

System Condition Update

Spring Operations Review Forum Regional Conference Call

June 3, 2011

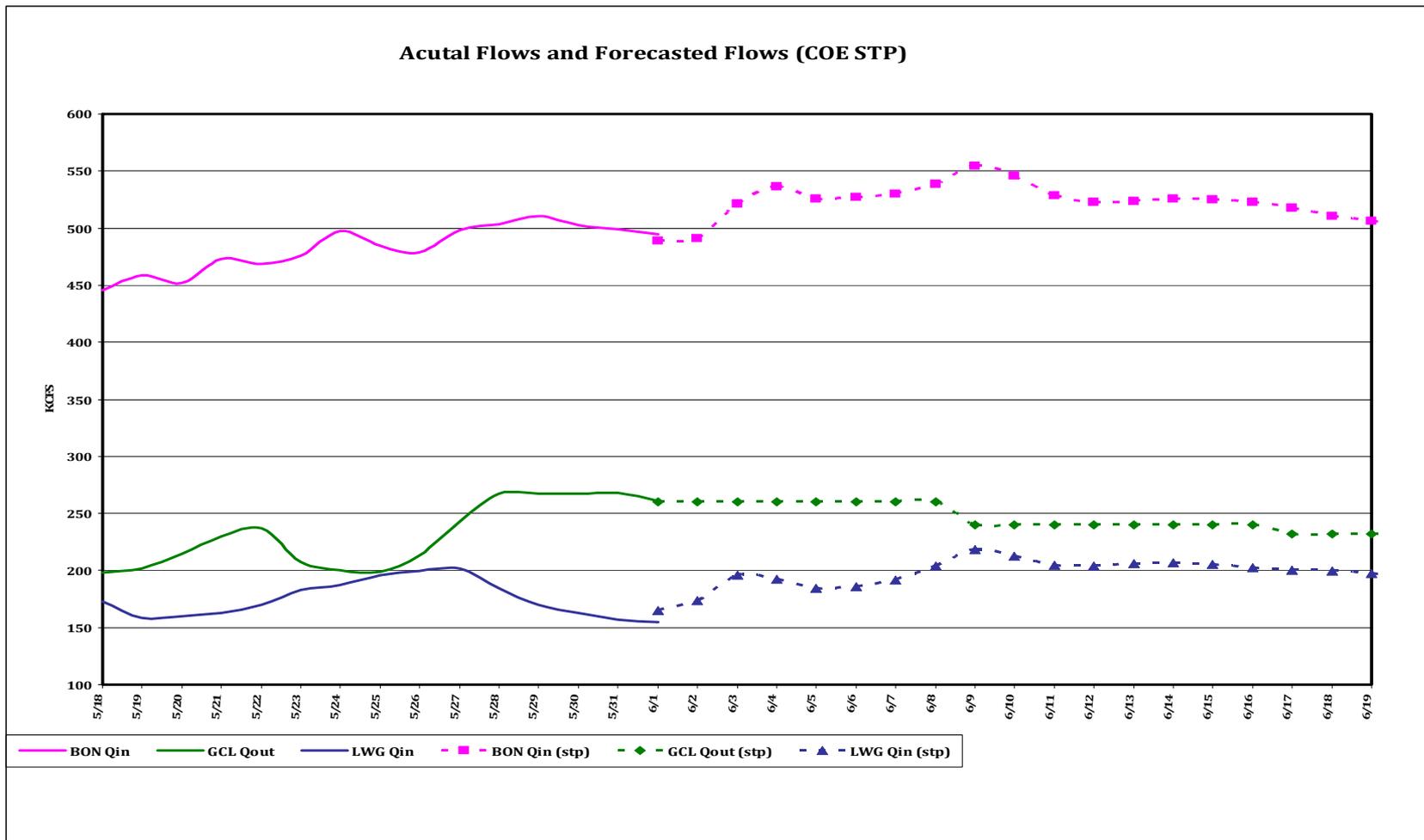
1:00 – 2:00 p.m.

