



Bonneville
POWER ADMINISTRATION



QUARTERLY BUSINESS REVIEW

MAY 1, 2018



INTRODUCTION

Scott Simms, DIRECTOR OF COMMUNICATIONS

AGENDA

Time	Presentation	Speaker
9:00 – 9:02	Introductions	Scott Simms <i>Director of Communications</i>
9:02 – 9:20	State of the business: <ul style="list-style-type: none">• Grid modernization• Environment, Fish and Wildlife updates	Elliot Mainzer <i>Administrator</i>
9:20 – 9:30	Finance update	Mary Hawken <i>Acting chief financial officer</i>
9:30 – 9:40	Power Services update	Joel Cook <i>Senior VP of Power Services</i>
9:40 – 9:50	Transmission Services update	Richard Shaheen <i>Senior VP of Transmission Services</i>
9:50 – 9:51	Upcoming involvement opportunities	Scott Simms
9:51 – 10:00	Question and answer session	



STATE OF THE BUSINESS

Elliot Mainzer, ADMINISTRATOR AND CHIEF EXECUTIVE OFFICER

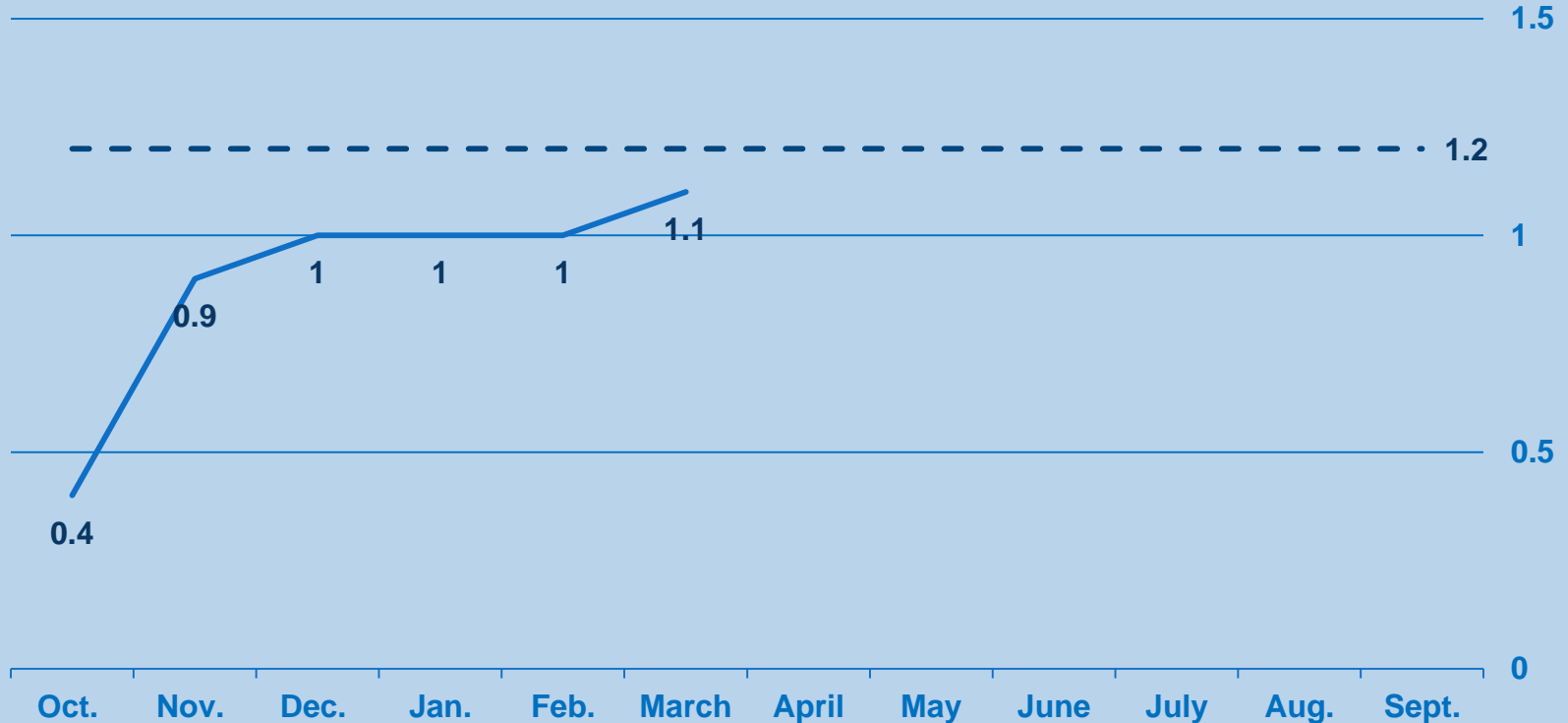
SAFETY



Incident frequency rate

Number of injuries and illnesses per 200,000 hours worked

— 2018 - - Ceiling



GRID MODERNIZATION

- Modernizing BPA's assets and operations is a critical element of our 2018-23 Strategic Plan and will help increase competitiveness and customer responsiveness.
 - Increase power and transmission revenues.
 - Reduce long-term transmission costs by potentially decreasing or delaying the need for system expansion.
- We will enhance system operations in three major ways: automation, accuracy and visibility.
- Sustained investment of \$25 million per rate period through 2021.

ENERGY IMBALANCE MARKET

- One outcome of grid modernization – the potential to join the Western EIM.
- BPA is exploring how and under what conditions it could participate in the EIM operated by the CAISO.
- Initial cost-benefit analysis:
 - Assumed start-up cost of \$35 million.
 - Annual benefit to Power Services of \$14 million.
- BPA is committed to transparency and customer engagement in working towards a decision on whether to join the market.

OTHER GRID MOD ENGAGEMENTS

- BPA is engaging in related efforts to protect NW interests and support developments that could improve secondary revenues.
 - Day-ahead capacity product: CAISO's proposal for day-ahead market enhancements includes an imbalance reserve product.
 - Intertie optimization: CAISO and others are studying ways to increase dynamic transfer capability and capacity of the AC and DC interties.

SPILL SURCHARGE

- On April 2, the 9th U.S. Circuit Court of Appeals upheld the 2018 spill injunction. BPA will be implementing a spill surcharge in FY 2018.
- The spill surcharge will adjust power rates to recover the non-Slice portion of the cost associated with increased spill and lost generation relative to the spill assumptions used when setting rates.

SPILL SURCHARGE

- Next week BPA will share:
 - Preliminary data and assumptions used to calculate the surcharge.
 - Information will include proposed program spending reductions to help offset the spill surcharge.
- Rates staff will review these materials at a workshop on May 16 at 1 p.m.

FISH ACCORDS

- Columbia Basin Fish Accords signed in 2008.
 - Signed by action agencies, states and tribes.
 - To date, partners have restored more than 8,000 acres of estuary floodplain and reopened nearly 4,000 miles of spawning grounds.
- Fish Accords are set to expire in September 2018.
- BPA actively exploring post-2018 path forward on Fish Accords.

FISH ACCORDS

- Consideration for Fish Accords extension is the 2018-2023 Strategic Plan commitment:
 - BPA intends to manage its fish and wildlife program costs at or below the rate of inflation, inclusive of any new obligations that may emerge from litigation or subsequent commitments in current or future biological opinions.
- As BPA further explores potential Fish Accords extension, additional outreach will occur with customers and regional stakeholders.



