

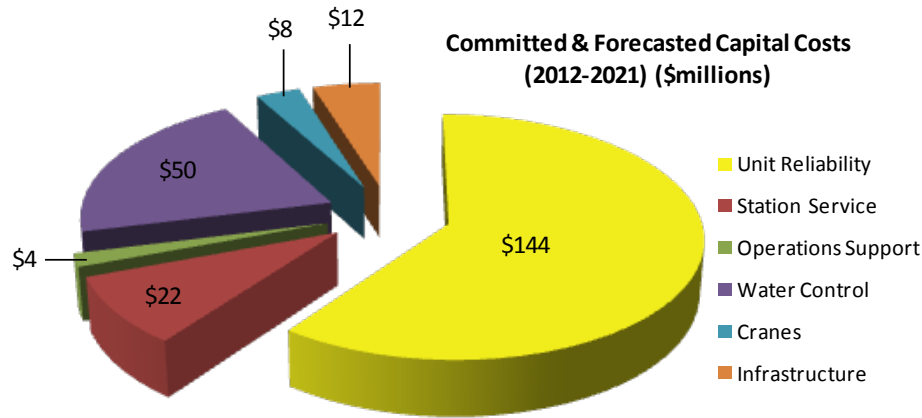


## Plant Specific Information



Individual unit reliability investments at McNary are highly important because it acts as a hydraulic bottleneck on the Lower Columbia.

Below is a categorization of upcoming capital costs for the plant:



Turbine Runner Replacement design activities were initiated in 2011. Runner installations are currently projected to occur during the 2021 through 2028 timeframe.



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## Pre-overhaul Capital

Construction is underway on all committed capital investments in support of the Third Powerplant (TPP) Overhauls.

- High Voltage Cable Replacement
- Governor Replacements
- Exciter Replacements
- Crane Rehabilitation
- Material Storage Building

## TPP Overhauls scheduled for 2013 – 2023

- Overhaul contract awarded in 2011
- Outage duration estimated at 18 months per unit
- Work will start on site in March 2013
- Details will be discussed in IPR

## Keys Modernization



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The 2014 Hydro Asset Strategy mentions that the preferred investment plan does not include, among other things, economic opportunity investments for installing additional generating units in empty turbine bays at Libby, John Day and Dworshak.

BPA periodically considers whether any of these investments might make sense as flow regimes, power price forecasts and equipment costs change. To date, BPA does not believe that conditions are such that serious consideration of adding new units at these plants is warranted.