

Hydropower Metrics

Hydropower Workshop
September 24, 2025

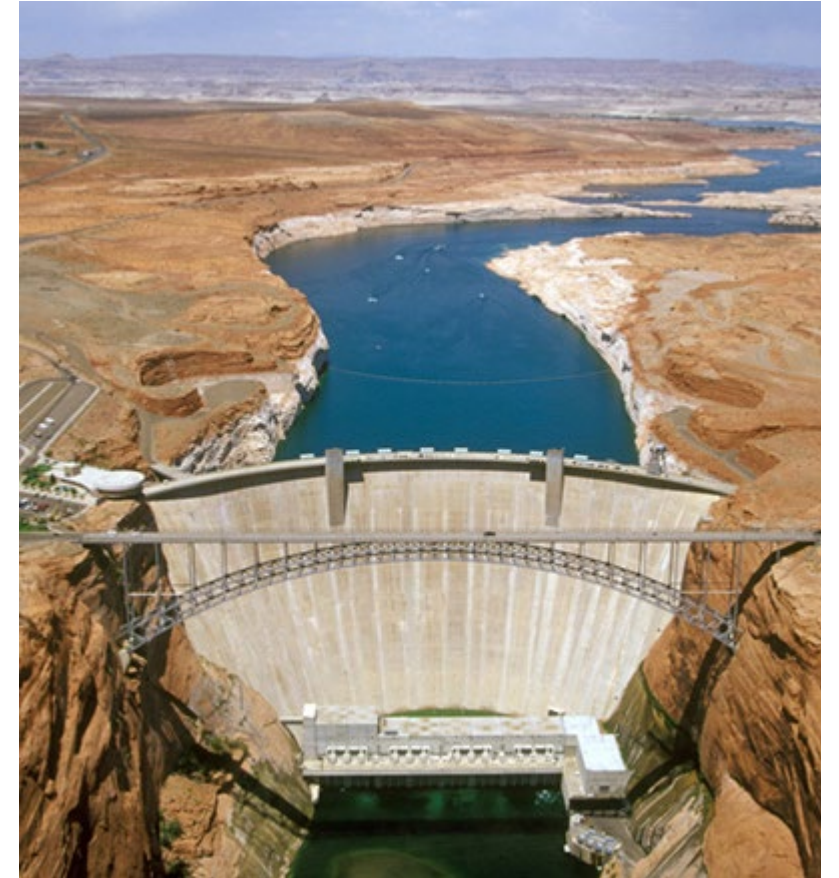
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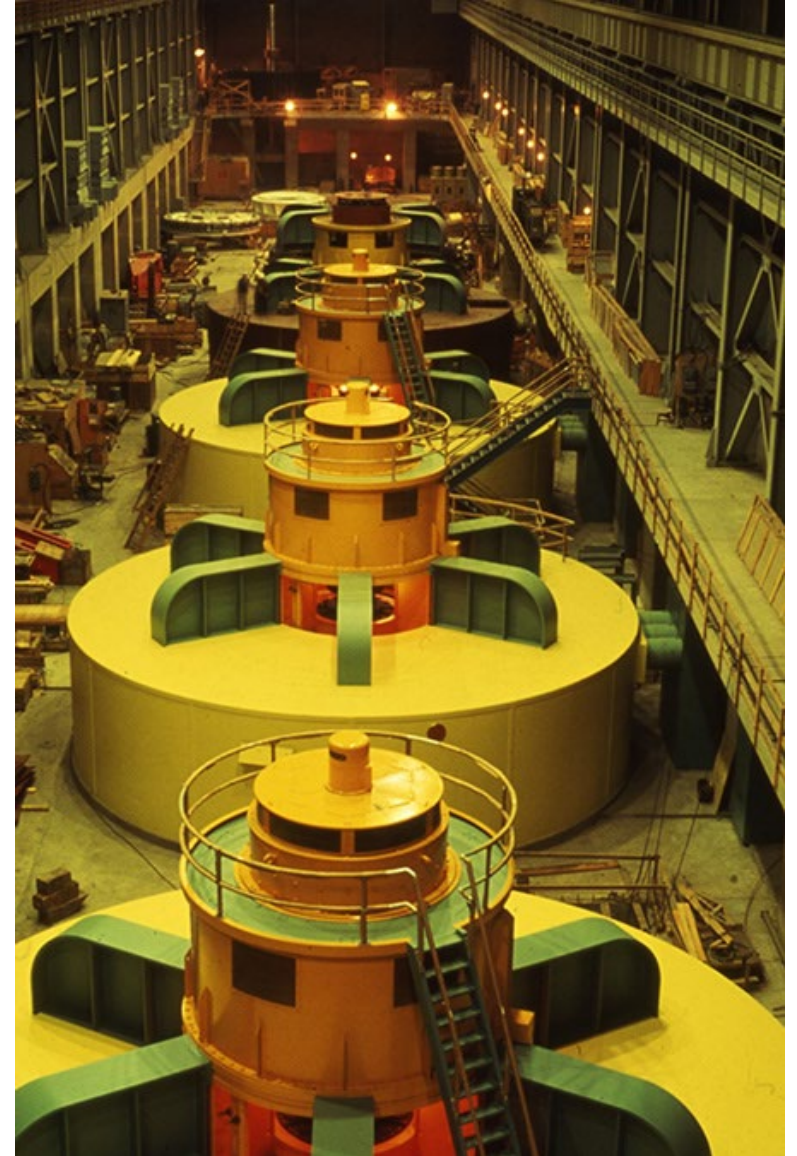
LTEMP Goal for Hydropower and Energy

