



WESTERN

**AREA POWER
ADMINISTRATION**



CRSP Management Center

Using the Hydro LP to Allocate Power to SLCA/IP Customers

A 24-hour schedule for Saturday,
Sunday, and Weekdays

Why 24-hour Schedules?

- Before April 2001, we allocated maximum capacity and total energy to every SLCA/IP customer each month,
- Allocations were based on water releases in USBR 24-month studies updated each month,
- Customers could schedule energy and capacity any way they wanted as long as they stayed within maximum capacity and total energy limits.

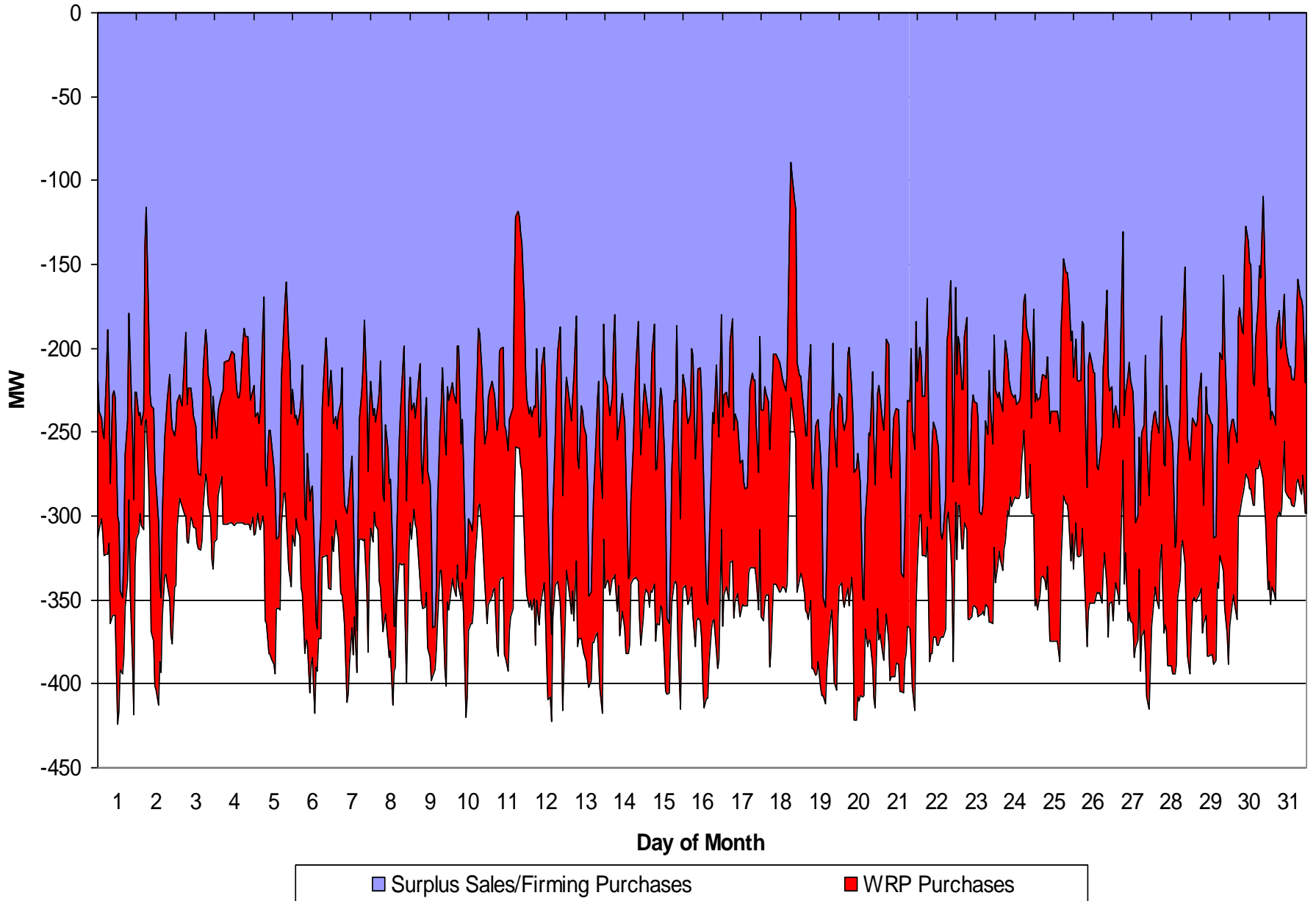
Why 24-hour Schedules?

