Western
Area Power
Administration

Proposed 2018 Rate Process

Informational Webinar

April 18, 2017

Pick-Sloan Missouri River Basin Program--Eastern Division
&
Loveland Area Projects

Greetings

Jody Sundsted

Vice President of Power Marketing for UGP

Introductions

Linda Cady-Hoffman
UGP Rates Manager

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RMR Rates Manager

Agenda

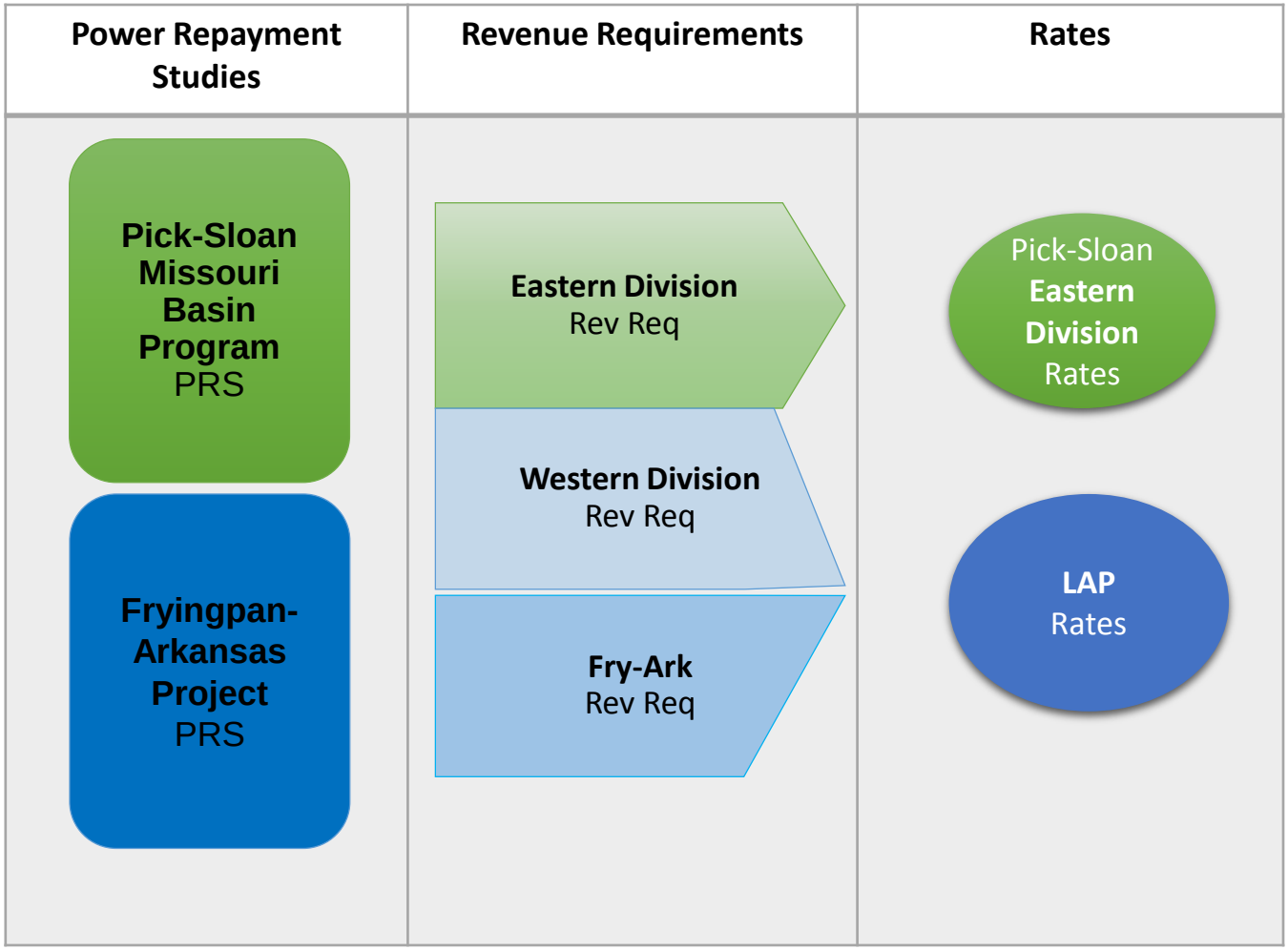
- Rate Process
- Charge Components
- PRS Information
  - Pick-Sloan
  - Fry-Ark
- Regional Rate Proposals
  - LAP
  - Pick-Sloan—ED
  - Sale of Surplus Products
- Schedule
- Q&A

Rate Process

- Adjusting the P-S Components
  - Reducing the Drought Adder component to zero in calendar year 2018
  - Increase to the Base component
- Adjusting the Fry-Ark Component
  - Decrease to the Base component
- P-S--ED 5% Voltage Discount
- Sale of Surplus Products

Rate Components

Rate Structures



Overview of Component Costs

Drought Adder
Adjusted Annually

→ Drought

- Recovers cost associated with drought
  - Purchase power related to drought
  - Historical drought debt
  - Interest on drought debt

