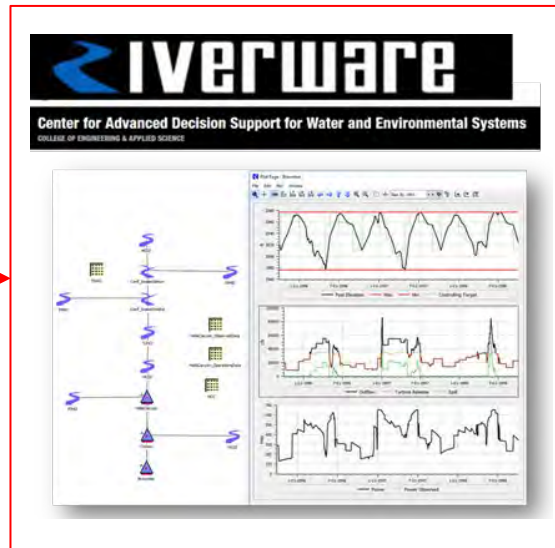
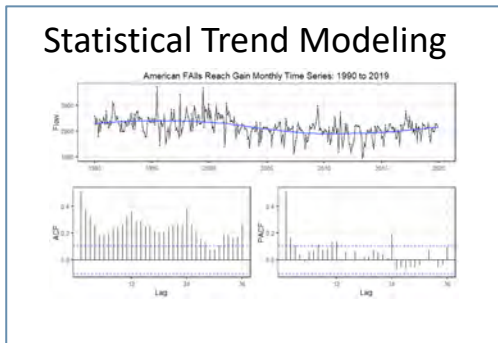
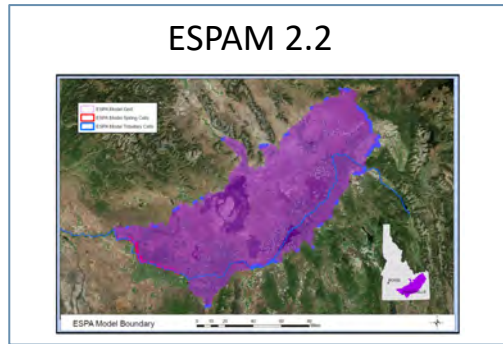
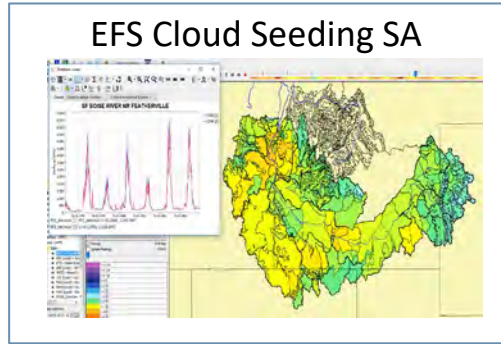
Our [long-range plan](#) details Idaho Power's glide path away from coal-fired generation, and our [Clean Today, Cleaner Tomorrow](#) initiative is a commitment to provide 100% clean energy by 2045 while keeping your electricity reliable and affordable.



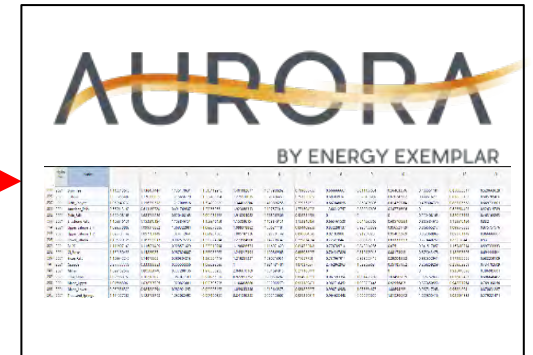
Idaho Power is committed to our goal of **100% clean energy by 2045.**

[Learn more](#)

# Hydro Part 3: Resource Modeling



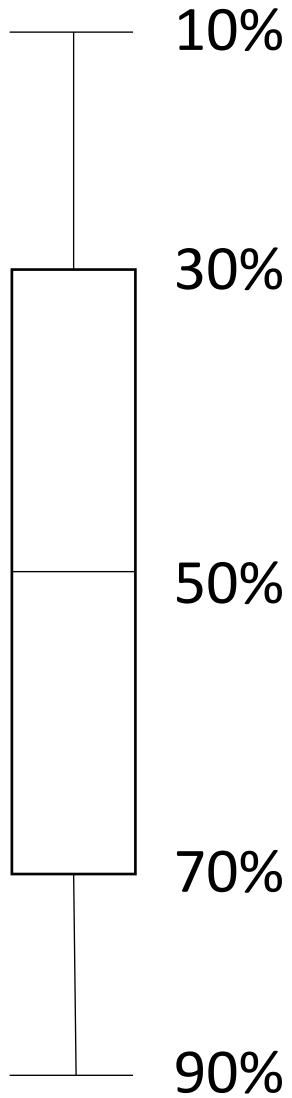
Monthly Exceedance  
Plant Hydro  
Generation (aMW)