To participate in the call please dial: **(877) 322-9654**

When prompted, enter access code: 328457



Hydro Operations Update



Hydro Operations Update

- The Corps of Engineers (COE) requested that Bonneville outflows be regulated to within 1 foot of flood stage (16-17 feet measured at Vancouver)
 - Equivalent to about 505-515 kcfs discharge at Bonneville dam unless it results in GCL draft.
 - Note that discharges from Grand Coulee/Chief Joseph (GCL/CHJ) need to balance flows on the Lower Snake in order to meet a flow objective at Bonneville.
 - In other words, as Lower Snake flows recede, GCL/CHJ flows need to increase (and vice versa)
 - Since the maximum turbine discharge is about 165 kcfs at GCL and 185 kcfs at CHJ, the resulting generation needs to be fairly flat across the day to minimize TDG
 - RFC June early-bird Water Supply Forecast: **138 million acre-feet**

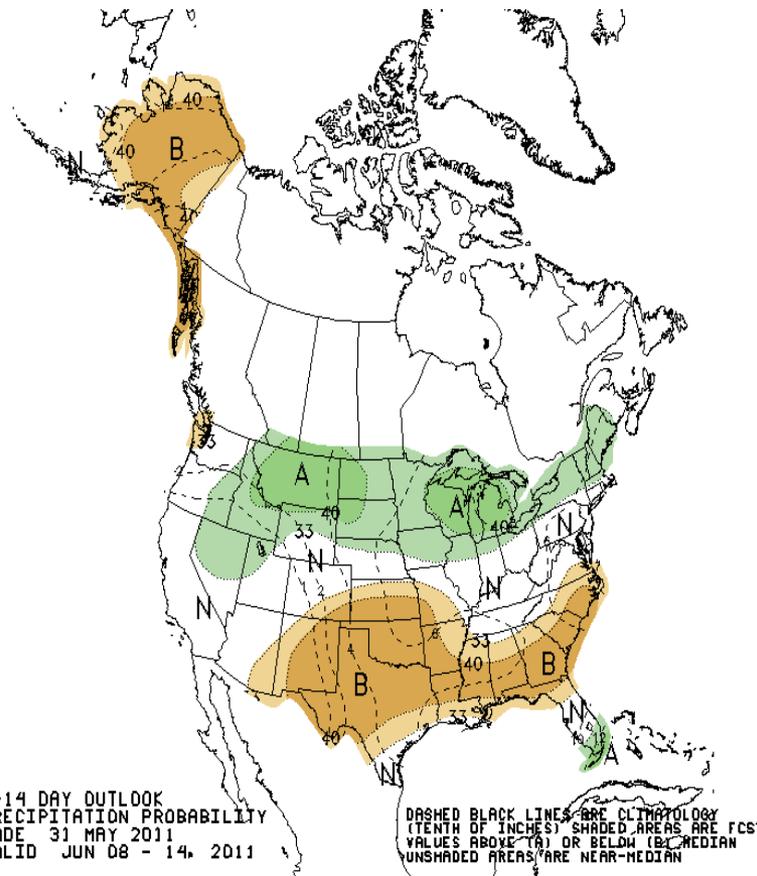
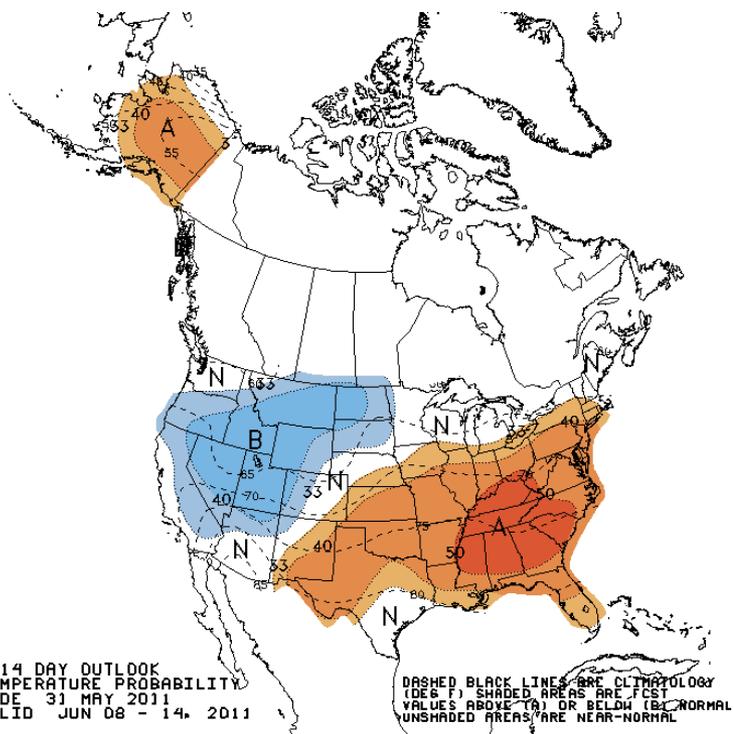
Hydro Operations Update