- Low runoff since Jan. 2000 and LSSF study in summer 2000 caused large energy purchases to firm contract commitments,
- Customer schedules often exceeded CRSP power plant constraints, requiring “shoulder-hour” purchases,
- High-priced power purchases beginning June 2000 to present threatened to deplete CRSP Basin Fund.

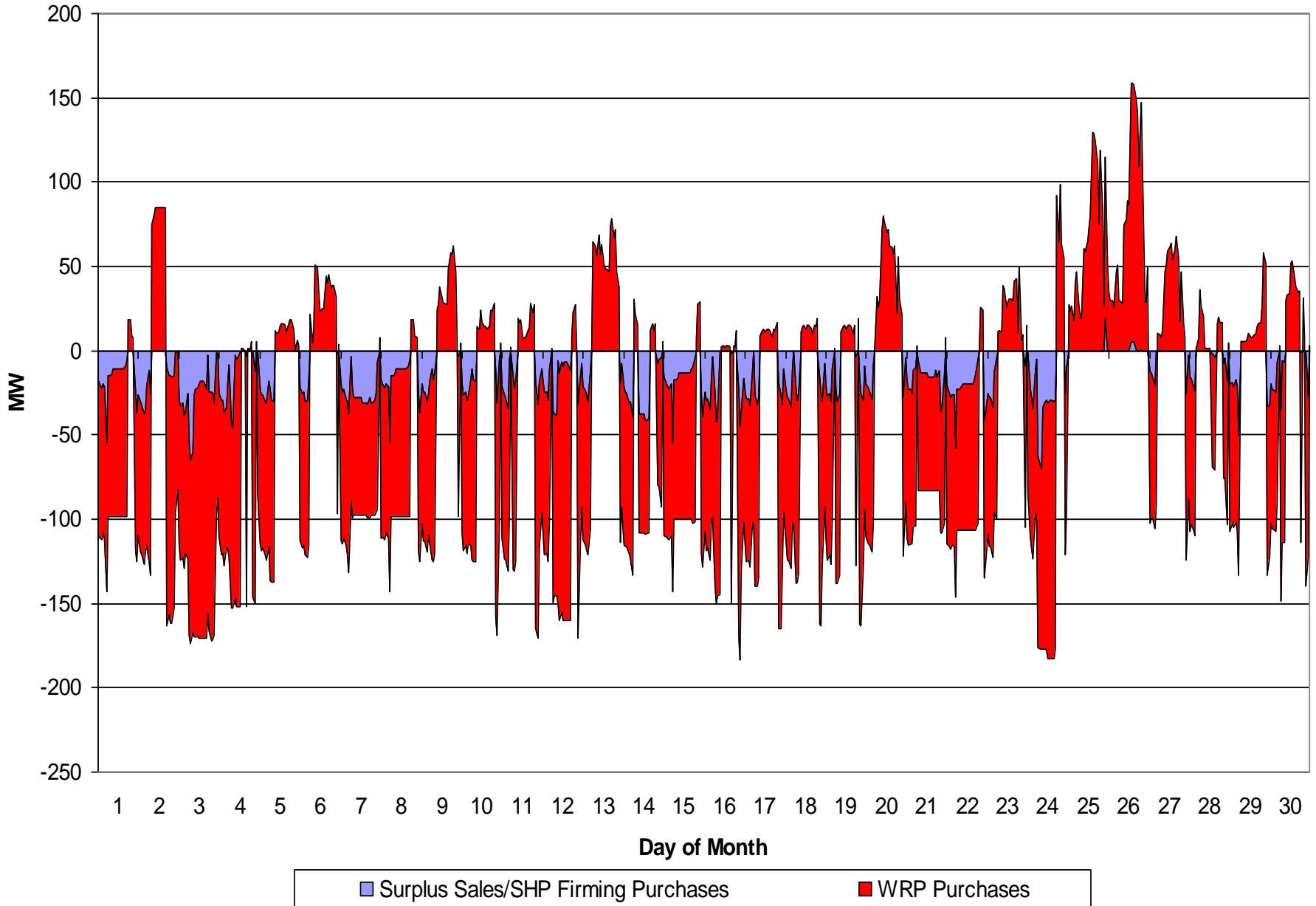
Why 24-hour Schedules?