# Planning Flow Results

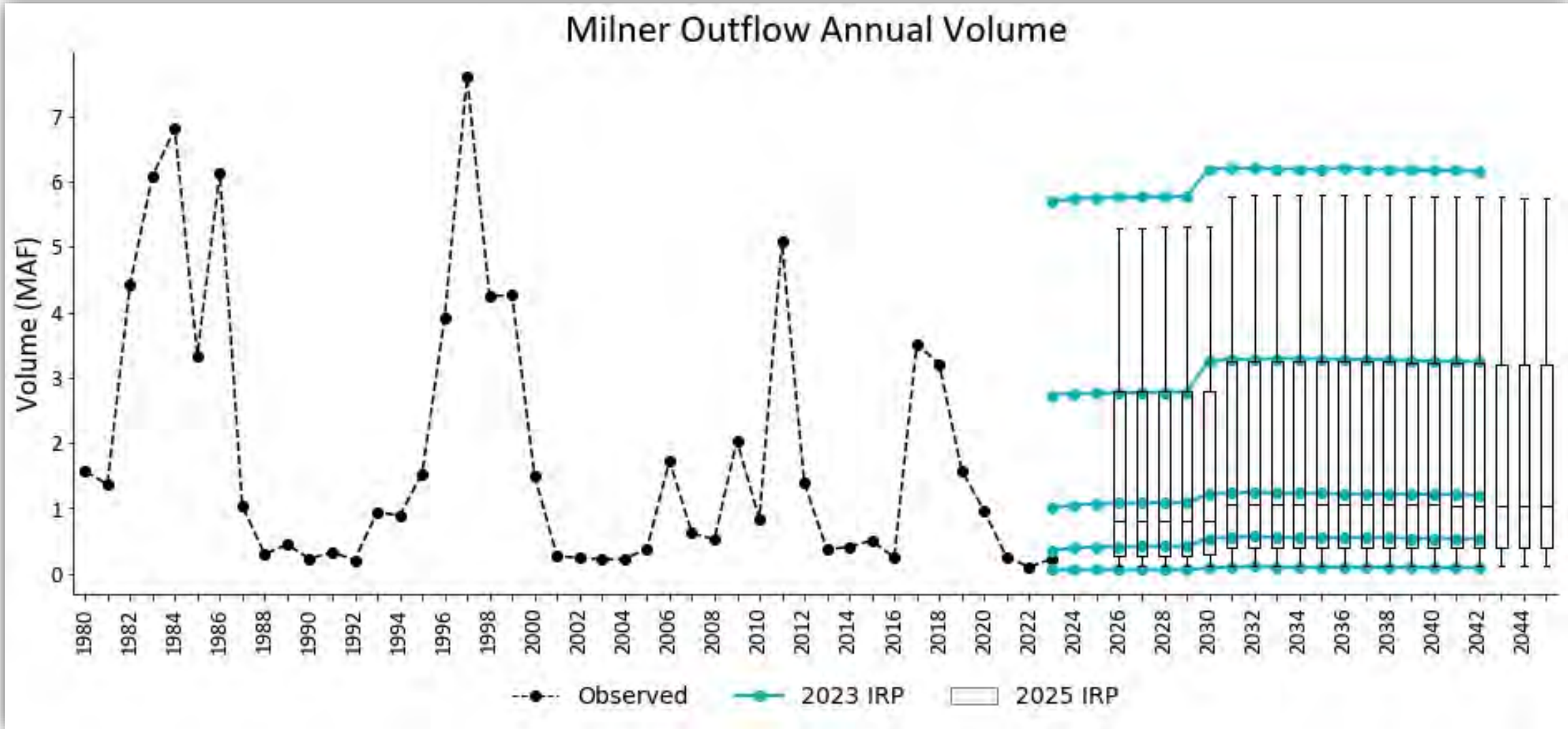


# Exceedance Plot Interpretation



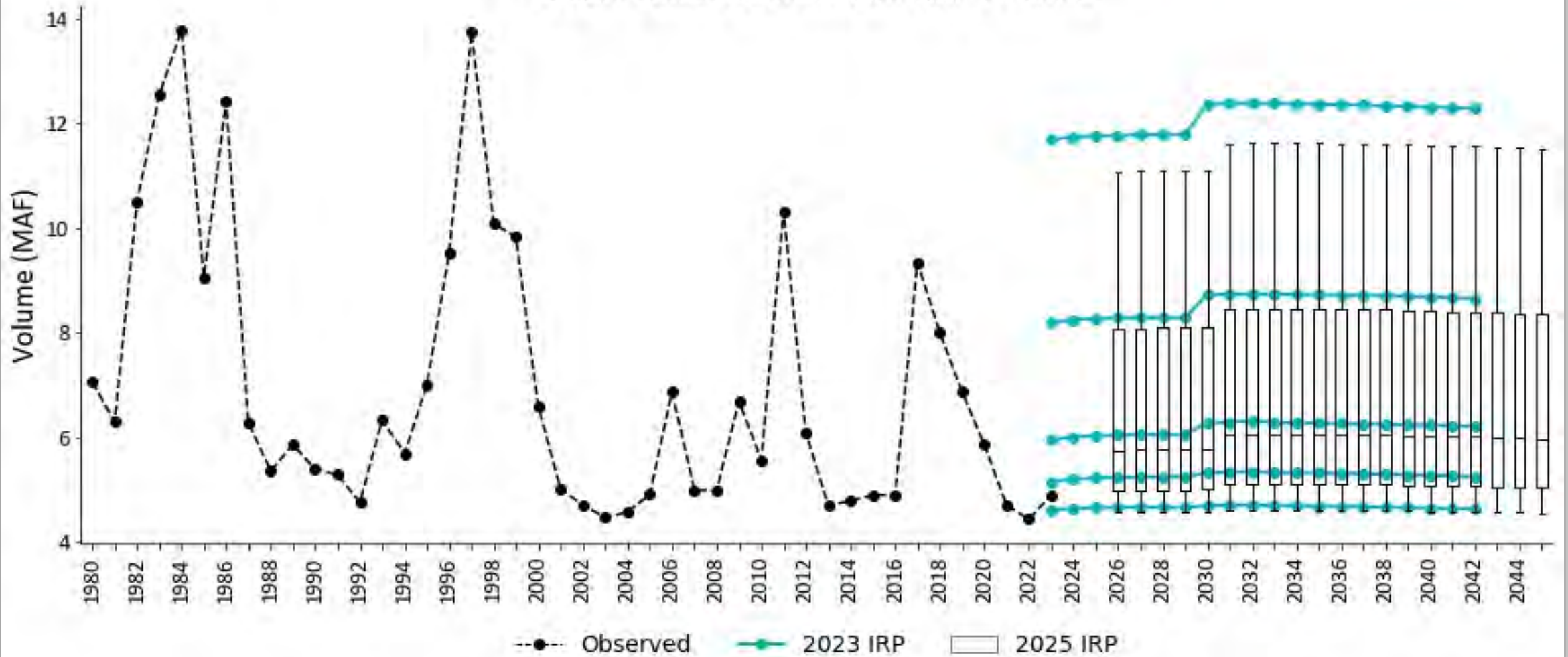


