

**May 10, 2018**

The City Council of the City of Idaho Falls met in Special Meeting (Idaho Falls Power Board), Thursday, May 10, 2018, at Idaho Falls Power Conference Room, 140 S. Capital, Idaho Falls, Idaho at 7:00 a.m.

**Call to Order, Roll Call, and Announcements:**

There were present:

Mayor Rebecca L. Noah Casper  
Councilmember Thomas Hally  
Councilmember Jim Francis  
Councilmember John Radford  
Councilmember Shelly Smede  
Councilmember Jim Freeman

Absent:

Councilmember Michelle Ziel-Dingman

Also present:

Bear Prairie, Idaho Falls Power Assistant Manager  
Michael Kirkham, Assistant City Attorney  
Kathy Hampton, City Clerk

Mayor Casper called the meeting to order at 7:00 a.m.

**FY2018 Q2 Report:**

Mr. Prairie reviewed Q2 report stating overall revenue = \$16,750,012 and expenses = \$13,000,771. He stated retail sales are weather dependent but should remain fairly steady. Overall, the Cash Balance has increased. Brief discussion followed regarding the decreased Operating Cash balance as well as combining the Operating Cash and Electric Light Fund categories. Mr. Prairie indicated purchased power expenses are the majority of the budget.

**Power Supply Forecast:**

Mr. Prairie stated Year Over Year (YOY) was 15% lower than the previous year = \$854,933. Cumulative = \$1,515,044 lower than prior FY through Q2. Utah Associated Municipal Power Systems (UAMPS) expense reduction = \$850,000, this is due to the addition of in-house staff. The bulk of transmission is due to transmission on the bulbs. UAMPS = \$299,578 – this should be resolved and will no longer be charged hopefully starting in May.

Mr. Prairie stated Q2 power supply revenue YOY was up \$477,016. The average Mega Watt per hour (MWh) sales price Q2 = \$18.56, compared to Q2 17 = \$17.04. Average Net Cost per MWh = \$28.26, compared to \$31.35 in 2017. Mr. Prairie stated Q2 is 36.76% of total budget expended and Q2 Net Cost of wholesale power is 45% of Cost of Service (COS) projection. He also stated generation for Q2 continued to be much higher than average as well as higher YOY.

Mr. Prairie reviewed the following with general discussion throughout:

Cost of Service (COS) vs Actual Retail Sales and Customers graph –

- Total customer for March = 28,094
- COS Projected customers for March = 27,971
- COS Projected sales for March = \$4,347,715
- Actual Retail Sales for March = \$4,285,491

Mr. Prairie stated retail loads and peaks were all substantially lower YOY, customer growth continues to be strong.

Heavy Load (HL) and Light Load (LL) Hour Position graphs –

- July and August show more length on HL due to BPA purchase of 15 MW
- HL prices have stayed stable (since Q1)

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- LL was typical in having a lot of length even though selling steadily through the winter as the snow piled up. LL prices were pretty steady (price for June is at \$1.75, good water year). Natural Gas price curve has stayed backwardated for the previous two (2) years.

Forecast Net Power Supply (PS) Costs graph –

Mr. Prairie stated this is fairly stable from the previous report. Updated PS costs, to reflect new large loads that could come online over the next year, have not been updated into the forecasts due to timing uncertainty still.

Percent of Median Snowpack and Monthly Participation charts –

Mr. Prairie stated Eastern Idaho remains in the upper 120% of snowpack.

Water Report –

Dalles, April - September average water = 120%. Flows are currently hovering at 400,000. Trying to keep flows below 440,000. The projected costs for the court ordered spill have been lower than projected due to high river flows with the good water year.

Upper Snake River, April - September average water = 122%. High reservoir levels continue.

Weather Outlook Graphs –

Mr. Prairie stated the recent weather change, below average and wet to warmer than average with high temperatures in the upper elevations, blew out flows. The three-month outlook is projecting a drier summer in the northwest.

