

Questions on these minutes should be referred to your G&T.

*Manager's Advisory Committee Meeting  
October 21, 2015*

**SUMMARY**

**MAC Present**

Tom Boyko - East River Electric  
Brad Schardin - Southeastern Electric  
Curt Dieren - L&O  
Rick Burud - Federated REA  
Don Franklund - Slope/KEM/Roughrider  
Tom Meland - Central Power  
Wayne Martian - North Central Electric  
Kent Pauling - NIPCO  
John Euchner - Nishnabotna Valley  
Randy Hoffman - East River  
Tim Lindahl - Wheat Belt Public Power District  
Doug Hardy - Central Montana  
Brandon Wittman - Yellowstone Valley  
Vic Simmons - Rushmore  
Wayne Sterkel - Lacreek Electric  
Claire Vigesaa - Upper Missouri  
John Gors - Clay-Union Electric  
Chris Baumgartner - KEM  
Bruce Kraemer - Crow Wing  
Mike Easley - PRECorp  
Ken Kuyper - Corn Belt  
Craig Codner - Butler County Rural Electric  
Jeff Bear - WIPCO  
Rick Olesen - Iowa Lake Electric  
Bill McKim - Midland Power  
Mike Chase - Black Hills

**Others Present**

Tim McCarthy - Sioux Valley Energy  
Michael Hoy - McCone Electric  
Lyle Korver - North West REC  
Lars Nygren - Capital Electric  
Bruce Carlson - Verendrye Electric  
Russell Gall - Charles Mix Electric  
Fran Buckel - FREC  
Dave Eide - Codington - Clark Electric  
Kory Johnson - Agralite  
Kevin Mikkelsen - Rosebud Electric  
Bob Sahr - East River  
Pat Engebretson - East River  
Roys Loomans - Lyon REC  
Chris Studer - East River  
Kent Amundson - Woodbury County REC  
Ryan Hentges - Minnesota Valley - Jorder  
Matt Hotzler - H-D Electric  
Brian Jeremiason - Lyon-Lincoln Electric  
Jim Bagley - RVEC  
Dave Page - Whetstone Valley  
Greg Hollister - East River  
Becky Bradburn - PECO  
Jeff Ten Napel - OEC  
Dick Johnson - West River  
Vicki Daily - Grundy Co REC

**Basin Electric**

Paul Sukut  
Dave Raatz  
Mike Risan  
Ken Rutter  
Mike Eggl  
Becky Kern

John Jacobs  
Steve Johnson  
Andy Buntrock  
Matt Greek  
Lisa Carney

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### General Manager's Report

Paul Sukut, General Manager and CEO, addressed the group.

### Member Manager Reports

#### Corn Belt

Ken Kuyper reported the corn load is light. Transmission facilities listing & ATRR has been through the first FERC hearings, working on trying to preserve some of a rate of return.

#### PRECorp

Mike Easley reported they are working on securing financial assurance through customers. Deal with ALPHA resource is in Bankruptcy right now. They are seeking a security deposit through the bankruptcy court. Working with Public Service Dept. to get a security deposit in hand. Recommends everyone take a look at their revenues. Loads are down.

#### Crow Wing

Bruce Kraemer reported the low voltage lawsuit against concluded with the jury awarding more than the initial petition.

#### Mor-Gran-Sou

Chris Baumgartner reported things are steady and loads are light.

#### Burke-Divide

Jerry King reported continues to see growth on the oil. There is some concerns with the possibility of those getting into financial trouble.

#### Upper Missouri

Sales are still growing, 20% more than last year. We continue to see growth. Upper Missouri has chosen to take over metering instead of WAPA. In regards to NERC, they hope to register by the end of the year.

#### Rushmore

Vic Simmons reported they are pretty slow and added 10 mw out of 200.

#### Central Montana

Doug Hardy reported it was low all year round-just maintaining load.

#### NIPCO

Kent Pauling reported same load; meeting with FERC on October 23. They are having some frequency discussions with ITC, hoping to start one this fall but looks more like the second quarter of next year. Wind farm is working with Clean Power Plan, and their legislative representative from NIPCO (Chuck Soderberg) has moved to the Iowa Statewide.

#### Central Power

Tom Meland reported they are fully engaged with SPP process and hope to have it finished by Monday. They passed 2016 schedules and rates. Heavily involved with Basin and resolving Otter Tail Power issues.

