

IPR Follow Up Questions

1. Please provide a detailed breakdown of the components of the proposed undistributed reduction.

We discovered that the IPR Initial Publication narrative cited an incorrect undistributed reduction amount. The data in the tables is correct, however. The IPR expense data includes an undistributed reduction of \$15.4M. The undistributed reduction is applied only to IPR expense and was not allocated to capital. The undistributed reduction was taken in BPA’s organizations as follows:

Departments		
<i>\$ in millions</i>	Undistributed reduction	
Corporate	\$ (3.4)	} Allocated to Power and Transmission via Enterprise Services G&A Allocations
CAO	\$ (3.4)	
EF&W	\$ -	
Power	\$ (2.3)	Embedded in the Non-Generation Operations Program Plans
Transmission	\$ (6.3)	Embedded in the Commercial Activities Program Plan
Total	\$ (15.4)	

2. Regarding the discussion of “Impacts of proposed spending level” on pages 25 to 26, what non-routine maintenance or other work will be deferred to future rate periods based on the proposed spending levels? What is the “back log” (dollar amount and list of projects/work) of non-routine maintenance in the FCRPS and what non-routine maintenance (dollar amount and list of projects/work) has been deferred over the last 5 years specifically due to budgetary constraints?

Corps:

The work deferred due to budgetary constraints associated with flat or reduced funding levels is a subset of the entire “back log” of work associated with Portland, Seattle, and Walla Walla district operating projects. We track our back log and deferred maintenance within our computerized maintenance management system (CMMS), along with separate listings of the higher priority work and planned non-routine extra-ordinary expense projects. The list of back log work within our CMMS is thousands of entries, as we track individual work orders for each issue needing resolution. We also have a subset of deferred work orders, which we don’t anticipate being able to fund for more than 3 years. While not all these work orders have been planned, and therefore don’t have associated labor and cost estimates, our higher priority work items do have preliminary to detailed estimates. The information that follows does not include work that can be capitalized.

Current back log across 21 hydropower plants – 4,663 open corrective work orders, 1,257 deferred work orders and a current annual budget of \$28M for higher priority (non-routine extra-ordinary expense, NREX) work.

Budget constraints have affected our routine and non-routine programs; both have been reduced in scope along with efficiency improvements in order to continue with the highest priority work. Over the 5 year time span requested, there has been deferred non-routine work that is now completed, still in progress, or has not started yet in addition to the routine reductions. The financial and budget analysis to perform this review is not complete, but an incomplete list of the higher profile work that has been deferred includes the following projects ranging in cost from \$250k to \$4.5M:

- Chief Joseph spillway gate rehabilitation, scheduled for completion in FY21.
- The Dalles turbine head cover upgrades, ongoing
- The Dalles thrust bearing cooler replacement, ongoing
- Dworshak monolith leakage repair, completed
- Libby T3 transformer, ongoing
- Chief Joseph Powerhouse Bridge crane, deferred (primarily capital)
- McNary spillway gate repair, deferred
- Ice Harbor intake crane controls, deferred
- Lower Monumental, Little Goose and Lower Granite headgate rehabilitation, ongoing
- Libby Spillway Gate and Hoist rehab (NREX/joint), ongoing
- McNary Thrust Bearing repair, complete

As identified during the Fed Hydro Power presentation on June 17 (slide 26), the following new start projects are susceptible to deferral or delay based on competing priorities.

Non-Routine Expense Projects – FY21/22 NREX New Starts

- Little Goose DSAC Spillway 1 Failed Waterstop
- Lower Granite Transformer Leak Repairs
- Lower Granite Thrust Bearings
- Ice Harbor Spillway Pressurized Leaks
- Libby Spillway Repairs

FY23/24 NREX New Starts

- Chief Joseph Cavitation Repair U17-27
- Chief Joseph, The Dalles and Dworshak SF6 Breaker Overhauls
- John Day Draft Tube Bulkheads and Intake Gate Repairs
- Dworshak Turbine Efficiency Testing
- Little Goose Training Wall and Stilling Basin Repair

Reclamation:

Backlog maintenance activities in Reclamation, Columbia Pacific Northwest region, attributable to funding constraints stem from three O&M categories 1) Open corrective work orders, 2) Deferred or slowed non-routine projects, and 3) Backlog power review program inspection recommendations.

