

**Q. Megan Stratman, Northwest Requirements Utilities: Please provide further detail regarding the results of the reprioritization described on slide 10. It sounds like the agency decided to work on more Sustain projects instead of Expand, and that capital costs for equipment are much lower for Sustain than Expand. If this is true, would you please further elaborate and provide more clarity, including examples and showing the changes over the number of years it has occurred? (looks like the reprioritization began in FY18, so maybe starting in FY17 thru FY23)**

**Additionally, would you please provide a follow up response that more clearly and in more detail explains the following:**

- **The results of the reprioritization:**
  - **Sustain expense \$ before**
  - **Sustain expense \$ after**
  - **Sustain capital \$ before**
  - **Sustain expense \$ after**
  - **Expand expense \$ before**
  - **Expand expense \$ after**
  - **Expand capital \$ before**
  - **Expand capital \$ after**
- **Comparison to budget to actuals.**
  - **To the extent actuals differ from budget, please denote what and how much was due to COVID-related delays versus other issues (and then describe what those other issues were).**

**Please show this information for as many years as necessary to understand the full picture. This may be FY17 thru FY23, or even longer.**

A. Yes, the main purpose of the prioritization was to focus on needed Sustain investments in order to maintain the reliability of the transmission grid. Sustain investments are included in rows 3 and 5 of Slide 9. Rows 1-2, 4, and 6-8 are for Expand investments. Before reviewing the table below it is important to note a couple things about the Slide 9 report:

- 1) The Transmission Business Unit section includes amounts for non-transmission asset categories that weren't involved in the prioritization such as Facilities, Security, Fleet, Environment, and Transmission IT. For example: \$36 million of the \$87 million variance for row 3 "System Replacements" on slide 9 is due to reduced spending compared to rate case from Facilities which is reported within the Transmission business unit. The remaining \$51 million variance for row 3 is mainly due to the assumptions going into BP-20 back in 2018. Since that time, significant changes in Asset Management (AM) and how we prioritize have occurred and is explained in more detail below.
- 2) In order to focus on the Transmission prioritization, the non-transmission asset categories spending has been removed from T Expand and T Sustain rows and given its own row in the table below.

Fiscal Year 2020				
	Rate Case	Actuals	Variance	Explanation
Transmission Expand Direct Capital	171,267,308	77,310,056	(93,957,252)	\$40m of this delta is in PFIA. Please refer to Marie Morrison, Snohomish County PUD Slide 10 question response for PFIA explanation. For the remaining delta we have a project called Midway-Ashe (which is a joint project with Dept. of Energy-Richland (DOE-RL) that was in the forecast but had to move out of the FY20/21 timeframe due to DOE-RL.
Transmission Sustain Direct Capital	204,382,150	145,053,077	(59,329,073)	Sustain work compared to Expand is similar in terms of cost of equipment/material, however, in terms of complexity and resource space it is vastly different. Sustain requires more resources due to there being many more small projects compared to Expand that may be 1 large project. An example is 1 Project Manager (PM) for an expand project, but 20 PMs are needed for 20 sustain projects and so on for the remaining disciplines to replace equipment. These same types of resources would also be needed on a large Expand project. With the use of criticality, health & risk (CHR) it is helping us ensure we are working on our most critical assets first due to our resource limitations. In addition, we are standing up the secondary capacity model (SCM) model to give us another means of executing at a higher rate.
Lapse Factor	(13,125,000)	0	13,125,000	
Other Asset Categories within Transmission	50,838,124	25,968,574	(24,869,549)	
Transmission & Other Asset Categories OH	115,831,853	122,667,315	6,835,461	
Total	529,194,435	370,999,022	(158,195,413)	

The agency can now use data driven information per the Total Economic Cost (TEC) models and Criticality, Health and Risk (CHR) analysis to identify the projects that have the highest impact to our transmission system. Prior to having that information, BPA focused on a combined approach around our customers, sustain and expand projects as our business strategy. Now that we have data that showcases projects that have regional or multi customer impact we are focusing our strategy towards those with a heavier emphasis on sustain projects.

With this shift, BPA is able to save funds on these sustain projects by making analytic informed decisions that have decreased costs. To be clear, equipment costs have not decreased but the type of projects does impact the overall cost of funds spent on equipment. For example a new line build versus the replacement of poles. Both require design time and resources but equipment costs based on type and quantity is substantially different. Below is an example of how we saved funds on a sustain project.

**Example:**

The Shelton-Fairmount line rebuild project was a great example where Transmission engineering subject matter expert's, with CHR environmental and reliability logic sheets, helped to make an informed decision that resulted in a change from the original investment decision of spot maintenance to rebuilding the line with scheduled maintenance. The CHR risk analysis helped BPA quantify significant environmental and safety risks that would have occurred if the line were to fail. These were specifically risks to critical endangered and congressionally protected habitat/species/cultural artifacts, which would have exceeded an estimated ~\$300 million in potential damages to the region. With that

potential regional and financial risk, BPA chose to rebuild the line. In addition, it was determined the rebuild design scope of the line also benefited from the CHR analysis, since a different cable selection was chosen from historical practice also yielding significant additional ongoing lifecycle costs savings.

### **COVID-19 Impacts to the BPA Capital Program**

- We converted all of our non-field staff (office staff) to teleworking
  - Impacts – some delays, and slow downs, as we learned to operate in this new environment. Ultimately, it has caused BPA to extend some project deadlines, and defer some work into future years.
  
- We put into place new rules to deal with this pandemic. Social Distancing (maintaining 6 foot distance between staff – unless it is impossible, due to physical constraints of the Construction environment), wear a face mask covering the mouth and nose at all times while on BPA properties, or in work status at non—BPA owned facilities/locations, and sanitation policies around hand washing, and disinfecting work areas, etc... In addition, we implemented rules on how to proceed if we have an exposure to COVID-19, or a positive test for COVID-19 (which involve quarantine times, etc...).
  
- Impacts – some minor adjustments in the early days of the pandemic. We have since acclimated to these changes, and they are not having a large impact on the Capital Program. Having said that, we do experience some effects – for example, we are limiting office staff (Scoping & Design Engineers, Project Managers, etc...) to as few field visits as possible and we are restricting the number of people allowed to go to the field. This does have some minor impacts on our Scoping and Design efforts, which translate into delays.
  
- In FY20, BPA’s Capital Spend was close to what we had forecasted prior to the pandemic. Why is this the case if we had the above mentioned impacts?
  - Answer – as part of BPA’s pandemic response, we had 2 Construction pauses (to limit the spread of COVID-19, and solidify our policies in the Pandemic environment). Each of these pauses had a ramp down period and a ramp up period. These efforts cost BPA time and money. After the crews were back up and running, we had crews work overtime as identified on a case by case basis as we were being cautious and demonstrating the importance of safety by not “pushing” crews to “catch back up” but rather, working at a safe pace. Plus there were costs involved with decommissioning work crews (on almost none of the projects, could we -- just “drop the tools” and walk away – we needed to put things in order to maintain safety and reliability which at times required returning equipment to service, secure work sites, store tools and material, pay crews to drive home and domicile, etc...) and similar costs associated with bringing crews back to work.

All in all, these costs rolled up into our project costs, contributing to our year-end spend totals. So, when you factor that in, you can see that even though we spent what we

intended – we did not get everything done we wanted to get done – as some work was deferred or the timelines for that work was extended.