

**Basin Electric Power Cooperative  
Bismarck, North Dakota**

**Minutes of the Regular Meeting of the Board of Directors  
March 13-15, 2017**

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The regular meeting of the Board of Directors of Basin Electric Power Cooperative (the **Cooperative** or **Basin Electric**) was held at the headquarters building, 1717 East Interstate Avenue, Bismarck, North Dakota, on March 13, 2017 starting at 7:20 p.m. CDT.

**1. Call to Order**

The meeting was called to order by President Wayne Peltier, who presided, and Secretary Gary C. Drost, who kept the minutes thereof.

**2. Roll Call**

After calling the roll, the Assistant Secretary reported the following Directors present:

Donald E. Applegate	Paul Baker
Leo Brekel	Gary C. Drost
Charles Gilbert	Mike McQuiston
Kermit Pearson	Wayne Peltier
Troy Presser	Roberta Rohrer
Allen Thiessen	

Said persons being all of the Directors of the Cooperative. Also present were Chief Executive Officer & General Manager Paul M. Sukut, Assistant Secretary Mark D. Foss and Basin Electric Senior Vice President of Human Resources Diane Paul.

**3. Executive Session**

At 7:20 p.m., it was moved by Director Drost, seconded by Director Gilbert and carried that the Board retire into executive session to discuss personnel issues. At 8:45 p.m., it was moved by Director Rohrer, seconded by Director Applegate and carried that the Board arise from executive session.

**4. Recess and Reconvention**

At 8:45 p.m., President Peltier recessed the meeting until March 14, 2017 at 12:45 p.m., at which time the meeting was reconvened by President Peltier, who presided, and Secretary Gary C. Drost, who kept the minutes thereof.

**5. Roll Call**

After calling the roll, the Assistant Secretary reported the following Directors present:

Donald E. Applegate	Paul Baker
Leo Brekel	Gary C. Drost
Charles Gilbert	Mike McQuiston
Kermit Pearson	Wayne Peltier
Troy Presser	Roberta Rohrer
Allen Thiessen	

Said persons being all of the Directors of the Cooperative. Also present were Chief Executive Officer & General Manager Paul M. Sukut, Assistant Secretary Mark D. Foss and Basin Electric staff members Chris Bauer, Tracie Bettenhausen, Eric Carufel, Shawn Deisz, Tammy DeWitt, Matthew Greek, John Jacobs, Steve Johnson, Kerry Kaseman, Becky Kern, Janet Kubisiak, Jim Lund, Shawnel Maxwell, Gavin McCollam, Dale Niezwaag, Diane Paul, Mike Paul, Dave Raatz, Mike Risan, Ken Rutter, Myron Steckler, Kevin Tschosik, Amanda Wangler, Michelle Wiedrich and Tiffany Zablotney.

Also present were Corn Belt Power Cooperative (**Corn Belt**) director Scott Stecher, East River Electric Power Cooperative (**East River**) director Ron Samuelson and Rushmore Electric Power Cooperative (**Rushmore**) manager Vic Simmons.

**6. Approval of the Agenda**

The Directors considered the agenda for the conduct of the business of the meeting. After an opportunity for the addition and deletion of items, it was moved by Director Drost, seconded by Director Baker and carried that the agenda be approved as modified.

**7. Approval of the Minutes**

The minutes of the February 12-13, 2017 Regular Meeting of the Board of Directors were presented and after an opportunity for corrections, it was moved by Director Brekel, seconded by Director Rohrer and carried that the minutes be approved as presented.

**8. General Manager's Report**

General Manager Sukut reported that he would like to hold a strategic planning session off-campus, perhaps at the National Information Solutions Cooperative offices. He suggested the directors arrive the evening of May 24 and the strategic session be held from 8:00 a.m. to 5:00 p.m. on May 25 and from 8:00 a.m. until noon on May 26. He distributed a list of suggested topics and asked for input.

**9. Western Fuels Association Update**

Mr. Sukut reported that the last Western Fuels Association (**Western Fuels**) board meeting had been routine and that Dry Fork Mine manager, Dave Gauntner, is doing a very good job for us. Basin Electric and Tri-State Generation & Transmission Association (**Tri-State**) want to review rates, so Basin Electric was charged with bringing some rate options to the next meeting. Dairyland Power Cooperative (**Dairyland**) is exploring membership in Western Fuels, however, most of Dairyland's coal is shipped via barge and then by rail to the power station. The Dry Fork Mine is doing very well.

**10. Office of General Counsel Report**

Senior Vice President & General Counsel Mark D. Foss reported on the status of litigation involving the Cooperative.

Mr. Foss reported that Board Policy #05, Director Compensation/Travel, was reviewed by an internal committee and no revisions were recommended. It was presented to the Board for review and revisions in February. He recommended retaining Board Policy #05 in its current form. The Board reaffirmed this policy.

Mr. Foss distributed Board Policy #6, General Safety & Health Policy, which has been reviewed by an internal committee with no revisions recommended. Reaffirmation will be requested in April.

## **11. Board Committee Discussion**

Senior Vice President of Marketing & Asset Management Ken Rutter distributed the proposed charters for the establishment of three new Board committees. The Board committees would provide for more effective board meetings by accomplishing the following objectives: (1) committees will facilitate better dialogue between the Board of Directors and management; (2) committee utilization will allow more time at the regular board meetings for strategic and value-driven issues; (3) committees will work to decrease repetitive information, increase more thorough research and provide defined areas of focus. Each committee will consist of no fewer than three directors and the Basin Electric CEO will rotate among the Committee meetings.

He proposed three new subcommittees: (1) Finance, (2) Operations and (3) Planning, Resources and Marketing. He also suggested some modifications to the charter of the existing Board Audit Committee and Risk Management Steering Committee. The full board would appoint the committee chairs on an annual basis. The Board has the option to change the membership of the committees at any time. The structure of the meetings would be up to the chair. The committees will meet no less than four times a year and the meetings would include both directors and Basin Electric staff. Committee meetings will begin in April.