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### Federated Rural Electric

Rick Burud reported Alliant customers in MN transfer to Southern Minnesota Energy Coop has taken place.

### L&O Power

Curt Dieren reported loads are down right now. Working on evaluation of SPP, hope to have some findings by the end of the year.

### Southeastern Electric

Brad Schardin report they have had pretty good growth. Xcel Energy is having difficulty providing electricity to smaller communities that are expanding. Basin was on CFCs agenda last month.

### East River

Tom Boyko reported they are looking at getting another Ethanol plant in the west.

## **LRS BART**

Mike Eggl, Senior Vice President Communications, covered the LRS Regional Haze report for Mark Foss. In 2006 Wyoming notified BEPC that LRS is subject to BART requirements. In 2010 Wyoming and BEPC entered into a settlement which becomes part of Wyoming SIP. In May 2012, EPA's first proposed FIP proposes the addition of Selective Non-Catalytic Reduction (SNCR) on all three LRS units. In May 2013, based upon comments received, the EPA's second proposed FIP requires Selective Catalytic Reduction (SCR). In January 2014, Final FIP equals three SCRs at approximately \$250 million/unit, Low Nox burners and Overfire Air. In March 2014, BEPC files Petition for Review with Appeals Court. In May 2014, BEPC files Petition for Reconsideration with EPA. In February 2015, BEPC files reply brief to Appeals Court. In March 2015, MBPP Management Committee agrees to submit settlement offer, one SCR in 2019 and two SNCRs by December 2018. In May 2015, Face-to-face meeting. EPA wanted to do air modeling; can it allow actual measurements. As a result of deferring oral arguments to January 2016, Earthjustice has requested to participate in settlement negotiations. Our schedule called for receipt of settlement papers the first week of October - we are still waiting for them to arrive.

**Question:** Do we have a plan for an extension on the stay?

**Answer:** EPA is saying September 2016 SIPPS will get an extension for some years.

Paul commented that SNCR is at risk. You are not at risk if you can settle with them. Clean Power can't be met for 2022. We may know more at the end of the month. We have all three SCR's which is considerable savings.

## **Marketing Report Review/SPP Integration**

Ken Rutter, Vice President Marketing & Asset Management.

**Market Pricing:** Natural gas prices continue to drop on fundamental pressure. Global crude prices expected to come under pressure in the short-term outlook. We will see US producers to continue to drill in the long-term outlook as prices gradually improve. It is forecasted oil production is outpacing various demand forecasts. Oil production is on average 700 barrels per day higher than the highest forecasted demand.

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RTO: Power prices discussed - MISO has broken away from the main hub. On the gas side; continuing pressure from lack of load and low prices.

**Question:** As to MISO's capacity

**Answer:** There could be pressure from MISO in upcoming years.

SPP Go-Live: Mr. Rutter informed the group that all members are aggregated into one load. Occasionally there were some reflections of times with negative blips on loads.

Ancillary Services: The SPP load pays for roughly 90MW. Thus far we have self-provided an average 76MW or 84% of the load requirements. For 2016 Basin budgeted self-providing 75% of our needs.

Some challenges encountered so far are - software challenge start-up; and low pricing rules when plants overshoot economic max or min.

Some positive facts are - very low congestion; opportunities at Stegall; excellent plant performance; and WAPA co-supply working well.

**Question:** It was asked if there will be a difference throughout the year.

**Answer:** Yes.

**Question:** What does WAPA do with the resources?

**Answer:** They learn from the resources they have.

**Question:** Is the influx hard on the equipment:

**Answer:** John Jacobs states it may be deceiving, it is the pricing we put in and how much. The expense is in the equipment with the up and down. Right now it was a great time to go into the market because loads were down, but also a bad time to get into the market because of the peak time of the year. AVS Unit 2 was in the MISO market for the last two years and have seen a difference.

**Question:** Have you seen a difference in hydro versus thermo?

**Answer:** We have seen a difference and that brings us back to the regulations. Should be a localized congestion but not sure how much.

DGC New Concepts:

Mr. Rutter informed us with the Net overall for October, Basin will incur congestion charges between generation and load in excess of the value from hedges. Expecting roughly \$0~\$8K/day. With market data, Marketing believes it can manage this to a flat position for November.

2016 Hedge Plans: Mr. Rutter commented Basin is doing what we can to get to the targets we have set. High oil and gas prices generally are better for us.

