

2017 Spring Performance Data Generation Inputs Workshop February 13, 2018

Overview of Third Party Supply (3PS) for
Spring 2017

Presentation Overview

- Review final amounts of day ahead capacity and energy purchased during the spring 2017 runoff period.
- Break out dollars spent on both long term capacity & energy and day ahead capacity & energy for April through July.
- Review daily HLH and LLH reserves supplied for each day against 3PS forecasted need.
- Break out amounts supplied for each day by the base Federal Columbia River Power System (FCRPS), Long-Term purchases, incremental FCRPS supplied and day ahead purchases.
- Present conclusions of our efforts to cover reserves needs for Spring Months 2017.

Spring 2017 Purchasing Overview

	# of Days 3PS HLH Purchased	# of Days 3PS LLH Purchased	Total Purchased 3PS HLH (MW)	Total Purchased 3PS LLH (MW)	Additional Supplied by FCRPS (MW)
April	25	30	5200	6225	0
May	18	20	2950	3175	0
June	16	21	1825	2250	600
July	8	9	600	775	9275
All Spring	67	80	10575	12425	9875

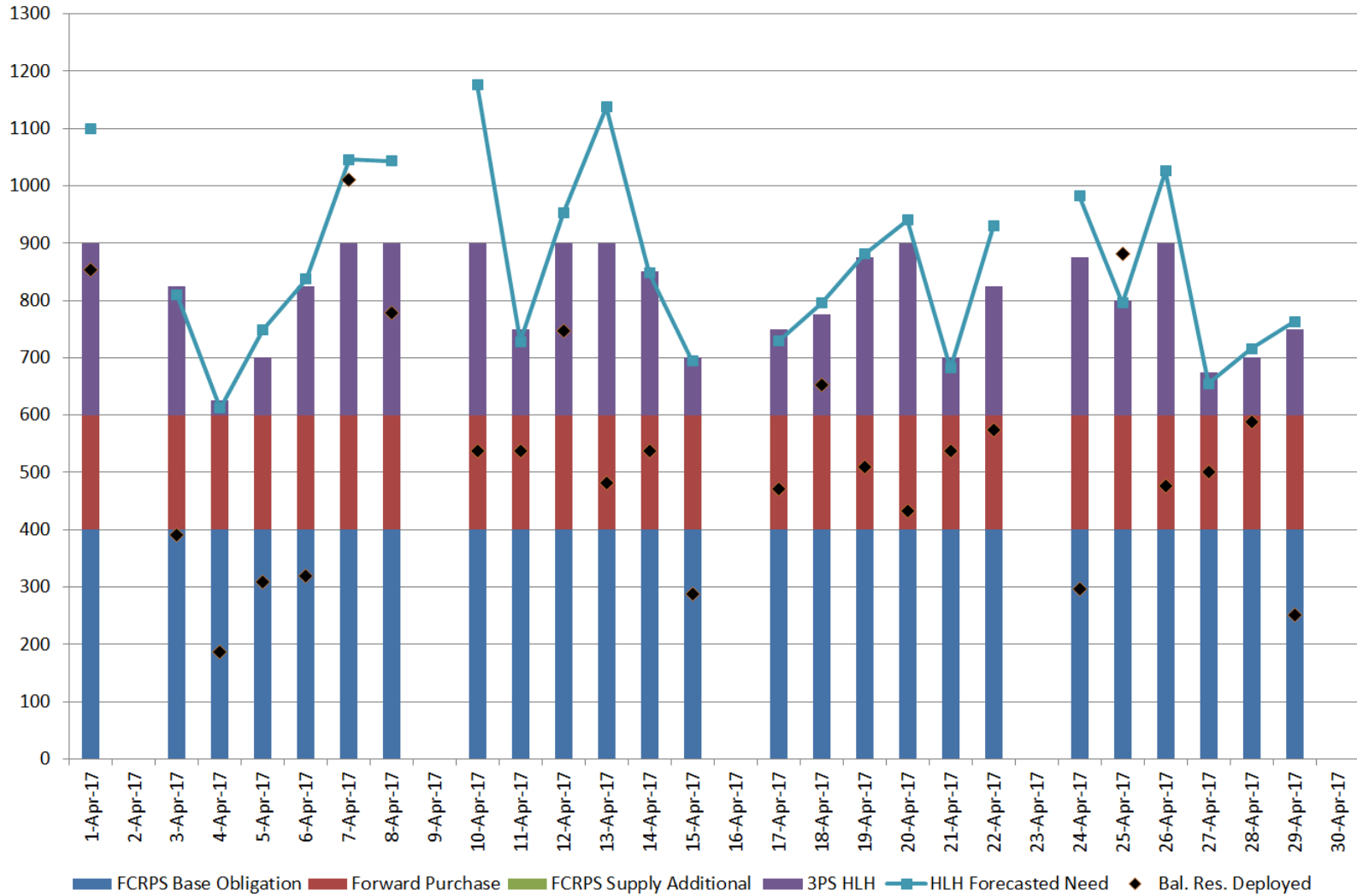
Capacity amounts shown above reflect monthly totals of daily capacity purchases.

