

Flaming Gorge Winter Operations, 2005 - 2006

Information for the Flaming Gorge
Working Group
October 28, 2005

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Western Area Power Administration

WESTERN'S OBJECTIVES

- In conjunction with the other CRSP powerplants, follow SLCA/IP firm customers' prescheduled load,
- meet contractual obligations at lowest possible cost, within technical and environmental constraints,
- Since the implementation of environmental restrictions at Glen Canyon Dam and in conjunction with the Aspinall power unit recover load-following capabilities

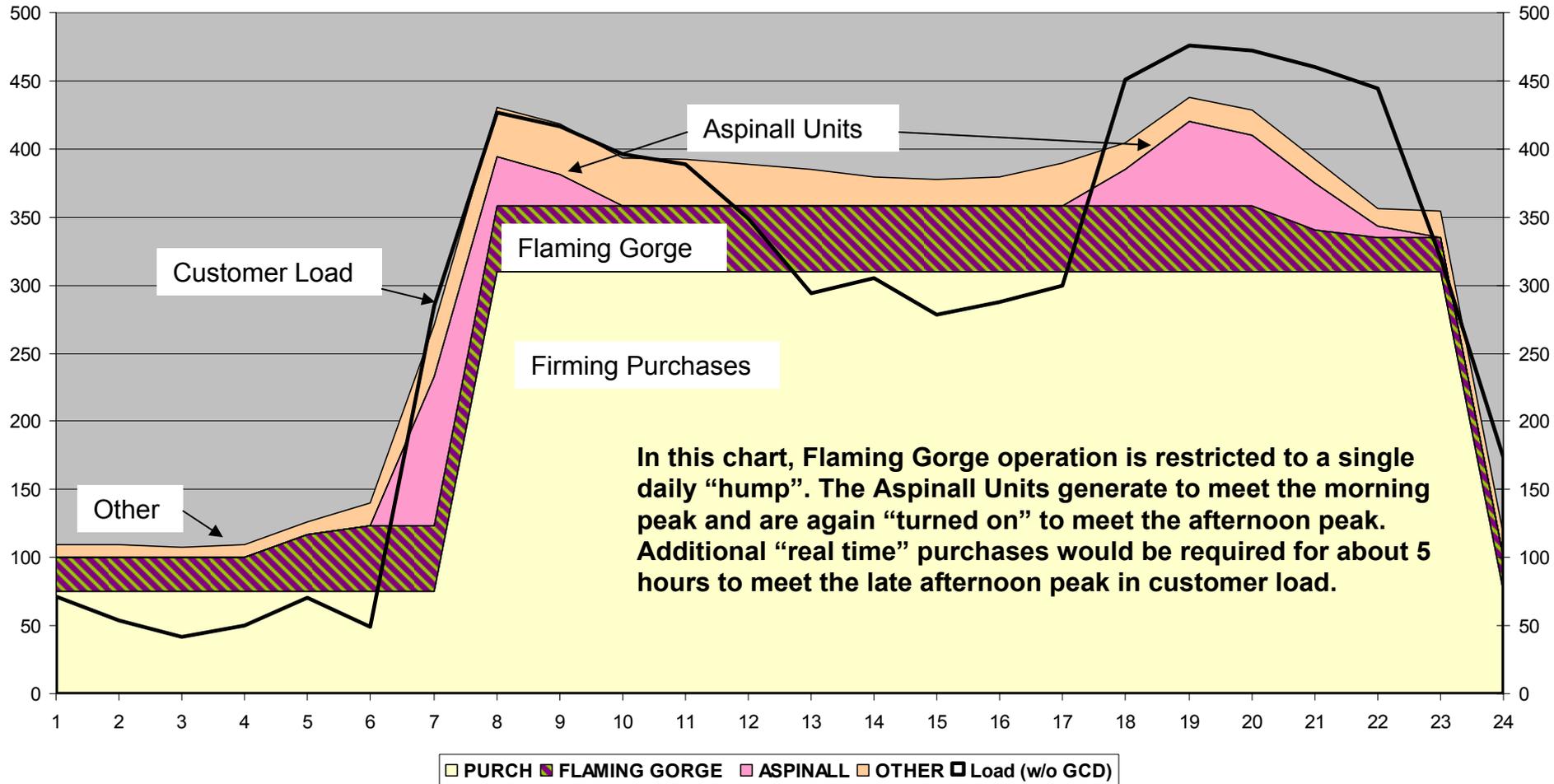
Other objectives

- Facilitate compliance with the Flaming Gorge BO limits at the Jensen Gage
- Use Flaming Gorge operations to conduct field testing of IBM Trout Model and gather information for IBM Colorado Pikeminnow model

An illustration of restricted, “single peak” vs. load following, “double peak” operation

- Charts use the following data from the “preschedule” for December 8th, 2004:
 - SLCA/IP Customer total “AHP” schedule,
 - Glen Canyon, Aspinall and Other CRSP powerplants,
 - Firm purchases amounts,
 - Purchase power prices
- Flaming Gorge hourly generation data is from Western’s handout at the FGWG meeting of August 25, 2005