FINANCE

Mary Hawken, ACTING CHIEF FINANCIAL OFFICER

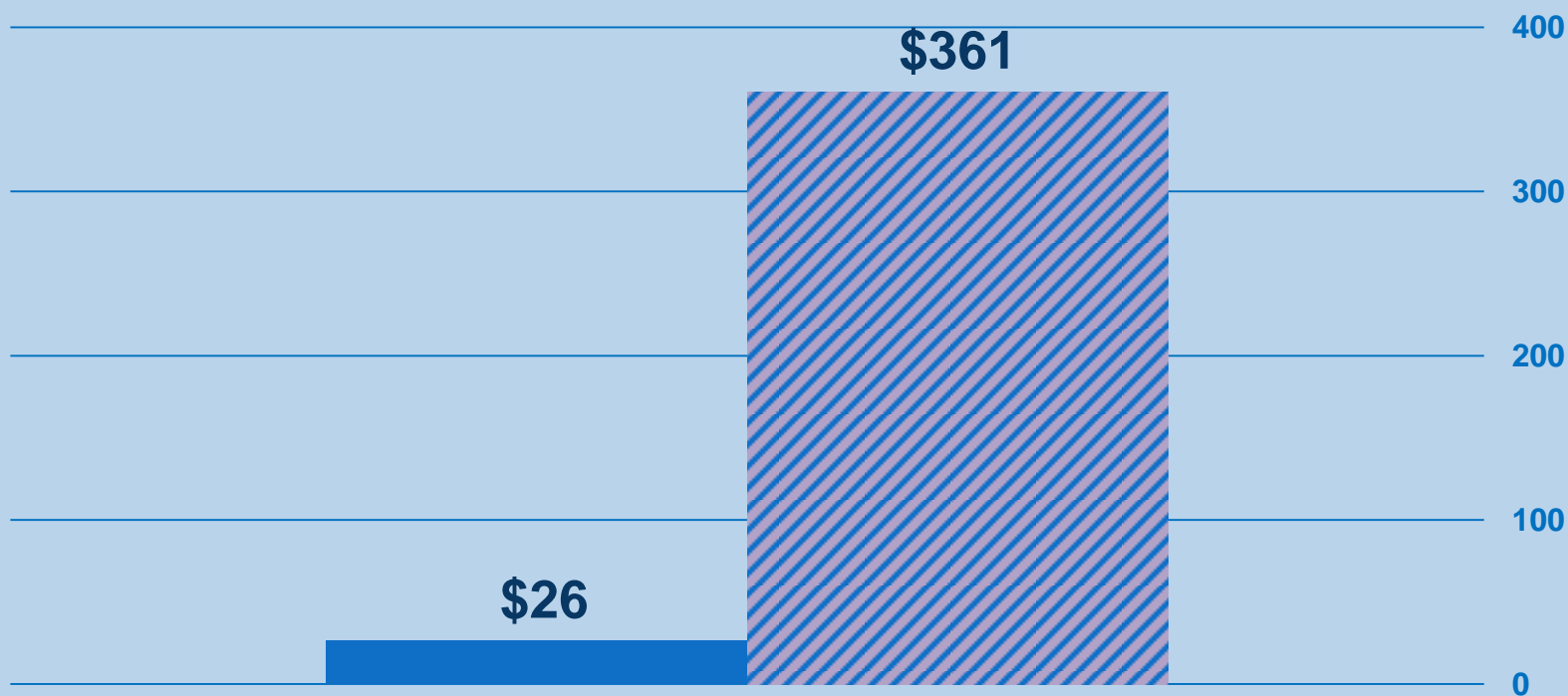
AGENCY NET REVENUES



FCRPS net revenues

In millions of dollars

■ BP-18 Rate Case ■ Q2 Forecast



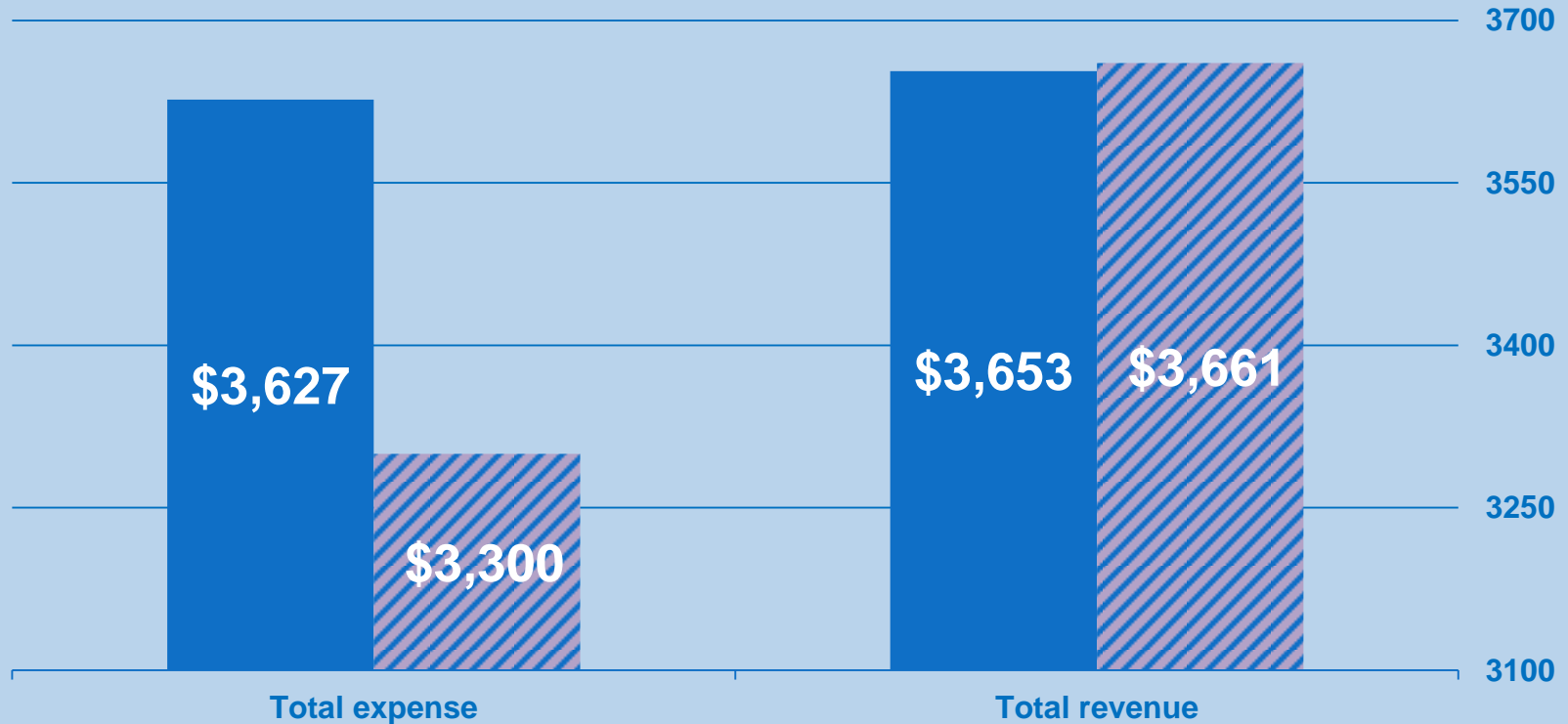
AGENCY FINANCIAL HEALTH



Federal Columbia River Power System

Total revenue and expense in millions of dollars

■ BP-18 Rate Case ■ Q2 Forecast

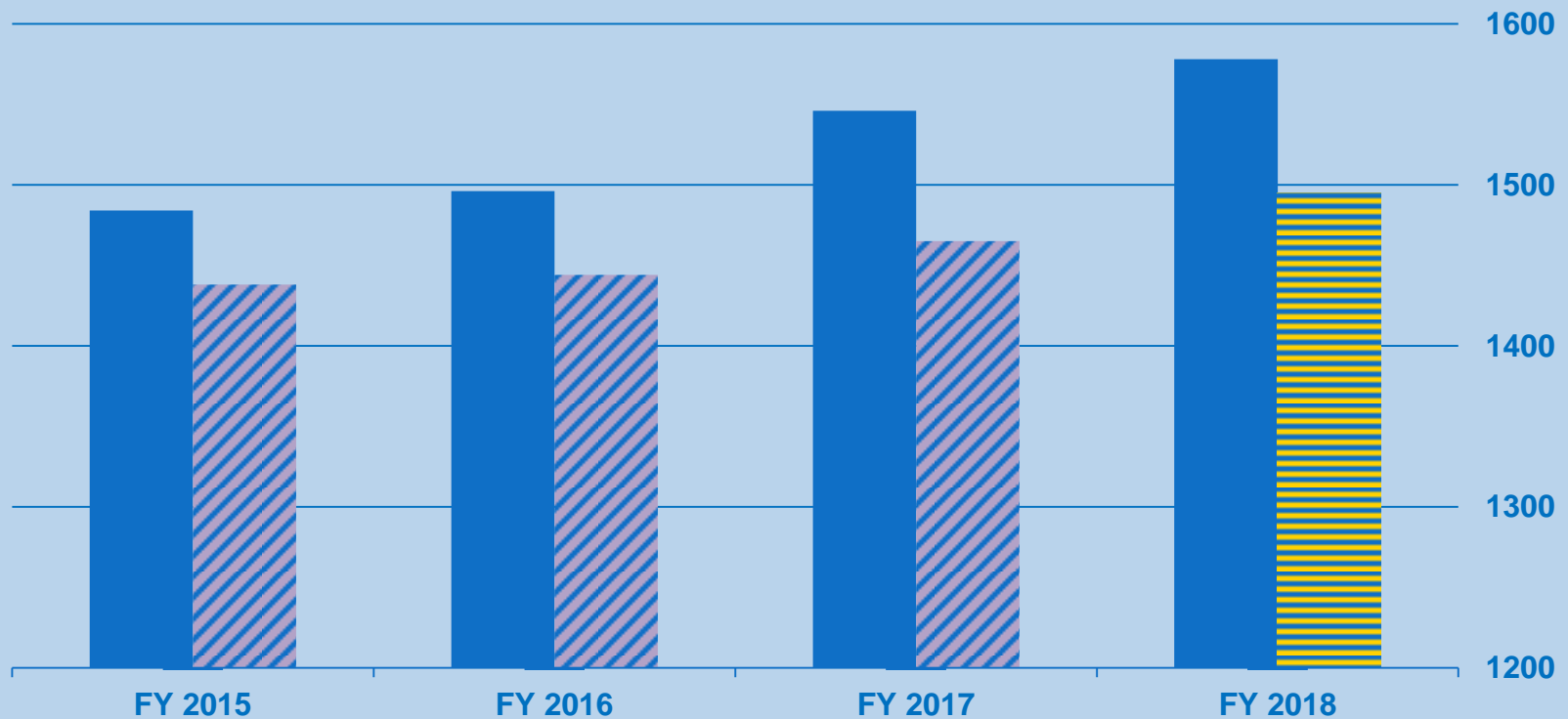


Q2 BUDGET TRUE UP

Historical agency underspend

Total program expense in millions of dollars

■ Start-of-year budget ■ Actuals ■ FY 2018 budget true up

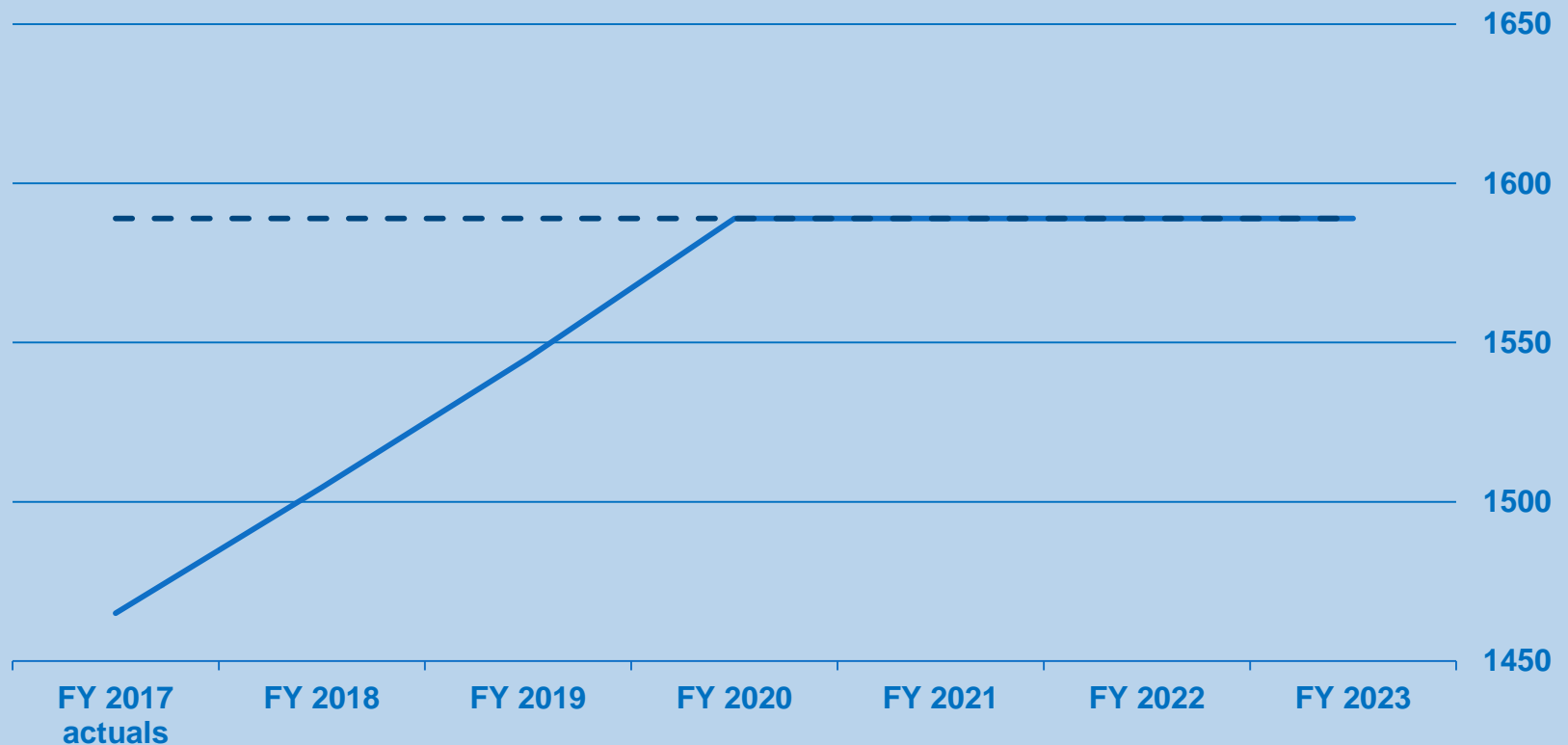


BUDGET ESCALATION

Cost-management objective escalation alternative

Total program expense in millions of dollars

— FY Target (BP-20 path) - - Rate period target



DEPRECIATION STUDY

- Conducted depreciation study update using data through FY 2016.