The forward purchase of 200MW was executed in November 2016 via a Request For Offers for Spring 2017 for April 1 – June 30 and is not included in the table above.

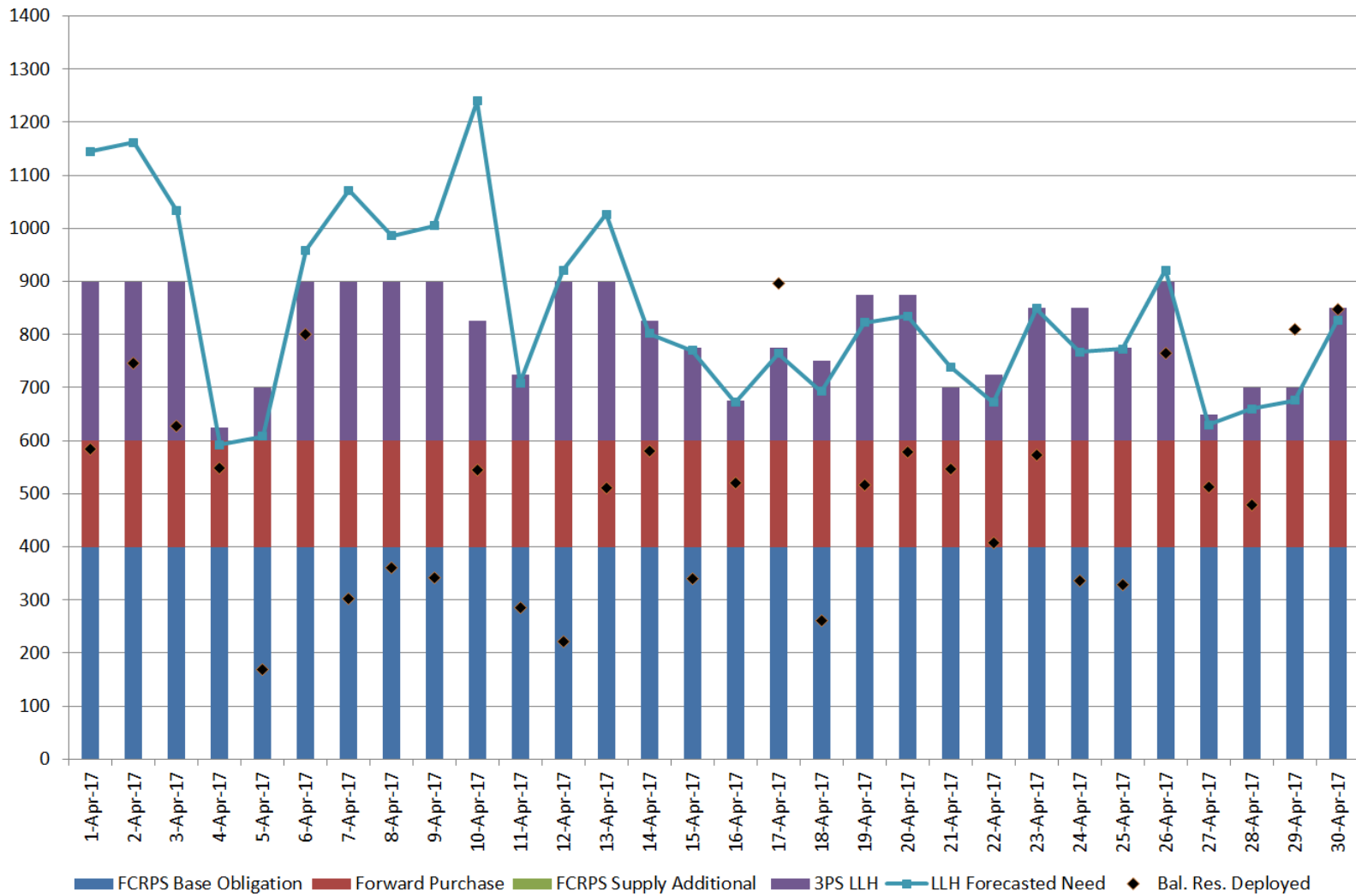
Spring 2017 Acquisition Costs

		Capacity (\$)	Energy (\$)
April	Forward Purchase	\$ 1,114,250	
	Daily 3PS	\$ 3,202,100	\$ 19,766
	FCRPS	\$ -	
May	Forward Purchase	\$ 1,114,250	
	Daily 3PS	\$ 1,407,050	\$ 40,811
	FCRPS	\$ -	
June	Forward Purchase	\$ 1,114,250	
	Daily 3PS	\$ 1,083,500	\$ 45,532
	FCRPS	\$ 174,100	
July	Forward Purchase	\$ -	
	Daily 3PS	\$ 428,200	\$ 2,190
	FCRPS	\$ 2,617,250	
Total Capacity and Energy Cost			\$ 12,363,249