- Overgeneration conditions in the Northwest
 - There was insufficient demand for the resulting generation in light load hours offered at zero cost, so the following steps were implemented to meet the flow objective:
 - DSO 216 INC reserves reduced to 400 MW and DEC reserves reduced to 300 MW
 - Spill up to Level 1 Spill (120% TDG system-wide)
 - Implement Environmental Displacement/Redispatch
 - Continue to spill up to higher Spill Levels
 - Environmental Displacement/Redispatch
 - All thermal generation within BPA's balancing authority was displaced to their minimum generation first
 - ER implemented daily (with the exception of 5/25 and 6/01) since Wednesday (5/18). These actions have displaced over 51,600 MW-hrs of wind generation during this period
 - 12-hour average TDG levels are 120% or higher across the FCRPS as measured in the tailrace
 - Use of Environmental Displacement/Redispatch was effective in minimizing the amount of TDG in the system
 - Links to TDG data can be found on BPA's Overgeneration webpage or the TMT website

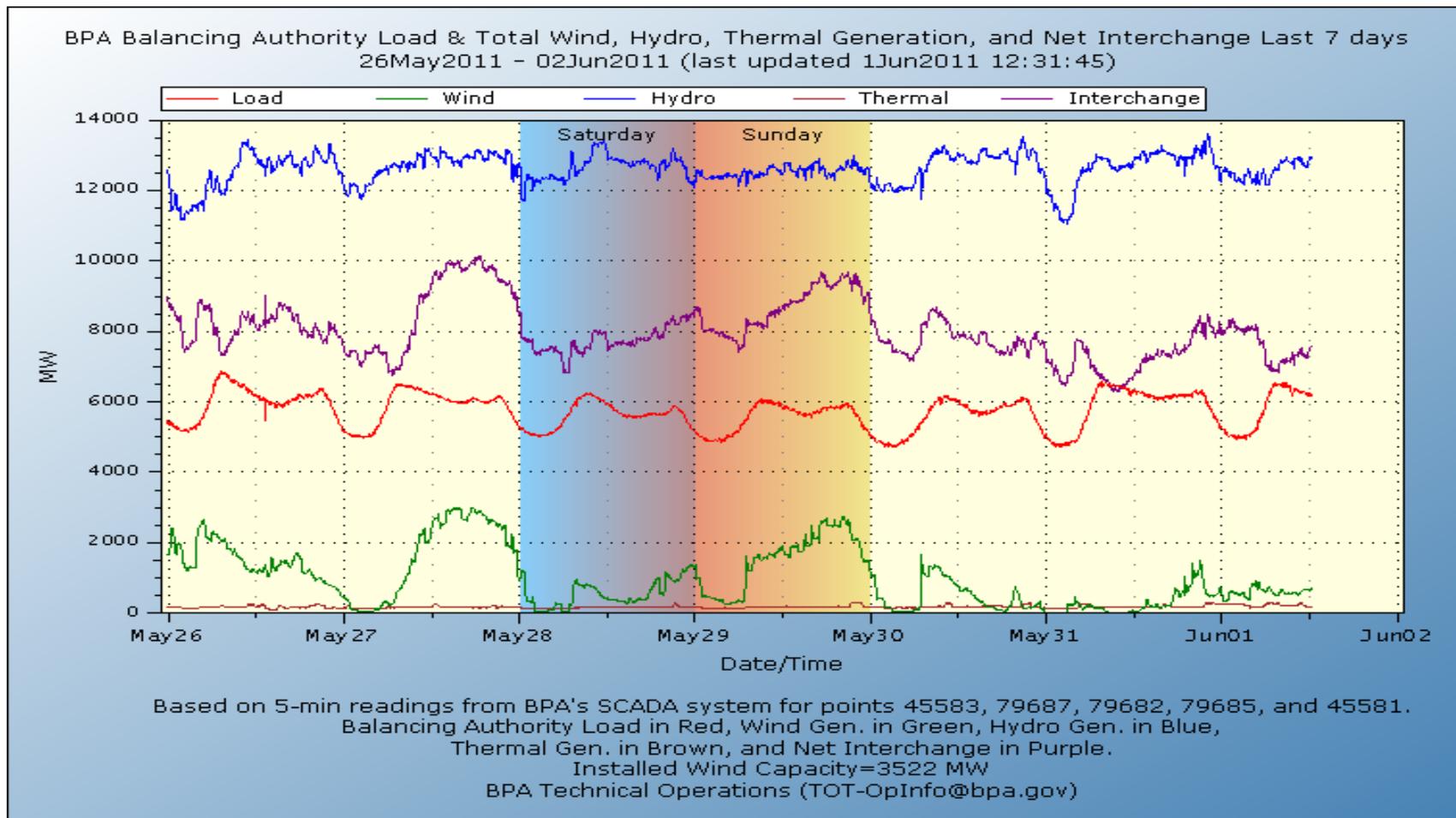
Actions to manage overgeneration

- Offering Spill Exchange Agreements to counterparties with hydro resources – none signed yet
 - Since Sat (5/21) we have successfully acquired 10,000 MWh of load under the Mid-C Spill Exchange agreement.
- Positioning Banks Lake to have the maximum amount of pump load available during May and June.
- Moved non-essential generator and transmission maintenance outages out of May and June.
- Coordinated LLH spill on Willamette projects.

Weather and Streamflow



Balancing Authority Load and Total Wind, Hydro, and Thermal Generation



Transmission Updates

■ COI N>S

- 5/31 to 6/5: 4600 MW due to BPA Big Eddy- Ostrander 1 500kv line
- 5/31 to 6/9: 4100 MW due to CISO-Gates: Los Banos-Midway #2 500kv Series Capacitors
- 6/5 to 6/24: 4500 MW due to BPA Big Eddy-Ostrander 1 500kv line and Ostrander-Troutdale 1 500kv line

■ PDCI N>S

- 2990 MW : Studied at rated capacity for various outages over next seven days

■ NI S>N

- 1950 MW: Studied at or near rated capacity for various outages over the next seven days.

