Welcome

Pick-Sloan Missouri River Basin Program--Eastern Division & Loveland Area Projects
Proposed 2018 Rate Adjustment Process

Please make yourself comfortable

• Public Information Forum will begin at 9:00 am
• Break – following the Public Information Forum
• Comment Forum 11:00 am – NLT 12:00 pm
Proposed 2018 Rate Adjustment Process

Public Information & Comment Forums

August 22, 2017 – Denver, Colorado
August 23, 2017 – Sioux Falls, South Dakota

Pick-Sloan Missouri River Basin Program--Eastern Division
Rate Order No. WAPA-180

&

Loveland Area Projects
Rate Order No. WAPA-179
Panel Introductions

Jody Sundsted
*Power Marketing Manager for UGP*

Dave Neumayer
*Power Marketing Manager for RMR*

Linda Cady-Hoffman
*UGP Rates Manager*

Sheila Cook
*RMR Rates Manager*

Judy Shimek
*UGP Rates Public Utilities Specialist*

Tamala Gheller
*RMR Rates Public Utilities Specialist*
Agenda

• Rate Process Schedule
• Charge Components
• PRS Information
  • Pick-Sloan
  • Fry-Ark
• Regional Rate Proposals
  • LAP Rate Proposal
  • Pick-Sloan—ED Rate Proposal
  • 5% Voltage Discount Discussion
  • Sale of Surplus Product Rate Schedules
• Break
• Comment Forum
Rate Process Schedule (P-SMBP--ED and LAP)

- Federal Register Announcements
  July 3, 2017

- Public Process (90 Days)

- Information & Comment Forums
  - August 22, 2017 Denver, CO
  - August 23, 2017 Sioux Falls, SD

- Close of Comment Periods
  October 2, 2017

- Proposed Implementation of New Rates
  January 1, 2018
Charge Components
## Rate Structures

<table>
<thead>
<tr>
<th>Power Repayment Study</th>
<th>Revenue Requirement</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pick-Sloan Missouri Basin Program PRS</td>
<td>Eastern Division Rev Req</td>
<td>Pick-Sloan Eastern Division Rates</td>
</tr>
<tr>
<td>Fryingpan-Arkansas PRS</td>
<td>Western Division Rev Req</td>
<td>LAP Rates</td>
</tr>
<tr>
<td></td>
<td>Fry-Ark Rev Req</td>
<td></td>
</tr>
</tbody>
</table>
Overview of Component Costs

**Drought Adder**
- Adjusted Annually

**Base**
- Adjusted only by Public Process

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

- **O&M**
  - Annual O&M
  - Investments - additions and replacements
  - Annual interest on investment
  - Inflation

- **Capital**
  - Normal purchases

- **Interest**
  - Transmission costs

Proposed 2018 Rate Adjustment Process
LAP Current Charge Components

Current

Revenue Requirement
$74.6 M
F-A $15.3 M & P-S WD $59.3 M

$13.6 M
F-A $0 M & P-S WD $13.6 M

$61.0 M
F-A $15.3 M & P-S WD $45.7 M

Proposed 2018 Rate Adjustment Process
# LAP Proposed Charge Components

<table>
<thead>
<tr>
<th>Current</th>
<th>Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue Requirement</strong></td>
<td><strong>Revenue Requirement</strong></td>
</tr>
<tr>
<td>$74.6 M</td>
<td>$64.1 M</td>
</tr>
<tr>
<td>F-A $15.3 M &amp; P-S WD $59.3 M</td>
<td>F-A $13.3 M &amp; P-S WD $50.8 M</td>
</tr>
</tbody>
</table>

## Drought Adder
- **Current**
  - $13.6 M
  - F-A $0 M & P-S WD $13.6 M

## Base
- **Current**
  - $61 M
  - F-A $15.3 M & P-S WD $45.7 M

- **Proposed**
  - $0 M
  - F-A $0 M & P-S WD $0 M

- **Proposed**
  - $64.1 M
  - F-A $13.3 M & P-S WD $50.8 M
Proposed 2018 Rate Adjustment Process

P-SMBP--ED Current Charge Components

Current

Revenue Requirement
$282.7 M

Drought Adder

$68.3 M

Base

$214.4 M
P-SMBP--ED Proposed Charge Components

Proposed 2018 Rate Adjustment Process

Current

Revenue Requirement $282.7 M
$68.3 M
$214.4 M

Proposed

Revenue Requirement $230.1 M
$0 M
$230.1 M
PRS Information
P-SMBP 2016 PRS

• 2016 deficit payment was $110 M
  • Paid off the 2017 unpaid deficit balance
  • Balance applied towards 2018 remaining deficit balance