# Milner Results

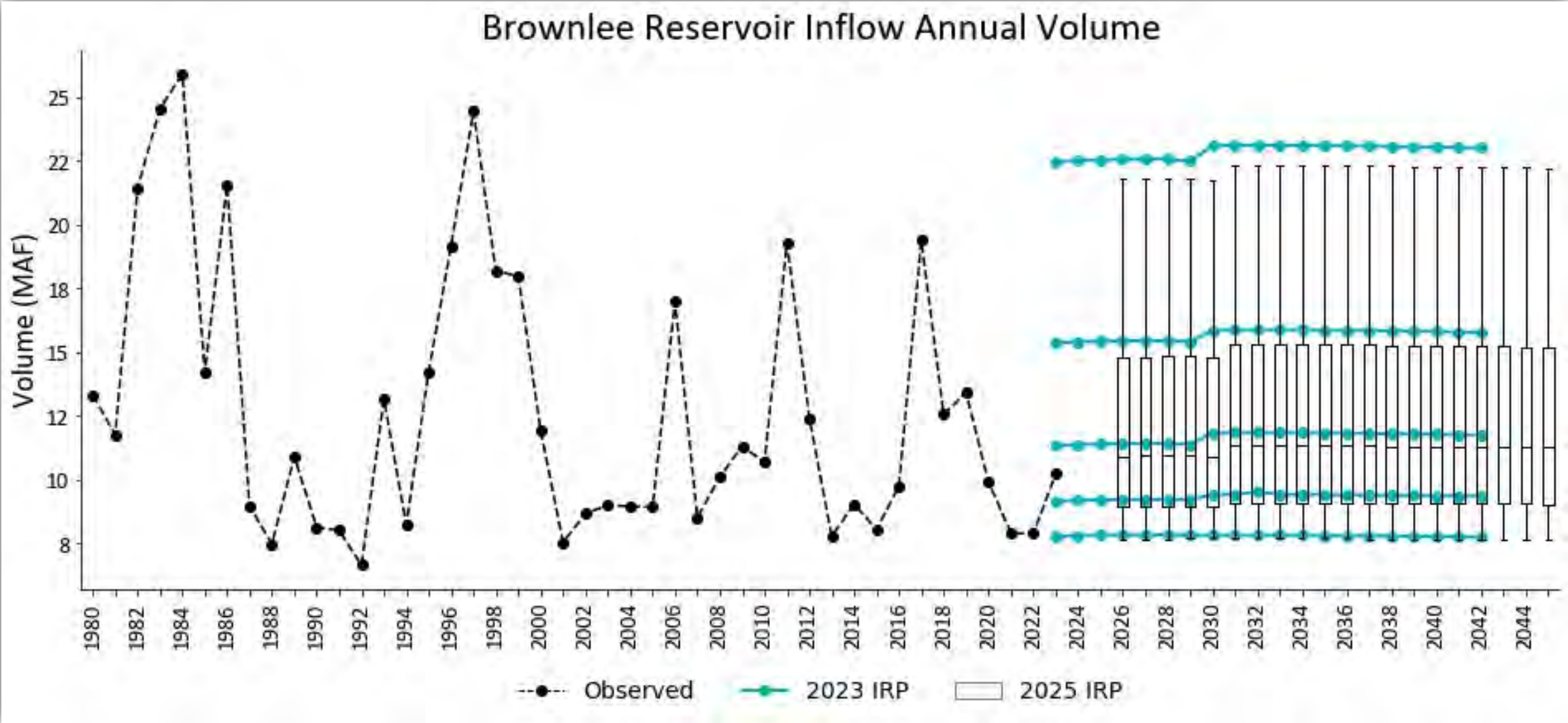


# Swan Falls Results

### Swan Falls Outflow Annual Volume



# Brownlee