## Clean Power Plan

Matt Greek, Senior Vice President Engineering & Construction, facilitated discussion on Rule Outline and Implications. Matt stated the plan as finalized would require very substantial reductions in our CO2 emissions and hence in our generation portfolio. The final 111(d) rule is much stricter than the proposed rule. States have options but have no way of knowing, what, if any, multi-state plans will be developed, or how generation in other states be treated. It is also impossible to know at this point what the impact on transmission and natural gas infrastructure will be or how pricing for natural gas will be effected by the rule. State

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implantation Plan (SIP) Options give states some flexibility on how to meet a mass goal but require compliance with a CO2 emission cap. The rule does not allow rate-based States to trade with mass-based States.

Matt discussed the differences between the Rate and mass-based options. Under either approach Basin would need to add significant amounts of wind and gas generation to comply with January 1, 2022 targets. Complicating compliance is the rule's prohibition on using renewables installed prior to 2012. Basin has approximately 700 MW's of wind capacity that was installed prior 2012. Our current transmission system is designed to handle the volume of generation changes needed to comply with the rule. Basin's coal fleet is similarly not designed to support the amount of wind capacity needed under the rule. Next he discussed Mass-based Option; an area he is seeing a problem with is anti-leakage issues. The provisions appear to require an offset from existing coal generation for any new NGCC generation; and it allows each State to allocate the allowances. States that import coal-based power may not allow coal-based exporting States to easily buy allowances from the importing States. Matt touched on Model State Plan/Federal Implementation Plan (FIP). Here is commented how the EPA's intention is to come up with a single model (rate plan or mass plan) for the whole country.

**Question:** Is there a risk with us going all gas, what is the next step?

**Answer:** Yes, there is a risk element and Basin may have to go to something else after 2022. There is no obvious no regrets approach to compliance with the rule.

**Comment** - It is imperative that we inform our end users as to what is going to cost the members. Paul commented Basin is meeting with other entities (NIPCO) on what we can do in each state. The concern for everyone is the end user having to pay for all of this. Hopefully in the next coming weeks there will be a number that we can put our hands on. Bruce Kraemer commented that his clients wanted to know why we can't turn a coal plant to a gas plant.

Mr. Eggl addressed the group on behalf of Mark Foss as to Beat the Rule. Under this current administration we do not have a win. The legal case is moving forward. We did see some modifications made by the EPA, all to their advantage. Discussion on EGU's addressed how EPA is going to have the authority, which Paul feels is the prevailing argument to beat. Part of the strategy is to legally challenge Rule 111(d) and figure out the best path for us and stay behind the States, they are our best offense.

Mr. Raatz addressed the group on Meet the Rule. It was stated modeling what can we develop to help legal with their part and then second, what ultimately are we going to do? LOS1 will be sixty-four years old in 2030. We can continue to operate the way we have or modify the fleet, neither one is the right answer but it gives us a bond as to what the credits are.

**Question:** How long are the credits good for? No answer to that at this time.

**Question:** Can you keep the plant and running it less, but how long can you do that, is it a good decision?

It was addressed as to at what point do we modify the Basin Electric fleet? Forecast what the operating costs at each plant, we will have some CO2 costs, that would be 900 mw, we could go out and build on a 900 mw cycle unit. Rate base analysis states CO2 is one of the big factors. What would happen if we combined the cycle unit with wind?

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Mr. Eggl then addressed the group on Change the Rule. Let it be clear, there is no war on coal. Parties have been briefed and our primary goal is to “Stay the Rule”. We feel it changed too much from the beginning and that is not constitutional.

### **Power Supply Planning**

Becky Kern, Director of Utility Planning, gave an overview on Basin power supply planning. She showed a slide on Basin Electric’s current expectation for new resources, 2020 in Montana, 2023 in MISO and 2024 in SPP. She also showed a slide on the current power purchases that have been executed over the last couple of years to identify how much Basin Electric is relying on purchases from other utilities. By purchasing excess surplus from the market and other utilities, Basin Electric can delay the in service for new resources which will allow us to build a larger project that is more economical. She touched on the load forecast that is currently being developed and to be completed in Jan 2016, as well as the performance of the 2015 load forecast, and the activity related to coal and oil load growth. She then went through the timeline to develop plans for mid-and long-term power supply planning in 2016 and the current levels of the reserve margins in SPP and MISO. The newest component to long-term power supply planning is with the recent finalization to EPAs Clean Power Plan. Basin Electric is actively reviewing the rules and trying to determine the impacts of the rule to Basin Electric. Basin Electric has hired a consultant to assist in assessing the impacts to the nation/region due to the Clean Power Plan, how does commodity prices change, retirements and new build of generation, impacts to load growth, regional dispatch of the electric system to meet load obligation and the resources that are available to meet growth and are in compliance with the new rules? Ultimately, the question becomes “How long can we wait before we make power supply decision with a potential Clean Power Plan compliance by 2022?”