Flaming Gorge Winter Season - restricted

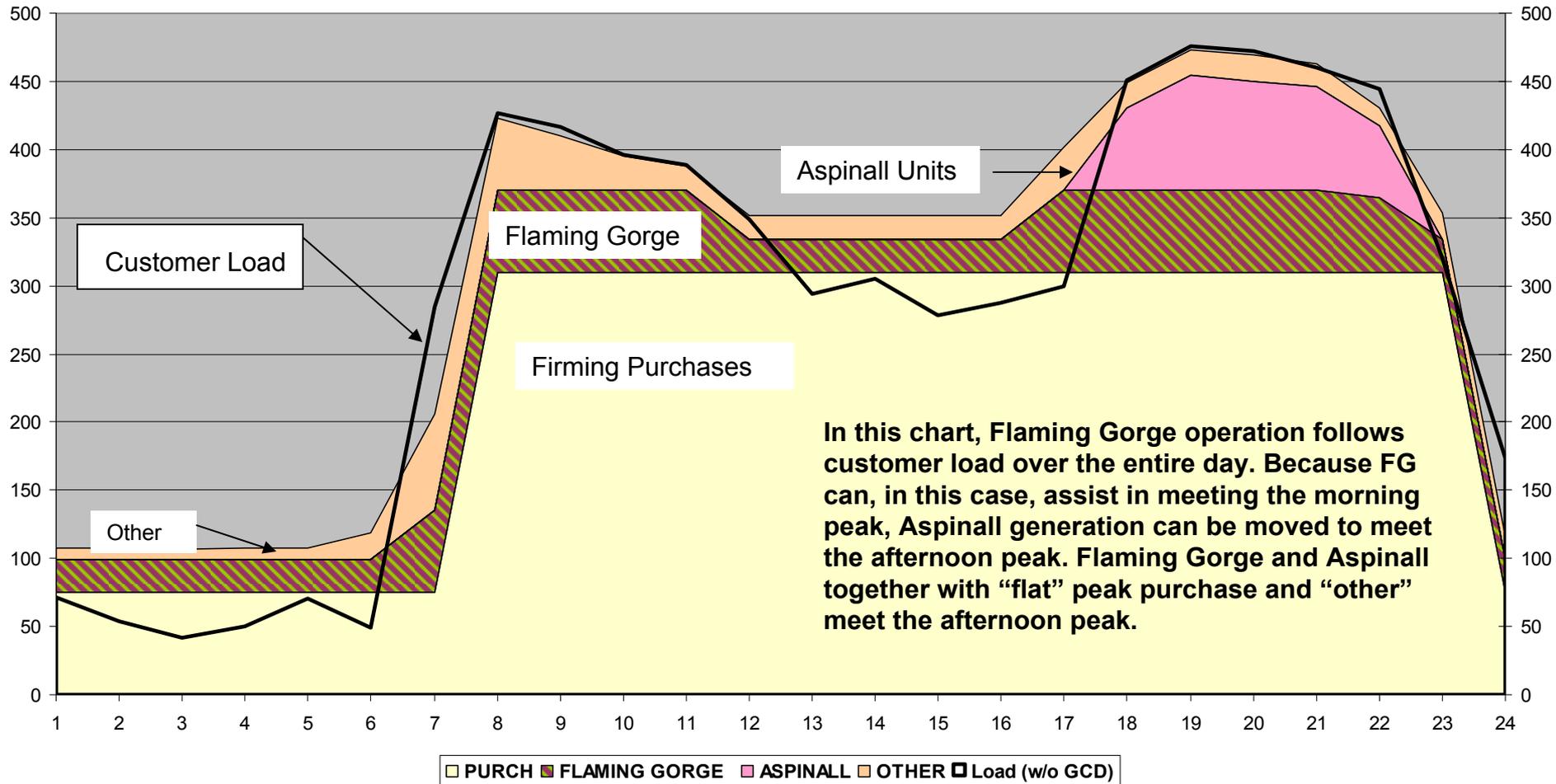


* Actual data for 12/08/04 for SLCA/IP customer load, Aspinall, firming purchases and other. The Flaming Gorge data represents an operation which averages 1,400 cfs and is restricted to a single daily “hump”. The “other” resource is a summation of Fontenelle, Colbran, exchanges and losses.

** This chart excludes generation at Glen Canyon Dam and the SLCA/IP load that it served on 12/08/04. Thus, the chart represents how WAPA might meet its customers’ combined scheduled load after Glen Canyon Dam has been fully utilized. The blank area in the late afternoon is left to be purchased by WAPA dispatchers on the spot market on a real-time basis, or purchased on the forward market in a 5 hour block.

*** This chart excludes WRP customer load and WRP purchases.

Flaming Gorge Winter '05 - Load Following



In this chart, Flaming Gorge operation follows customer load over the entire day. Because FG can, in this case, assist in meeting the morning peak, Aspinnall generation can be moved to meet the afternoon peak. Flaming Gorge and Aspinnall together with “flat” peak purchase and “other” meet the afternoon peak.

* Actual data for 12/08/04 for SLCA/IP customer load, Aspinnall, firming purchases and other. The “other” resource is a summation of Fontenelle, Colbran, exchanges and losses.

** This chart excludes generation at Glen Canyon Dam and the SLCA/IP load that it served on 12/08/04. Thus, the chart represents how WAPA might meet its customers’ combined scheduled load after Glen Canyon Dam has been fully utilized. There is no need, in this representation to purchase additional electricity to meet a late afternoon peak. There is some need for additional purchases in the early morning. [The “other” resources are also slightly adjusted in this scenario]

*** This chart excludes WRP customer load and WRP purchases.

Purchase Cost Comparison: Winter '05

Flaming Gorge Restricted Operation vs. Load Following Operation

- Estimated daily cost saving of load following operation over restricted operation: \$8,448.
- Estimated savings over four Winter months: \$1,013,735

Notes:

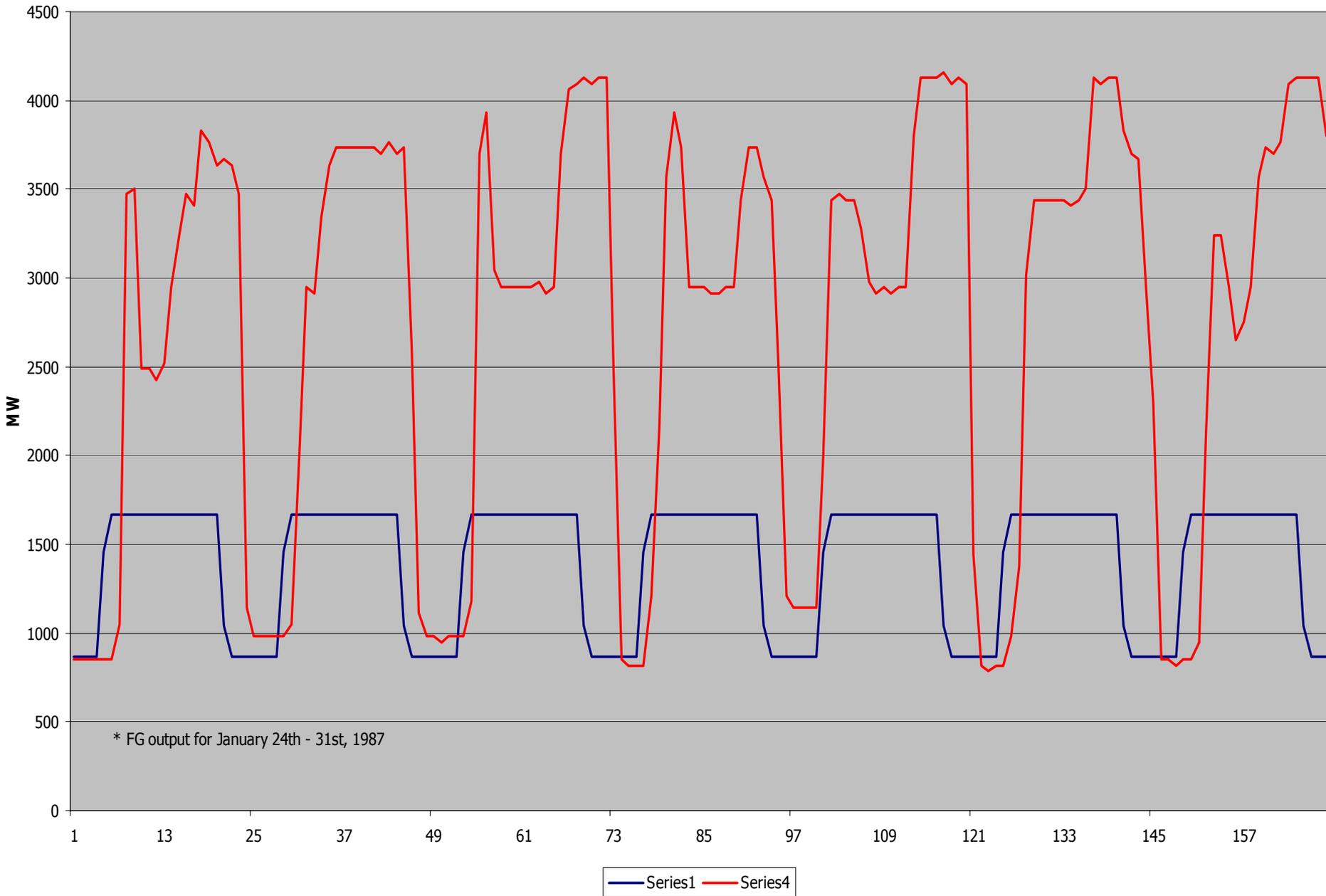
1) Winter months are: November, December, January & February

2) Estimated savings are a simplification: WAPA calculation assumes the same load, generation pattern and prices for each day of the winter months.

Some Historic Context Related to Winter Season, 05 Proposed Flaming Gorge Operation

- Flaming Gorge '92 BO limited the daily variation of releases to +/- 12 ½ % at the Jensen, Utah Green River gage
- Soon after, Reclamation initiates the FG Work Group, providing a forum for stake holders to consider a larger set of natural resource issues
- February, '97 new operating criteria for Glen Canyon Dam goes into effect, imposing additional environmental limits on its operation

Flaming Gorge Comparison: Historic January Flows vs Sept./Oct, 2005 Operation



Conclusions

- Western has contractual obligations require “load following” operations at some or all of the CRSP powerplants
- Purchases of short-duration hourly blocks are significantly more expensive than all day or all peak hour blocks
- “load following” operation at Flaming Gorge for the Winter Season, 05, will save an estimated \$1 million
- “Load following” Winter operation provides greater flexibility in meeting the '92 BO
- Western is willing to continue taking the concerns of other stake holders into account