Inflow Results

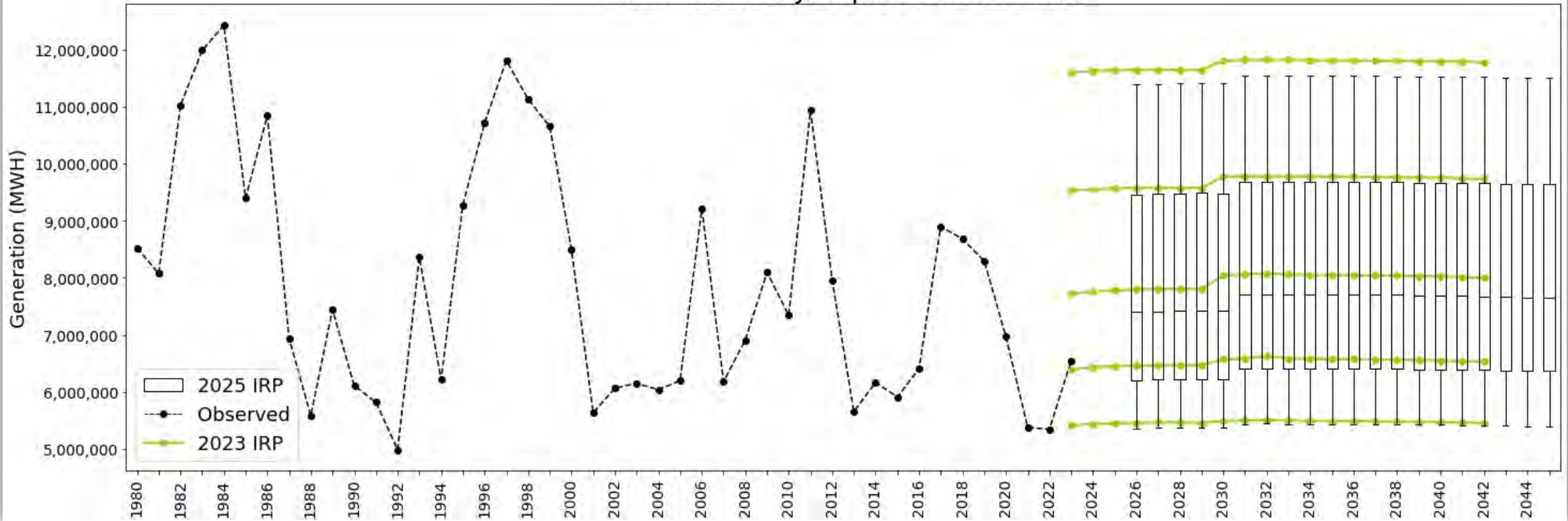


# Planning Generation Results

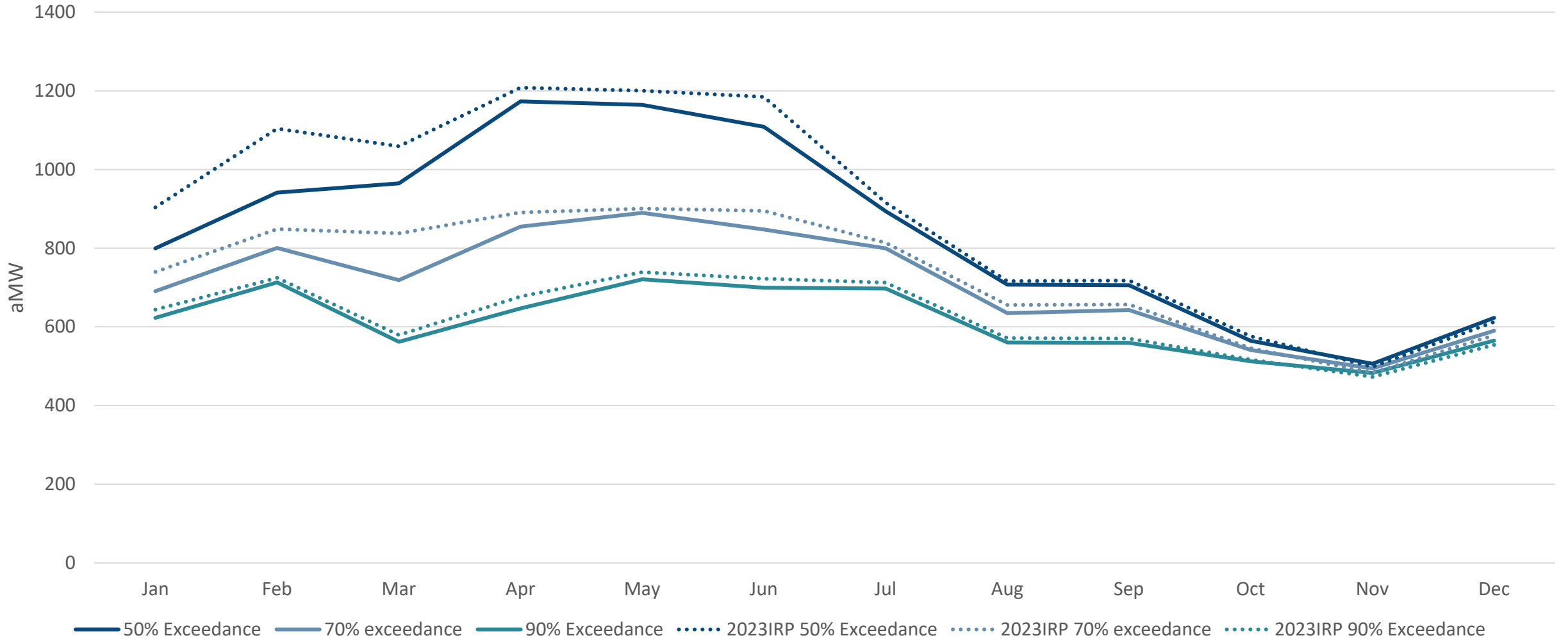


# Annual Hydro Generation Results

### Total Annual Hydropower Generation



# Monthly Hydro Generation Results: Year 2026 of IRP



# Questions?