• $113 M unpaid on the drought debt after 2016

• 2016 $54 M required payments
  • Mostly in 2.5% to repay USACE investments

• 2020 is the PRS pinch point

• Study solves with a composite rate of 24.29 mills/kwh
  • Drought debt projected to be paid off in 2018
P-SMBP 2016 Deficit Repayment

Total Accumulated Deficit $843 M

$113 M remaining unpaid

Proposed 2018 Rate Adjustment Process
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 and replacements
    • New O&M expense
    • Inflationary costs in the 5-yr window
PRS 5-yr Projection Window

2015 Rate Setting PRS

<table>
<thead>
<tr>
<th>Actuals</th>
<th>Cost Projection Period With Inflation</th>
<th>No Inflation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>2012</td>
<td>2013*</td>
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<tr>
<td>2014</td>
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<td>2020</td>
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<td>2022</td>
</tr>
<tr>
<td>2023</td>
<td></td>
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2018 Rate Setting PRS

<table>
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<th>Actuals</th>
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</tr>
<tr>
<td>2021</td>
<td>2022</td>
<td>2023</td>
</tr>
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</table>

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

Proposed 2018 Rate Adjustment Process
Fry-Ark FY 2016 PRS

- Uses FY18 Work Plans
  - Updated Mt. Elbert Rehabilitation Cost Projections
    - Study includes $22.7M

- Study solves with a Revenue Requirement of $13.3M
  - 13% lower than the approved $15.3M

- FY17 Coupon Rate used for future projections is 4.429%
- No outstanding deficits
- 2034 continues to be the pinch point in the PRS
Fry-Ark Revenue Requirement

Approved Rev Req

Proposed Rev Req

13% decrease

$15.3

$13.3
Regional Rate Proposals
LAP Rate Proposals
Why the Changes for P-SMBP--WD

• 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

<table>
<thead>
<tr>
<th>Firm Electric Service</th>
<th>Current Rates Effective January 1, 2017</th>
<th>Proposed Rates Effective January 1, 2018</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAP Rev Req</td>
<td>$74.6M</td>
<td>$64.1M</td>
<td>-14%</td>
</tr>
<tr>
<td>Fry-Ark Rev Req</td>
<td>$15.3M</td>
<td>$13.3M</td>
<td>-13%</td>
</tr>
<tr>
<td>PS-WD Rev Req</td>
<td>$59.3M</td>
<td>$50.8M</td>
<td>-14%</td>
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</table>
**LAP Proposed Rates Summary**

<table>
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<tr>
<th>Firm Electric Service</th>
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<td>LAP Rev Req</td>
<td>$74.6M</td>
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<td>-14%</td>
</tr>
<tr>
<td>Composite Rate</td>
<td>36.56 mills/kWh</td>
<td>31.44 mills/kWh</td>
<td>-14%</td>
</tr>
<tr>
<td>Firm Energy</td>
<td>18.28 mills/kWh</td>
<td>15.72 mills/kWh</td>
<td>-14%</td>
</tr>
<tr>
<td>Firm Capacity</td>
<td>$4.79/kW-mo</td>
<td>$4.12/kW-mo</td>
<td>-14%</td>
</tr>
</tbody>
</table>
$64.9 Million Revenue Requirement
(Fry-Ark $14.1 M & P-S WD $50.8 M)

<table>
<thead>
<tr>
<th></th>
<th>Base</th>
<th>Drought Adder</th>
<th>Total Charges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm Capacity</td>
<td>$4.12/kW-mo</td>
<td>$0.00/kW-mo</td>
<td>$4.12/kW-mo</td>
</tr>
<tr>
<td>Firm Energy</td>
<td>15.72 mills/kWh</td>
<td>0.00 mills/kWh</td>
<td>15.72 mills/kWh</td>
</tr>
</tbody>
</table>
P-SMBP--ED Rate Proposal
P-SMBP—ED Composite Rate

Mills/kWh

Approved Composite

Proposed Composite

FY 15
FY 16
FY 17
FY 18
# P-SMBP--ED Revenue Components

<table>
<thead>
<tr>
<th>Firm Power Service</th>
<th>Current P-SMBP--ED Composite Rate 28.25 Mills/KWh</th>
<th>Proposed P-SMBP--ED Composite Rate 24.00 Mills/KWh</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm Power</td>
<td>$247.0 Million</td>
<td>$209.8 Million</td>
<td></td>
</tr>
<tr>
<td>5 % Voltage Discount</td>
<td>$10.7 Million</td>
<td>$7.3 Million</td>
<td>Propose to Remove</td>
</tr>
<tr>
<td>Subtotal Firm Power</td>
<td>$257.7 Million</td>
<td>$209.8 Million</td>
<td>-19%</td>
</tr>
<tr>
<td>Firm Peaking Power</td>
<td>$25.0 Million</td>
<td>$20.3 Million</td>
<td>-19%</td>
</tr>
<tr>
<td>Total Firm Revenue Req.</td>
<td>$282.7 Million</td>
<td>$230.1 Million</td>
<td>-19%</td>
</tr>
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</table>
## P-SMBP—ED Proposed Rates Summary