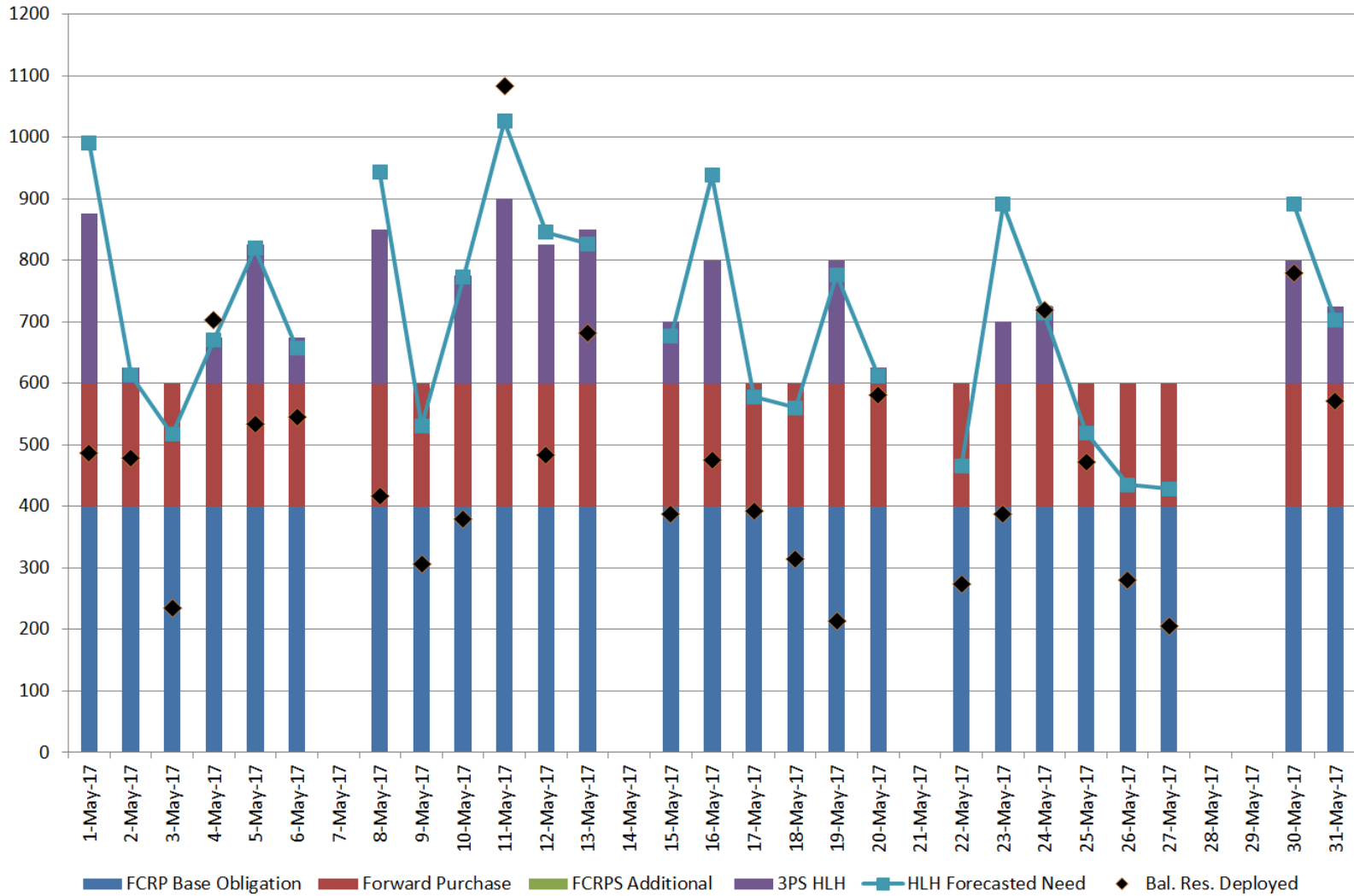
April HLH Overview



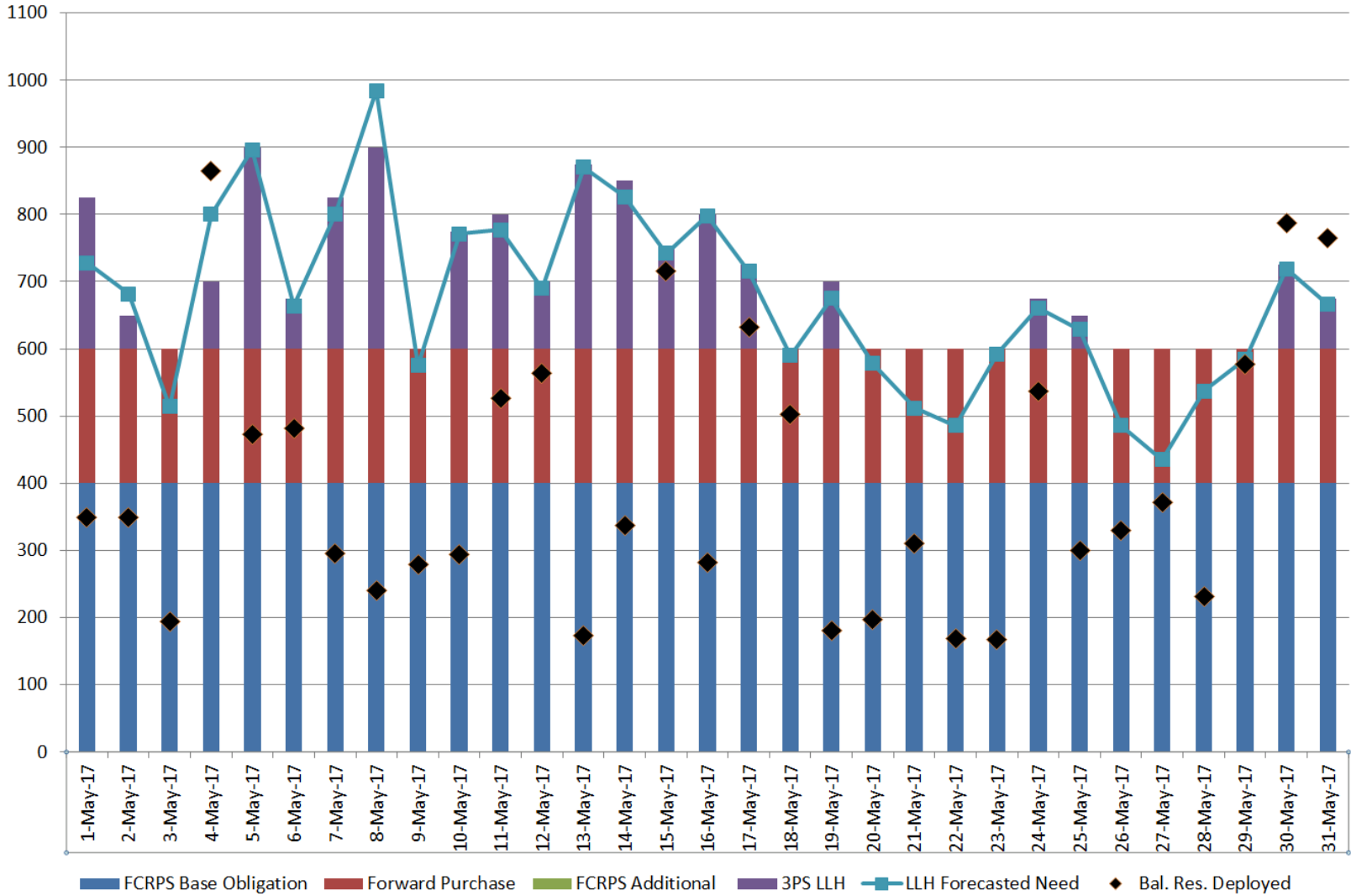
April LLH Overview



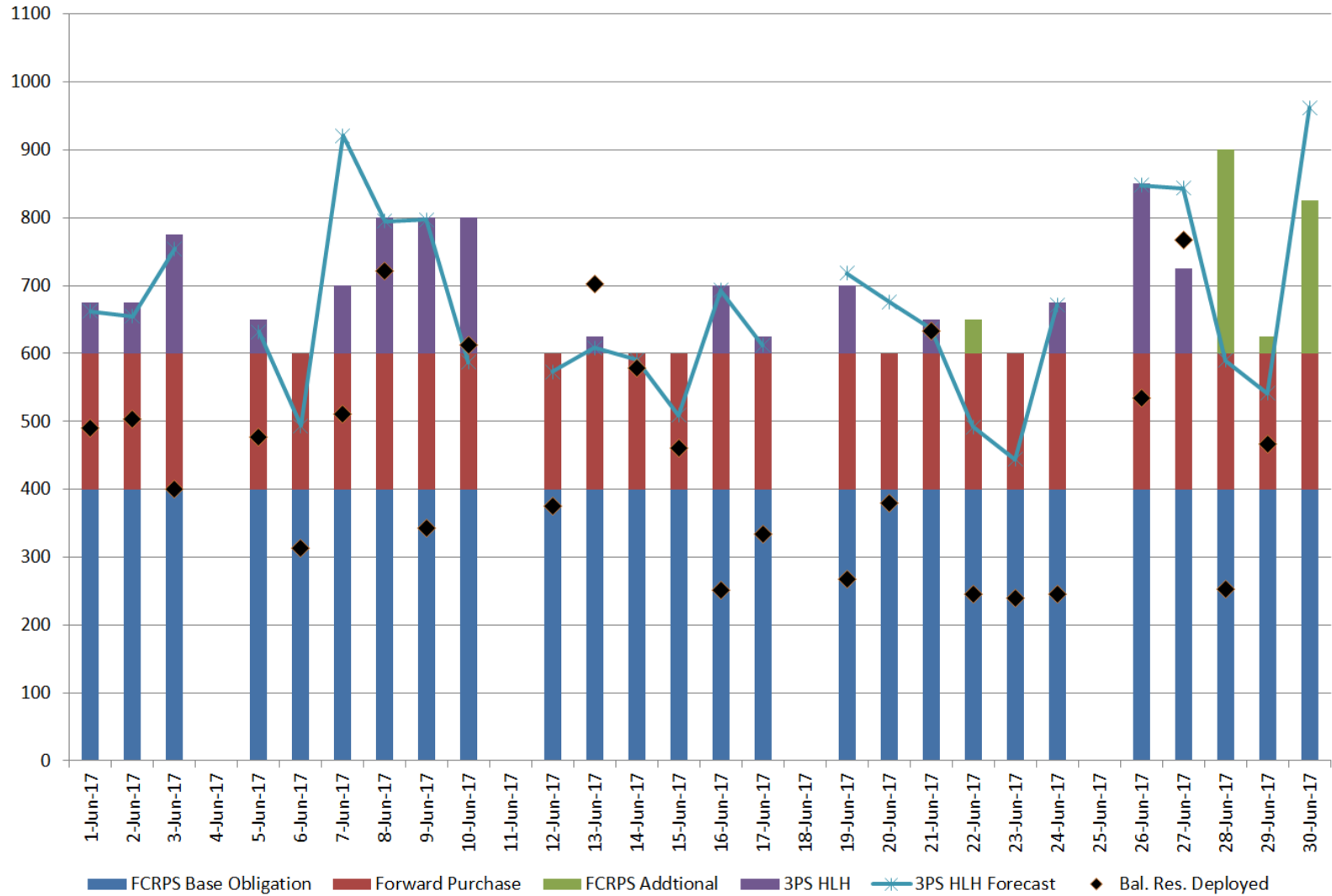
May HLH Overview



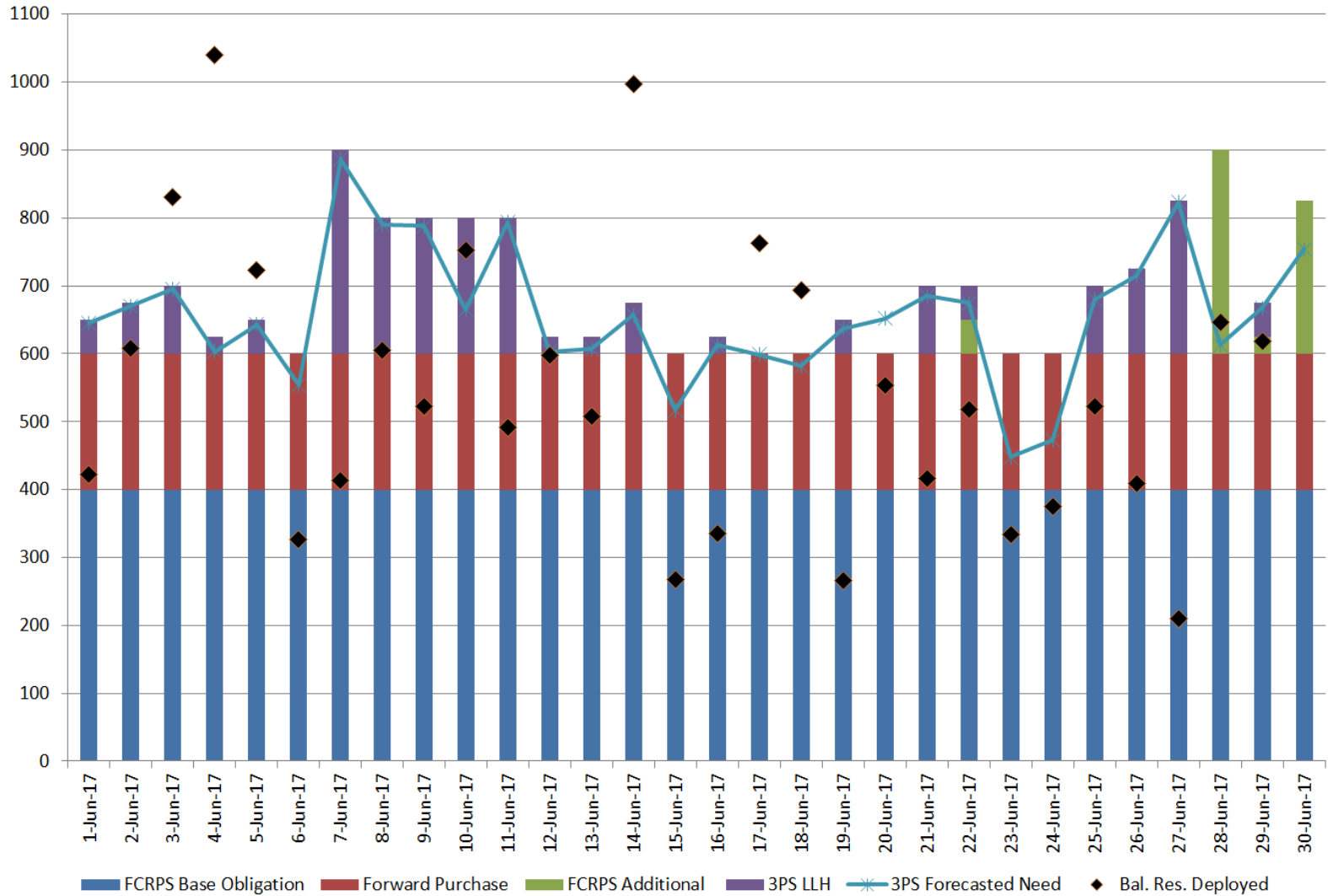
May LLH Overview