Base
Adjusted only by Public Process

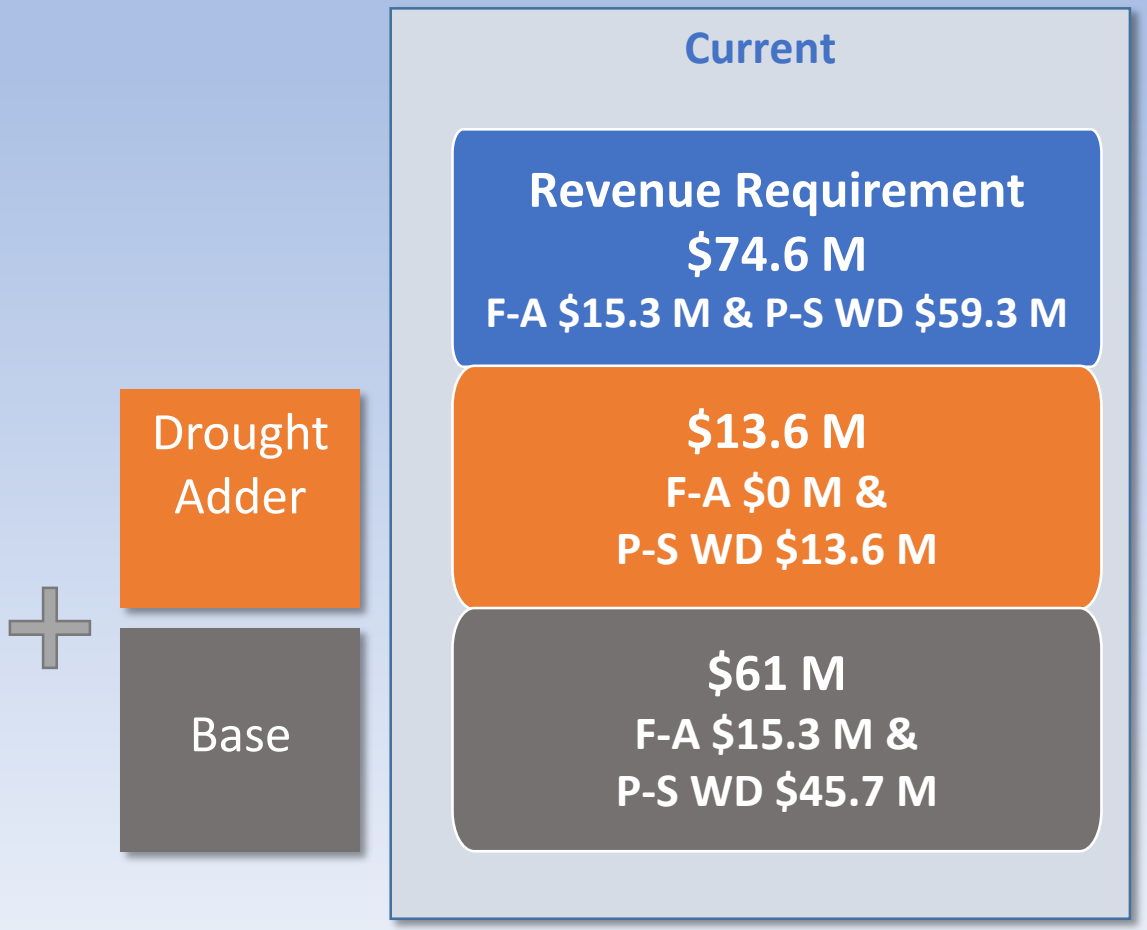
→ O&M

- Annual O&M
- Investments - additions and replacements
- Annual interest on investment
- Inflation
- Normal purchases
- Transmission costs