- Solution to “cash crunch” was to provide “hydro-only” product with pass-through firming purchases beginning April 2001, and continuing until financial conditions improve,
- 24-hour schedules for Saturday, Sunday, and weekdays eliminates “shoulder-hour” purchase costs.

March 2001 Surplus Sales/Firming Purchases and WRP Purchases (Sales are positive, Purchases are negative)



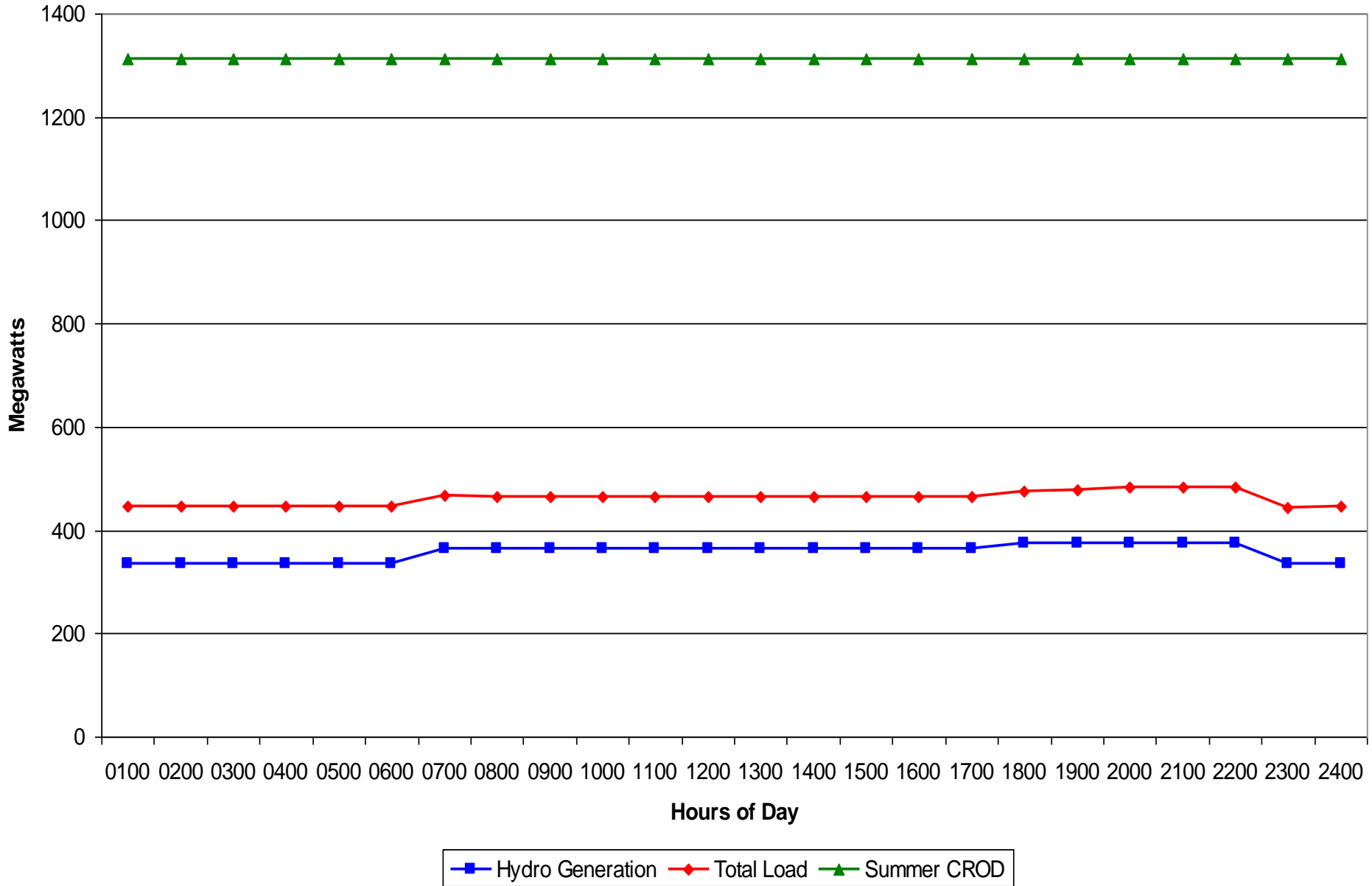
April 2001 Surplus Sales/ SHP Firing Purchases and WRP Purchases
(Sales are positive, Purchases are negative)