### **NTEC/Gregory County Pumped Storage**

Ms. Kern advised the group there are weekly conference calls working out a term sheet and feels this should be finished by this year. Ultimate commitment to this project will come in 1<sup>st</sup> Quarter 2016.

**Question:** Has Basin contacted WI (Wisconsin) as to their decision on Mass vs Rate for the Clean Power Plan?

**Answer:** Dave commented that we will be modeling the WI project in our analysis, we need to continue to move forward to plan for our Members.

Becky then addressed Gregory County Project. This has been around since the 80’s, it would be located in southern SD. The concept behind it is to pump the water during the off peak or low market condition and then utilize the water to generate electricity from the upper reserve during peak or higher market conditions. Basin Electric is looking to investigate the project and see if it has better economics now, especially in light of the new Clean Power Plan.

### **Minnkota Update**

**Due Diligence:** John Jacobs, Vice President Operations, covered Milton R. Young Station, Unit 1 and Unit 2’s history and future capital expenses. There are some differences with MRY and LOS, one that stands out is MRY has no rail to the facility, they have to off load in town and then transport to plant. Their last life assessment was in 2005 compared to Basin who does one every three years. Mr. Jacobs then discussed the history and future capital expenses of the

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Coyote Station. Numerous issues were addressed to the group, those being: the generator breaker is located five miles away in a switch yard, haven't done any high pressure piping or headers, have not done any third party life assessments, and their water source is 27 miles away at a pump house.

Before the afternoon break Paul Sukut congratulated Kent Pauling on his 41 years at NIPCO.

Due Diligence continued with Matt Greek. To date, MR Young has spent over 370 million dollars for environmental upgrades.

Deal: Ms. Kern, informed the group Minnkota has eleven distribution coops and then a municipalities (we look at them as 12). The concept would be to continue to maintain their WAPA obligation, buy all their supplemental needs from Basin Electric, we would also buy the output of all these resources at cost. We would also pick up their transmission costs.

Minnkota/NMPA looks at themselves as a "joint system." They put all their costs in a bucket and then come up with a common rate to sell to their members.

The key components of the deal include:

- Basin Electric supplies Minnkota all-supplemental, above WAPA allocation, at Class A Rate plus a \$31/mwh parity adder for 15 years.
- Contract Term through December 31, 2075.
- Basin Electric staff supports Minnkota becoming a Class A Member of Basin Electric, with board representation (subject to the Basin Electric Bylaws and a vote of the membership).
- Basin Electric financially responsible for Minnkota's executed PPAs and owned resource annual costs.
- Minnkota executed sales revenue goes to Basin Electric.
  - Maintain negotiated economics of Basin Electric/Minnkota Agreements
- Basin Electric covers Minnkota Wheeling Obligation.
  - Eleven year phase in of Center to Grand Forks Transmission line.
- Basin Electric responsible for retirement of Minnkota resources, it happens during term of WPC.

Financial Forecast: Mr. Buntrock advised the committee of the average member rate impacts with the addition of Minnkota; Basin is looking at this from a typical member. There was discussion on the carbon risk. The decision to continue evaluating was discussed. An estimate of the total value over ten years was shown, given those rate impacts.