## **12. Cooperative Planning Report**

### **A. Rate Subcommittee**

Senior Vice President of Cooperative Planning Dave Raatz reported there had been good discussions at the February 17 Rate Subcommittee meeting. Action items from that meeting were as follows: (1) estimate the savings of expanded demand period waiver hours; (2) develop Rate Schedule language to reflect 2050 and 2075 contract term rates; (3) review the value of controlling large shop electric floor heat; (4) review the electric heat actual load factor; (5) collapse the renewable resource pass-through purchase rate for new applications effective January 1, 2018, and accept new applications under the Public Utility Regulatory Policies Act (**PURPA**) rate; and (6) have on-peak and off-peak price levels for Basin Electric generation purchase rates.

Mr. Raatz noted that agenda items from the March 13, 2017 Rate Subcommittee meeting related to: (1) long-term rate strategy, (a) using a rate consultant, (b) the contract extension credit, (c) the true cost of service, (2) the 2018 rate schedule, (a) demand period waiver, (b) electric heat rate and (c) purchase rates.

The Guernsey Rate Consultant presented the results of their study to the Rate Subcommittee. The six main takeaways discussed by the Rate Subcommittee were: (1) a rate should be designed to minimize cost; (2) a rate design should reflect avoided costs; (3) it is important to understand cost make-up (informational unbundling); (4) band width - difference between what one member pays versus another is important; (5) it may be valuable to allow members rate options, recognizing that Basin Electric still needs to generate the required number of dollars; and (6) there may be value in identifying subsidiary support.

Other items for staff to work on are providing additional detail on the cost of service and determining which costs are avoidable and which aren't. The Rate Subcommittee felt that Guernsey had a good grasp of cooperative philosophy. A draft scope of service will be created for review by the Rate Subcommittee. Mr. Raatz noted that scope of service options could be to have Guernsey ask the

Class A members what objectives they feel are important because different cooperatives may have different objectives. We may also want to ask Guernsey to recommend how Basin Electric might accomplish some of those membership objectives. An additional topic could be for Basin Electric staff to work with Guernsey and recommend possible rate changes that would be beneficial to Basin Electric? The Subcommittee said it would be helpful to ask Guernsey these questions which could generate new ideas of what might go into a rate structure. It may not be implemented in time for the 2018 rate, but it could be a transition point.

Basin Electric staff was also tasked with bringing specific language regarding the Subcommittee's questions on how to write the 2050 and 2075 rate term components, questions on demand-period waivers and standby rates. The next Subcommittee meeting is scheduled for April 18, at which time the committee will need to make recommendations on the 2018 rate schedule to the Managers Advisory Committee, which would then go to the Board of Directors. The long-term, strategic discussion will probably start in September.

#### **B. Power Supply**

Mr. Raatz reviewed the number of responses to the 2017 power supply requests for proposal (RFP) and noted that some good proposals were received which may allow extra time to decide whether to build a new project or purchase power in (Midcontinent Independent System Operator) (MISO) purchases.

Basin Electric has also started the process to study MISO site locations so it could build a resource if it turned out to be less expensive than purchasing power.

Basin Electric was contacted to see if it had any interest in the Colstrip units in Montana and noted that high-level economics do not warrant significant effort to evaluate Basin Electric ownership in the Colstrip units.

#### **C. TransCanada Pipeline**

Discussion topics during a call among the membership and TransCanada Corporation (TransCanada) were permit application status, shipper discussions/support, potential change in pipeline route, timing and pump station load levels.

At the conclusion of the call TransCanada indicated it has learned to be very patient and cautious about this pipeline project. We plan to visit with TransCanada in the fall of 2017 prior to submitting new transmission planning load information.

#### **D. Ongoing PURPA Activities**

There were two public comments on Basin Electric's Federal Energy Regulatory Commission (FERC) PURPA assignment filing and reply comments are due this week. We don't know when to expect the final FERC ruling due to the lack of a quorum at the commission.

We are also preparing a market waiver filing which reduces our PURPA obligation to 20 MW if it is located in a regional transmission organization (RTO). East Kentucky made their filing in November and it was rejected under statutory process (FERC must rule within 90 days of the filing), for lack of a quorum. We have delayed our filing so we don't have the same outcome.

### 13. Transmission Report

Senior Vice President of Transmission Mike Risan reported that as of March 3, 2017, employees in the Transmission System Maintenance (TSM) Division had worked 122 days without a Days Away, Restricted or Transferred (DART) incident.

#### A. SPP Notice to Construct/Slower Bakken Load Growth

Basin Electric received a Notice to Construct (NTC) for several North Dakota facilities as a result of the first round of wind studies in the Southwest Power Pool (SPP). The Cooperative disclosed to SPP that several NTCs may need to be reconsidered due to slower than anticipated load growth. SPP did some behind-the-scenes analysis and determined that some of those facilities might not be required with the updated load forecast. Based on this preliminary analysis, SPP suggested Basin Electric request an expedited analysis to submit to the SPP Board in April 2017.

As a result, Basin Electric subsequently requested an expedited reconsideration of the timing of the Blaisdell 230/115 kV Transformer #2 Addition, the Naset 230/115 kV Transformer Replacement and the Roundup-to-Kummer Ridge 345 kV transmission line.

Mr. Risan reported that the SPP Generator Interconnection Definitive Interconnection System Impact Study Report published February 8, 2017 listed the following projects in Basin Electric's region: Leland Olds Station (LOS) 230 kV 200 MW interconnection; LOS-Ft. Thompson 345 kV line 250 MW interconnection; LOS-Groton 400 MW interconnection in Logan County; Logan County- Groton 345 kV line; Logan County - Emmons County 345 kV line (Antelope Valley Station (AVS) to Broadland); Broadland transformer upgrade; Broadland-Split Rock 345 kV line; and Groton 345 kV terminal equipment. Customers have 30 days to respond to the report results, sign an interconnection agreement and pay a deposit of \$3,000/MW. If those agreements are signed, Basin Electric would get involved and be required to provide a more detailed facility study.

