

System Condition Update

Spring Operations Review Forum Regional Conference Call

June 17, 2011

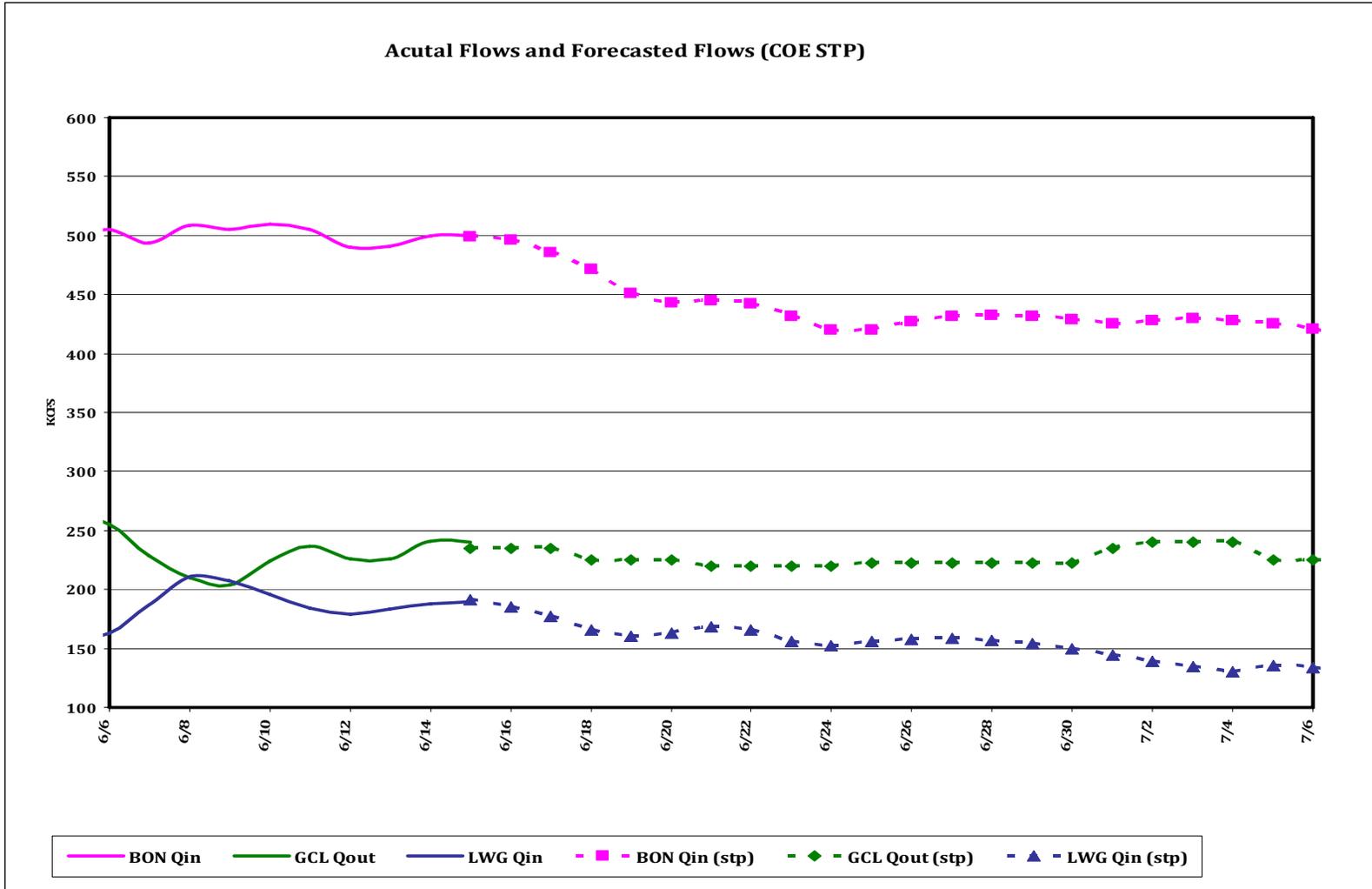
1:00 – 2:00 p.m.