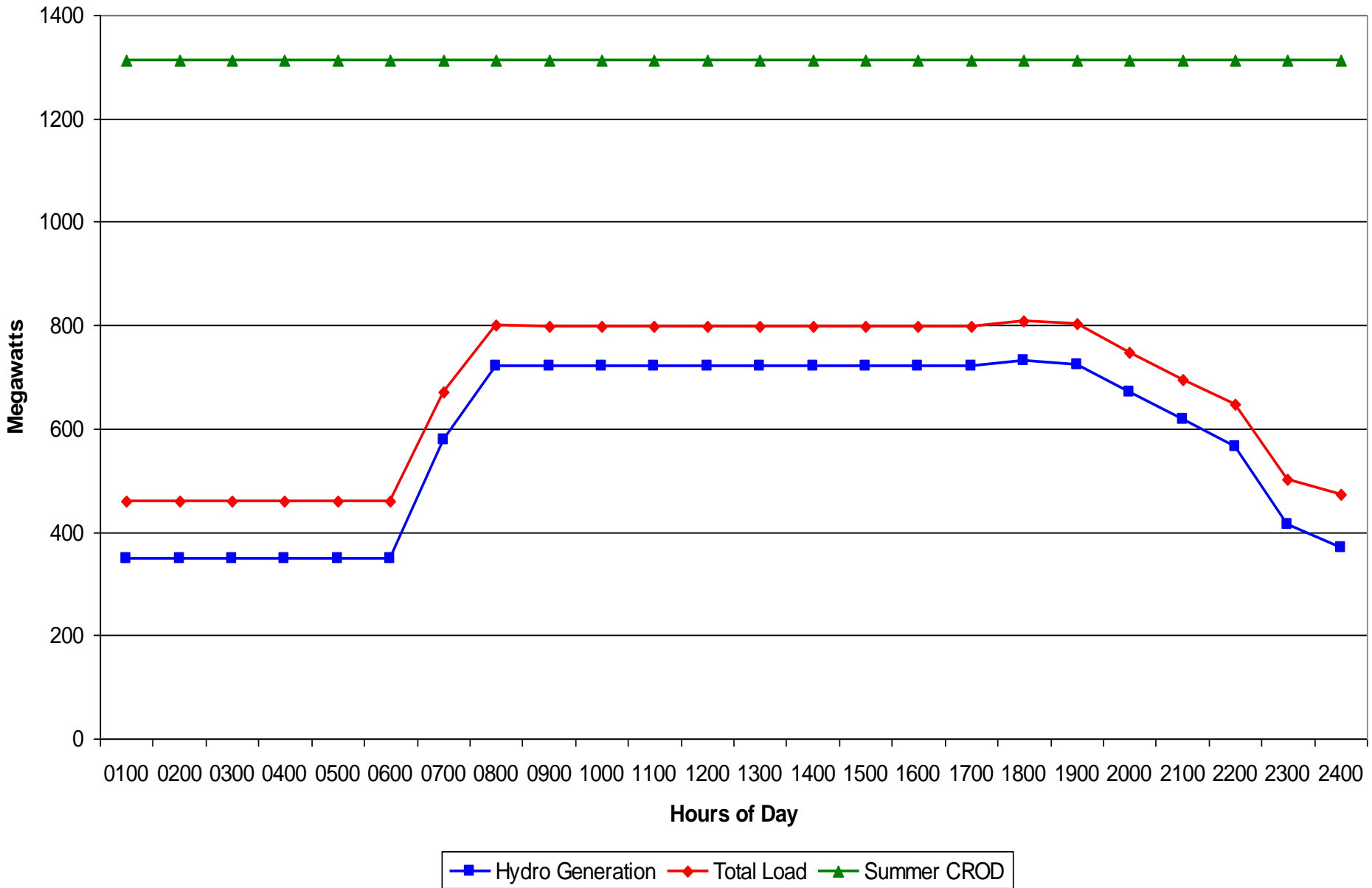
What are 24-hour Schedules?

- We calculate total CRSP power plant output for each hour of a typical Saturday, Sunday, and weekday,
- Hourly generation is reduced to account for Project Use loads and system losses,
- Remaining generation is allocated on a pro-rata basis to SLCA/IP customers.