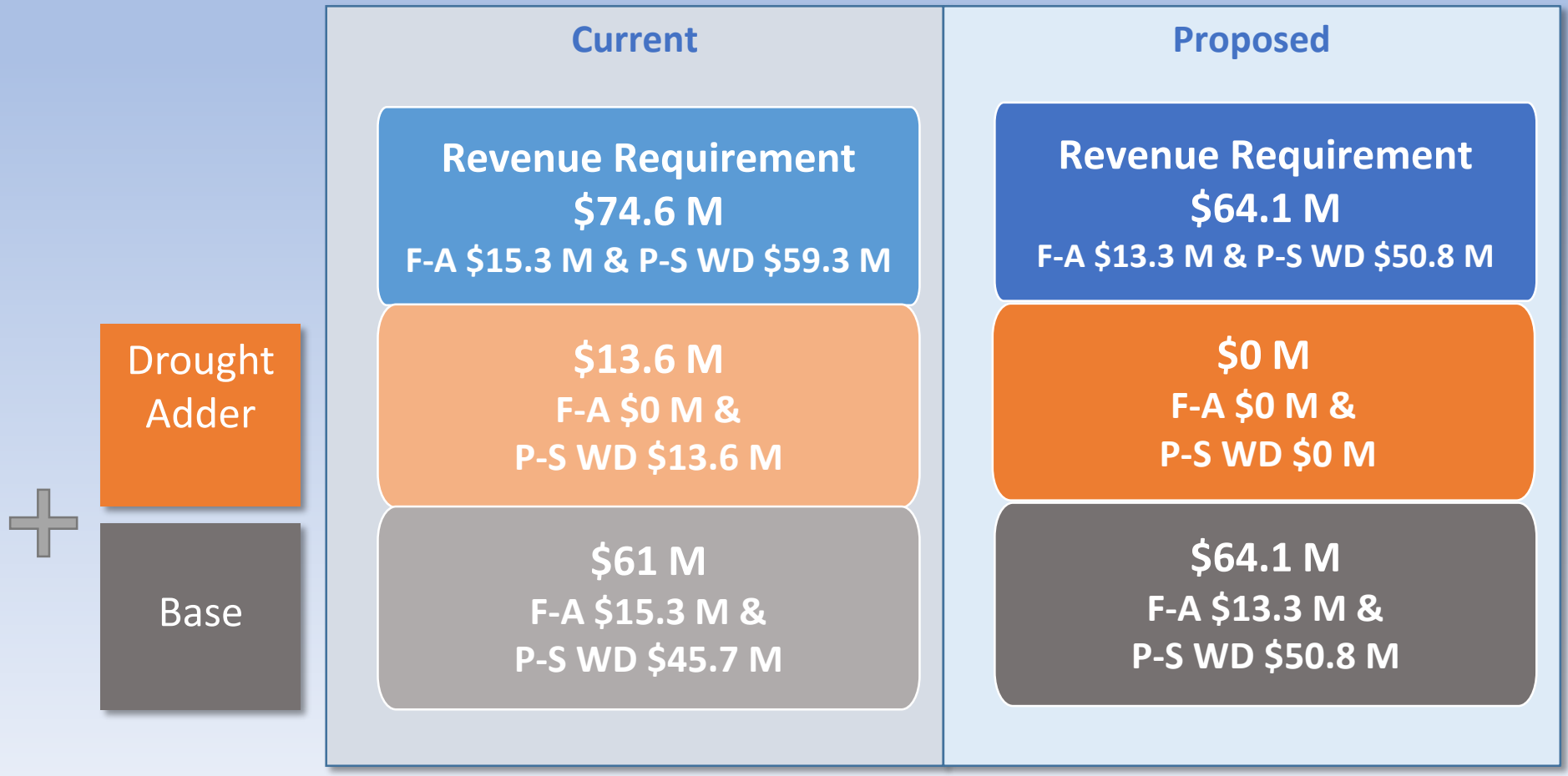
→ Capital

→ Interest

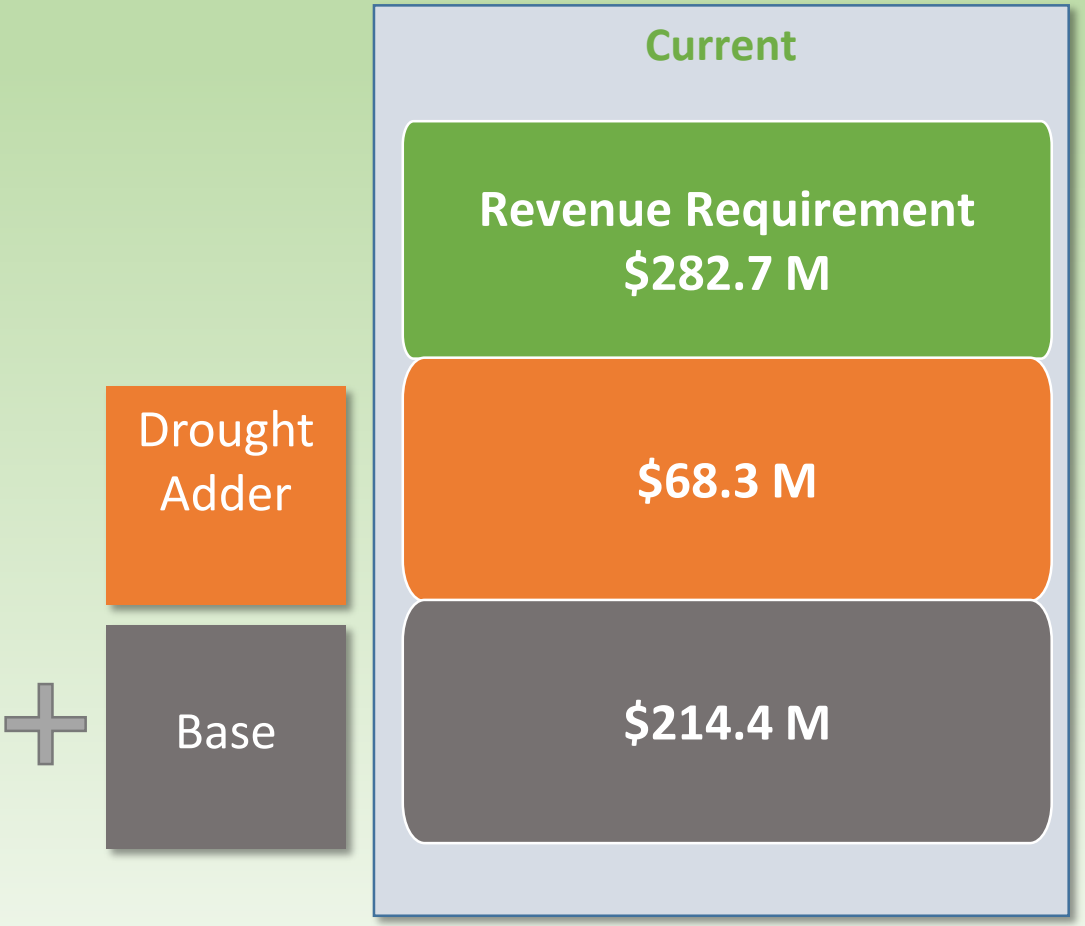
LAP Current Charge Components



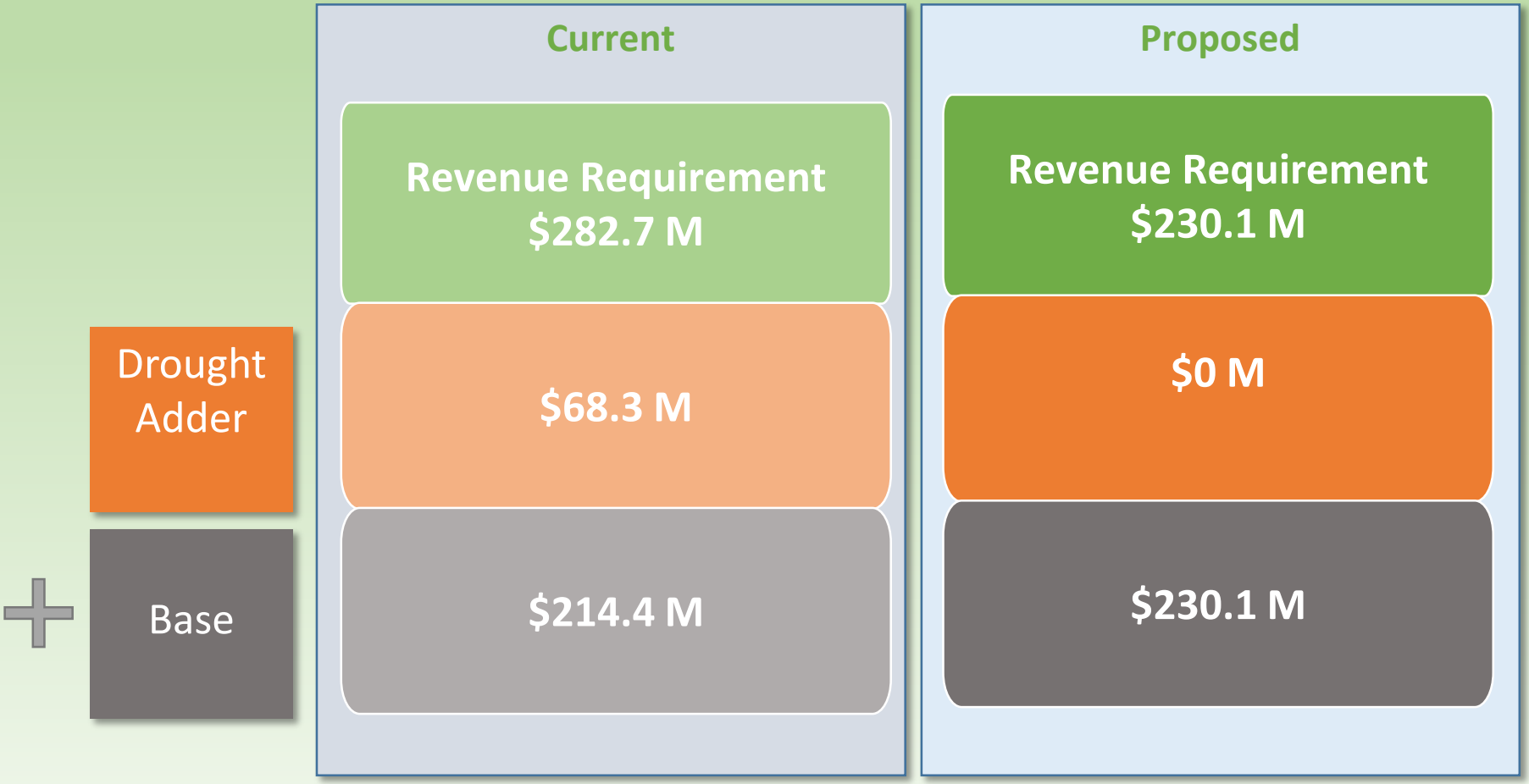
LAP Proposed Charge Components



P-SMBP--ED Current Charge Components



P-SMBP--ED Proposed Charge Components

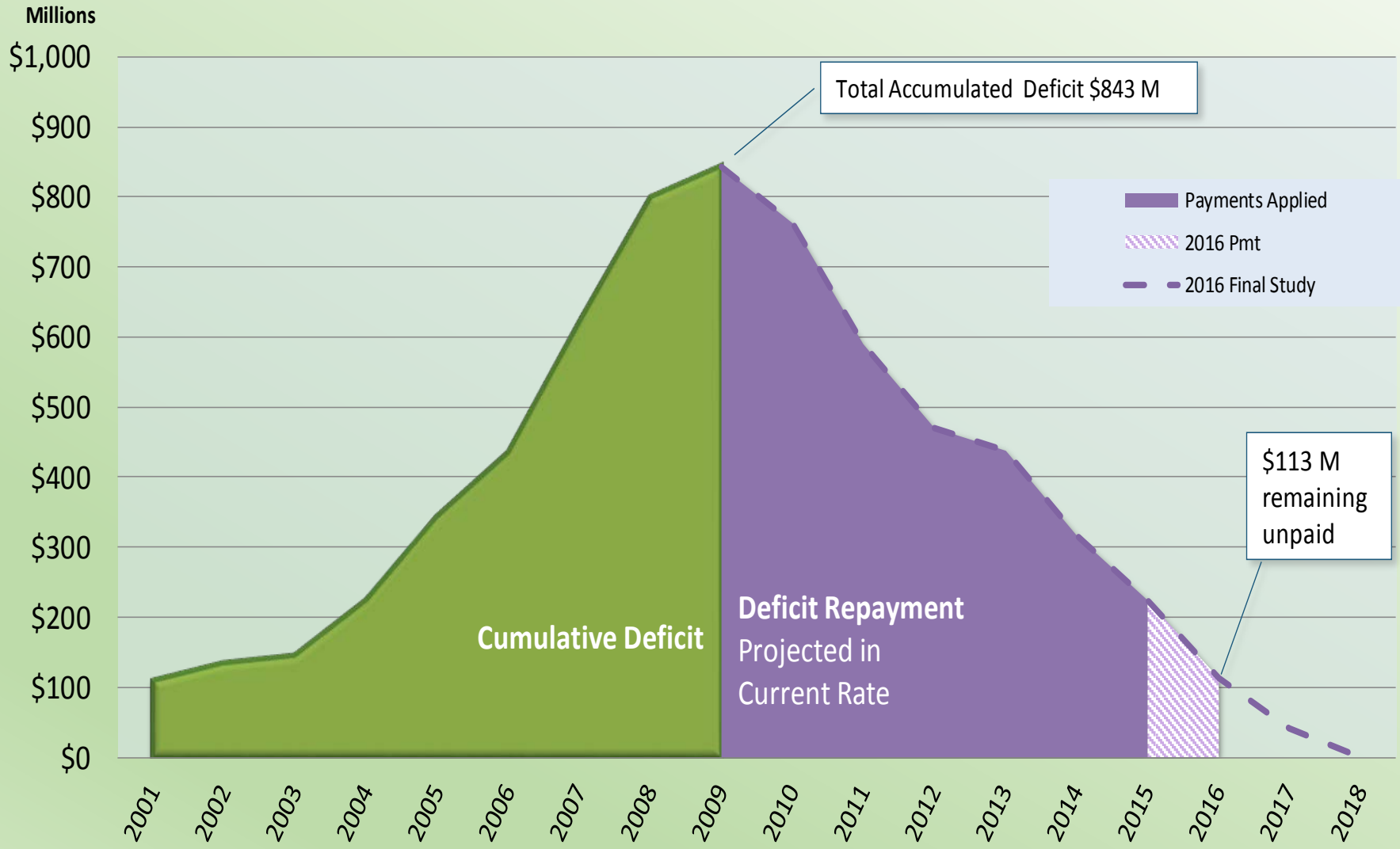


PRS Information

P-SMBP 2016 PRS

- 2016 deficit payment is $110 M
  - Pays off the 2017 unpaid deficit balance
  - Balance applied towards 2018 remaining deficit balance
- $113 M unpaid on the drought after 2016
- 2016 $54 M required payments