### Idaho Falls Power Supply and Scheduling Overview:

Mr. Prairie reviewed the following with general discussion throughout:

Idaho Falls Power (IFP) Resources:

- Hydro
  - Gem State - 61% IFP, 39% PacifiCorp (PAC) (June - August PAC gets output)
  - Bulb Turbines
- Horse Butte Wind (HBW)
- Bonneville Power Administration (BPA) Slice under new RD contract
  - ~.5% of BPA's total system
- BPA Block
- UAMPS
  - Performs IFP's wholesale power scheduling
  - Resource Pools (Un-planned pool, HBW, Carbon Free Power Project (CFPP))
- Open Market Transactions
  - Other utilities and energy marketing companies
  - Importance of good credit (taxpayers vs rate payers)

What does UAMPS do for IFP?

- Resource Pooling
- Real Time and some Day Ahead Trading
- Aggregate loads in Balance Authority
- Hourly Load Balancing
- Legacy Network Transmission

Mr. Prairie stated additional resources can be added or subtracted.

How is Power Traded?

- Different time frames – term (one (1) month out and longer), balance of month (inside the current month), day-ahead (next days power), and real-time (next hours power (and soon intra-hour))
- Volumes – MWh's in typically 25 MW lots
- Points of delivery and trading hubs (major substations or generation plants)
- Physical vs Financial vs Options contracts

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- Transmission and movement of the power (Open Access Same Time Information System (OASIS) and types of rights – firm and non-firm; Electronic-tag requirements)

### BPA Overview:

- History of BPA
  - Created in 1937 to market Bonneville and Coulees' power output along with build and operate transmission
  - Electrify the rural west, flood control, and power generation
  - Today they market power from 31 dams, 1 nuclear, and various wind resources
  - U.S. Army Corps of Engineers and Bureau of Reclamation control the river system (and they own the dams), BPA manages the power output
- Preference Rights
- \$2.4B power budget - Tier 1 (covers 90-95% of operating costs for dams, paid by public power)
- \$3.3B total budget (difference of power budget and total budget is the annual operating costs of the system)

### Slice:

- Three (3) BPA Power Sales Contracts – Load Following, Block, and Slice
- Our “slice” of federal system – ~.5% of BPA's power production
- Slice Cost and Generation – 2017 = \$21,345,903, 716,250 MWh of generation, and 719,076 MWh of total IFP load = surplus/deficit

Mr. Prairie reviewed the Qualitative Metrics of Load Following vs Slice/Block – IFP participates in Slice Contract. He also reviewed Hydro Variability – Water Year Runoff (Oct-Sept) at The Dalles 1929-2010; the Columbia Basin – Major Hydro Projects; and, Dispatchable Projects - MW capacity (Coulee/Chief Joseph Complex, Lower Snake River Complex, and, Lower Columbia Complex) graphs.

### How does IFP dispatch Slice:

- Slice Water Routing Simulator (SWRS) - a complex video game
- The Energy Authority (TEA) - optimizer software helps a lot
- Staff intensive product

Slice Energy – total Slice energy comes from: SWRS (modeled at full system scale); Balance of Systems (BOS) flexibility (shaped per participant request and within limits established by BPA); and, BOS complex (shaped per planned BPA operation).

Mr. Prairie reviewed the Single Project Hydraulics Process and the Moderated Data Feed (MDF). He stated BPA uses the MDF to monitor constraints for each project but some constraints do not apply to every project for each hour, some constraints change rarely if ever, and, some constraints may not apply every hour. He also reviewed the Sequenced Constraint Application; the Slice water-routing model, and, the 10-day modeling period (customers plan water usage and energy delivery for 10 days).

### Portfolio and Risk Management:

- Hydro – good water years = low wholesale prices, bad water years = high wholesale prices
- How to manage uncertainty – ‘ESP’ snow forecasts - % of average; wholesale market prices; volatility and hedges; rate stabilization fund; power cost adjustment (PCA); and, ‘what if’ risk analysis

### Risk Oversight and Power Board:

- Quarterly reports
  - Looking back at financial performance
  - Two (2) years looking ahead – by month
  - Five (5) years of net power supply costs
  - Annual ‘deep dives’ and long-range planning

### IFP Statistics:

- Over 50% of budget is wholesale power
- BPA power – ~\$23M

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- BPA Transmission – ~\$3M
- 2017 – Retail load - 719,049 MWh, Total Resources - 997,267 MWh, Wholesale sales - 318,075 MWh, Wholesale sales - \$6,825,595

Mr. Prairie reviewed 2016 Peak vs Average MWh Load Forecast; Peak vs Average MWh Load Forecasts Through Time; On Peak Hours – MWh Surplus/Deficit; and, Off Peak Hours – MWh Surplus/Deficit graphs.

