Colorado River Storage Project (CRSP) Update

Steve Johnson, Senior Vice President and CRSP MC Manager
Brian Sadler, Administrative and Technical Services Manager
CRSP Updates

• Rachel Bryant – New CRSP Attorney
• Olmsted
  • Pay-all, take-all project on the Provo River
  • Olmsted project scheduled to begin commercial operation Oct 1, 2018
    (Ribbon cutting Sept 19)
• Markets – An organized approach
• Cost of peak energy this summer
Hydropower and Basin Fund in LTEMP ROD

Attachment B: Description of the Selected Alternative

• Prior to implementation of any experiment, the relative effects of the experiment will be evaluated and considered
  “on hydropower production and WAPA’s assessment of the status of the Basin Fund”

• Monthly Glen Canyon Dam operational coordination meetings
  “WAPA will provide updates on the status of the Basin Fund, projected purchase power prices, and its financial and operational considerations”

• To determine whether conditions are suitable for implementing or discontinuing experimental treatments or management actions
  “including WAPA’s assessment of the status of the Basin Fund”
Basin Fund Obligations

• Manage the financial requirements of the CRSP Act
  • Glen Canyon Dam
  • Several additional units that include dams, reservoirs, powerplants, transmission facilities and other related works

• Reclamation operations are funded by periodic transfers from the CRSP Basin Fund to a Reclamation subaccount
  • Allows Reclamation to maintain programmatic oversight of their facilities
  • Funds are transferred approximately on a monthly basis and only the amount they need to operate for the fiscal year
Basin Fund Balance

Reserve Strategy
• WAPA-wide strategy for maintaining unobligated balances
• CRSP target is $198M
• Projected end of fiscal year balance is $110M

Risk Factors
• Replacements (Reclamation & WAPA)
• Environmental Programs
• Bypass (including HFES)
• Market Price for Purchase Power
• Hydrology/Releases/Pool Elevation
Purchase Power

- GCD Releases
- Releases at other CRSP facilities
- Hydrology
- Pool Elevation/Efficiency
- Market Prices

Examples of Purchase Power and Excess Power

<table>
<thead>
<tr>
<th></th>
<th>Sell</th>
<th>Purchase</th>
<th>Power</th>
<th>Contract</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under</td>
<td>60</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contract</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Purchase Power and Hydrology

<table>
<thead>
<tr>
<th>Water Year</th>
<th>Average Elevation</th>
<th>Generation (GWh)</th>
<th>Purchase Power</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Glen Canyon</td>
<td>Glen Canyon</td>
<td>All CRSP Units</td>
</tr>
<tr>
<td>2017(^a)</td>
<td>3,612.8</td>
<td>3,652</td>
<td>5,174</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>116</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$2.9M</td>
</tr>
<tr>
<td>2018(^b)</td>
<td>3,612.8</td>
<td>3,730</td>
<td>5,101</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>104</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$3M</td>
</tr>
<tr>
<td>2019(^c)</td>
<td>3,584.4</td>
<td>3,485</td>
<td>4,570</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>618</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$18.4M</td>
</tr>
</tbody>
</table>

\(^a\)-Observed data  
\(^b\)-Observed data through June, forecasted for remaining months  
\(^c\)-Forecasted generation using July 24-month study

All 9maf release years  
If WY19 is 8.23maf, ~$27.7M cost
Questions

The Source:  www.wapa.gov/About/the-source

Steve Johnson  
Senior VP & CRSP MC Manager  
johnsons@wapa.gov  
970.252.3000

Brian Sadler  
Administrative and Technical Services Manager  
sadler@wapa.gov  
801.524.5506