  - Mostly in 2.5% to repay USACE investments
- 2020 is the PRS pinch point
- Study solves at 24.29 mills/kwh
  - Drought debt paid off in 2018

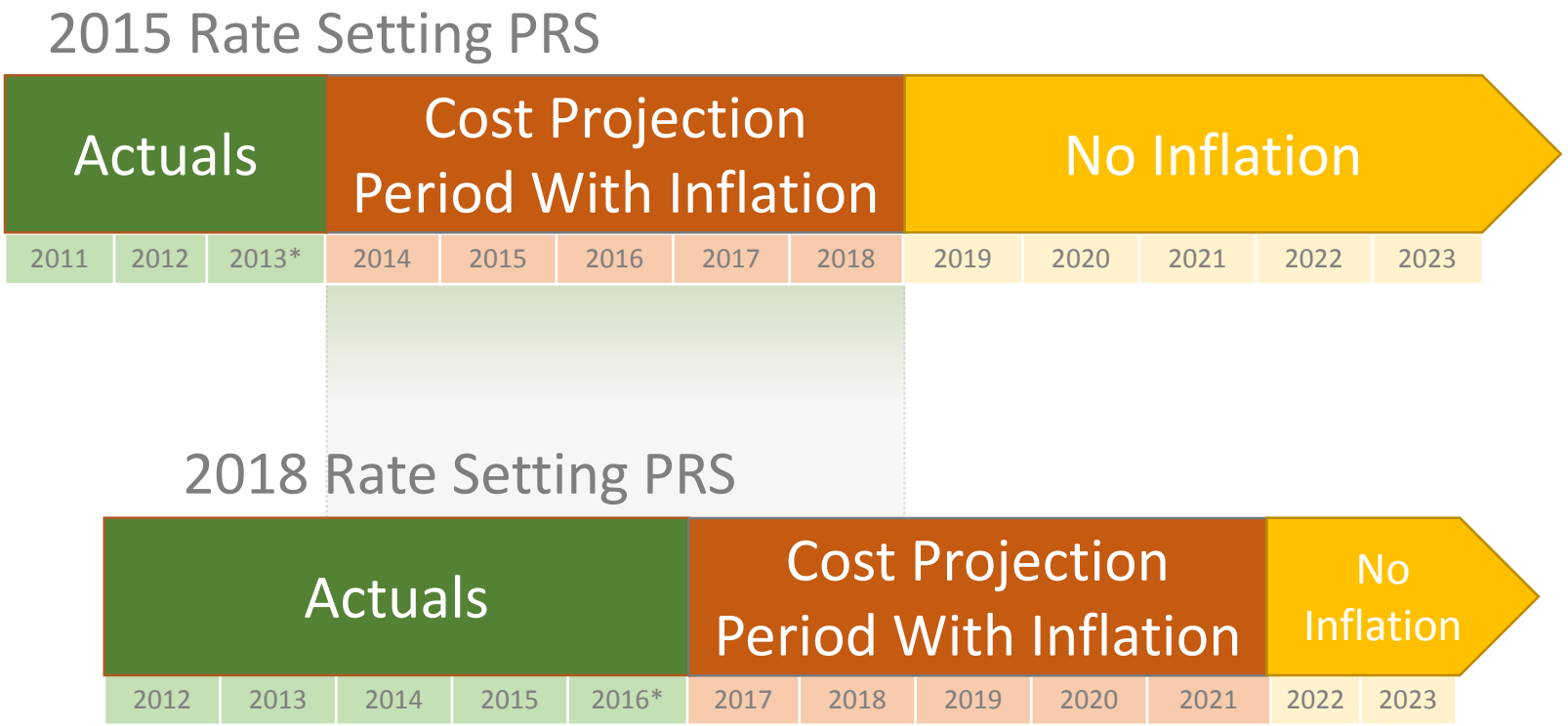
P-SMBP 2016 Deficit Repayment



Why the Drought/Base Changes

- Drought Adder is going to zero
  - Projected to make the last payment on the $843 M accumulated drought by 2018
    - Paid ahead on the drought costs, final payment isn't required until 2019
- Base increasing
  - New 5-year cost evaluation period
    - New investments/replacements
    - New O&M expenses
    - Inflationary costs