#### B. Interconnection & Common Use Agreement

When Basin Electric joined SPP, we agreed to suspend the Interconnection & Common Use Agreement with Montana-Dakota Utilities Co (MDU). This suspension seems to have worked smoothly. We are now prepared to terminate this contract, which will trigger the termination of our members' contracts with MDU.

#### C. Mountain West Transmission Group

The following six subgroups were established under the Mountain West Transmission Group Steering Committee: (1) Governance, (2) Rate Design and Cost Allocation, (3) Planning, (4) Western Area Power Administration (Western), (5) RSC and (6) RC Strategy. The steering committee is meeting monthly and the subcommittees meet weekly.

He reported that eliminating point-to-point transmission service causes a loss of revenue resulting in cost shifts for Western, Public Service of Colorado and Black Hills Corporation (Black Hills). Of major concern to Black Hills is the under-construction Osage-to-Rapid City 230 kV line. In their mind, this line is tied directly

to the point-to-point request that Basin Electric has across the Common Use System through the Rapid City DC Tie from Dry Fork to the east. When Mountain West goes into license-plate protocols in the new RTO, that point-to-point would go away. Black Hills had the expectation that Basin Electric will deliver Dry Fork power to the east for 40 years. The five-year term of the service agreement gives rollover rights to Basin Electric, but no commitment that Basin Electric will extend the agreement beyond the first five-year period.

**D. North American Electric Reliability Corporation (NERC)**

To minimize risk to Basin Electric and its members, we are working towards having our members register directly with NERC rather than Basin Electric registering on their behalf. Our smaller members are searching for an alternative and we are working with them on a final path where a member who owns one or two facilities in a Western substation could sell those facilities to Western. This would involve some members in District 9 and Rushmore.

**E. Self-Certification of Under-Frequency Load-Shedding Program**

In the event of a major break-up of the transmission system, transmission operators are required to try to match generation to load in the islands left over. As the frequency declines, there are generally three trigger points to drop load in order to hopefully save the system. Prior to joining SPP, this requirement was met collectively by the Integrated System partners. Now that we are part of SPP, the Midwest Reliability Organization (MRO) is interpreting these standards literally on an individual utility basis and in an initial call to Western, the MRO suggested Western may be in violation if the standard is applied on an individual utility basis. Basin Electric would be similarly situated with that interpretation of the standard. As a result of Western's feedback from the MRO, Basin Electric contacted the MRO in an attempt to better explain our collective under-frequency load-shedding implementation. Mr. Risan noted he wanted to disclose this because, depending on the MRO's position, it could potentially result in MRO citing Basin Electric for violation of the load-shedding requirements.

Basin Electric is currently under a Western Electricity Coordinating Council (WECC) spot check regarding transmission planning. He noted that the Cooperative recently completed a full WECC audit with no problems noted.

**14. Operations Report**

Senior Vice President - Operations John Jacobs reported that there were no medical treatment and no DART incidents during the month.

February generation was 2,040,339 MWh compared to budgeted generation of 2,241,832 MWh which is nine percent under the budget. He reviewed forced-outage rate trends for the last 24 months and provided January 2017 bus-bar costs for the coal-fired fleet (LOS, AVS, Laramie River Station (LRS) and the Dry Fork Station (DFS)). Year-to-date generation is five percent below budget and February operating statistics were as follows:



<b>Unit</b>	<b>Monthly Availability</b>	<b>Running Plant Capacity Factor (net)</b>	<b>Unit Rating</b>	<b>Comments</b>
AVS #1	100%	95.5%	450 MW	
AVS #2	99.8%	98.8%	450 MW	2/18 forced outage for low drum level.
DFS	100%	101.14%	386 MW	
LRS #1	99.28%	67.82%	570 MW	2/23 forced outages for overspeed when Sydney line tripped; two trips for bearing 1 vibrations; and one when rolling the rotor out on gear.
LRS #2	96.92%	73.53%	570 MW	2/07 forced outage when auxiliary transformer relay lost power supply.
LRS #3	97.14%	74.48%	570 MW	2/23 forced outages when operator closed high-pressure heater shutoff valve in error and exciter fault on EX-2100.  2/24 forced outages when 3A secondary air heater drive gear bound up and for high drum level trip on startup.
LOS #1	89.55%	83.72%	221 MW	2/26 forced outage for wall tube leak.
LOS #2	75.44%	83.72%	448 MW	2/03 scheduled outage for deslagging; 2/10 scheduled outage for reserve shutdown; 2/28 forced outage for operator error.

Mr. Jacobs reported that he has been invited to participate in a meeting on diversity options for Wyoming to discuss how the Integrated Test Center (ITC) fits into some of the projects Governor Mead would like to see in Wyoming.

The Great River Energy (GRE) Stanton Station generated its last MW on February 27 at 1313 hours and is in the process of decommissioning. The original plan was to generate until March 1, but they ran out of coal sooner. He reported that staff is inspecting some GRE equipment for possible purchase. Part of this purchase will be a request for roughly 19 acres of property, the greatest piece being an area that LOS intends to use for

contractor parking and a small portion to make sure that Basin Electric's assets are inside of an existing fence line.

**A. Distributed Generation Update**

Distributed Generation Manager Kevin Tschosik reported that natural gas prices for the distributed generating facilities (Groton Generating Station (**GGS**), Culbertson Combustion Turbine (**CCT**), Wyoming Distributed Generation (**WDG**), Spirit Mound Station (**SMS**), Deer Creek Station (**DCS**), Pioneer Generating Station (**PGS**) and Lonesome Creek Station (**LCS**)) dropped between 33 and 46 cents from the previous month. February generation at the distributed generation facilities was as follows:

<b>Unit</b>	<b>Run Hours</b>	<b>Cpcty Factor (%)</b>	<b>Avg Gen (MW)</b>	<b>Avail (%)</b>	<b>Unit Rate (MW)</b>	<b>Comments</b>
Culbertson	51.38	2.65	33.59	96.58	97	Ran for load demand.
LCS #1	120.65	11.71	27.99	99.22	45	Ran for load demand and reliability.
LCS #2	608.35	63.36	31.50	98.87	45	Ran for load demand and reliability.
LCS #3	385.85	39.52	30.98	96.99	45	Ran for load demand and reliability.
PGS #1	76.27	7.28	28.84	95.6	45	Ran for load demand and reliability. AC oil pump failed.
PGS #2	64.65	6.58	30.80	99.31	45	Ran for load demand and reliability.
PGS #3	54.65	4.91	27.15	98.2	45	Ran for load demand and reliability.
PGCRE11	63.1	5.57	5.52	98.79	111.6	
PGCRE12	25.55	2.43	5.95	67.23	111.6	Ruptured I-frame has been replaced and getting some run hours on these engines.
PGC RE13	48.42	4.53	5.84	99.23	111.6	
PGC RE14	52.4	5.01	5.97	91	111.6	
PGC RE15	52.72	5.06	5.99	91.41	111.6	
PGC RE16	52.67	4.91	5.83	91.29	111.6	2/25 went to take engines off line and didn't open and failed

						not allowing it to open. Backup relay took out main breaker. Since then problem with the generator diode. When breaker took too long to open, generator motorized causing diode to fail. ABB (Finland) is coming to investigate. They'll replace diode and determine why took so long to open.
PGC RE17	56.88	5.47	6.01	99.08	111.6	
PGC RE18	57.07	5.47	5.99	99.14	111.6	
PGC RE19	57.35	5.50	6.00	98.98	111.6	
PGC RE20	70.37	6.40	5.68	99.18	111.6	
PGC RE21	68.2	6.08	5.57	98.68	111.6	
PGC RE22	70.2	6.35	5.66	98.33	111.6	
DCS	154	10.11	132.32	100	300	Ran for load demand.
Groton #1	20.85	1.52	46.47	92.5	95	Ran for load demand. Vibration probe failure.
Groton #2	80.48	3.96	31.44	97.1	95	Ran for load demand.
SMS #1	0	0	0	99.63	120	Did not run
SMS #2	0	0	0	99.7	120	Did not run
WDG				98	54	Produced 100 MW of generation.

During February, LCS ran in synchronous condensing mode for 243.78 hours and PGS for 551.52 hours. There were 11 west-side spinning reserve calls during the month.

He then presented photographs of the 11.6 miles of 10-inch pipe Groton Gas pipeline pigging. The pigging summary showed two manufacturing anomalies of metal loss between 10 percent and 19 percent, no corrosion anomalies, one manufacturing anomaly with no metal loss and two extra metal anomalies (something lying on or fairly close to the line). No deformation/dent anomalies were found.

The east-side peak occurred on February 2, 2017 at 0800 hours. At that time, wind generation was as follows:

Wind Project	Load Factor during the Peak	Capacity Factor		Project Total
		Month	2017	
Baldwin	97 MW	47%	49%	99 MW
Brady #1	121 MW	53%	60%	150 MW
Brady #2	1090 MW	50%	55%	150 MW
Campbell County	66 MW	49%	50%	98 MW
Chamberlain/Pipestone	0 MW	25%	22%	3.4 MW
Day County	85 MW	52%	48%	99 MW
Edgeley	28 MW	38%	37%	40 MW
Highmore	19 MW	35%	36%	40 MW
Iowa	27 MW	51%	44%	45.1 MW
Iowa Lakes	15 MW	54%	46%	21 MW
Minot Wind (2 Nordex turbines)	5 MW	33%	35%	7.1 MW
PWND (GE turbines)	114 MW	48%	53%	115.5 MW
PWSD	94 MW	50%	51%	162 MW
Sunflower	96 MW	49%	56%	104 MW
Wilton	78 MW	39%	39%	99 MW
Total Monthly Wind Generation	939 MW			800 MW
Average Capacity Factor		48%	50%	

## 15. Risk Management Report

Senior Commodity Risk Analyst Tiffany Zabloutney reported that 2017 is hedged 30 percent at an average natural gas price of \$2.99 per dekatherm (dkt). There are no executed purchase power hedges at this time.

The current hedged position for natural gas is \$3.07/dkt for 2018 with 89.5 percent hedged, \$3.18/dkt for 2019 with 58.3 percent hedged, \$3.20/dkt for 2020 with 52.2 percent hedged and \$3.22/dkt for 2021 with 27.7 percent hedged.

The current average inventory value of natural gas in storage is \$2.05/dkt, the average sale price at the time of injection was \$1.41/dkt, and the average sale price at the time of withdrawal was \$2.99/dkt. We can expect this remaining inventory to be withdrawn by the

end of March, coinciding with the end of the contract storage season. There are no financial hedges in place as Basin storage is used for fuel reliability purposes.

The Ventura Forward price curve took another shift down this month with a decrease for 2017 of \$0.28 to an average price of \$2.82/dkt as of March 1, with the rest of the curve having an \$0.11 average decrease.

The Cooperative received cash settlements in February of natural gas hedges of \$112,210 on 8,500 dkt/day.

Basin Electric has an unrealized mark-to-market loss of (\$9.6 million) for natural gas, which corresponds to the lower Ventura forward curve. Basin Electric's average hedge price is greater than the forward market resulting in a potential unrealized loss.

The month-over-month change in the Mark to Market (MTM) between January and February had a negative movement of (\$3.8 million). The change is impacted by market price movements, settled hedges rolling off and new executed hedges. Almost all of the movement this month was again due to the drop in the Ventura forward curve.

Turning to power, Ms. Zablone reported that the west surplus sales position for 2017 is currently hedged at approximately 25 percent of forecasted volumes at an average hedged price of \$28.43 for on-peak and \$22.42 for off-peak.

Basin Electric's hedges for surplus sales are indexed to Palo Verde. Forward prices continued to drop by another \$3.10 for 2017, while across the full curve, an average decrease of about \$1.87 can be seen. As of March 1, 2017, the Palo Verde On-Peak Forward Curve was \$25.33/MWh for 2017, \$25.13/MWh for 2018, \$26.73/MWh for 2019, \$29.21/MWh for 2020 and \$30.67/MWh for 2021.