- Maintain or increase Glen Canyon Dam
 - electric energy generation,
 - load following capability, and
 - ramp rate capability, and
- Minimize emissions and costs to the greatest extent practicable,
- Consistent with improvement and long-term sustainability of downstream resources.



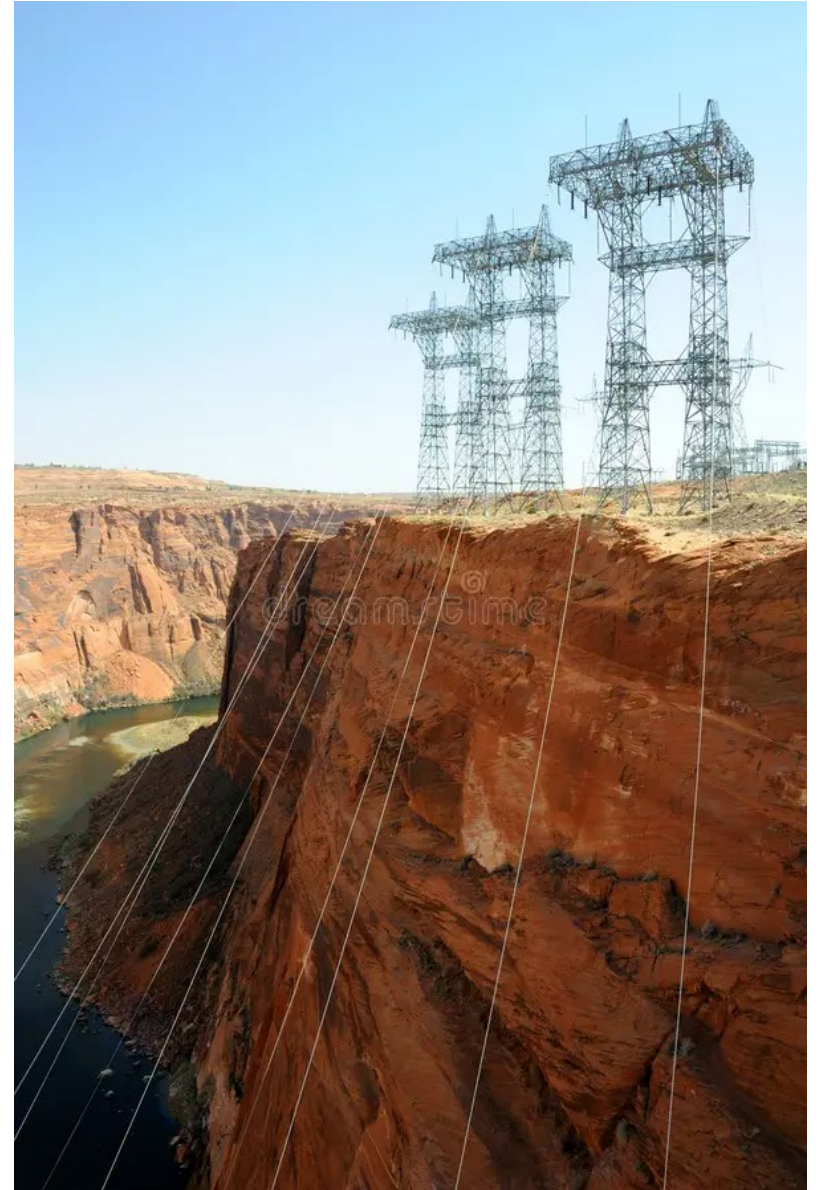
Electrical Energy Production

- MWh generated monthly (and annually) at Glen Canyon Dam
 - This is electrical energy and is primarily driven by annual volumes and decisions made about bypassing water away from the penstocks and is the first objective in the LTEMP hydropower goal to "maintain or increase electric energy generation."
 - This is also important because it helps track the impacts of drought.
 - This is used to calculate emissions produced by replacement power as a result of experimental releases.
 - This addresses the hydropower purpose in the CRSP Act to "produce the greatest practicable amount of power and energy..."