PRS 5-yr Projection Window

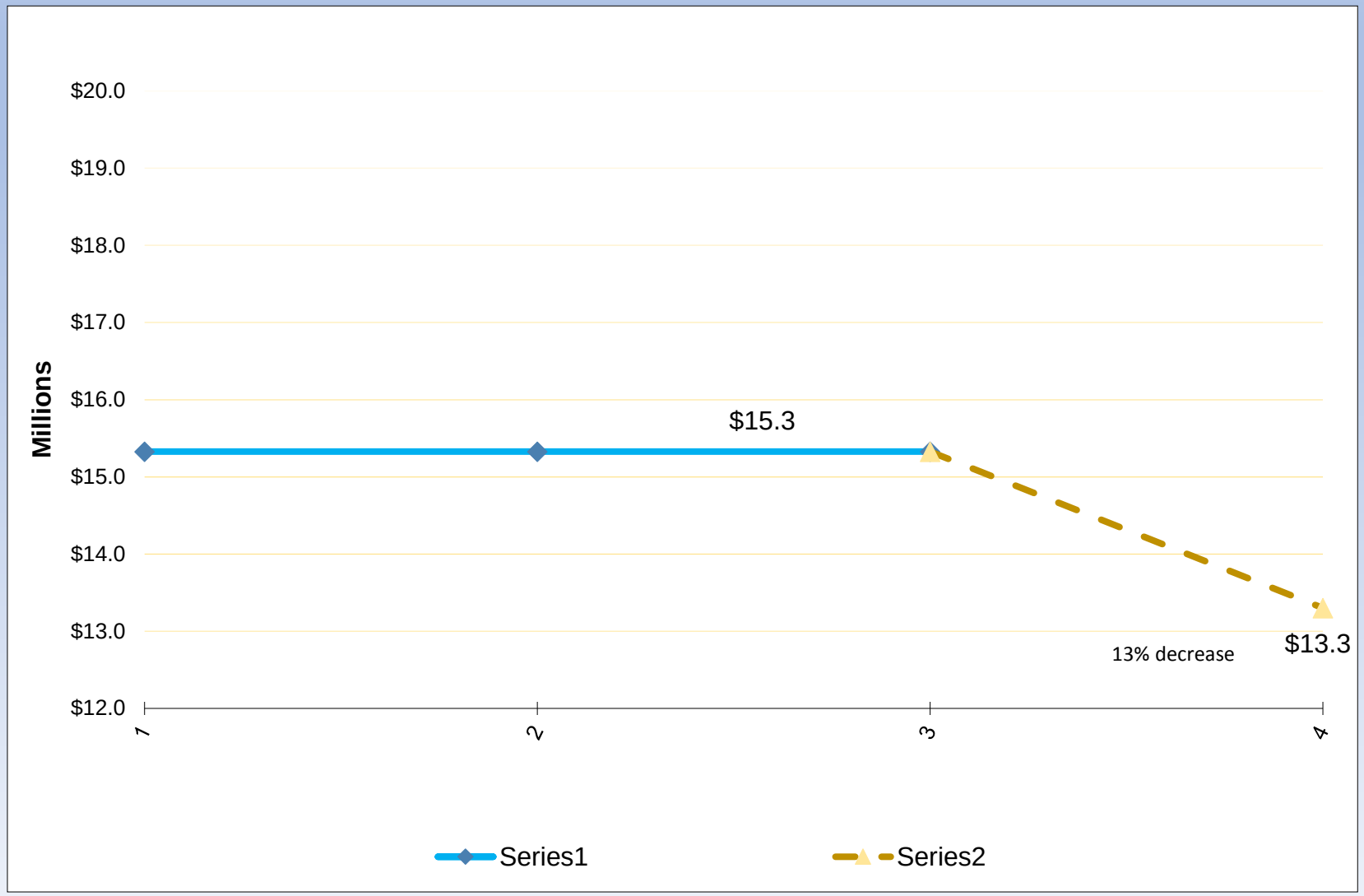


*Based on unaudited financials, with true up done the following year

Fry-Ark FY 2016 PRS

- Uses FY18 Work Plans
  - Updated Mt. Elbert Rehabilitation Cost Projections
    - Study includes ~$22.7M
- No outstanding deficits
- 2034 continues to be the pinch point in the PRS
- FY17 Coupon Rate used for future projections is 4.429%
- Study solves with a Revenue Requirement of $13.3M
  - ~13% lower than the approved $15.3M