- The largest change is due to increased costs associated with removing assets.
- New depreciation rates went into effect March 2018.

DAYS CASH ON HAND



	BP-18 Rate Case			FY 2018 EOY forecast		
	Power	Trans.	Agency	Power	Trans.	Agency
EOY Reserves	170	468	638	214	566	780
Reserves not for risk	149	63	212	168	102	270
Reserves available for risk	21	405	426	46	464	510
Days cash on hand	4	237	64	9	275	76

**Reserves in millions of dollars*



POWER SERVICES

Joel Cook, SENIOR VICE PRESIDENT OF POWER SERVICES

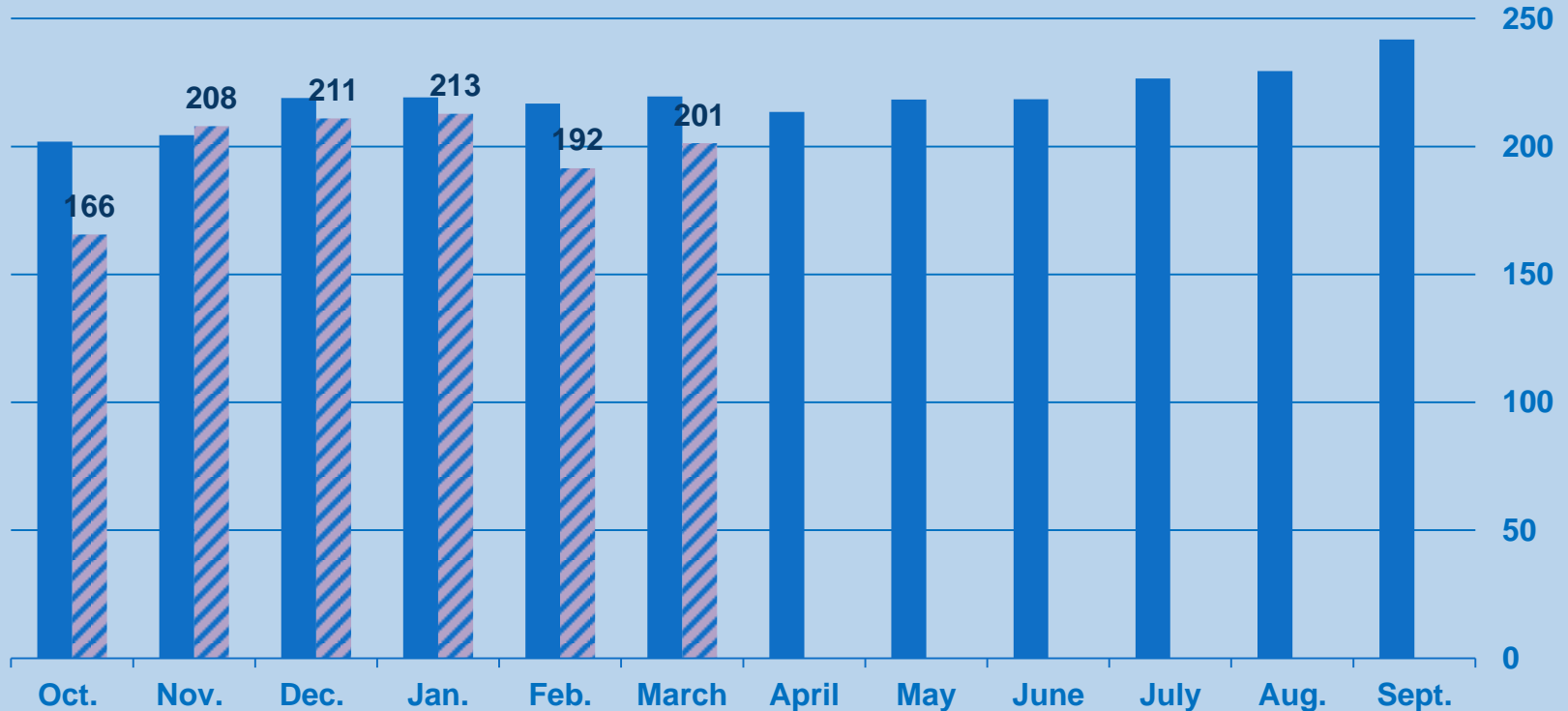
POWER SERVICES EXPENSE

Power total expense

Total expenses in millions of dollars

■ BP-18 Rate Case ▨ Actuals

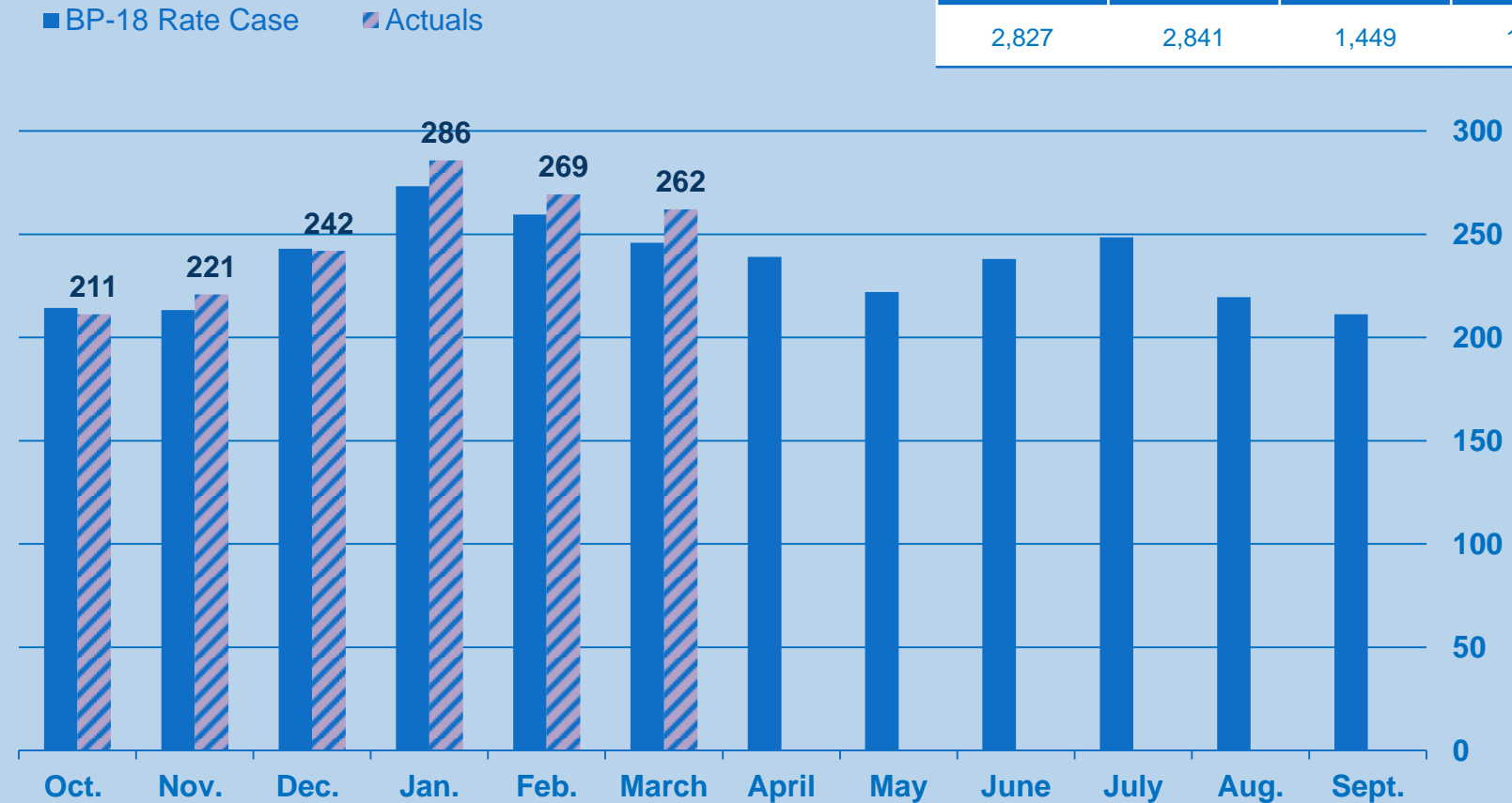
Total expense (in millions of dollars)			
BP-18 Rate Case	Q2 EOY forecast	BP-18 year-to-date	Expenses year-to-date
2,629	2,488	1,281	1,190