Open corrective work orders: Budget constraints affect labor funding and a facility's ability to respond to unexpected maintenance requirements. A corrective work order is issued when equipment issues are discovered during routine maintenance activities, or when a maintenance activity requirement is otherwise identified (industry recommendation, engineering requirement, etc.). An open corrective work order indicates corrective maintenance is needed but has not been performed. There are many reasons why a corrective work order may be open, i.e., outage schedules, materials availability, or lack of funding. Therefore, not all reported open corrective work orders can be attributed to lack of funding, experience indicates that about 20% of open work orders can be directly linked to funding.

- Grand Coulee currently reports 627 open corrective work orders with an estimated cost of completion exceeding \$6M.

Deferred or slowed non-routine projects: Deferred projects are re-prioritized into future rate periods. In other words, Reclamation retains a running prioritized list of non-routine projects for new starts and deferred work. A summary of deferred or slowed projects is provided:

FY20: Reclamation reduced the non-routine budget by \$8.6M (21%) due to budget constraints. The budget reduction impacted 44 work activities to varying degrees. Some projects were deferred while others were slowed down.

The following major non-routine projects are deferred until funding is available:

- Hungry Horse Visitor Center Rehab
- Hungry Horse Turbine Stator Winding Replacement
- Minidoka Inman Stoplog Rehabilitation
- Chandler HVAC Air Conditioning

The following non-routine major projects were slowed:

- Grand Coulee Power Circuit Breaker Reconditioning - Safety
- Grand Coulee Third Power Plant Fixed Wheel Gate Refurbishment
- Grand Coulee World Class Hydro
- Grand Coulee Transformer KX26 Bushing Replacement
- Hungry Horse Drainage Sump Monitoring
- Middle Snake Noise Surveys and Mitigation - Safety
- Roza Penstock Gate Tests and Repairs

Of the \$8.6M, Reclamation and BPA are actively managing a shortage of \$4.4M for the Grand Coulee Third Power Plant Overhaul project. Work on the overhaul is not being slowed or deferred.

FY21: Reclamation reduced the non-routine budget by \$7.6M (25%) due to budget constraints. The budget reduction impacted 40 work activities to varying degrees. Some projects were deferred while others were slowed down.

In addition to those projects listed in FY20 the following major projects are deferred until funding is available:

- Grand Coulee Scoping LS (station service) Modifications
- Grand Coulee Bypass Valve and Piping Replacement
- Black Canyon Thrust Bearing Cooling Coils/Cooling Water Piping Replacement
- Black Canyon/Boise Diversion Vibration Monitoring

The following non-routine major projects were slowed:

- Grand Coulee Power Circuit Breaker Reconditioning - Safety
- Grand Coulee Third Power Plant Fixed Wheel Gate Refurbishment
- Grand Coulee World Class Hydro
- Grand Coulee Transformer KX26 Bushing Replacement

Of the \$7.6M, Reclamation and BPA are actively managing a shortage of \$1.8M for the Grand Coulee Third Power Plant Overhaul project. Work on the overhauls is not being slowed or deferred.

Backlog power review program inspection recommendations: Reclamation performs robust inspections of power facilities. These inspections verify the technical and operational condition of facilities. Teams of experts review electrical and mechanical equipment for condition, operational processes are verified, and that management practices follow industry standards and agency policy. The inspections also include internal verification of compliance with NERC/WECC reliability standards. Findings from inspections result in recommendations. At present the Columbia Pacific Northwest region has a backlog of 524 recommendations with an estimated completion cost of \$189M.

Financial Disclosure

This information was made publicly available on July 15, 2020 and contains information not sourced directly from BPA financial statements.