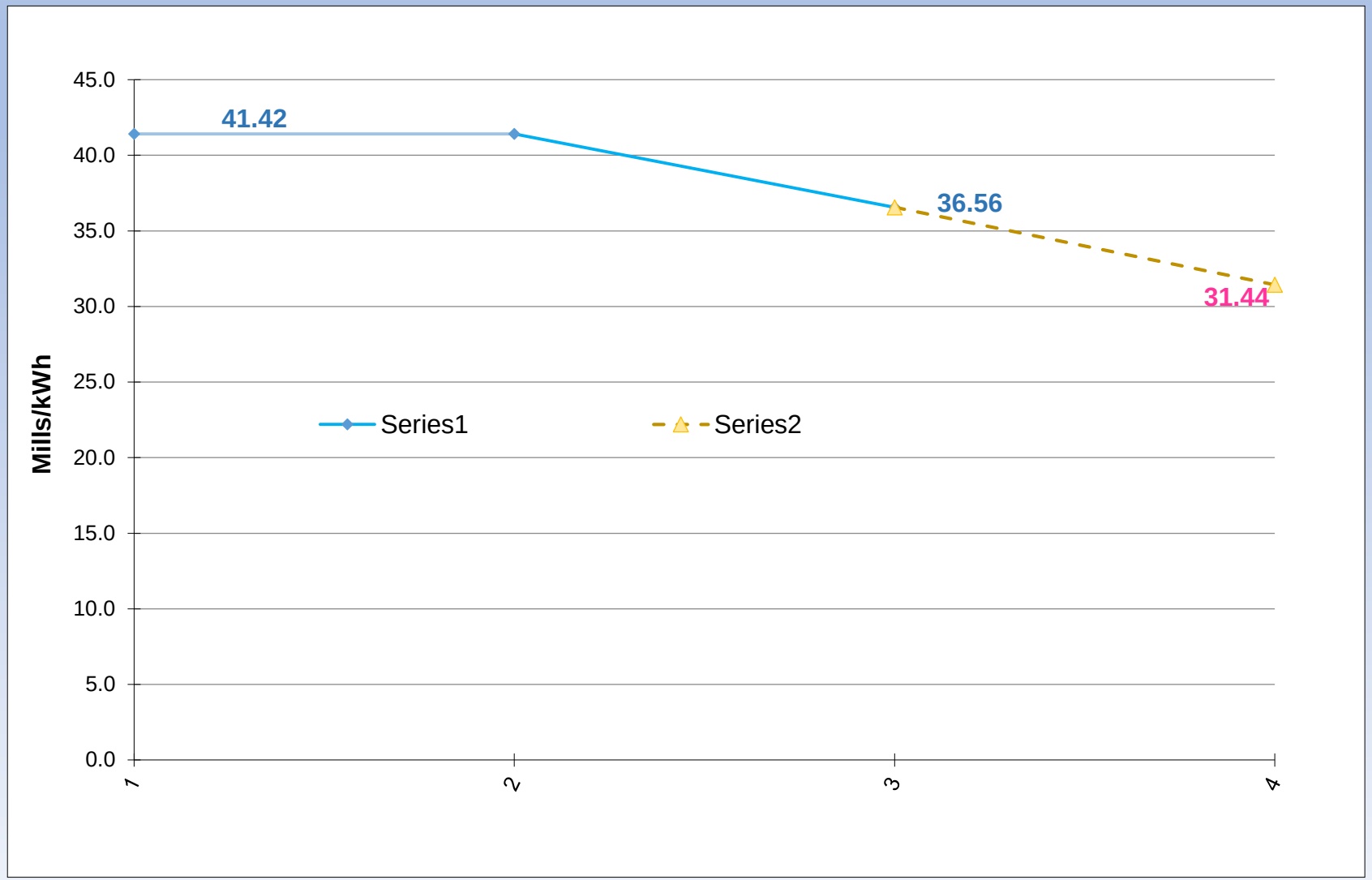
Fry-Ark Revenue Requirement



Regional Rate Proposals

LAP Rate Proposal

LAP Composite Rate



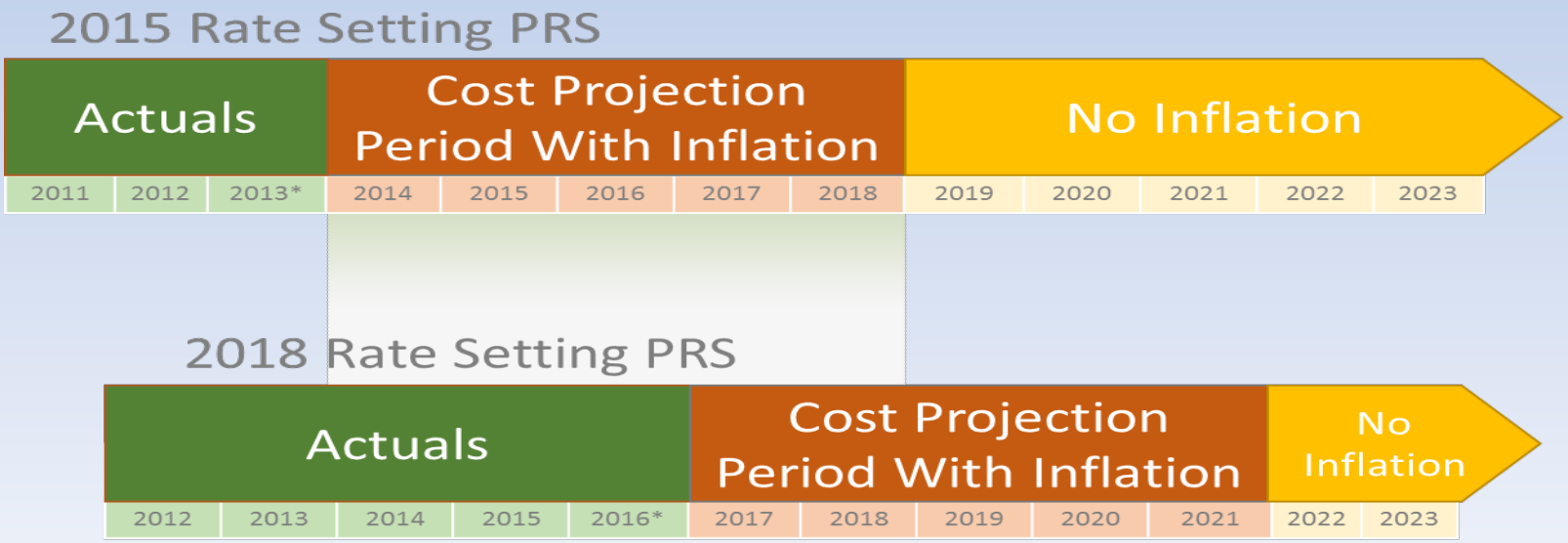
Why the Changes for Pick-Sloan-WD

(please note this slide was mistakenly left out of the presentation given on April 18, 2017, but the same information was shared on slide 16)

- Drought Adder is going to zero
  - Projected to make the last payment on the $843M accumulated Drought by 2018
    - Paid ahead on the drought costs, final payment isn't required until 2019
- Base increasing
  - New 5-year cost evaluation period
    - New Investments/Replacements
    - New Operations and Maintenance Expenses
    - Inflationary costs

Why the Changes for Fry-Ark

- Base decreasing
  - New 5-year cost evaluation period
    - New Operations and Maintenance Expenses
    - New Investments/Replacements
    - Inflationary Costs



Why the Changes for Fry-Ark (cont.)

- Changes between 2013 and 2034 (pinch point) when compared to 2015 Rate-Setting PRS
  - O&M Expenses – Decrease avg ~$0.3M/yr
  - Ancillary Services Revenues – Increase avg ~$1.1M/yr
    - Regulation and VAR
  - AVG NET REVENUE INCREASE - ~$1.4M/yr – offsets Revenue Requirement

LAP Summary of Revenue Requirements

Firm Electric Service	Current Rates Effective January 1, 2017	Proposed Rates Effective January 1, 2018	Percent Change
LAP Rev Req	$74.6M	$64.1M	-14%
Fry-Ark Rev Req	$15.3M	$13.3M	-13%
PS-WD Rev Req	$59.3M	$50.8M	-14%

LAP Proposed Rates Summary

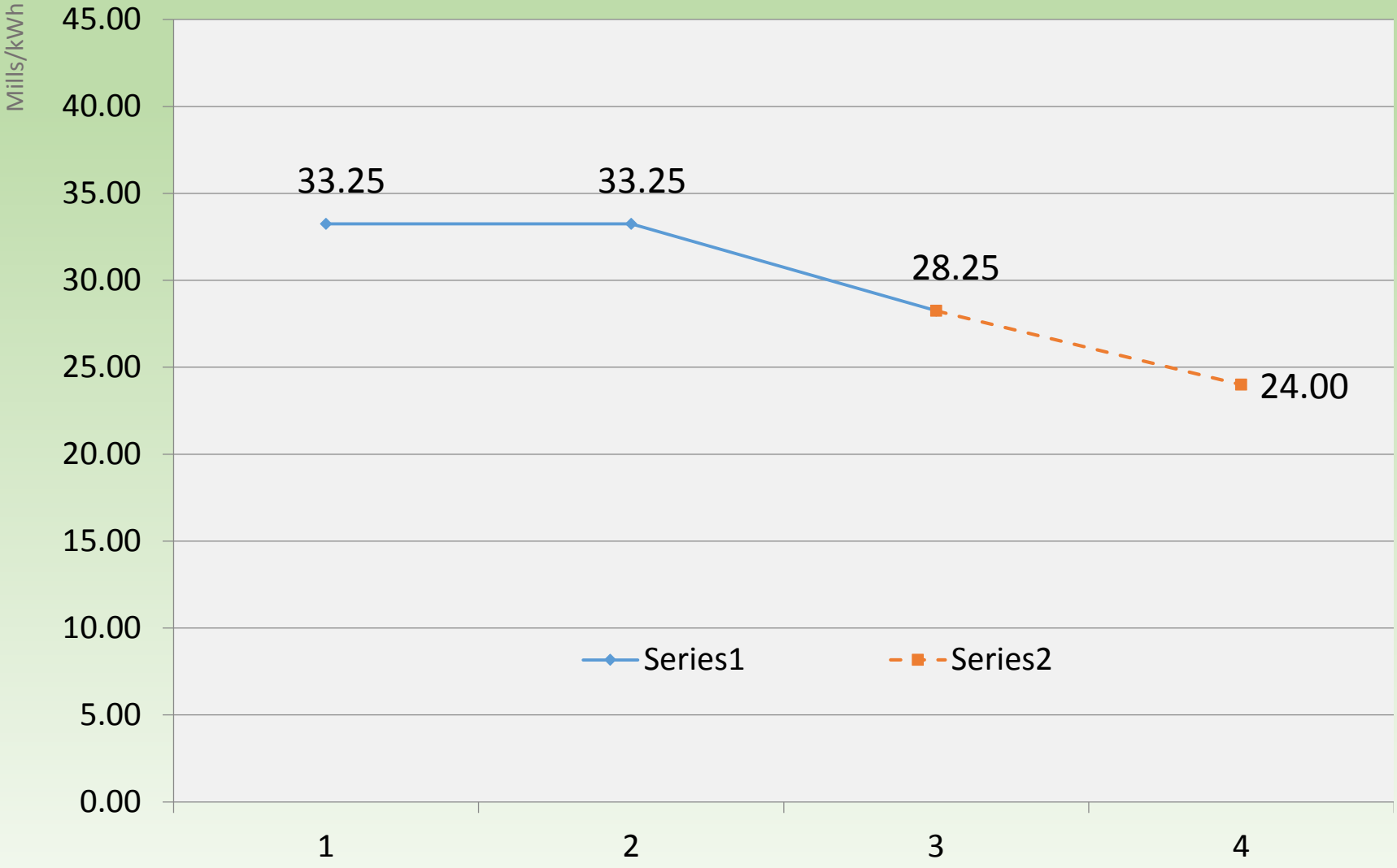
Firm Electric Service	Current Rates Effective January 1, 2017	Proposed Rates Effective January 1, 2018	Percent Change
LAP Rev Req	$74.6M	$64.1M	**-14%**
Composite Rate	36.56 mills/kWh	31.44 mills/kWh	**-14%**
Firm Energy	18.28 mills/kWh	15.72 mills/kWh	**-14%**
Firm Capacity	$4.79/kW-mo	$4.12/kW-mo	**-14%**