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

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*

<table>
<thead>
<tr>
<th></th>
<th>Base</th>
<th>Drought</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm Capacity</td>
<td>$5.25/kW-mo</td>
<td>$0.00/kW-mo</td>
<td>$5.25/kW-mo</td>
</tr>
<tr>
<td>Firm Energy</td>
<td>13.27 mills/kWh</td>
<td>0.00 mills/kWh</td>
<td>13.27 mills/kWh</td>
</tr>
<tr>
<td>Firm Peaking Demand</td>
<td>$4.75/kW-mo</td>
<td>$0.00/kW-mo</td>
<td>$4.75/kW-mo</td>
</tr>
</tbody>
</table>

*$\,^1/\,^1/ \,^1/\,$ 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

<table>
<thead>
<tr>
<th>Revenue Requirement</th>
<th>2018 Past Rate Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm Power</td>
<td>$209.8 M</td>
</tr>
<tr>
<td>Firm Peaking Power</td>
<td>20.3 M</td>
</tr>
<tr>
<td>5% Voltage Discount</td>
<td>7.3 M</td>
</tr>
<tr>
<td><strong>Gross Rev Requirement</strong></td>
<td><strong>$237.4 M</strong></td>
</tr>
</tbody>
</table>

Firm Power Composite Rate  
\[ \frac{209.8 \text{ M}}{8742 \text{ GWh}} = 24.00 \text{ M/kWh} \]

Effective Composite Rate  
\[ \frac{(209.8 \text{ M}+7.3 \text{ M})}{8742} = 24.83 \text{ M/kWh} \]
### P-SMBP—ED 5% Voltage Discount and Proposed 2018 Revenue Requirements

<table>
<thead>
<tr>
<th>Revenue Requirement</th>
<th>2018 Past Rate Design</th>
<th>2018 Rate Design with No 5% Voltage Discount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm Power</td>
<td>$209.8 M</td>
<td>$209.8 M</td>
</tr>
<tr>
<td>Peaking Firm Power</td>
<td>20.3 M</td>
<td>20.3 M</td>
</tr>
<tr>
<td>5% Voltage Discount</td>
<td>7.3 M</td>
<td>0 M</td>
</tr>
<tr>
<td><strong>Gross Rev Requirement</strong></td>
<td><strong>$237.4 M</strong></td>
<td><strong>$230.1 M</strong></td>
</tr>
</tbody>
</table>

- Effective Composite Rate: 
  - $209.8 M / 8742 GWh = 24.00 M/kWh
  - ($209.8 M + $7.3 M) / 8742 = 24.83 M/kWh
  - $209.8 M / 8742 GWh = 24.00 m/kWh
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 projects have a Voltage Discount.
Sale of Surplus Product Rate Schedules
This is not a new business practice. It documents the authority to sale surplus energy and capacity products.

The schedule includes reserves, regulation, frequency response, and energy.

If WAPA UGP surplus products are available, the charge will be determined based on market rates, plus administrative costs.

The customer will be responsible for acquiring the transmission service necessary to deliver the products for which a separate charge may be incurred.
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 to add “energy” as a surplus product to existing Rate Schedule L-M1
More Information

**P-SMBP--ED**

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

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E-mail: cady@wapa.gov

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**LAP**

Materials will be posted to Website:

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Rocky Mountain Region  
5555 East Crossroads Blvd  
Loveland, CO 80538-8986
Pick-Sloan Missouri River Basin Program--Eastern Division
&
Loveland Area Projects
Proposed 2018 Rate Adjustments

Please take a break
Comment Forum
to begin at 11:00 am
Comment Forum Panel

Jody Sundsted
Power Marketing Manager for UGP

Dave Neumayer
Power Marketing Manager for RMR

Linda Cady-Hoffman
UGP Rates Manager

Sheila Cook
RMR Rates Manager

Judy Shimek
UGP Rates Public Utilities Specialist

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# Comment Forum

## Proposed 2018 Rate Adjustment Process

Please provide comments, via e-mail or letter form, No Later Than October 2, 2017

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<th>P-SMBP--ED</th>
<th>LAP</th>
</tr>
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</table>
| **Attention:**  
Sonja Anderson, Acting UGP Regional Manager  
E-mail: [UGPFirmRate@wapa.gov](mailto:UGPFirmRate@wapa.gov) | **Attention:**  
Michael D. McElhany, RMR Regional Manager  
E-mail: [lapfirmadj@wapa.gov](mailto:lapfirmadj@wapa.gov) |
| **Mailing Address:**  
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