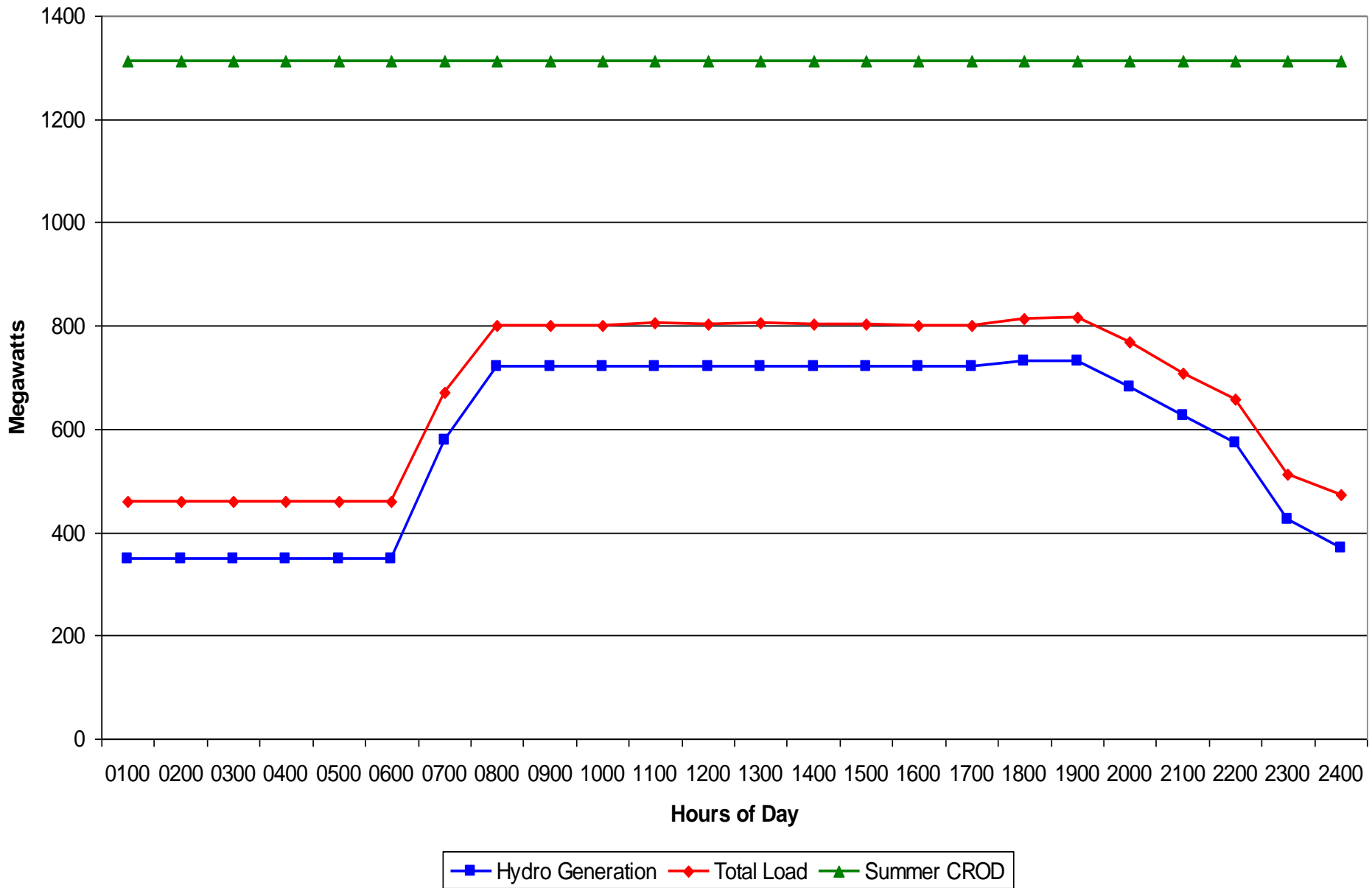
Total CRSP Generation: "Most Probable" Case Typical July Sunday