LAP
Proposed Charge Components

	$64.9 Million Revenue Requirement (Fry-Ark $14.1 M & P-S WD $50.8 M)		
	Base	Drought Adder	Total Charges
Firm Capacity	$4.12/kW-mo	$0.00/kW-mo	$4.12/kW-mo
Firm Energy	15.72 mills/kWh	0.00 mills/kWh	15.72 mills/kWh

P-SMBP--ED Rate Proposal

P-SMBP—ED Composite Rate



P-SMBP--ED Revenue Components

Firm Power Service	Current P-SMBP—ED Composite Rate 28.25 Mills/KWh	Proposed P-SMBP—ED Composite Rate 24.00 Mills/KWh	Change
Firm Power	$247.0 Million	$209.8 Million	-15%
Firm Peaking Power	$25.0 Million	$20.3 Million	-19%
5 % Voltage Discount	$10.7 Million	~~$7.3 Million~~ Propose to Remove	-100%
Total Firm Revenue Req.	**$ 282.7 Million**	**$ 230.1 Million**	**-19%**

P-SMBP—ED Proposed Rates Summary

Firm Power Service	Current Rates Effective January 1, 2017	Proposed Rates Effective January 1, 2018	% Change
P-SMBP-ED Revenue Requirement	$282.7 million	$230.1 million*	-19%
P-SMBP-ED Composite Rate	28.25 mills/kWh	24.00 mills/kWh	-15%
Firm Capacity	$6.50 kW-month	$5.25 kW-month	-19%
Firm Energy	16.18 mills/kWh	13.27 mills/kWh	-18%
Firm Peaking Capacity	$5.85 kW-month	$4.75 kW-month	-19%
Firm Peaking Energy [1/]	16.18 mills/kWh	13.27 mills/kWh	-18%

[1/] Firm peaking energy is normally returned. This will be assessed in the event firm peaking energy is not returned.
* Without the Voltage Discount

P-SMBP--ED
Proposed Charge Components*

	$230.1 Million Revenue Requirement		
	Base	Drought	Totals
Firm Capacity	$5.25/kW-mo	$0.00/kW-mo	$5.25/kW-mo
Firm Energy	13.27 mills/kWh	0.00 mills/kWh	13.27 mills/kWh
Firm Peaking Demand 1/	$4.75/kW-mo	$0.00/kW-mo	$4.75/kW-mo

1/ Firm Peaking Energy is normally returned. In the event Firm Peaking Energy is not returned, the Firm Energy Rate will apply.

* Without Voltage Discount

5% Voltage Discount Discussion

What is the 5% Voltage Discount?

- Historically, the 5% voltage discount was allowed for customers taking deliveries at transmission voltage who provided facilities that resulted in cost savings to the government

- This proposal will eliminate the 5% voltage discount offset that is added to the annual revenue requirement for dollars lost due to providing the voltage discount

P-SMBP—ED 5% Voltage Discount and Rate Design

Revenue Requirement	2018 Past Rate Design
Firm Power	$209.8 M
Peaking Firm Power	20.3 M
5% Voltage Discount	7.3 M
Gross Rev Requirement	**$237.4 M**
Firm Power Composite Rate	$209.8 M/8742 GWh = 24.00 M/kWh
Effective Composite Rate	($209.8 M+$7.3 M)/8742 = 24.83 m/kWh

P-SMBP—ED 5% Voltage Discount and Proposed 2018 Revenue Requirements

Revenue Requirement	2018 Past Rate Design	2018 Rate Design with No 5% Voltage Discount
Firm Power	$209.8 M	$209.8 M
Peaking Firm Power	20.3 M	20.3 M
5% Voltage Discount	7.3 M	0 M
Gross Rev Requirement	**$237.4 M**	**$230.1 M**
	$209.8 M/8742 GWh = 24.00 M/kWh	
Effective Composite Rate	($209.8 M+$7.3 M)/8742 = 24.83 m/kWh	$209.8 M/8742 GWh = 24.00 m/kWh

5 % Voltage Discount Comparison 2017 rates to 2018 proposed rates

	Sample Bill 2017 Rates with 5% Discount		Sample Bill 2018 Rates No 5% Voltage Discount	
Base Demand	341 Kw x $4.90 kW=	$1,670.90	341Kw x $5.25 kW=	$1,790.25
Drought Demand	341 Kw x $1.60 kW=	$545.60	341 Kw x $0 kW=	$0
	$6.50kW	$2,216.50		$1,790.25
Base Energy	130,000 kWh x 12.33 m/kWh=	$1,602.90	130,000 kWh x 13.27 m/kWh=	$1,725.10
Drought Energy	130,000 kWh x 3.85 m/kWh =	$500.50	130,000 kWh x 0 m/kWh =	$0
	16.18 m/kWh	$4,319.90		$3,515.35
Demand & Energy Total		$4,319.90		$3,515.35
Less 5% Voltage Discount		($216.00)	No Voltage Discount	0
Total Charge		**$4,103.91**		**$3,515.35**