Transmission Updates

- **COI + PDCI (N to S) capacity utilization (May 4 – June 2)**

- All Hours: 71.8%
- Heavy Load only: 74.7%
- Light Load only: 68.2%

- **Northern Intertie (S to N) capacity utilization (May 4 – June 2)**

- All Hours: 40.3%
- Heavy Load Only: 33.3%
- Light Load Only: 49.0%

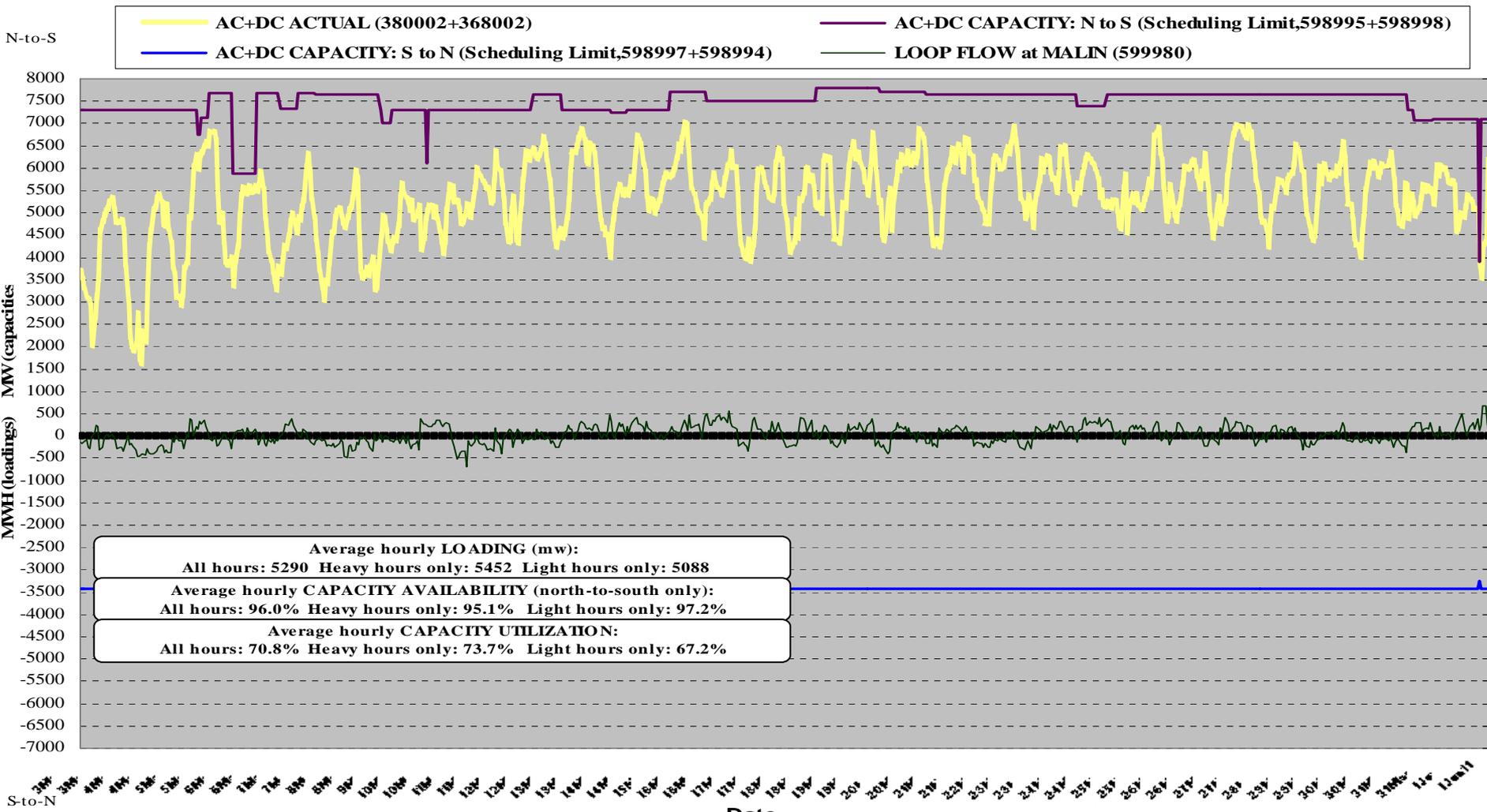
*** Many hours in previous seven days with actual NI flows N to S ***

- **Montana - PNW average utilization (May 4 – June 2)**

- All Hours: - 239 MW
- Heavy Load Only: - 356 MW
- Light Load Only: - 101 MW

*** The Pacific NW has been a net exporter of energy from Montana. Negative numbers mean flows into the region ***

AC+DC INTERTIE AVAILABILITY & UTILIZATION: 03MAY11 - 01JUN11 (30 days) ACTUAL LOADINGS and CAPACITIES, BY HOUR



capacity availability = actual capacity/rated capacity, capacity utilization = actual loading/actual capacity
Source: Hourly data via RODS; Capacities are those at COB or NOB and reflect total path scheduling limit
Actuals may exceed scheduling limit as long as conditions remain within North-of-John-Day vs. COI & PDCI operating nomogram limits

