Northwest Power and Conservation Council

Fish & Wildlife Operations and Power Planning

Power Four Meeting
April 6, 2004
Portland, Oregon

Objective

- To ensure that the power planning process adequately takes into account the **physical**, **economic** and **biological** needs of the region.
- In other words, whatever resource/conservation strategy comes out of the process should ensure
  - **reliable electricity service** with
  - **minimal risk of both price spikes and high average costs** and
  - **adequate likelihood of providing operations for fish & wildlife.**

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Proposed Actions

- **Ensure a direct and free flow of information between power planners and fish & wildlife managers**
  - Physical data (elevations & flows) and economic data (energy and cost) to fish managers
  - Operational constraints and survival data to power planners
- **Develop a planning metric to measure the likelihood of curtailment to F&W operations**
  - A Loss Of Fish-Operations Probability or LOFP, similar to the LOLP for reliability

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Purpose of Actions

- **Flow of information to fish managers**
  - Guide decisions on biological research money
  - Develop a F&W curtailment priority
  - Whenever biologically possible, choose more cost-effective F&W operations
- **Flow of information to power planners**
  - Choose more "fish friendly" resources and hydroelectric operations
- **Planning metric (LOFP)**
  - To assure that F&W operations are adequately provided in the **planning** process

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Informal Comments Received (To date)

- NOAA Fisheries
- CRITFC
- FPAC
- BPA
- CBFWA
- Idaho
- Oregon
- FPC

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Summary of Comments
Flow of Information

- Flow of information should be both ways.
- Sensitivity analysis ignores the interdependence and synergy of fish and wildlife measures.
- Cost data could put measures that are critical to providing sustainable populations in a bad light economically.
- Must err on the conservative side when biological uncertainty is large.

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Summary of Comments
Flow of Information

- Some fish managers do not want to see any economic data.
- Cost sensitivity analysis is appropriate.
- More direct communications are needed in the planning process.
- With proper communication and planning, a metric is not needed.

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Summary of Comments
Planning Metric

- Guarded optimism
- Will not work for real-time operations
- LOFP is not as "transparent" as it could be
- Fear that the LOFP will provide a "false" sense of success relative to F&W objectives
- Should limit the LOFP to measure April refill misses only
- LOFP should measure flow objectives rather than refill misses

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Summary of Comments
Planning Metric

- Refill miss threshold should be zero
- Refill miss threshold should be based on current hydro operations
- Refill success should not be further jeopardized (set LOFP standard to zero)
- LOFP standard should be equitable with the standard used for power planning

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Summary of Comments
Planning Metric

- Much more discussion is needed to develop an acceptable refill miss threshold and LOFP standard
- May not be able to implement this into the current power plan
- The metric name (Loss of Fish-operations Probability) is misleading – rename it to something more appropriate

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Implications for Power Planning

- The resource/conservation strategy developed for the power plan must ensure that **physical**, **economic** and **biological** needs are met adequately.
- A system that meets physical needs **may** not necessarily meet economic or biological needs.
- The system may have to be "overbuilt" from a **physical** point of view to accommodate the **economic** or **biological** needs.

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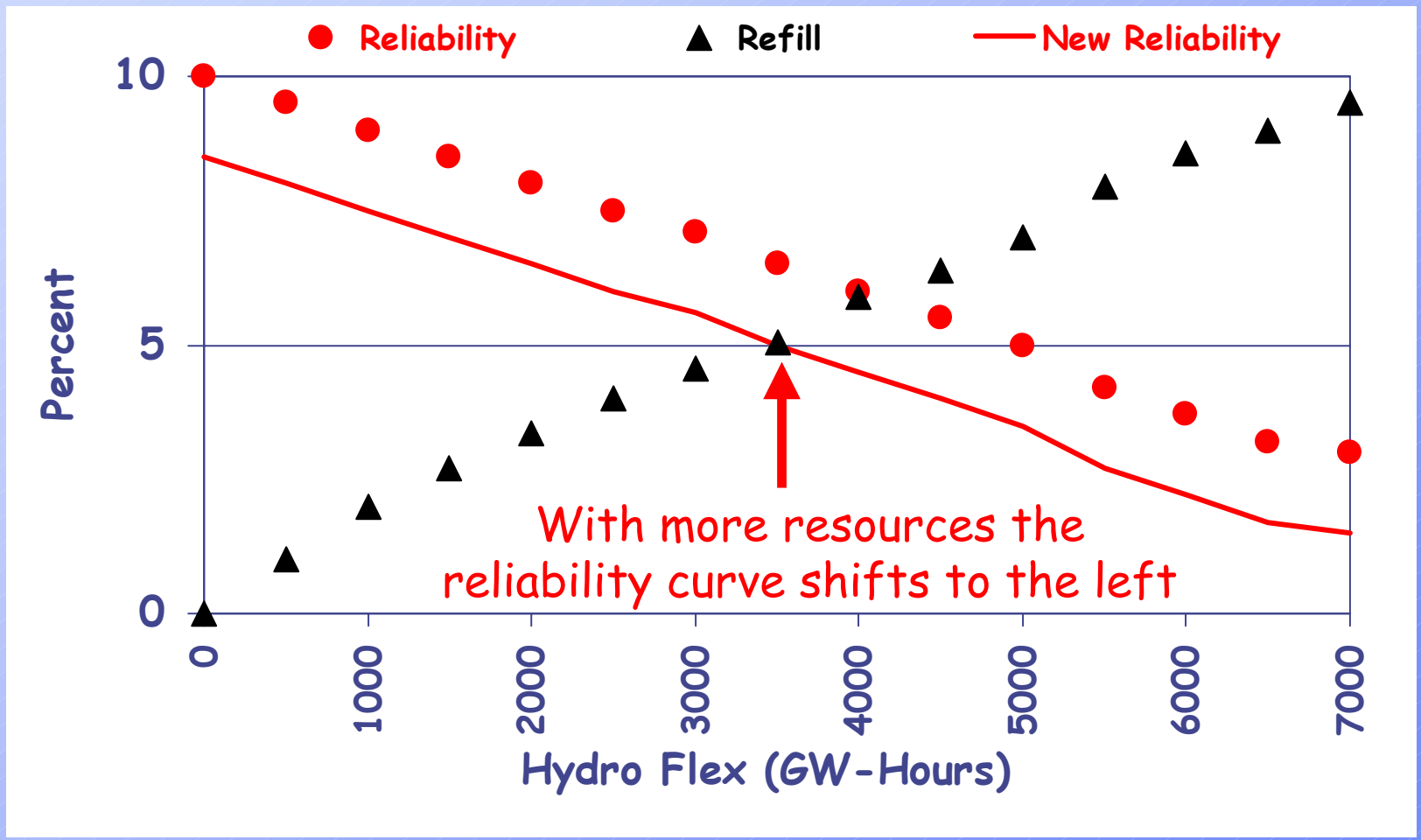
Reliability and Refill are affected by how aggressively we use hydro in the winter



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Recommendations

- Continue to refine cost estimates for hydroelectric operations related to fish.
- Investigate ways to address measure interdependence and synergy.
- For now, limit the LOFP to measure April refill misses only.
- Use the LOFP standard to help assess the appropriate use of hydro in winter.
- Work on developing a metric that can be used in operations (as opposed to planning).

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