POWER SERVICES REVENUES

Power total revenues

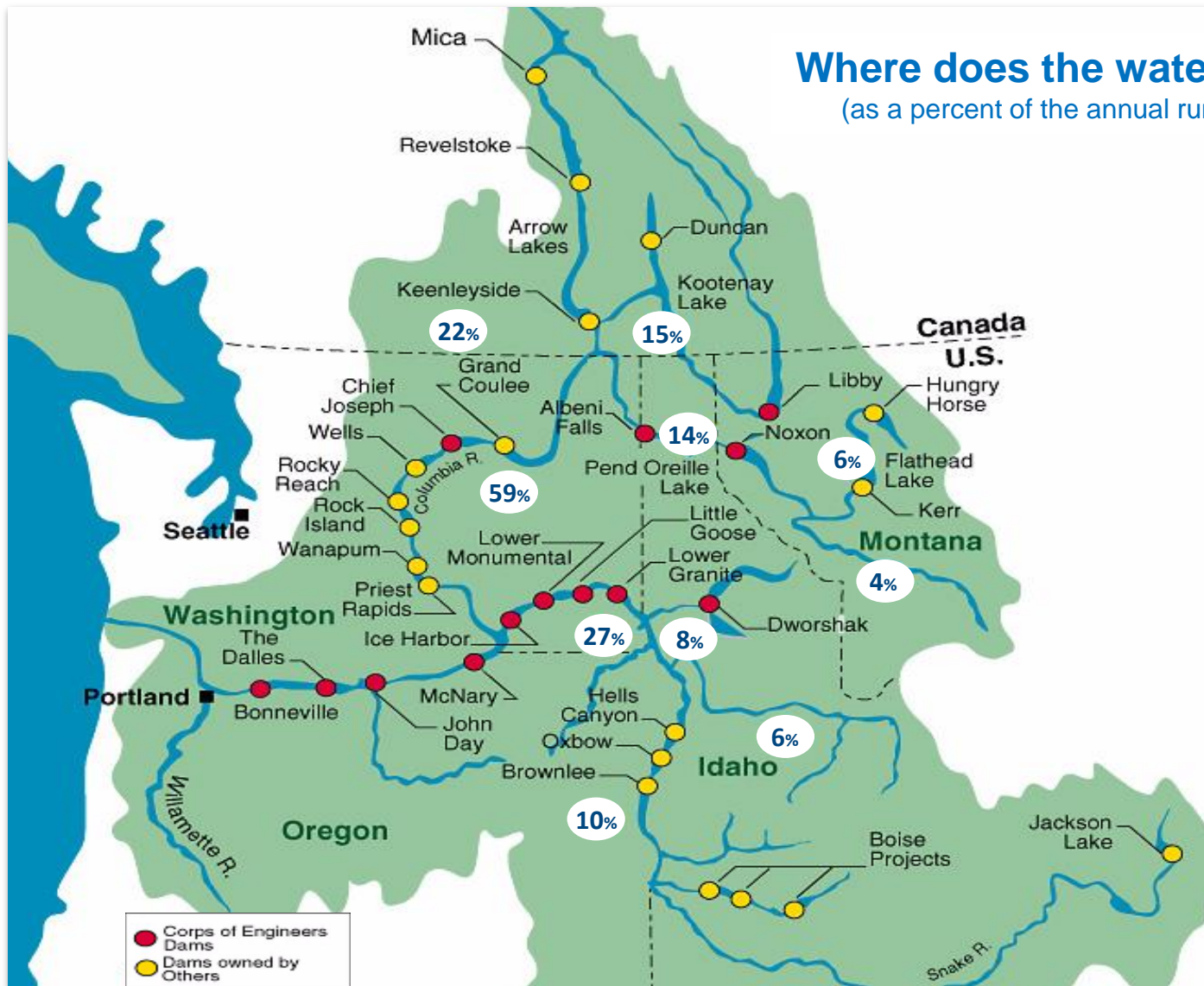
Total revenues in millions of dollars



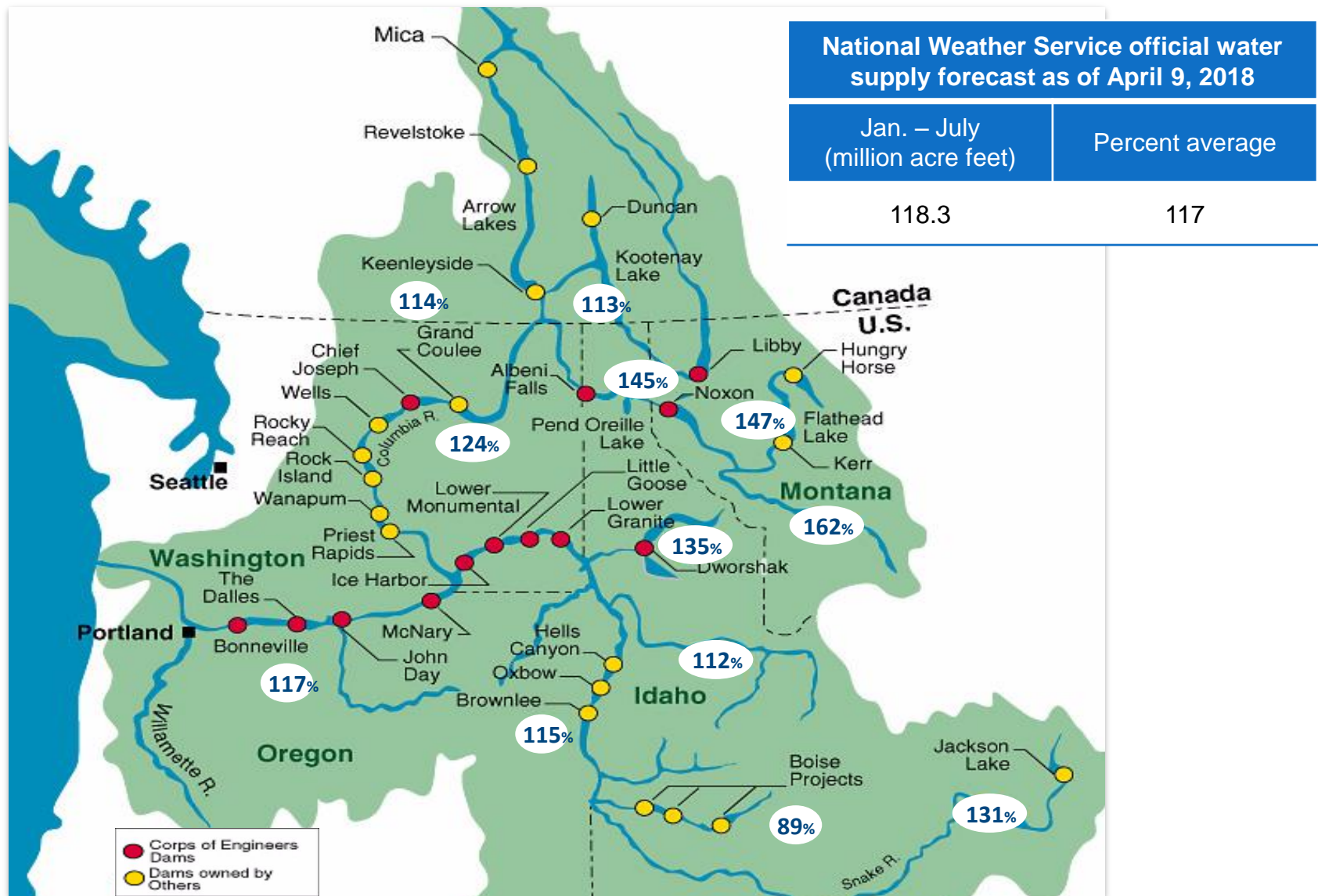
Total revenues (in millions of dollars)			
BP-18 Rate Case	Q2 EOY forecast	BP-18 year-to-date	Revenues year-to-date
2,827	2,841	1,449	1,491

PERCENTAGE OF ANNUAL RUNOFF

Where does the water come from?
(as a percent of the annual runoff at The Dalles)