5 % Voltage Discount Comparison 2017 rates to 2018 with Voltage Discount

	Sample Bill 2017 Rates with 5% Discount		Sample Bill 2018 Rates with 5% Voltage Discount	
Base Demand	341 Kw x $4.90 kW=	$1,670.90	341 Kw x $5.50 kW=	$1,875.50
Drought Demand	341 Kw x $1.60 kW=	$545.60	341 Kw x $0 kW=	$0
	$6.50kW	$2,216.50		$1,875.50
Base Energy	130,000 kWh x 12.33 m/kWh=	$1,602.90	130,000 kWh x 13.60 m/kWh=	$1,768.00
Drought Energy	130,000 kWh x 3.85 m/kWh =	$500.50	130,000 kWh x 0 m/kWh =	$0
	16.18 m/kWh	$4,319.90		$3,643.50
Demand & Energy Total		$4,319.90		$3,643.50
Less 5% Voltage Discount		($216.00)		($182.18)
Total Charge		**$4,103.91**		**$3,461.32**

WAPA-UGP Is Proposing to Discontinue the 5% Voltage Discount

- Consistent application of the discount is difficult
  - New customers
  - Determination of “sufficient savings” to justify discount
  - Staff time
- Existing PODs can sufficiently deliver our firm power & energy
  - 5% Voltage Discount must be evaluated for application at new PODs.
- For many customers, WAPA-UGP provides a small portion of the total power supply
  - The 5% discount impedes ability to simplify power billing for customers having multiple PODs.
- Requires complex power billing software
  - Discontinuing the 5% Voltage Discount would provide savings in future software.
  - No other WAPA project has a Voltage Discount.

Sale of Surplus Products Rate Schedules

PS-ED Adding a Sale of Surplus Products Rate Schedule

- This is not a new business practice
  - Documenting the authority for short-term sales
- Rate schedule applies to marketing and is applicable to the sale of surplus products
  - Short-term energy only
- The surplus products are available after firm power and energy obligations are met.
- WAPA can make the product(s) available for sale providing entities enter into separate agreements with the marketing office which will specify the terms of the sale
- Term on the surplus energy product sale cannot exceed one year
- The charge for each product will be determined at the time of the sale based on market rates

LAP Sale of Surplus Products - L-M1

- Current LAP surplus energy & capacity products included:
  - Reserves
  - Regulation
  - Frequency Response
- Requirements
  - Separate agreement(s) with LAP Marketing
- Charge
  - Based on market rates (+) administrative costs
- Proposing the addition of “short-term e*nergy”* as a surplus product to existing Rate Schedule L-M1

Proposed Schedule

Public Process Schedule

- June – Publish 2 FRNs
  - FRN for P-SMBP—ED and an FRN for LAP
  - Begins 90 day comment period
- Public Information & Comment Forums
  - July 26, 2017 Denver, CO vicinity
  - July 27, 2017 Sioux Falls, SD
- Publish Final FRNs- Fall 2017
- New Rate Schedules in place
  - January 1, 2018

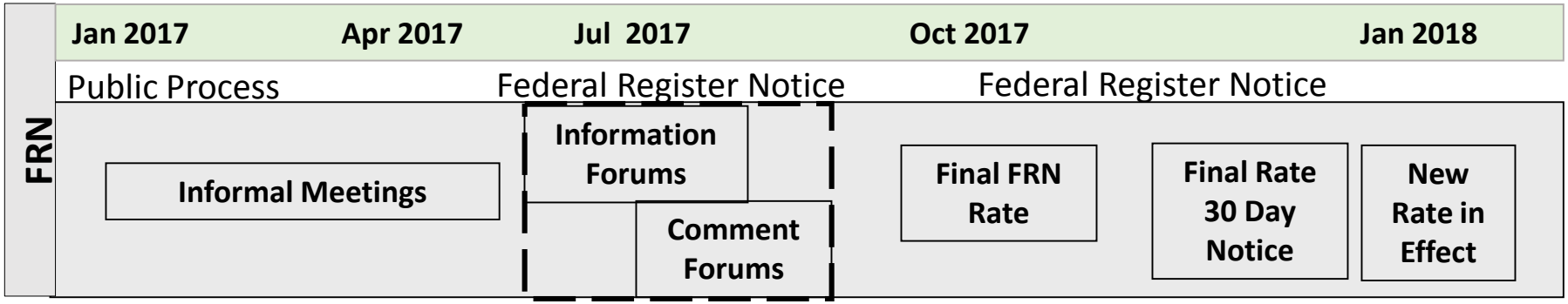
Drought Adder Schedule for 2017

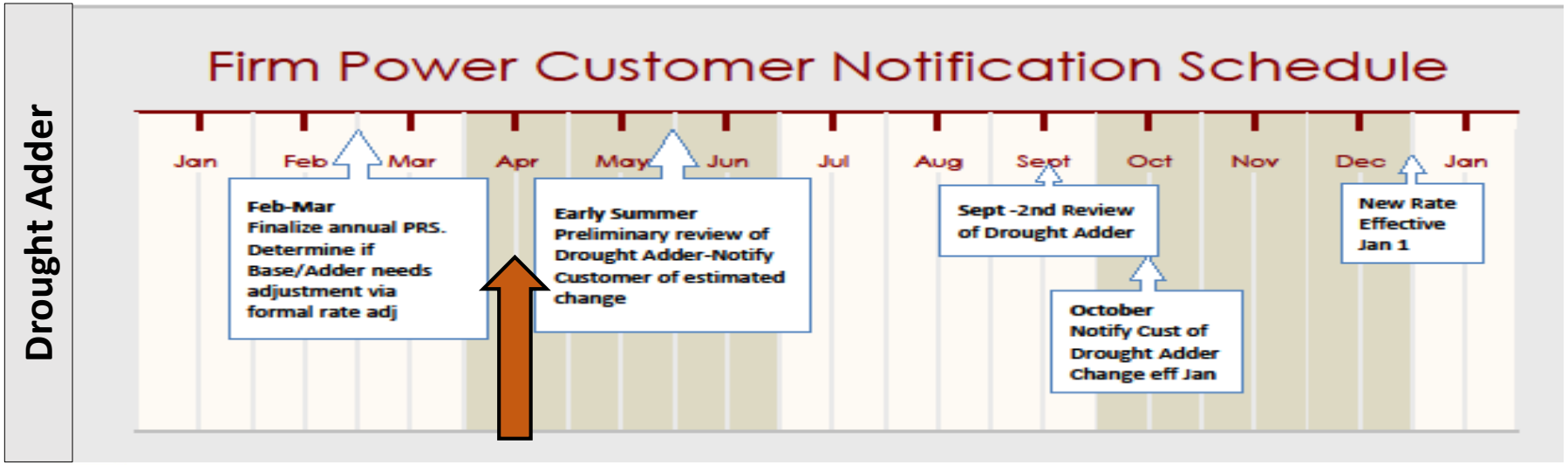
- Finalize annual Power Repayment Study (Feb-March)
    - Determine if Base rate and/or Drought Adder needs adjustment via formal rate adjustment
- Corp snowpack is final—new generation projections April 15th

We are here

- Perform preliminary review of Drought Adder early summer – notify customers of and estimated change to the rate
- Perform second review of Drought Adder in September
- Notify customers in October of Drought Adder change to be implemented January 2018

Draft Schedule for 2018 Rate Adjustment





More Information

P-SMBP--ED

Materials will be posted to Website:
https://www.wapa.gov/regions/UGP/rates/Pages/2018-firm-rate-adjustment.aspx

Contact:
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LAP

Materials will be posted to Website:
https://www.wapa.gov/regions/RM/rates/Pages/2018-Rate-Adjustment---Firm-Power.aspx

Contact:
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Questions