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 management of Bonneville flows at or below 500 kcfs, to prevent flooding in Vancouver, while managing Grand Coulee refill.

- As a result Bonneville flows will gradually decrease starting this weekend.
- 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 160 kcfs at GCL and 185 kcfs at CHJ, the resulting generation needs to be fairly flat across the day to minimize total dissolved gas.

Hydro Operations Update

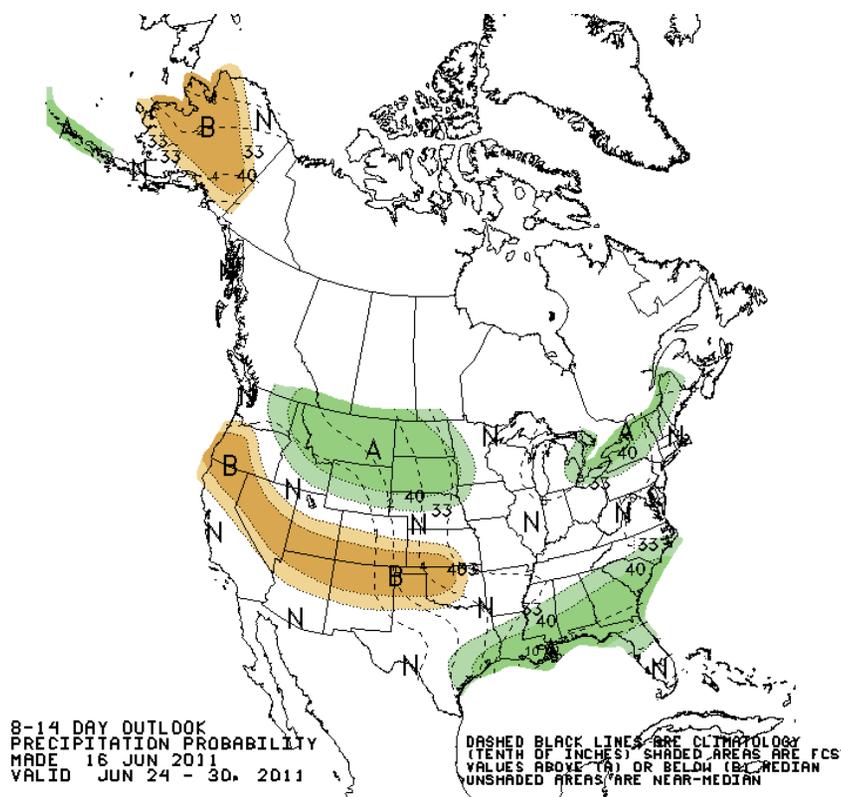
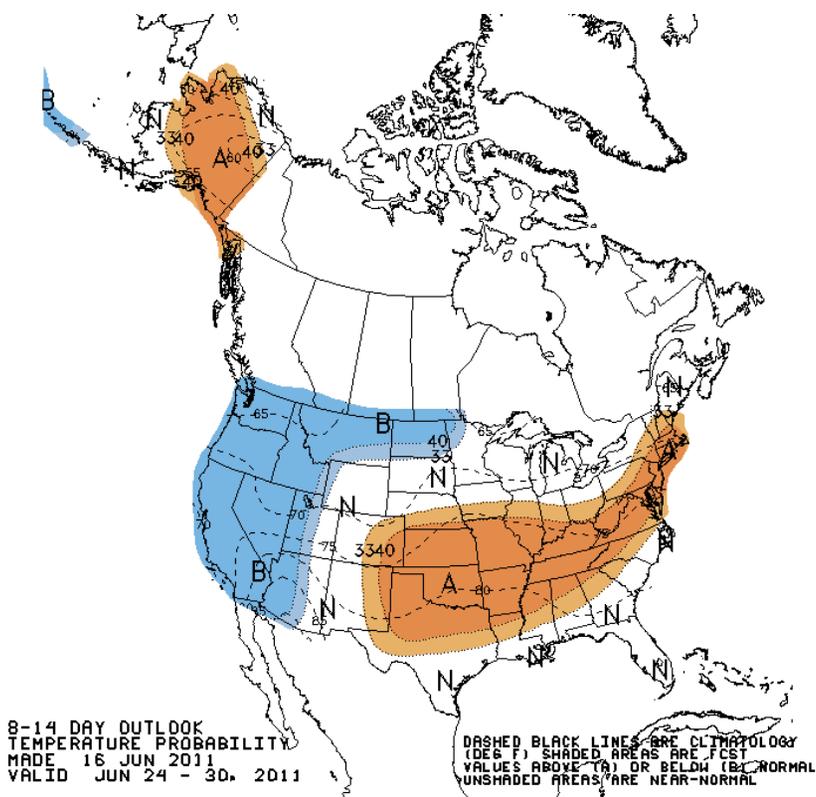
Overgeneration conditions in the Northwest