SNOWPACK CONDITIONS

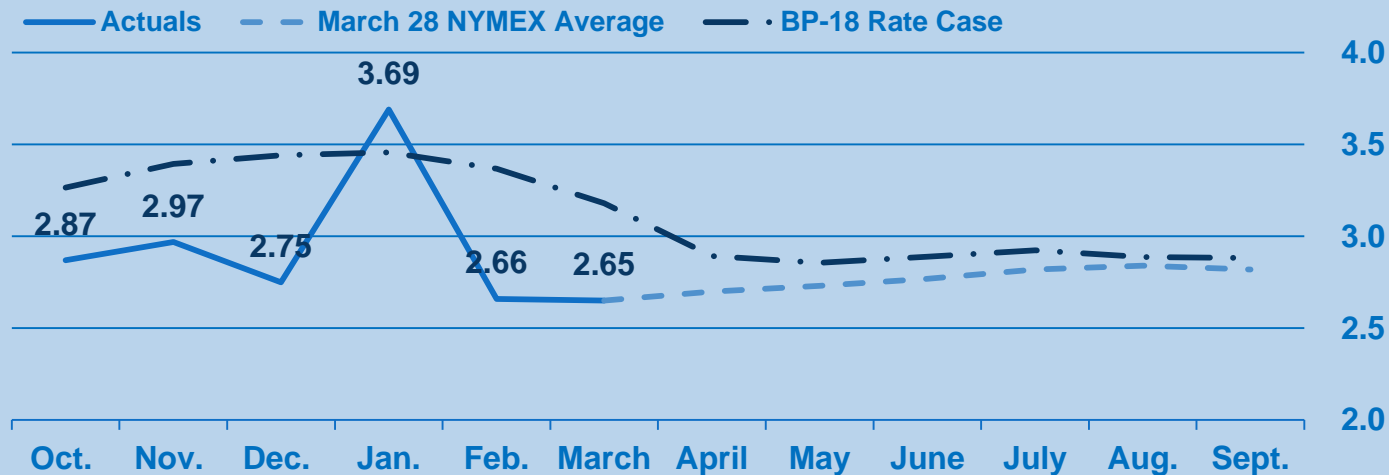


HENRY HUB PRICES

Henry Hub prices

In dollars per one million British thermal units

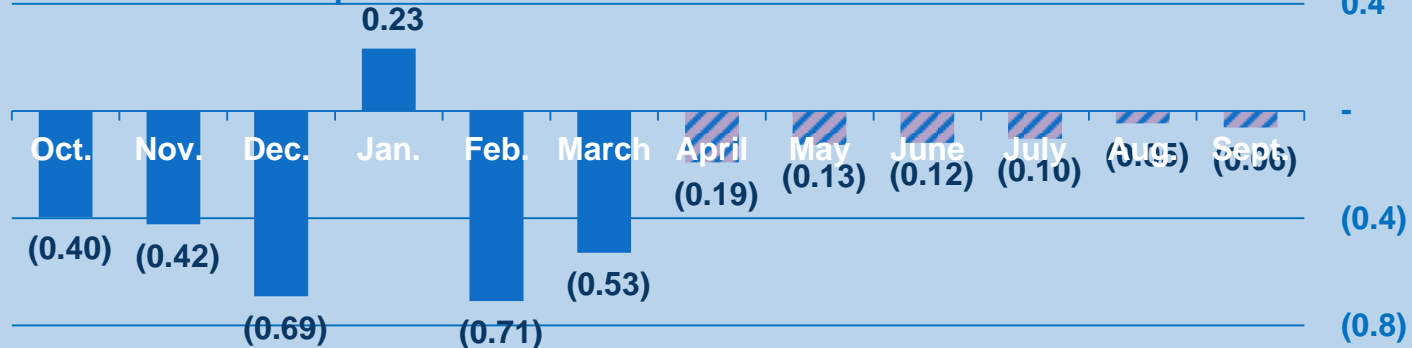
BP-18 avg.: \$3.12
3/28 avg.: \$2.92



Variance from BP-18 Rate Case

In dollars per one million British thermal units

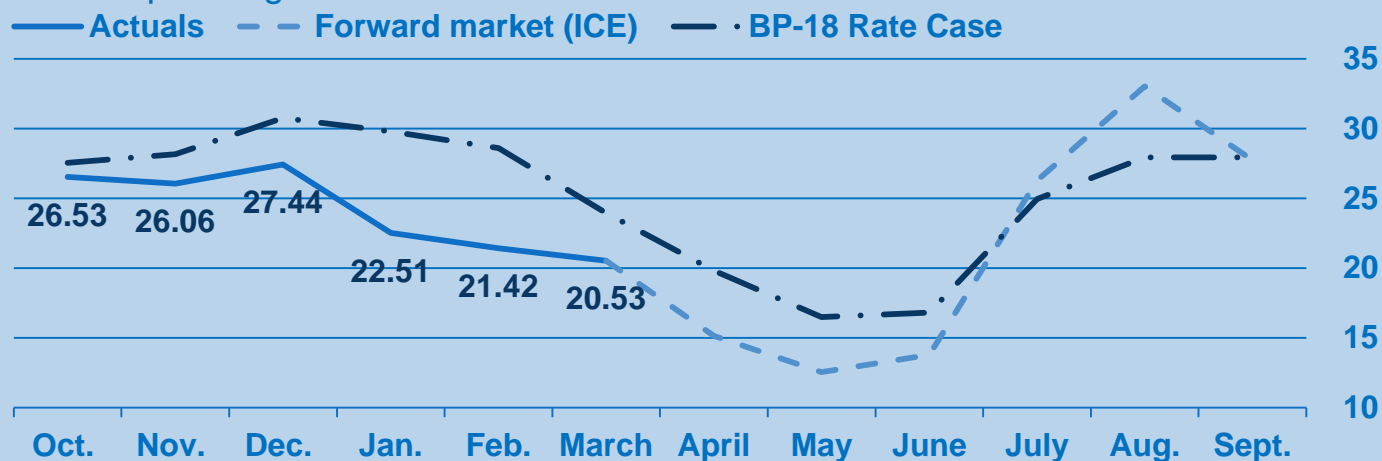
■ Actuals ■ FY 2018 expected



MID-C PRICES

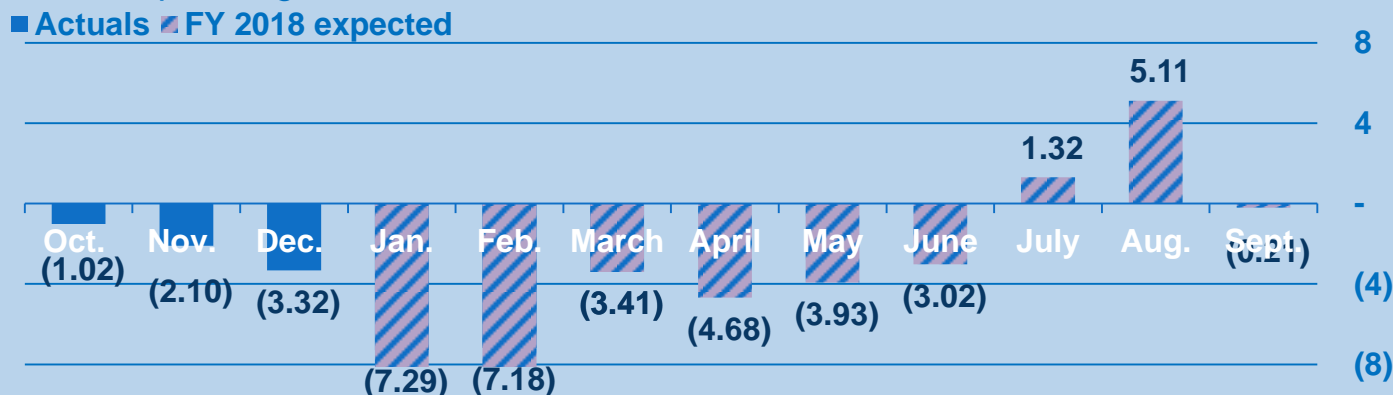
Mid-C heavy load hour prices

In dollars per megawatt hour



Variance from BP-18 Rate Case

In dollars per megawatt hour



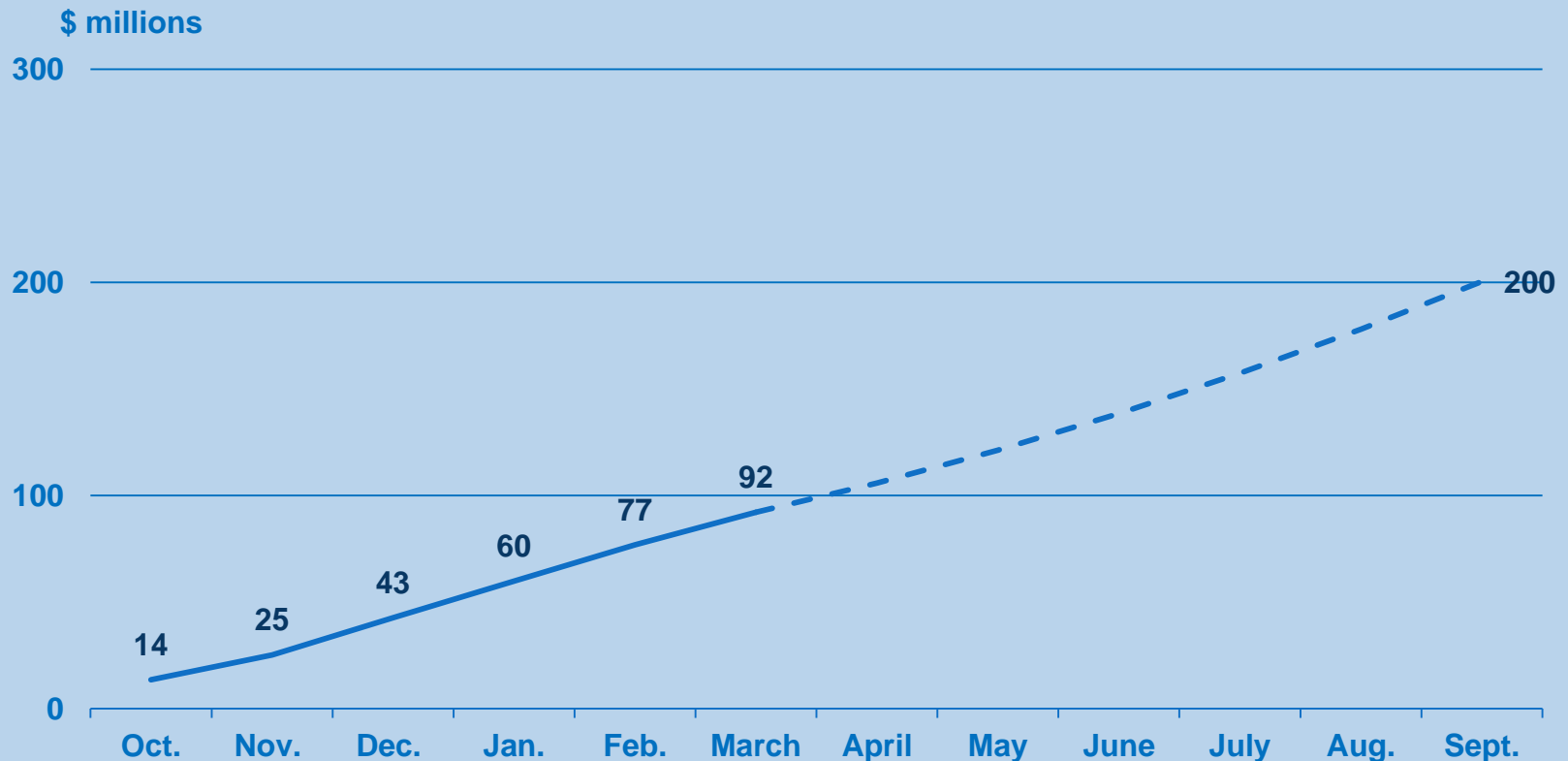
POWER SERVICES CAPITAL



Capital spend and TBD metric

Tracks capital expenditure and work completed to date

— Actual \$ millions FYTD - - Remaining Forecast



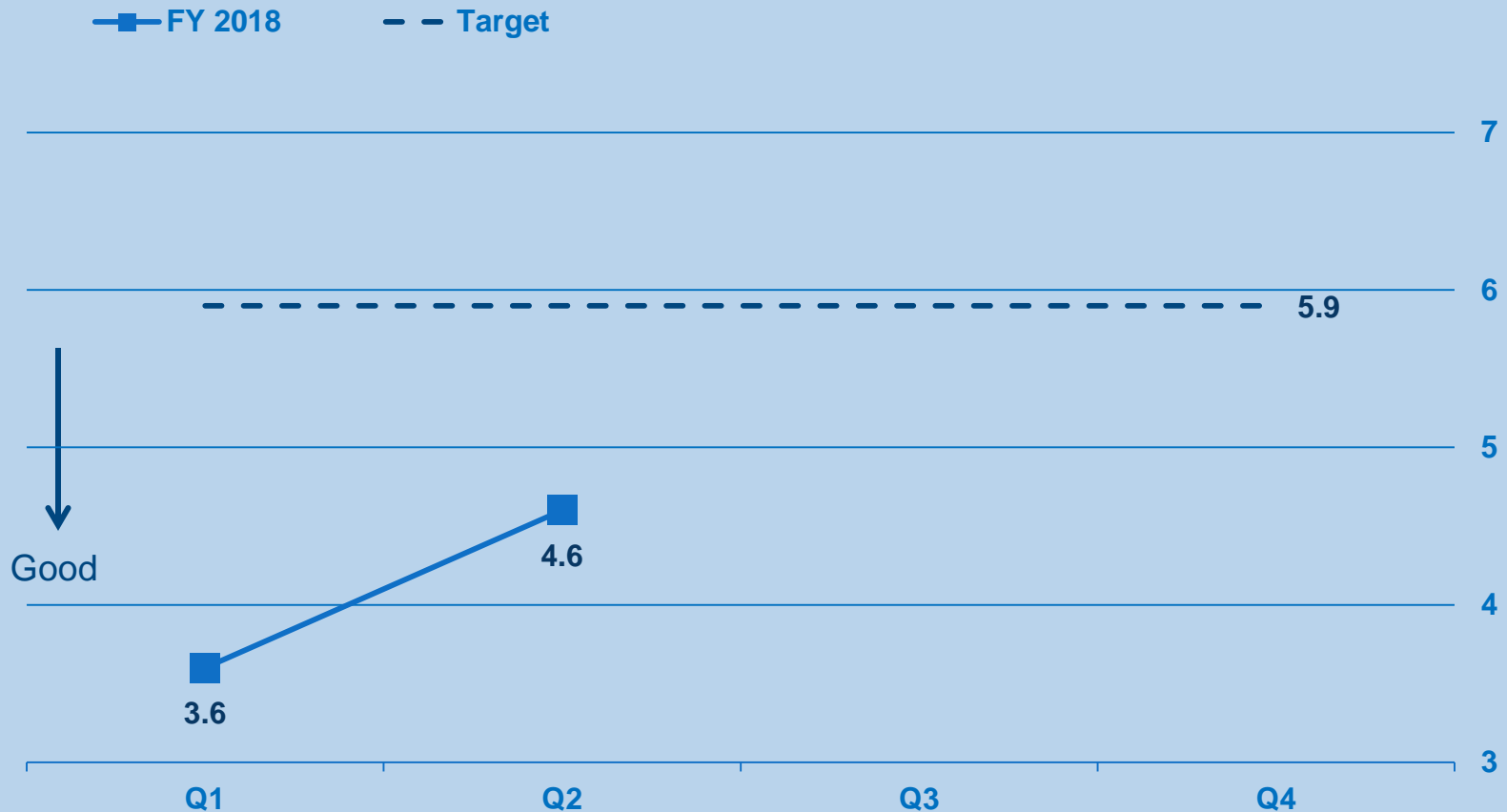
Note: capital expenditure KPI includes only direct-funded federal hydropower capital.