Eastern Idaho Grid and Transmission Services to Idaho Falls Overview:

Mr. Prairie stated IFP has transmission contracts with BPA and UAMPS. IFP is the only utility with two (2) contracts for network transmission. BPA bills IFP on peak load for the month for transmission costs. UAMPS is paid what we use for UAMPS energy imports in the month. Mr. Prairie reviewed the historic General Transfer Agreement (GTA) between PacifiCorp (PAC) and BPA, stating PAC terminated in 2016. Transmission also includes Energy Imbalance Market (EIM) with Open Access Transmission Tariff (OATT) service (uplift charges and settlements with BPA). Mr. Prairie reviewed PacifiCorp East map. He stated the balance authority is responsible for grid and reliability within their individual areas. He also reviewed the Goshen Area Map and Goshen Area Load and Transmission. He stated the bulk of the transmission system dumps into Goshen. Brief discussion followed regarding the original design, reliability, and concerns of Goshen.

EIM – an extension of CAISO as an economic dispatch model. The EIM performs least cost of dispatch up and down. Mr. Prairie reviewed the Western Interconnection Balancing Authorities (BA) map, a total of 38. Discussion has occurred regarding RTO. Mr. Prairie reviewed the EIM Footprint map, stating the footprint is continuing to grow although system upgrades would be required prior to BPA joining. He reviewed the EIM timeline, indicating charges could apply between the base schedules. Prior to each market run the EIM will automatically assess the entire footprint and determine the most effective dispatch.

Cost of Service Model and Rate Setting Overview:

Mr. Prairie reviewed overview Cost of Service Analysis (COSA) and process with general discussion throughout:

- Develop revenue requirements – budgeted costs vs revenue requirements, uses “cash basis”
- COSA – budgeted costs vs revenue requirements, splits costs out among the various rate classes
- Rate design – should be cost based; should be “just, reasonable and not unduly discriminatory or preferential” and “fair and equitable”; should be easy to understand and administer; should conform to generally accepted rate setting techniques; and, should provide revenue stability to the utility and rate stability to the consumer

Mr. Prairie reviewing the revenue requirement, stating the required revenue from retail sales is needed to balance the cash flow.

- Process:
  - Functionalization – Revenue Requirement: production, transmission, distribution, customer services, shared services
  - Classification – demand, energy, customer
  - Allocation – residential, commercial, industrial,

Discussion followed regarding fixed charges, kilowatt hour rate, net metering, and solar power. Mr. Prairie stated the Advanced Metering Infrastructure (AMI) have increased efficiency.

Mr. Prairie reviewed Allocation by Classification graph including residential, commercial, small industrial, and large industrial. He indicated the commercial rate and residential rates are being adjusted accordingly and the small and large industrial rate will be merged into one classification. He noted that differences between rate classes from what the model shows vs what actual revenue recovery is normal to be in a range of plus or minus 8% but good rate methods should work to keep it lower than 5% typically. Following brief comments, there was consensus of the Council to continue with the slow and steady adjustments. Mr. Prairie stated the allocation by classification graph has been designed for the next five (5) years and rates will continue to adjust.

Mr. Prairie reviewed Use of Funds and Estimates graph. 2018 Use of Funds = \$8,236,387, 2018 Fund Balance = \$32,944,731, and, Days Cash on Hand = 228.

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Power Supply Costs:

- High volatility with hydro conditions
  - \$2-\$5M swings year to year potentially, currently at all time low due to historically low wholesale prices. Can change quickly though with tightening market supply of generation.
- Power Cost Adjustment
  - Generation for load = expected water basis
  - Surplus sales revenue = conservative basis

Mr. Prairie stated PCA was returned to customers in 2017. He does not believe there will be substantial changes in this years rates.

Mayor Casper stated a workshop will be held on June 27 with industrial leaders regarding bus fleet, truck fleets, the Idaho National Laboratory (INL), and other transportation entities regarding Clean Cities and the electric vehicle movement.

There being no further business, the meeting adjourned at 10:30 a.m.

s/ Kathy Hampton \_\_\_\_\_  
CITY CLERK

s/ Rebecca L. Noah Casper \_\_\_\_\_  
MAYOR