Basin Electric's power hedges received a net cash settlement in February of \$227. Breaking it down, surplus sales hedges had a gain of \$38,000 while purchased power hedges from the spark spread gas strategy had a loss of (\$37,800).

Applying the Palo Verde forward curve to the current power hedges on the books for surplus sales, Basin Electric has an unrealized MTM gain of \$3 million as of February 28. She reviewed the month-to-month change in MTM-power with the time between January and February having a positive change of \$1.2 million primarily driven by the drop in the Palo Verde forward curve. Not included are the long-term Cargill, Inc. (Cargill) physical power purchases which had a negative change month-over-month of \$2.9 million (from \$45.1 million to \$48 million).

She reviewed the current hedge position for diesel, which reflected an average 2017-hedged price of \$2.43/gallon with 47.4 percent hedged and \$2.56/gallon for 2018 with 36.1 percent hedged. The March 1 settled financial hedges for diesel resulted in a gain of \$10,168 on 84,000 gallons of diesel hedged. As of February 28, 2017, the diesel MTM was an unrealized market gain of \$298,000. There was basically no change in the month-to-month view of the diesel MTM.

The aggregate settlement for all commodities for the month was \$122,605, which does not include the MTM gain/loss on premiums. She then reviewed MTM (\$6.3 million) loss for all commodity hedges, which does not include the (\$48 million) MTM loss on the long-term Cargill physical contracts. She also reviewed the Cooperative's liquidity position and credit exposure based on an internal credit ratings model. Cash margin posted is \$31 million as of February 28.

**16. Engineering & Construction Report**

**A. Project Funding Chart**

Senior Vice President-Engineering & Construction Matt Greek reported that two Basin Electric contracts totaling \$20.8 million would be presented for approval this month. He presented the list of all current major projects along with the approved budget amount, total dollars committed and completion dates.

**B. Project Cost Estimating Enhancements**

Engineering Services Director Gavin McCollam noted that the Cooperative's cost estimating procedures were last reviewed in October of 2014 and the revised process was implemented in 2015.

He reported that the definition of project estimate is "An evaluation of the elements of a project or effort as defined by an agreed-upon scope". He presented the American Association of Cost Estimators (**AACE**) estimated accuracy curve with degree of project definition in relation to accuracy range, as well an example project definition slide.

Class 1 estimates are generally prepared for discrete parts or sections of a total project rather than generating this level of detail for the entire project. Class 1 estimates are prepared in great detail, and thus are usually performed on only the most important or critical areas of a project.

He noted that the AACE estimate accuracy curve does not show time (permitting and long lead-time equipment) or money, which can both greatly impact the feasibility of achieving higher-class estimates. One needs to balance the cost of a higher-class estimate with the time required to prepare the estimate and the time when a project must be in service. This is the main pitfall of requiring a certain level of cost estimate for all contracts.

He reviewed the importance of scope definition to accuracy. The goal of more reliable budget authorizations can be achieved with higher-class estimates, the use of engineer/procure/construct contracts, traunching and looking at the project approval process itself. He presented a draft project approval flow chart and noted that a project approval charter is under development with a March to December deployment date. Staff will continue to endeavor to improve reliability of budget authorization requests utilizing existing and improved processes.

**C. Menoken TSM Shop**

Project Manager Amanda Wangler reported that the current TSM facility in Mandan is inadequate and inefficient. A new facility would provide adequate, efficient space for each work group, shelter and provide a cleaner environment for expensive equipment, improve site access capabilities, provide safer access, improve conferencing and training capabilities, provide a long-lasting, low-maintenance building and provide a professional facility visually aligned with Basin Electric's brand and identity.

She noted that the Engineering & Construction group is taking a traunching approach with this project. She reviewed the traunching steps: (1) conceptual design, (2) preliminary design and (3) complete engineering design. She presented drawings of the site and building. Construction is estimated to take 18 months. The

facility consists of three parts: warm storage for existing equipment, a shop and bays for working and an administrative facility.

Ms. Wangler reviewed the project budget and noted that, to date, \$850,000 has been spent for: (1) the architectural services, (2) engineering, (3) soil borings, (4) value engineering, (5) staff time and (6) overheads. To finish the engineering, perform additional soil exploration, acquire an easement for the road and complete the general contractor bid process and evaluation would require an additional \$1.65 million, for a total of \$2.5 million, at which point staff would be able to provide the Board a very accurate price estimate for going forward and constructing the project. She recommended the additional \$1.65 million for the project be approved.

After discussion, it was moved by Director Drost, seconded by Director Brekel and carried that the following Resolution be adopted:

**R01.03-13-17**

RESOLVED, that the Board of Directors authorizes the expenditure of an additional \$1.65 million for the Menoken TSM project (total project not to exceed \$2.5 million); and

BE IT FURTHER RESOLVED, that the CEO and General Manager, or his designee, be authorized to execute the required documents.

**17. Recess and Reconvention**

At 4:50 p.m., President Peltier recessed the meeting until 8:00 a.m., at which time the meeting reconvened with President Peltier continuing to preside and Secretary Gary C. Drost keeping the minutes.

**18. Roll Call**

After calling the roll, the Secretary reported the following Directors present:

Donald E. Applegate	Paul Baker
Leo Brekel	Gary C. Drost
Charles Gilbert	Mike McQuiston
Kermit Pearson	Wayne Peltier
Troy Presser	Roberta Rohrer
Allen Thiessen	

Said persons being all of the Directors of the Cooperative. Also present were Chief Executive Officer & General Manager Paul M. Sukut, Assistant Secretary Mark D. Foss and Basin Electric staff members Tracie Bettenhausen, Eric Carufel, Shawn Deisz, Tammy DeWitt, John Jacobs, Steve Johnson, Kerry Kaseman, Becky Kern, Janet Kubisiak, Tom Leingang, Jim Lund, Shawnel Maxwell, Gavin McCollam, Mary Miller, Dale Niezwaag, Diane Paul, Mike Paul, Curt Pearson, Jean Schafer, Myron Steckler, Tara Vesey, Amanda Wangler, Valerie Weigel and Michelle Wiedrich.