FEDERAL HYDROPOWER RELIABILITY



Federal hydropower forced outage factor

Percentage of hours fed hydro projects are offline due to unplanned outages

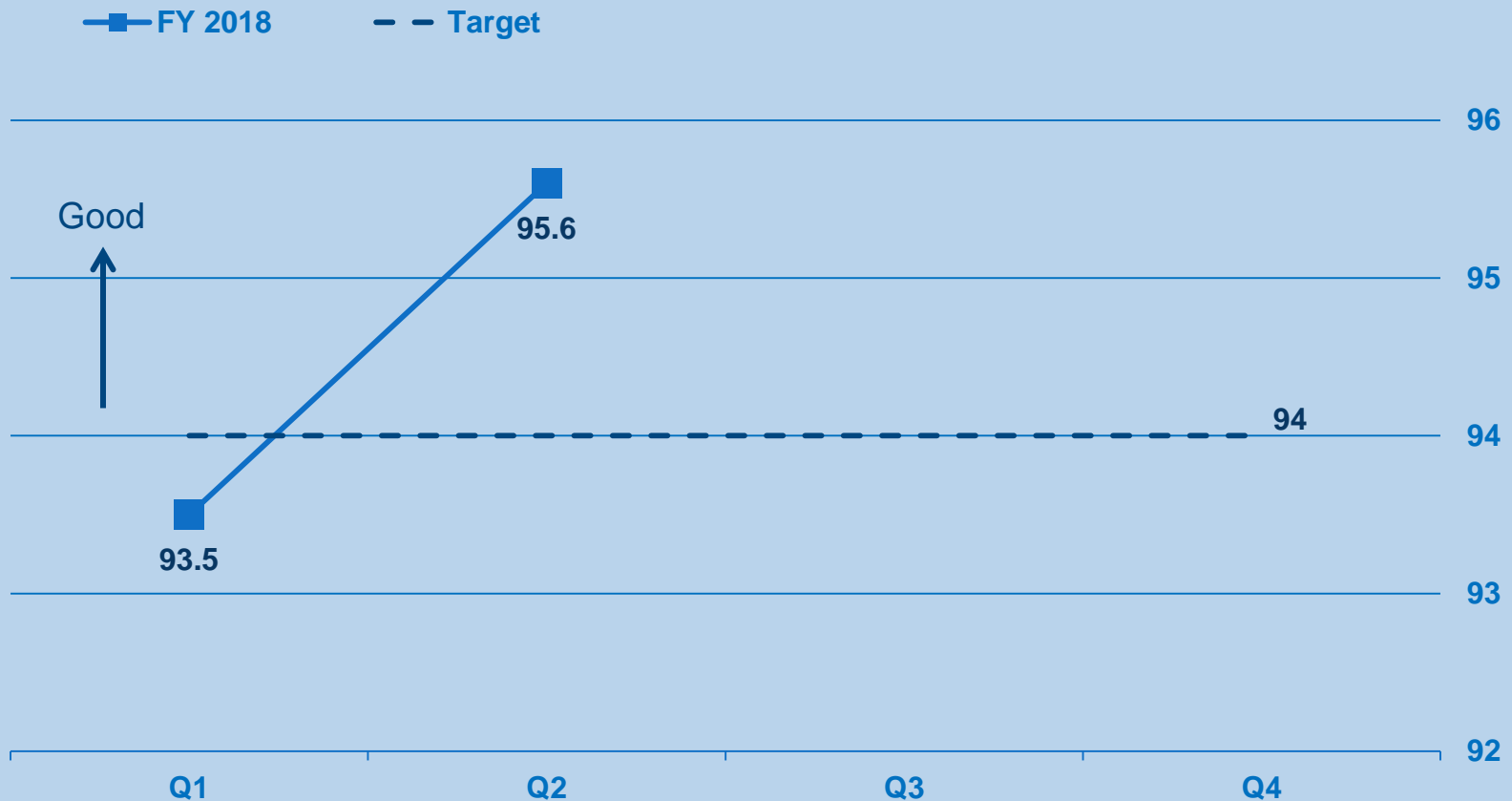


COLUMBIA GENERATING STATION RELIABILITY



Columbia Generating Station availability factor

Percentage of time Columbia is available to serve demand





TRANSMISSION SERVICES

Richard Shaheen, SENIOR VICE PRESIDENT OF TRANSMISSION SERVICES

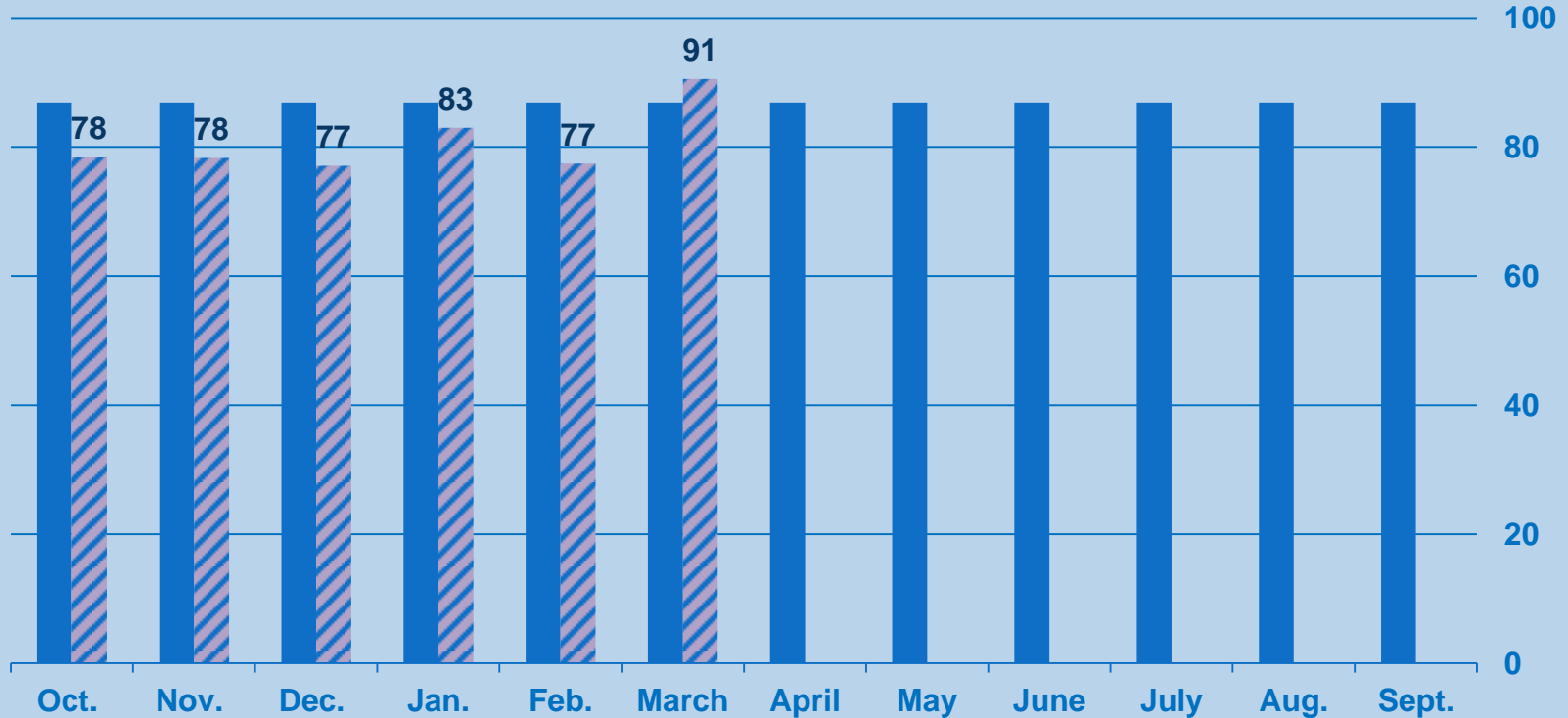
TRANSMISSION SERVICES EXPENSE

Transmission total expense