- 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, 6/9, 6/10 and 6/16) since Wednesday (5/18). These actions have displaced 79,119 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

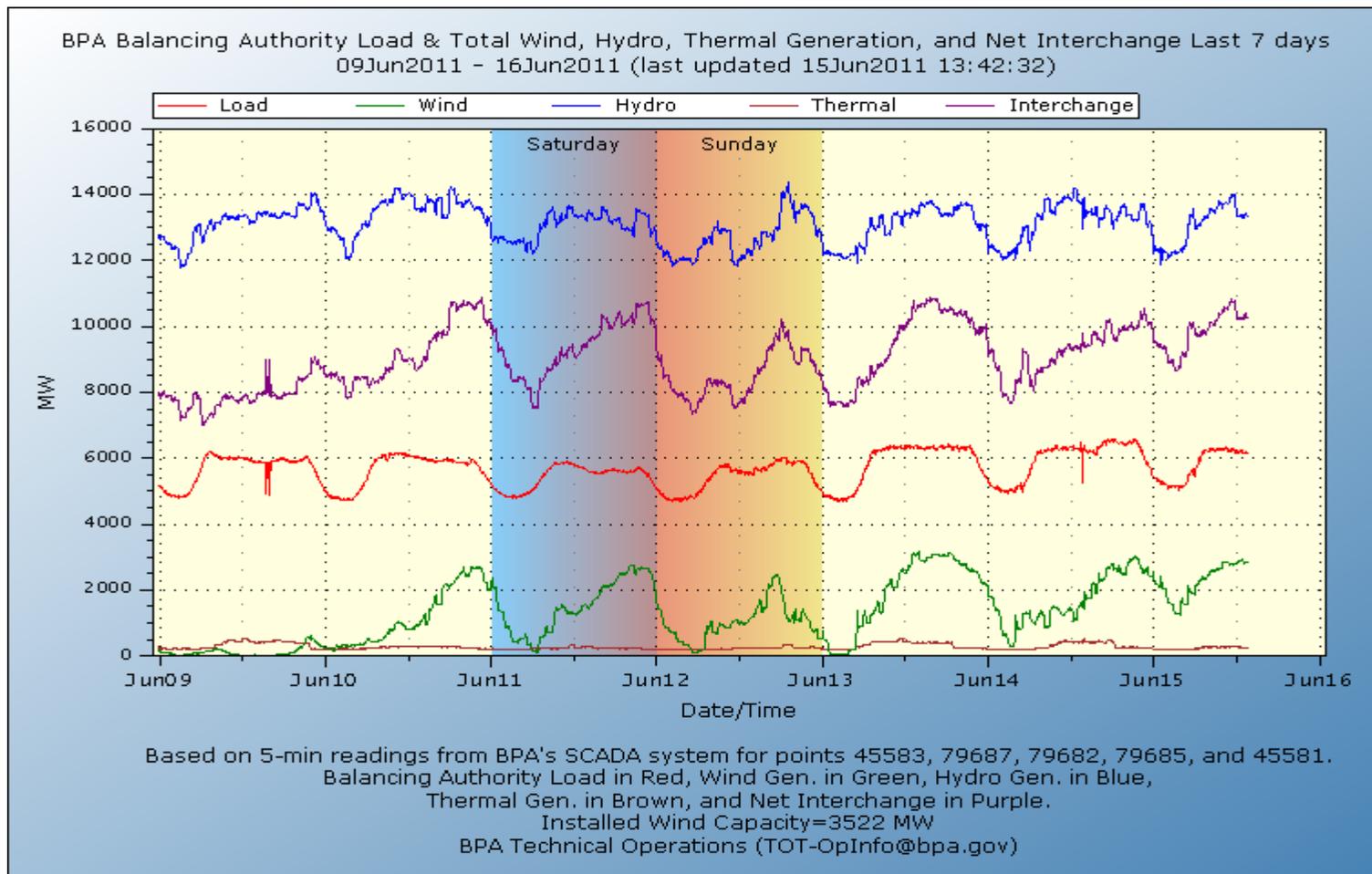
Actions to manage overgeneration

- Since Sat (5/21) we have successfully acquired 13,191 MWh of load under the Mid-C Spill Exchange agreement.
- Positioned 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.
- Environmental Redispatch has been used nightly (with the exception of 5/25, 6/9, 6/10 and 6/16) since May 18th.
- Coordinated LLH spill on Willamette projects.

Weather and Streamflow



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



Transmission Updates

- COI N>S
 - 6/5 to 6/24: 4500 MW due to BPA - Big Eddy-Ostrander 1 500kv line/Ostrander-Troutdale 1 500kv line
 - 6/12 to 6/18: 4325 MW due to CISO - Los Banos-Midway 2 500kV Line Series Cap Bank 4 @ Gates
 - 6/14 to 6/16: 4425 MW due to CISO - Malin-Round Mountain 1 500kV Series Capacitor at Round Mountain
 - 6/21 to 6/23: 4300 MW due to PG&E - Malin-Round Mountain 2 500kV Series Capacitor at Round Mountain
 - 6/27: 2950 MW due to CISO - Round Mountain-Table Mountain 2 500kV Line
 - 6/28 : 2950 MW due to CISO - Round Mountain-Table Mountain 1 500kV Line
- PDCI N>S
 - 2990 MW: Studied at rated capacity for various outages through end of month
- NI S>N
 - 1950 MW: Studied at or near rated capacity for various outages through end of month.