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*October 22, 2015*

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Tim McCarthy - Sioux Valley Energy  
John Lee - Butte Electric  
Steve Reed - West Central  
Lars Nygren - Capital Electric  
Steve VerMulm - NIPCO  
Kevin Mikkelsen - Rosebud Electric  
Pat Carruth - Minnesota Valley - Monte  
Darrin Sand - Dakota Valley & Northern Plains  
Jim Edwards - East River  
Matt Washburn - NIPCO  
Ross Loomans - Lyon REC  
Kory Hammerbeck - Rushmoare  
Jeremy Mahowald - Upper Missouri  
Jason Brothern - Lower Yellowstone Rural Electric  
Martin Dahl - McLean Electric Coop  
John Skurpey - McKenzie  
Wayne Martian - North Central Electric  
Mick Kossan - CPEC  
Greg Hollister - East River  
Rod Nikula - Wright Hennepin/MVEC

#### **Basin Electric**

Paul Sukut  
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Matt Greek  
Lisa Carney  
Dave Rudolph



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### Member Contract Extension

Ms. Kern provided an update to the Wholesale Power Contracts amendments, Power Services Agreement and WAPA scheduling agreement. She walked through the three components of the Power Services Agreements, 1) Transmission Service, 2) Losses and 3) Resource Adequacy, by explaining the component and trying to quantify the impact to each member. Additional information can be found in the White Paper developed for the Power Service Agreement. She also commented that all contracts that had been received and executed were in the process of being returned to the Members.

### Rate Subcommittee

Dave Raatz, Vice President of Cooperative Planning, provided a list of topics for the upcoming Rate Subcommittee meeting that is scheduled for November 16<sup>th</sup> in Bismarck, at the GRE Building. Discussion points will be the general rate structure, PURPA responsibilities, and Solar Generation. A preview of the Presentations will be sent by the 13<sup>th</sup> of November.

### NERC Compliance Program

Dave Rudolph, Manager of Transmission Compliance, gave an update of NERC related items. Mr. Rudolph highlighted

#### Marketing Operations

Ken Rutter, Vice President of Marketing and Assets, reviewed the project Milestones, key dependencies and gave an update on ongoing items/work needed for incorporation into SPP.

Mr. Rutter also discussed some of the challenges Marketing will face when scheduling on peak day ahead pricing. Staffing is looking at a strategy to address risks associated with firm backup supply so accreditation is not lost.

### NERC Compliance

David Rudolph, Manager of Transmission Compliance, gave an update of NERC related items. Mr. Rudolph highlighted key items:

#### Guidelines

Basin Electric will be responsible for the facilities we own and members will be responsible for the facilities they own. As a general rule, for joint-owned Facilities or Facilities with multiple Element owners the Element Owner will assume the NERC Compliance responsibilities, unless the Element Owner has delegated these NERC Compliance responsibilities or transferred Element ownership to another Registered Entity. The Element Owner may "Contract" with Other Entities for Operational responsibilities.

#### Clarifications for Basin Electric

On a "Limited Basis" and where "Agreed Upon", BEPC will perform all Operational responsibilities and NERC Compliance responsibilities for Member Owned BES Facilities.

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### Clarification for Members

For those Member(s) that own Bulk Electric System (BES) Elements and are performing the Operational & NERC Compliance responsibilities, each Member will need to “Register” with the appropriate Regional Entity (MRO or WECC) for each of the applicable Functional Entities:

- Distribution Provider (DP) – [If Member owns UFLS, UVLS, or SPS]
- Transmission Owner (TO)

For those “Registered” Member(s) that do NOT have the capability to perform any or all of the Operational and NERC Compliance responsibilities pertaining to the DP and/or TO Functions, those Member(s) will be responsible for delegating those NERC Compliance responsibilities or transferring ownership to another Registered Entity.

Going forward we continue to identify facilities and will work to customize a presentation for each member detailing the go forward plan.

### **Allam Cycle/Pulsed Electron Beam update/ DFS ITC**

#### Allam Cyle:

Mr. Greek presented to the group advantages and challenges of the Allam Cycle. One of those being a Highly efficient cycle through the use of CO<sub>2</sub> as the working fluid instead of water. A challenge would be blades requiring channel cooling making them highly sensitive to particles in the natural gas stream.

#### PEB and ITC Update:

Mr. Jacobs presented to the group that BEPC has decided not to pursue the PEB technology any further at this time. The ability to present a better business plan for the use of the technology remains in place but funding has been suspended at this time. Mr. Jacobs announced that Basin has been working with Governor Mead and the State of Wyoming on the potential of an Integrated Test Center at our Dry Forks Station. Governor Mead announced on October 8<sup>th</sup> that indeed the DFS has been selected as the test site and that when complete technologies with the potential of reimagining carbon will be tested and evaluated at this facility.

### **Closing**

Mr. Sukut talked briefly about the mini reorganization that occurred within Basin Electric.

### **Upcoming Meeting**

- January 20-21 - MAC - Bismarck