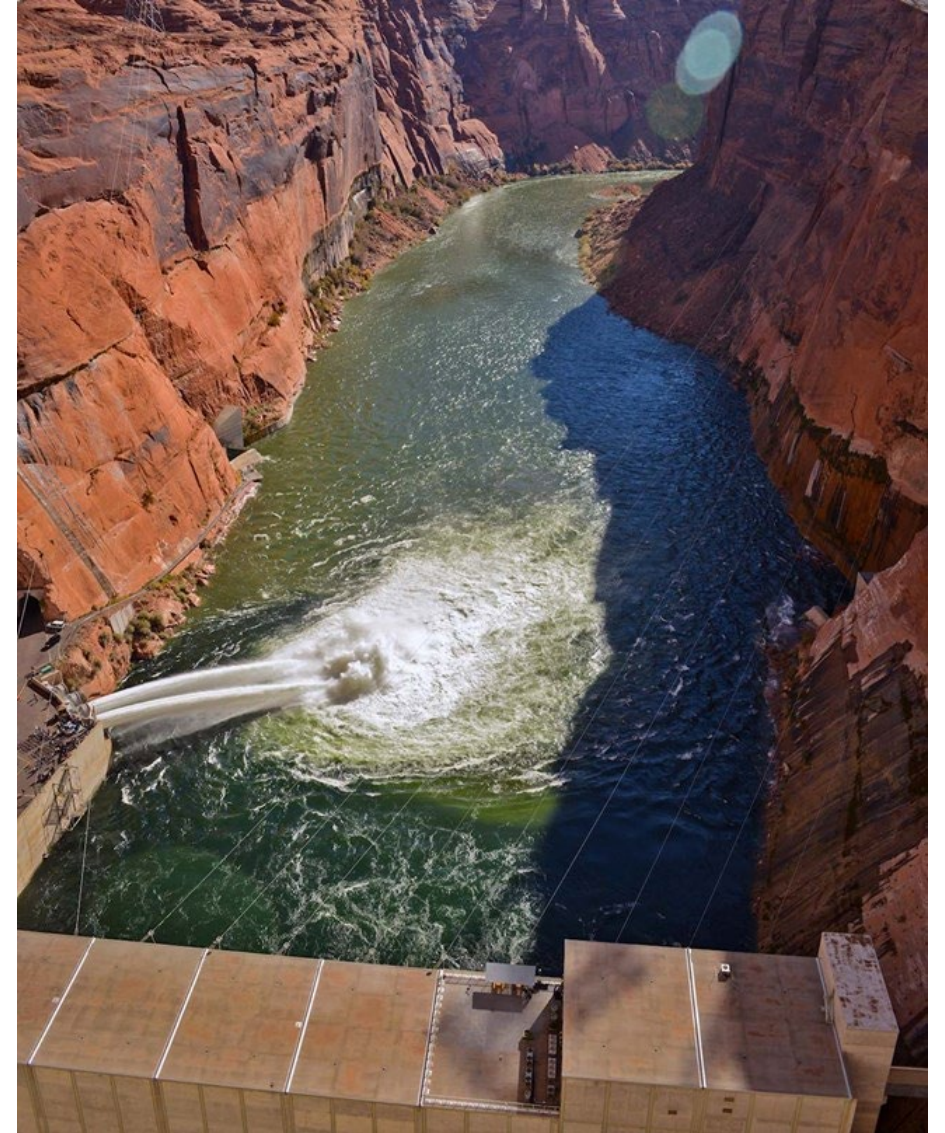
Economic Value of Energy

- Market price (dollars per MWH) * Energy generated by Glen Canyon Dam per year (MWH)
 - This is an economic value which is generally intended to capture many of the financial components on the value of hydropower but is only a proxy and does not necessarily indicate local value or importance. It's an important indicator when looking at national level decision making and tracking large decisions.
 - This addresses the hydropower purpose in the CRSP Act to "produce the greatest practicable amount of power and energy..."
 - This also addresses the LTEMP Goal to "maintain or increase Glen Canyon Dam electric energy generation, load following capability, and ramp rate capability, and minimize emissions and costs..."



Firm Capacity

- Available capacity (Marketable Mw) on a monthly basis
 - This is the measure of capacity used in LTEMP and referred to in the goal above as "load following" capability, and WAPA's ability to meet peak loads.
 - This becomes a measure of drought, monthly volume distribution, and the impact of experimentation during peak power months that may include bypass during critical times.



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