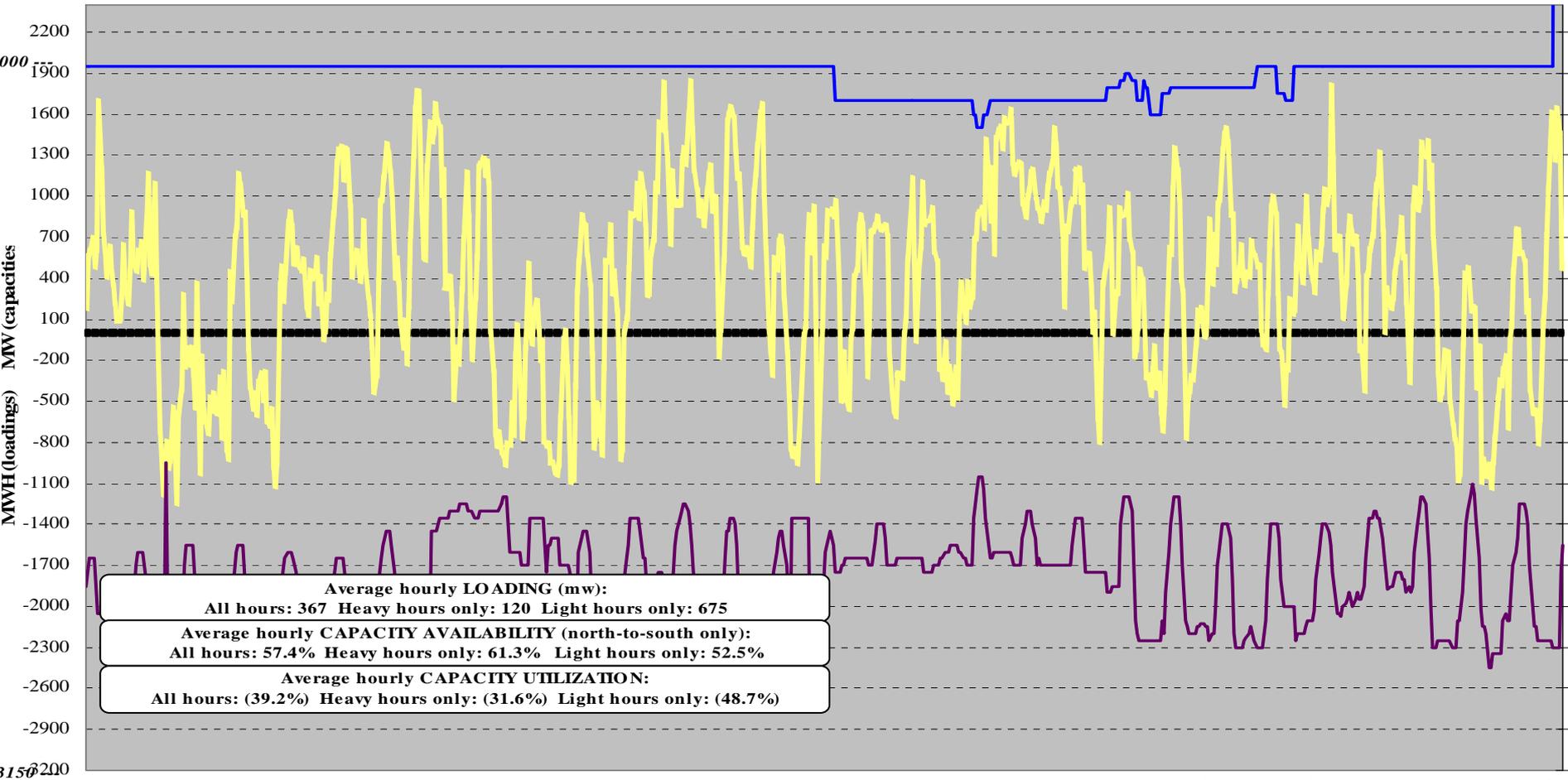
BC INTERTIE (WEST+EAST) AVAILABILITY & UTILIZATION: 03MAY11 - 01JUN11 (30 days)

ACTUAL LOADINGS and CAPACITIES, BY HOUR

North-bound to BC

MWH (loadings) MW (capacities)

— **BC ACTUAL (330043+330045+331002)**
 — **BC CAPACITY: N to S (529994)**
 — **BC CAPACITY: S to N (529995)**



South-bound from BC

Date

capacity availability = actual capacity/rated capacity, capacity utilization = actual loading/actual capacity
 Source: Hourly data via RODS; Capacities are those as recorded by and used for scheduling, and are based on electrical limits, not considering Intertie ownership shares; Rated capacities labeled as -3150 (N-S) and 2000 (S-N)

Contact Information

- To discuss commercial operations, please contact Alex Spain at (503) 230-5780, ajspain@bpa.gov.
- For additional information on Overgeneration, please contact:
Project Manager: Nita Burbank - (503) 230-3935, nmburbank@bpa.gov
Public Engagement: Kurt Lynam - (503) 230-5218, kolynam@bpa.gov
- Overgeneration Web site:
<http://www.bpa.gov/corporate/AgencyTopics/ColumbiaRiverHighWaterMgmt/>