Also present were Dakota Gasification Company (**DGC**) Vice President David J. Sauer, Corn Belt director Scott Stecher and East River director Ron Samuelson.

**19. Operations Report, continued**

**A. Dry Fork Station Update**

DFS Plant Manager Tom Stalcup reviewed DFS safety statistics and total case incident rates for 2016 and 2017 year-to-date. Most of these injuries fall into three categories: (1) ergonomics, (2) behavior and (3) housekeeping. He presented an update on the "Our Power, My Safety" (OPMS) program, noting that implementation of employees presenting daily tool box talks continues to be successful for Continuous Improvement (CI) Team #2, Employee Communication. Of the 873 CI work requests written, 734 or 84 percent have been completed. Plant performance has been very good with 100 percent availability in February and year-to-date. The station was restricted to 85 MW for three hours on February 1, 2017 to finish distributed control system (DCS) tuning; to 150 MW for three hours on February 2 to finish DCS tuning and conduct turbine valve tests; to 150 MW for five hours on February 3 to complete DCS tuning, turbine valve calibration and turbine valve tests; and to 175 MW for five and a half hours on February 16 to replace a module in A FD fan breaker relay. An outage has been scheduled in May to install the DA extraction steam control valve and another possibly in December for boiler exfoliation.

He then reviewed the environmental statistics for February and year-to-date. One three-hour block of SO<sub>2</sub> excess emissions was reported on January 6, 2017. This was only the third excess emissions incident since commercial operation began on January 6, 2011. The first quarter particulate matter (PM) stack testing has been completed. Annual Relative Accuracy Test Audit, Hazardous Air Pollutant and PM stack testing is scheduled for April 24 through May 2. The last required quarterly PM test is required for the fourth quarter of 2017 and we will then will return to just annual PM testing.

**Integrated Test Center Update.** Mr. Stalcup reported that an ITC financial tracking report has been created to continuously monitor actual construction expenses to project design cost estimates provided by Sargent & Lundy (S&L). Additional bid documents have been issued for the general work contract to rebid the fixed work added with Revision H. The media center has been built and we are waiting for a "delivered by" date. The limestone surface has been finished for the laydown and parking areas. Limestone is being stockpiled and topsoil is being stripped for the Small Test Center area. Installation of the SWP-01 spillway modification has begun. The size of the waste-holding tank for the ITC has been determined. The Powder River Energy Corporation (PRECorp) switchyard transformer contract has been written.

**20. Marketing & Asset Management Report**

Director of Marketing and Financial Analytics Valerie Weigel reviewed a chart of February SPP Wind-to-Load Penetration Levels and reported that Basin Electric saw the February position fluctuate due to LOS #1 and LOS #2 being offline or derated periodically throughout the month. Low prices were experienced on the back half of February due to low overall demand and higher wind in the market.

Drivers of the Basin Electric natural gas burns were LCS reliability runs, changes in natural gas and power prices from the time of the budget and underlying dispatch model assumptions. Impacts are the difficulty to hedge unforeseen positions and the variances in natural gas expense, purchase power expense and surplus sales expense.



Generation sales prices and load purchase prices for February were higher at the beginning of the month with increased loads and were reduced toward month-end given reduced demand and above-average temperatures across a majority of the SPP footprint.

Key takeaways are that the coal plants are providing consistent margins in the market each month and congestion at LRS is causing margins to be challenged. February presented lower load and more wind across the footprint than in January. Even with gas prices down 50 cents from January, gas peaking ran approximately 30 percent less than in January. Wind reached a market peak penetration level in February of 51.46 percent only to be topped in March at 51.94 percent. The break-even wind price in February across the fleet would be approximately \$15.150.

**SPP February Highlights.** Ms. Weigel reported a \$1.3 million unfavorable variance in February due to stronger wind than planned driving up long-term purchase power expenses. The average sales price was \$16.85/MWh versus the budget of \$20.55/MWh. The averaged purchased price was \$17.76/MWh versus the budget of \$20.55/MWh.

**West February Highlights.** She reported a \$0.2 million favorable variance in February due to a combination of low prices in the off-peak hours resulting in the units being backed down overnight. Many negative hours in SPP in the off-peak have allowed for back down of units and optimization across the ties. The average sales price was \$21.26/MWh versus the budget of \$24.40/MWh.

**MISO February Highlights.** Ms. Weigel reported a \$1.4 million favorable variance in February due to the average purchased price of \$18.39 versus the budget of \$24.25. Walter Scott #4 was in economic outage all of February.

She reported on the North Hub, Minnesota Hub and Palo Verde 2018 pricing, noting that 63 U.S. nuclear power plants have scheduled outages in 2017, leaving the market looking to fill in for a season average of approximately 1 Bcf/d of replacement power. Outages are expected to peak in April when 60 percent of the lost energy production is replaced by gas. Most outages are planned for mid-March to mid-April and are expected to leave 15.7 GW offline. There is a high risk for outage extension due to unplanned maintenance while refueling.

Ms. Weigel then discussed finding solutions for changing and evolving markets.

## 21. **Engineering & Construction Report, continued**

### **A. LRS Selective Catalytic Reduction Update**

Senior Project Manager Jim Lund provided an LRS Unit #1 Selective Catalytic Reduction (SCR) project update, noting that S&L engineering is 44 percent complete. Basin Electric engineering has been involved with specification and drawing submittal reviews, coordinating with LRS on weekly project calls and model reviews and participating in weekly vendor progress calls. Procurement reports that 10 of 13 equipment contracts have been awarded; six of eight service contracts have been awarded and one of three construction contracts have been awarded. Mr. Lund reported on the status of construction and craft labor housing.

### **B. LRS SCR General Works Contract Award**

Mr. Lund reviewed the installation scope and supply and installation scope of the SCR General Works Contract, as well as owner responsibilities, the bid evaluation process and criteria. He reviewed the bids, which came in 42 percent below the

estimate of \$72.9 million (without contingency) due to the very competitive construction market for large utility projects, SCR reactor size reduction and conservative labor cost estimate.