Transmission Updates

- **COI + PDCI (N to S) Capacity Utilization (05/16– 06/14)**

All Hours: 75.3%

Heavy Load Only: 77.1%

Light Load Only: 73.2%

- **Northern Intertie (S to N) Capacity Utilization (05/16– 06/14)**

All Hours: 40.9%

Heavy Load Only: 30.6%

Light Load Only: 53.7%

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

- **Montana-PNW Average Utilization (05/16– 06/14)**

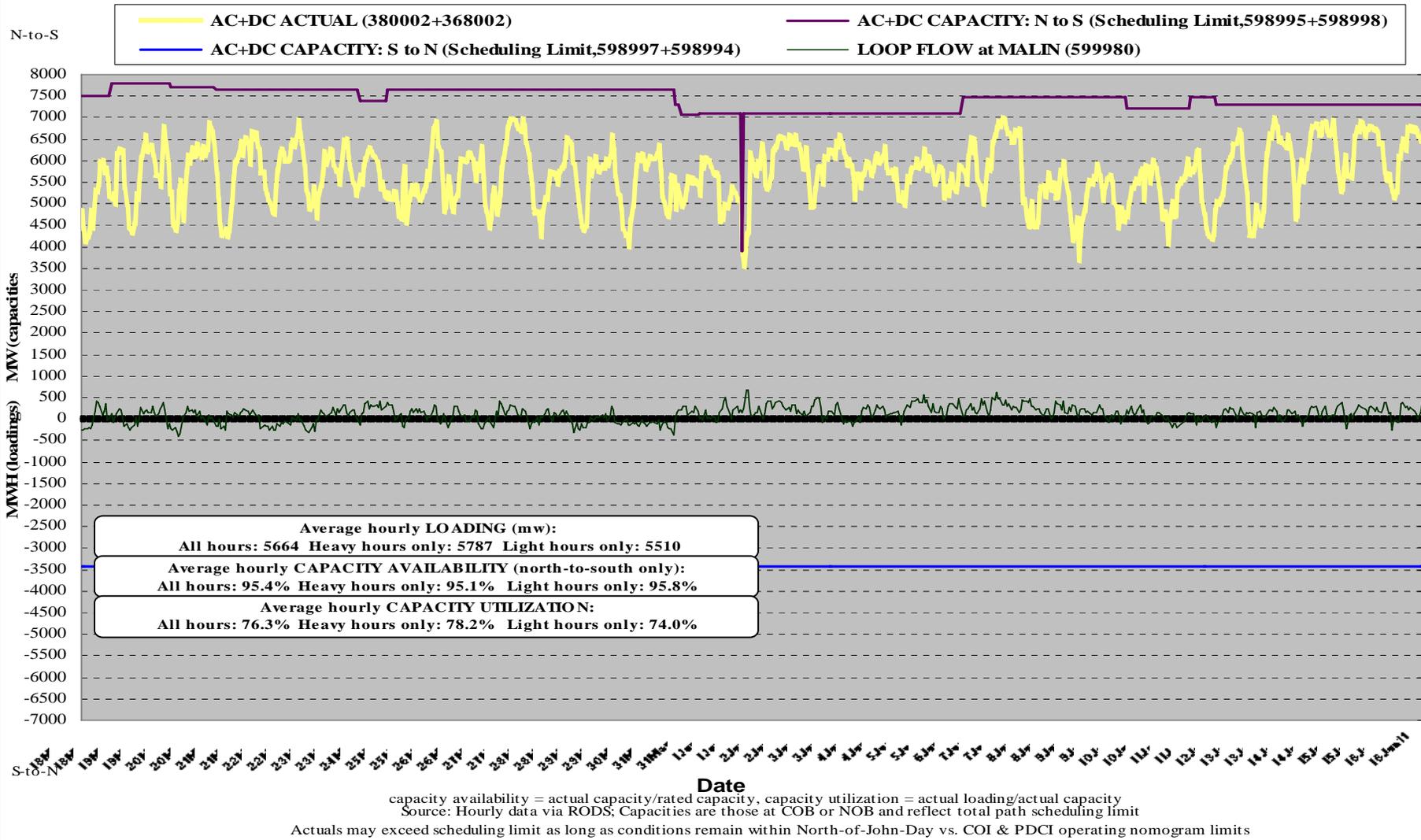
All Hours: 15 MW

Heavy Load Only: -99 MW

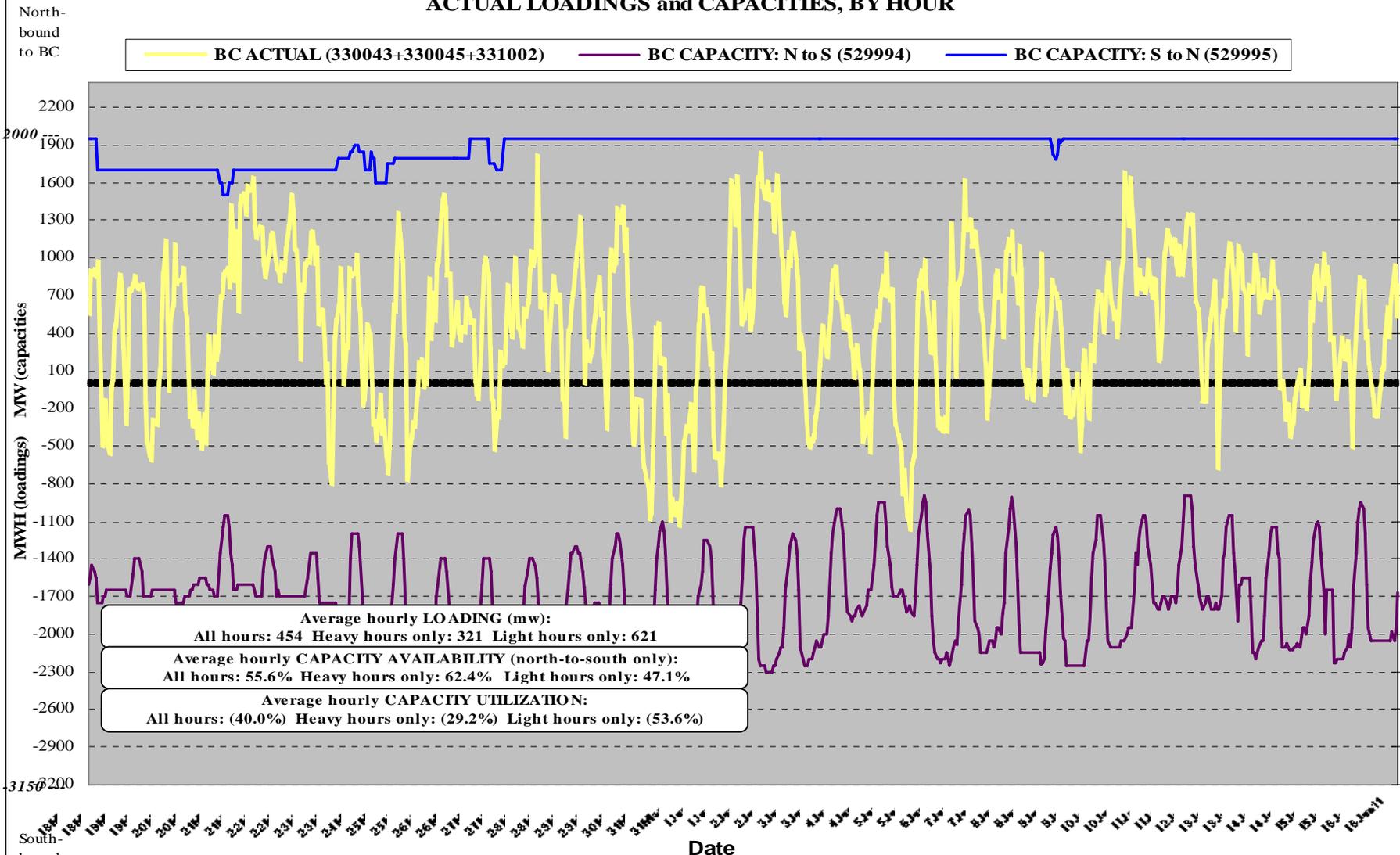
Light Load Only: 149 MW

The PNW is a net importer of energy from Montana

AC+DC INTERTIE AVAILABILITY & UTILIZATION: 18MAY11 - 16JUN11 (30 days) ACTUAL LOADINGS and CAPACITIES, BY HOUR



BC INTERTIE (WEST+EAST) AVAILABILITY & UTILIZATION: 18MAY11 - 16JUN11 (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 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:
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- Overgeneration Web site:
<http://www.bpa.gov/corporate/AgencyTopics/ColumbiaRiverHighWaterMgmt/>