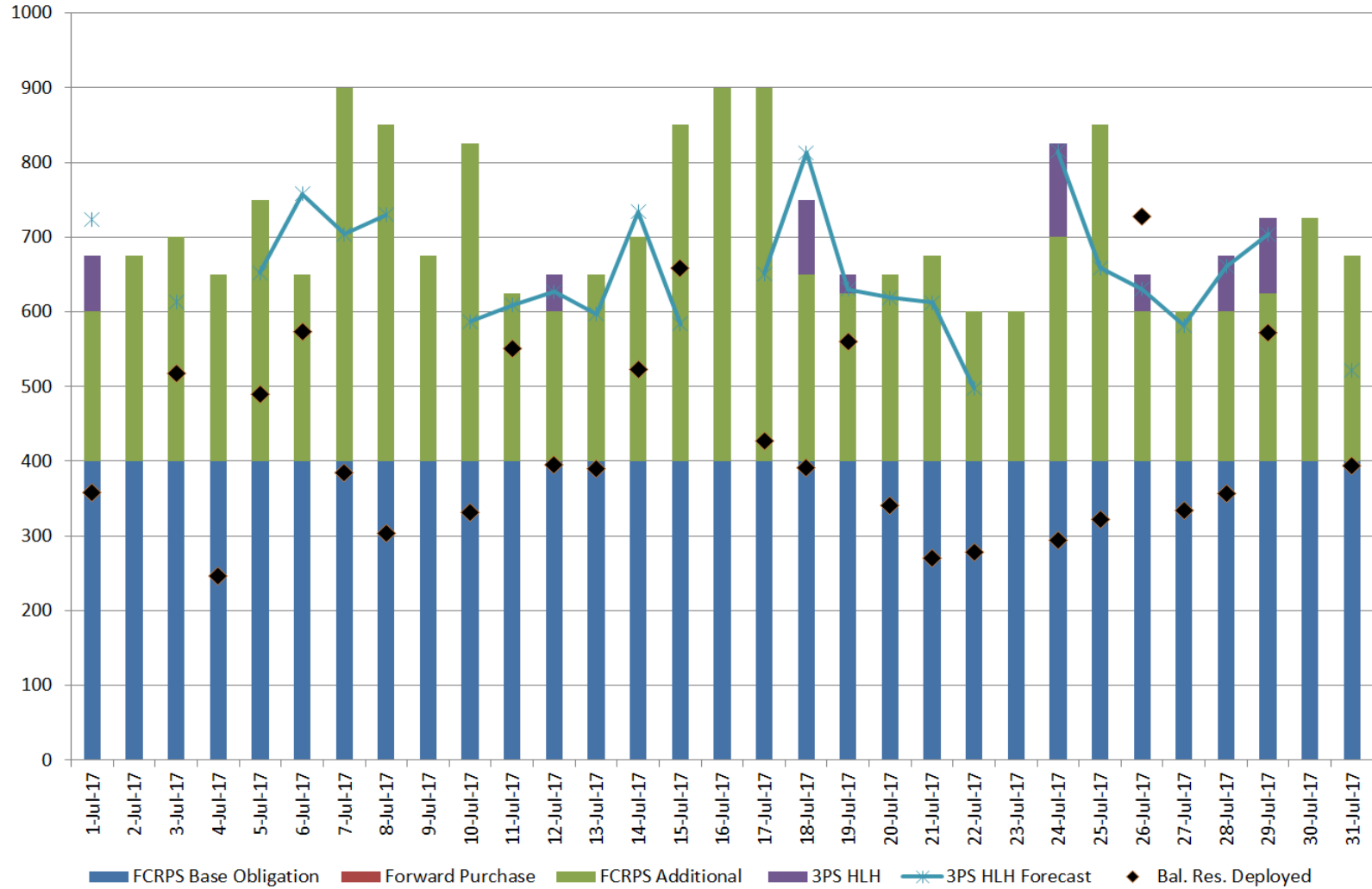
June HLH Overview



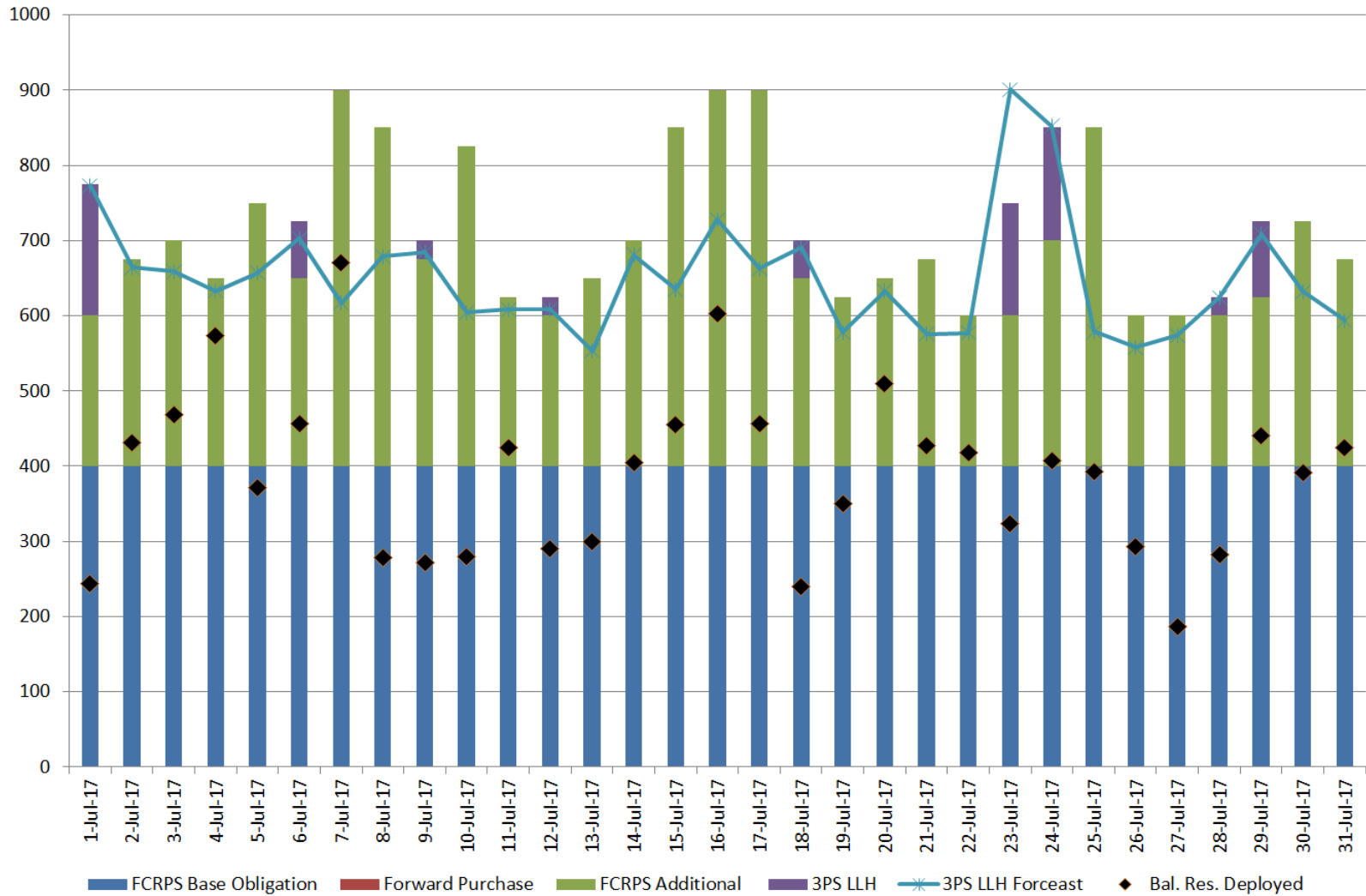
June LLH Overview



July HLH Overview



July LLH Overview



Conclusions from Spring 2017

- Long-Term purchases for the 200 MW of Imbalance Capacity for April 1 – June 30th were the highest price of any LT purchases made at \$5.57/kW-month.
- Daily purchases started March 22nd due to unusually high flows that ramped up and continued through the end of April. (Purchases averaged 360 MW for LLH and 427 MW for HLH during these first 10 days).
- By the second half of May flows came down and stayed that way through June. This reduced the need to purchase day ahead to meet 3PS projected reserve needs to a little more than 60% of the time for both HLH and LLH periods.
- Just a handful of purchases were necessary in July as the FCRPS was able to provide most of the additional reserves needed when 3PS reserve projections exceeded 600 MW as flows fell off.
- Once again, as in Spring 2016, the entire reserve budget was not needed to cover supplementing the FCRPS during the spring, spending a little under \$12.4 million of the \$17.5 million annual budget.
- The remaining \$5.1 million of unspent FY 2017 budget remained with Transmission Services for a total of approximately \$14.0 million for the BP-16 rate period.

Questions?