He reviewed the labor estimates from Babcock & Wilcox Construction Company (**BWCC**), Enerfab Inc., Graycor Construction (**Graycor**) and The Industrial Company, as well as the reasons for the BWCC cost differential. All bidders had extensive SCR experience and Graycor has Riley SCR experience.

After discussion, it was moved by Director Pearson, seconded by Director Presser and carried that the following Resolution be adopted:

**R02.03-13-17**

RESOLVED, that Contract #729421, LRS SCR General Works Contract, be awarded to Graycor Construction in the amount of \$43,373,280 (\$18,303,524 Basin Electric cost); and

BE IT FURTHER RESOLVED, that the CEO and General Manager, or his designee, be authorized to execute the required documents accordingly.

**C. North Killdeer Loop Phase I Project Close-out Report**

Ms. Wangler reported that the scope of this project included the construction of a 345 kV transmission line from the Roundup Substation to the Patent Gate Substation, as well as construction of substations at Patent Gate, Kummer Ridge and Roundup. During the course of this project, there was one lost-time incident and three recordable incidents, after which a safety coordinator was brought in. The Roundup Substation was placed in service on June 20, 2016, Patent Gate Substation on August 22, 2016, the Kummer Ridge Substation on September 27, 2016 and the Patent Gate-to-Kummer Ridge 345 kV line on September 27, 2016. We attempted to accelerate the schedule for McKenzie Electric Cooperative's needs. The budget for both phases of this project is \$180.6 million. To date, \$101.2 million has been spent with \$154 million yet to be completed for a total that is 14 percent under budget. This line will provide overall transfer capability of 1,082 MVA during summer peak, 1,509 MVA during winter peak and provides 1,332 MVA of capacity to 115 kV system. She presented photographs showing the difference in terrain for each of the project phases and of the completed project.

**22. Government Relations Report**

Interim Supervisor of Government Relations Dale Niezwaag reported that an announcement on the Clean Power Plan is expected this week. The Trump Administration would like both the Affordable Care Act replacement completed and the new Supreme Court Justice seated by April 7. The appropriations staff is working on the budget for fiscal year 2017. The continuing resolution that the federal government is currently running on expires at the end of April. President Trump hopes to substantially increase defense spending.

**North Dakota**. The DGC tax bill, which changes the method of calculating the coal conversion taxes paid by the Great Plains Synfuels Plant (**Synfuels Plant**), passed the North Dakota house and senate. There will be a slight increase in this tax for the next couple years, followed by a \$3 million savings going forward. He noted that Income Tax and Government Relations staff worked hard to get this done before the new budget forecast was released.

The Siting Act separation hearings are complete. Wind legislation is still active. Allam Cycle funding is on track. The new revenue forecast shows North Dakota to be about \$50 million short in this biennium and \$100 million short next biennium. Governor Burgum has requested a tour of the Synfuels Plant.

**Minnesota.** A local democracy bill, which would exempt cooperatives from regulation by the Minnesota Public Utilities Commission, passed the Minnesota house and senate. It is anticipated that Governor Dayton will veto the bill. The renewable energy groups are opposed to this legislation.

**Wyoming.** The legislature has adjourned.

**South Dakota.** The legislature adjourned on March 9 and will return on March 27 to consider items that were vetoed. SB 60, the bill that would remove the current restrictions on Heartland Consumers Power District's ability to sell its assets, passed on March 7.

**Montana.** The Right of First Refusal bill (transmission) passed in the Montana house on March 10. We've not yet heard the result of the senate hearing held on March 14.

**Iowa.** Legislative priorities, such as the move-over law for utility vehicles, geothermal tax credits and energy efficiency reporting rules are moving ahead. Director Applegate reported that Iowa expects a \$131 million revenue shortfall.

## **23. Human Resources Report**

Senior Vice President of Human Resources Diane Paul reported that Basin Electric has been chosen to receive the Extraordinary Employer Support Award, which recognizes sustained employer support of the National Guard and Reserve Service. This is the highest civilian award given by the military. The employer must be nominated by an employee and have already been awarded the Freedom Award to be eligible for this award.

She reported that, on a trial basis, medical services will now be opened to its retirees under the age of 65 that are on the Cooperative's medical plan. At this time, 261 retirees qualify.

Ms. Paul reported that Medical Services plans to offer sports physicals for school-age dependents and additional basic medical care appointments, and recommend hiring an additional nurse practitioner. This would be a direct savings for the Cooperative.

### **A. Safety Report**

Construction and Safety Coordinator Blake Stoner reviewed the focus card participation rate for 2016 and year-to-date. He noted in February, participation in the safety cards was 86 percent, the highest to date. The safety surveys have been distributed to some plant sites and will be offered at headquarters the week of March 20.

### **B. Communications & Creative Services Report**

Vice President of Communications and Creative Services Mary Miller reported that nearly 400 Brave the Shave participants have raised \$350,000 to support pediatric cancer research and to benefit the "Brave the Shave Family Fund". This is the tenth year Basin Electric has been involved in this fundraiser. She presented photographs

and a video of Brave the Shave events in the Bismarck/Mandan area from the past 10 years.

She reported on videos, photo shoots and ads recently produced for the membership. Publications recently completed include the 2016 Responsible Care Performance Report for DGC, the 2017 Cooperative Plan and the annual report.

President Peltier noted that Ms. Miller and her staff have done an outstanding job of organizing these events and that it makes the directors proud that the employees participate in these events.

**C. 2016 Charitable Giving Report**

Community Engagement Administrator Jennifer Holen reported that Basin Electric and its subsidiaries made 622 donations totaling over \$1.2 million in 2016. There were 278 donations made through the member-matching program totaling over \$405,000. Last year, the employees donated over \$36,500 for Jeans Days, donated more than 600 units of blood, the United Way campaign raised nearly \$220,000 and the employees donated food and money to fill and packed over 700 backpacks. She noted that 900 backpacks will be needed for the program in May this year. Ms. Holen also presented photographs of employees participating in various 2016 charitable giving events including Casual for a Cause, Sharing Tree at headquarters and DFS, Great American Bike Race, United Way backpack program, Brave the Shave, Rebuilding Together and Cookies and Cocoa with Santa.