Total CRSP Generation: "Most Probable" Case Typical July Saturday



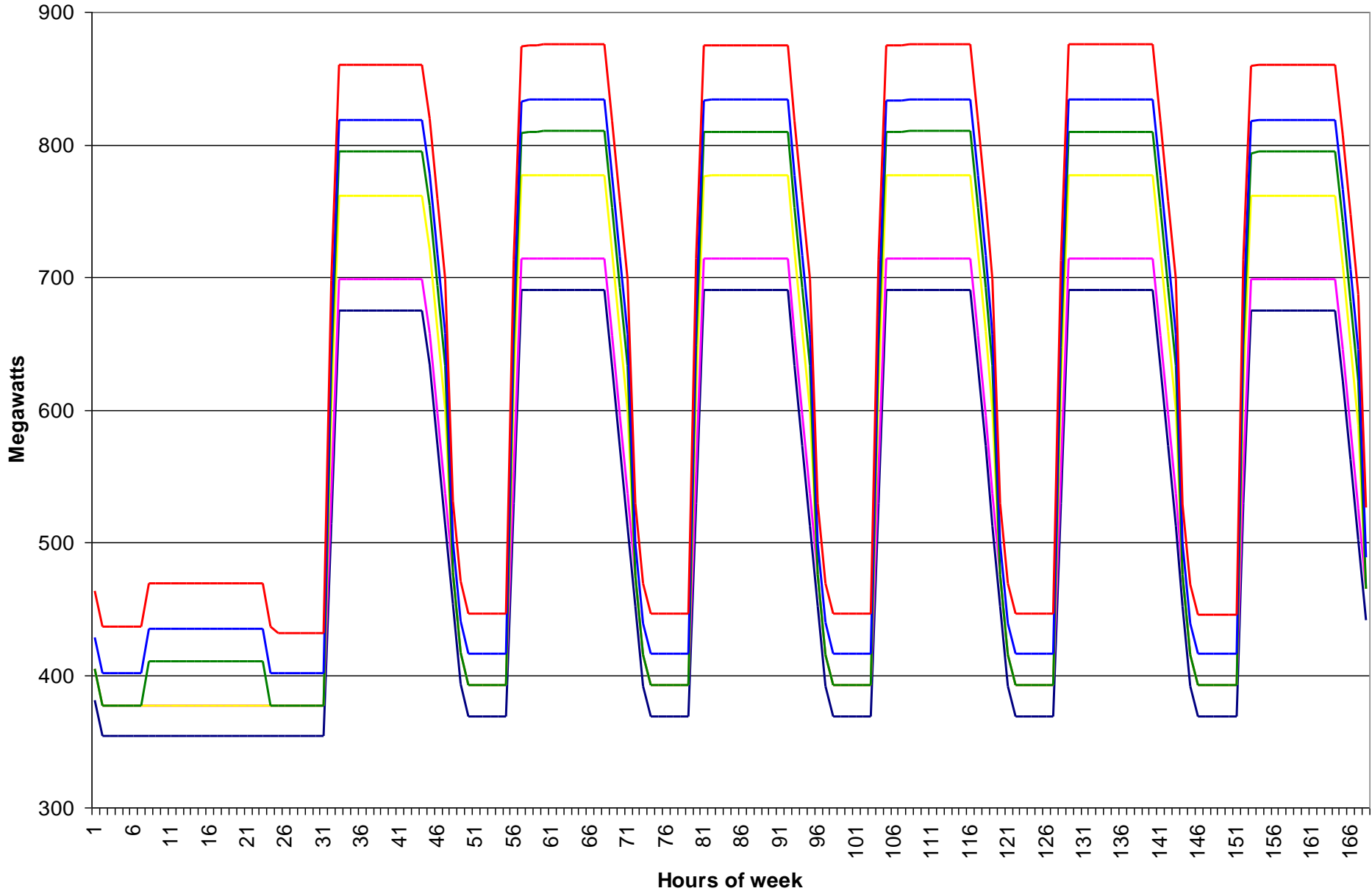
Total CRSP Generation: "Most Probable" Case Typical July Weekday



How are 24-hour Schedules Determined?

- 24-month study water releases are entered into Hydro LP for each CRSP power plant,
- Constraints and operating practices at each plant are also entered into Hydro LP,
- On-peak/Off-peak price differential is included,
- The program determines the optimum generation profile for each power plant.

Modeled CRSP Generation from Hydro LP



— GC — FG — BM — MP — CY — Others

How are 24-hour Schedules Determined?

- Model results are coordinated with Montrose and USBR, and adjusted as needed to ensure water release targets are met,
- Saturday, Sunday, and Wednesday 24-hour profile entered into spreadsheet that subtracts out Project Use loads and system losses,
- Resulting net generation is entered into a spreadsheet that determines each customer's pro-rata share and creates an Exhibit for each customer.