Total expense in millions of dollars

■ BP-18 Rate Case ▨ Actuals

Total expense (in millions of dollars)			
BP-18 Rate Case	Q2 EOY forecast	BP-18 year-to-date	Expenses year-to-date
1,043	1,050	521	485

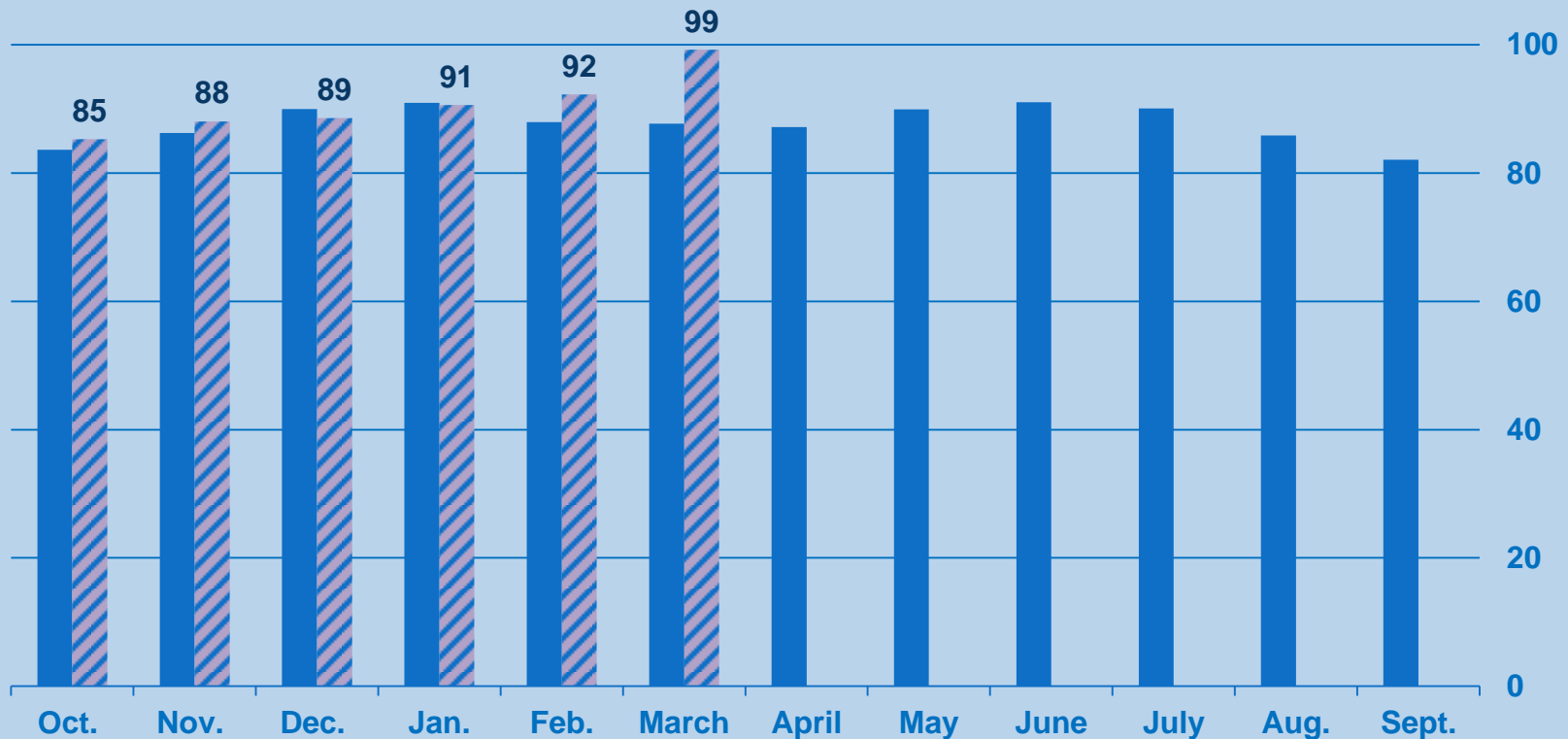


TRANSMISSION SERVICES REVENUES

Transmission total revenues

Total revenues in millions of dollars

■ BP-18 Rate Case ▨ Actuals



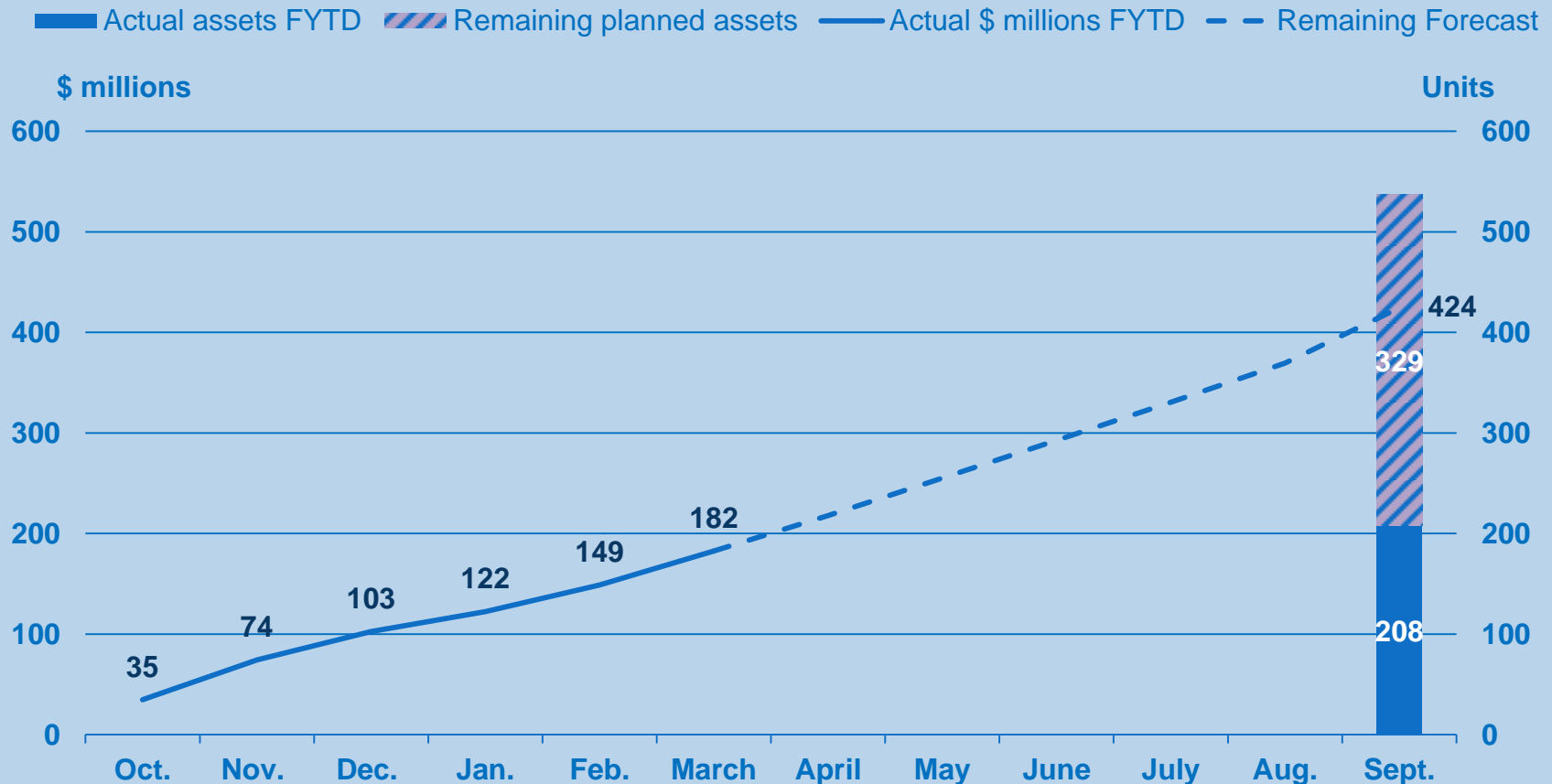
Total revenues (in millions of dollars)			
BP-18 Rate Case	Q2 EOY forecast	BP-18 year-to-date	Revenues year-to-date
1,052	1,066	526	544