**24. Financial Services Report**

Senior Vice President & Chief Financial Officer Steve Johnson reported that the first draft of the preliminary offering memorandum has been received and that staff was in New York City earlier this week for the first page-turning session. He expected to have a second draft to circulate next week and a document that can be given to the rating agencies in a couple weeks.

MUFG (Bank of Tokyo), RBC Capital Markets and US Bancorp will serve as joint book-running managers for this transaction. All organizations eligible and that participate will be listed on the cover. The top group will earn 75 percent of the total fees paid. Co-managers and managers will earn 15 percent and 10 percent, respectively, of the total fees paid.

He reviewed the organizational agenda and noted that we are targeting a \$500 million transaction with a generic 30-year bullet maturity; a 144A offering to public markets and using the proceeds for general corporate purposes. He reviewed the detailed offering timetable and noted that staff will be in New York on April 9-10 for a credit update and April 17-18 for investor calls. The calls will be allocated in one-hour blocks for review of a 20-to 25-page deck and then to answer questions. The proposed launch date for the transaction is April 19.

**A. Accounting Report**

Vice President & Controller Shawn Deisz reported that the February 2017 Statement of Operations reflects a net margin of \$19.0 million compared to the budgeted net margin of \$17.7 million for a favorable variance of \$1.3 million. The margin for February of 2016 was \$2.1 million.

Member sales were approximately \$8.1 million lower than budget, which includes the January negative actualization of \$1.0 million. February sales are \$7.1 million less than originally forecasted due to weather.

Surplus sales were approximately \$1.5 million higher than budget, and includes January actualization of \$1.4 million. February sales are \$0.1 million more than originally forecasted. A positive volume variance of \$1.4 million was offset by a negative price variance of \$1.3 million.

Operations expense was \$80.6 million compared to the budget of \$85.6 million for a \$5.0 million favorable variance. Purchase power expenses were more than budget by \$1.9 million. Offsetting this negative variance, fuel expenses were \$1.8 million less than anticipated. In addition, wheeling expenses and operation supervision and engineering were \$1.4 million and \$1.6 million less than anticipated, respectively.

Maintenance expense was \$9.4 million compared to the budget of \$10 million for a \$0.6 million favorable variance.

Ms. Deisz then reviewed year-to-date consolidated net income/loss and changes to the balance sheet and month-end cash. Year-to-date, the Basin Electric family has consolidated net income of \$49,352,079.

Basin Electric's February equity-to-asset ratio was 19.5 percent compared to 19.20 percent in January. The February equity-to-capitalization ratio using the Moody's Investor Services methodology (both without the consolidation entry for The Coteau Properties Company) was 22.8 percent compared to 22.4 percent in January. The February equity-to-capitalization ratio based on indenture requirements for patronage distribution was 23 percent compared to 23 percent in January.

## **B. Capital Credit Allocation**

Ms. Deisz reviewed the Cooperative's financial performance for 2016, noting that Basin Electric's allocable margin for the year is \$140,795,799.70 and Basin Cooperative Services' allocable net deficit was (\$27,157.15) for a combined allocable margin of \$140,768,642.55. She recommended that the Board allocate this margin. DGC will not qualify for an allocation this year and the entire allocation will go to the membership. She reminded the Board of Directors that Basin Electric allocates its margin on a pre-tax basis.

After discussion, it was moved by Director Drost, seconded by Director Thiessen and carried that the following Resolution be adopted:

### **R03.03-13-17**

WHEREAS, for the fiscal year ended December 31, 2016, Basin Electric Power Cooperative realized a margin before income taxes of \$140,795,799.70 and Basin Cooperative Services realized a net deficit of \$27,157.15 for a combined allocable margin of \$140,768,642.55;

NOW THEREFORE, BE IT RESOLVED, that the 2016 Basin Electric before-income-tax margin and the 2016 Basin Cooperative Services net deficit in the combined total of \$140,768,642.55 be allocated to the patrons of Basin Electric on a patronage basis in accordance with the provisions of the Bylaws of Basin Electric Power Cooperative.

**25. Board Committees, continued**

Director Brekel suggested several changes to the Board Committees document. The directors agreed to start in April. Director Drost noted that the Secretary-Treasurer should probably always sit on the Finance Committee. President Peltier asked each director to provide Mr. Sukut with his or her committee preferences (in order) and he would accommodate these requests to the extent possible. It was agreed that December would be a good time to change committees so new directors get into the rotation.

**26. Directors' Reports**

Director Pearson reported that Stephanie Herseth has recently been appointed president of Augustana University and, as a result, has declined the offer to serve as an outside DGC director.

Director Rohrer invited the directors and managers to Central Montana Electric Power Cooperative's annual meeting on March 30.

Director Thiessen reported that Upper Missouri Electric Cooperative (**Upper Missouri**) director Ray Clouse has resigned. He invited the directors and managers to Upper Missouri's annual meeting on April 6.

Director Gilbert invited the directors and managers to Corn Belt's annual meeting on April 5. He noted that Corn Belt will hold a strategic planning session next week. He also reported that there have been recent cases of bird flu in Tennessee and Wisconsin.

Director Brekel invited the directors and managers to Tri-State's annual meeting on April 5-6.

Director Applegate invited the directors and managers to Northwest Iowa Power Cooperative's annual meeting on April 4. He reported that three cases of bird flu have been reported in Iowa.

Director Drost invited the directors and staff to L & O Power Cooperative's annual meeting the evening of April 4.

Director Presser reported that he raised money and participated in the Brave the Shave fundraiser in Bismarck

**27. Date and Time of Next Board Meeting**

President Peltier noted that the next regularly scheduled meeting of the Board of Directors will begin on April 11, 2017 starting at approximately 1:00 p.m. CDT.

**28. Adjournment**

At 11:30 a.m., there being no further business to come before the Board, President Peltier adjourned the meeting.

  
\_\_\_\_\_  
Gary C. Drost  
Secretary-Treasurer