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
  - 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
  - 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

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

Proposed

Revenue Requirement
$64.1 M
F-A $13.3 M & P-S WD $50.8 M

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

$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

Subject, Office or event
Proposed 2018 Rate Adjustment Process
P-SMBP--ED Proposed Charge Components

- **Current**
  - Revenue Requirement $282.7 M
  - $68.3 M
  - $214.4 M

- **Proposed**
  - Revenue Requirement $230.1 M
  - $0 M
  - $230.1 M

**Proposed 2018 Rate Adjustment Process**
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>
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<tbody>
<tr>
<td>2011</td>
<td>2012</td>
<td>2019</td>
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<td></td>
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2018 Rate Setting PRS

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<tr>
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<td>2020</td>
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</tr>
<tr>
<td></td>
<td>2021</td>
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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

The chart illustrates the approved and proposed revenue requirements from 2015 to 2018. The approved revenue requirements are indicated by a solid blue line, starting at $15.3 million in 2015 and remaining constant through 2017. The proposed revenue requirements, indicated by a dashed brown line, show a 13% decrease from $15.3 million in 2015 to $13.3 million in 2018.

The proposed 2018 rate adjustment process is highlighted with a green banner at the bottom of the page.
Regional Rate Proposals
LAP Rate Proposals
LAP Composite Rate

- Approved LAP Rates
- Proposed Composite Rate

Mills/kWh

2015  2016  2017  2018

41.42  36.56  31.44
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

### 2015 Rate Setting PRS

<table>
<thead>
<tr>
<th>Actuals</th>
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<th>No Inflation</th>
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### 2018 Rate Setting PRS

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<th>Cost Projection Period With Inflation</th>
<th>No Inflation</th>
</tr>
</thead>
</table>
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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</tbody>
</table>
LAP Proposed Rates Summary

<table>
<thead>
<tr>
<th>Firm Electric Service</th>
<th>Current Rates Effective January 1, 2017</th>
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<tbody>
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<td>LAP Rev Req</td>
<td>$74.6M</td>
<td>$64.1M</td>
<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>
LAP
Proposed Charge Components

<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>

$64.9 Million Revenue Requirement
(Fry-Ark $14.1 M & P-S WD $50.8 M)
P-SMBP--ED Rate Proposal
P-SMBP—ED Composite Rate

Mills/kWh

Approved Composite

Proposed Composite
<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>
</tbody>
</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><strong>Firm Capacity</strong></td>
<td>$5.25/kW-mo</td>
<td>$0.00/kW-mo</td>
<td>$5.25/kW-mo</td>
</tr>
<tr>
<td><strong>Firm Energy</strong></td>
<td>13.27 mills/kWh</td>
<td>0.00 mills/kWh</td>
<td>13.27 mills/kWh</td>
</tr>
<tr>
<td><strong>Firm Peaking Demand</strong></td>
<td>$4.75/kW-mo</td>
<td>$0.00/kW-mo</td>
<td>$4.75/kW-mo</td>
</tr>
</tbody>
</table>

* Without Voltage Discount

---

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

<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>
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\[
\text{Effective Composite Rate} = \frac{\$209.8 \text{ M} + \$7.3 \text{ M}}{8742 \text{ GWh}} = 24.83 \text{ m/kWh}
\]

\[
\text{Effective Composite Rate} = \frac{\$209.8 \text{ M}}{8742 \text{ GWh}} = 24.00 \text{ m/kWh}
\]
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
P-SMBP--ED Proposing a New Formula-Based Rate Schedule, P-SED-M1

• 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](https://www.wapa.gov/regions/UGP/rates/Pages/2018-firm-rate-adjustment.aspx)

Contact:
- Linda Cady-Hoffman
- Phone: 406-255-2920
- E-mail: [cady@wapa.gov](mailto:cady@wapa.gov)

Address:
- Western Area Power Administration
- Upper Great Plains Region
- 2900 4th Avenue North, 6th Fl
- Billings, MT 59101-1266

**LAP**

Materials will be posted to Website:

Contact:
- Sheila Cook
- Phone: 970-461-7211
- E-mail: [scook@wapa.gov](mailto:scook@wapa.gov)

Address:
- Western Area Power Administration
- 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*

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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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<thead>
<tr>
<th>P-SMBP--ED</th>
<th>LAP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Attention:</strong></td>
<td><strong>Attention:</strong></td>
</tr>
<tr>
<td>Sonja Anderson, Acting UGP Regional Manager</td>
<td>Michael D. McElhany, RMR Regional Manager</td>
</tr>
<tr>
<td>E-mail: <a href="mailto:UGPFirmRate@wapa.gov">UGPFirmRate@wapa.gov</a></td>
<td>E-mail: <a href="mailto:lapfirmedj@wapa.gov">lapfirmedj@wapa.gov</a></td>
</tr>
<tr>
<td><strong>Mailing Address:</strong></td>
<td><strong>Mailing Address:</strong></td>
</tr>
<tr>
<td>Western Area Power Administration</td>
<td>Western Area Power Administration</td>
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<tr>
<td>Upper Great Plains Region</td>
<td>Rocky Mountain Region</td>
</tr>
<tr>
<td>2900 4th Avenue North, 6th Floor</td>
<td>5555 East Crossroads Blvd</td>
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