TRANSMISSION SERVICES CAPITAL



Capital spend and units installed

Tracks capital expenditure and work completed to date



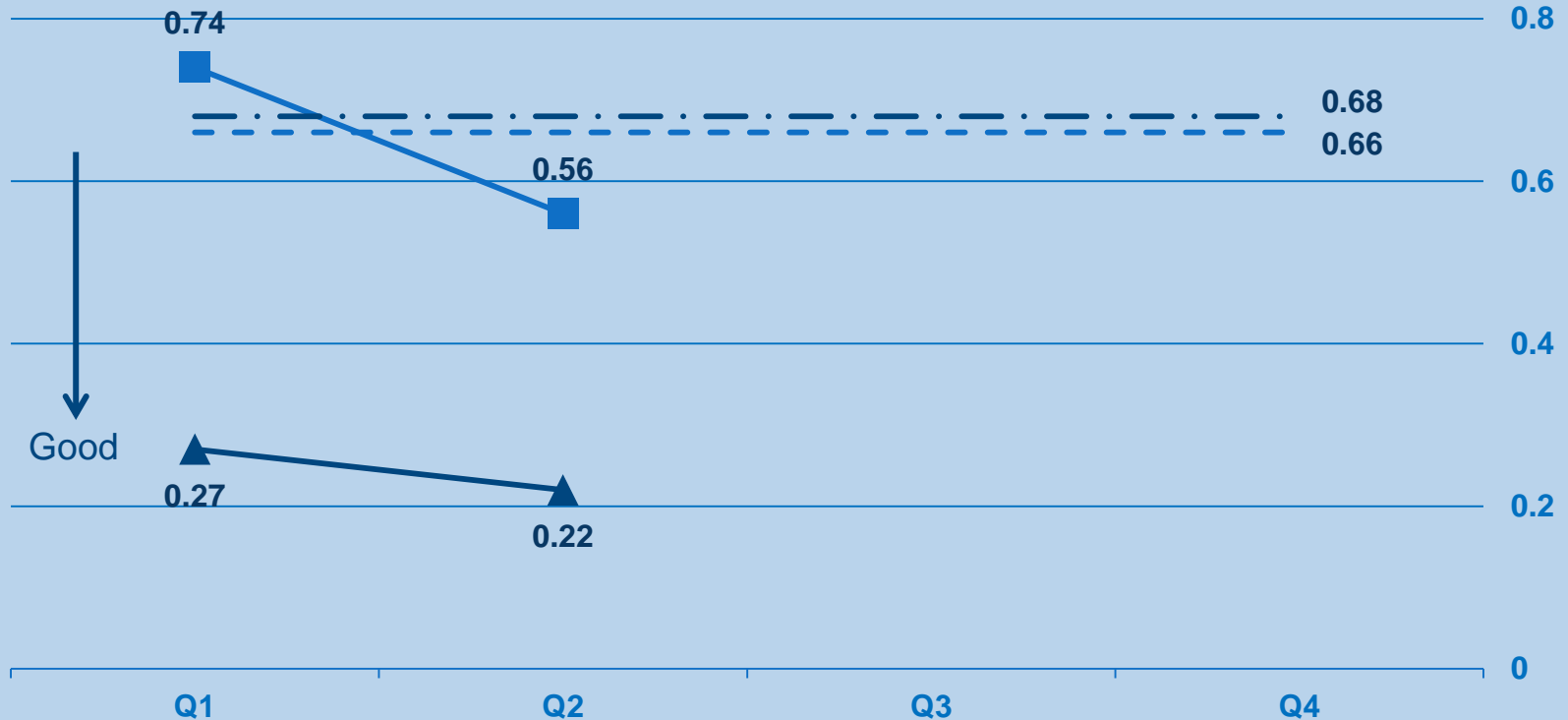
TRANSMISSION RELIABILITY - SAIFI



System average interruption frequency index

Tracks frequency of unplanned outages

■ Low voltage (< 200kV) ▲ High voltage (>= 200kV) - - Low voltage warning level — • High voltage warning level



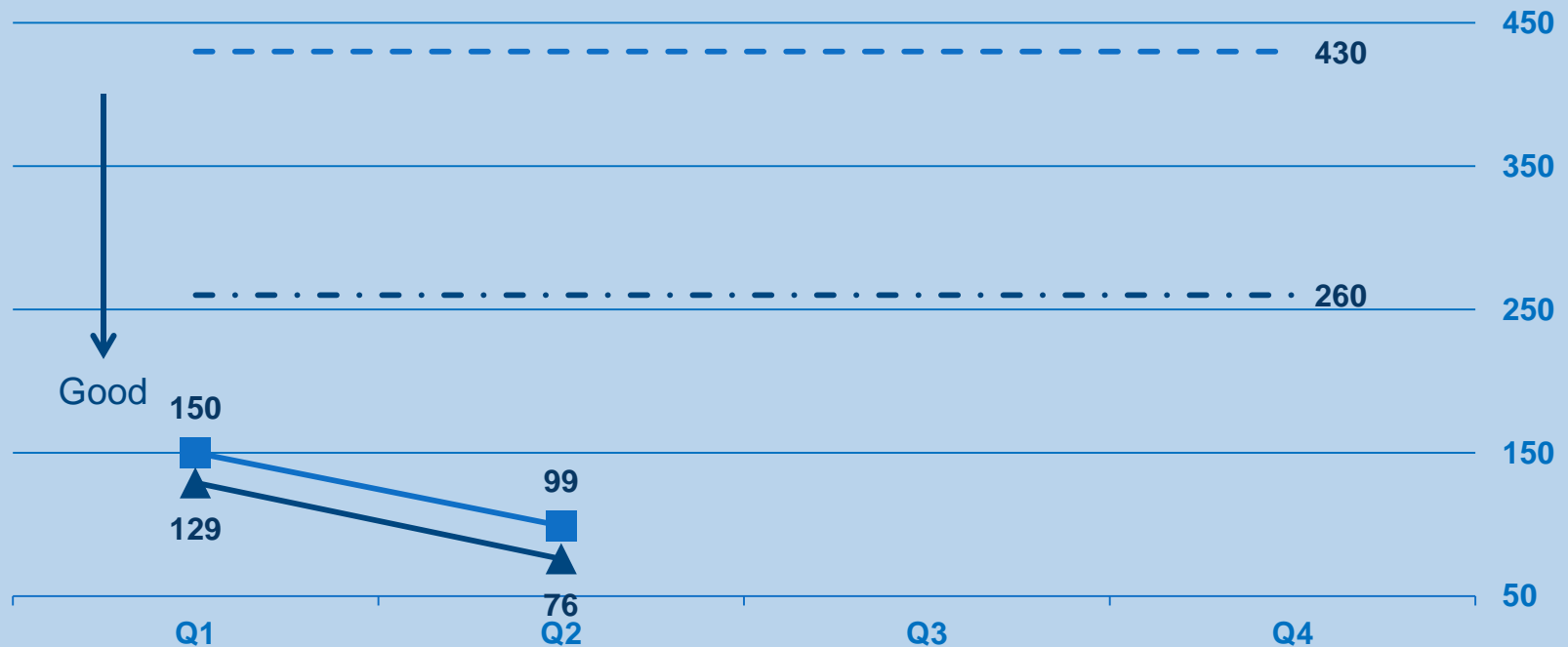
TRANSMISSION RELIABILITY - SAIDI



System average interruption duration index

Tracks duration of unplanned outages

■ Low voltage (< 200kV) ▲ High voltage (≥ 200 kV) - - Low voltage warning level - . - High voltage warning level



ENGAGE WITH TRANSMISSION

- Reliability coordination.
- Asset management.
- TC-20 (formerly Transmission tariff engagement and Pro Forma Gap Assessment).
- Evolving transmission demand.



PUBLIC PROCESSES

Scott Simms, DIRECTOR OF COMMUNICATIONS

PUBLIC PROCESSES

- **May 9** – FY2020-21 Rate Period High Water Mark process workshop.
- **May 10** – Resource Program workshop.
- **May 15-16** – Efficiency Exchange Northwest 2018.
- **May 16** – Spill surcharge workshop.
- **May 22** – Strengthening financial health: capital financing workshop.
- **May 30** – Columbia River System Operation EIS public update webinar.
- **May 31** – TC-20 Tariff customer workshops.
 - Additional meetings: June 26, July 23, Aug. 21.
- **June 13** – South of Allston Bilateral Redispatch Pilot workshop.
- **June 18–22** – Integrated Program Review.

COMMENT PERIODS

- **May 11** – Financial Reserves Policy and Leverage Policy.
- **May 24** – Bonneville Environmental Foundation agreement extension.



QUESTION AND ANSWER

THANK YOU

The next QBR is scheduled for
July 31, 2018.

**Strategic plan is available at
www.bpa.gov/StrategicPlan.**

Didn't get your question answered?
Email Communications@bpa.gov. Answers will be
posted to www.bpa.gov/goto/QBR.

FINANCIAL DISCLOSURE

This information was publicly available on April 30, 2018, and contains information not sourced directly from BPA financial statements.