

Basin Electric Power Cooperative

Expanded Summary of Board of Directors Meeting

Oct. 13-14, 2020

Via Webex

1. There were no Basin Electric committees meeting this month.
2. Dakota Gasification Company
 - Dale Johnson, vice president and Synfuels Plant manager, said the plant is facing a lot of impacts on employees due to COVID-19. For example, welding is being done by a contractor due to employees in quarantine. The urea CO₂ compressor will be going through a metallurgy upgrade during a two-week turnaround set to begin on Oct. 26.
 - Daniel Gallagher, manager of commodity sales and trading, says dry fall conditions are limiting anhydrous ammonia applications. Dakota Gas has delivered eight unit trains of urea from July through October, and urea is sold out up to the urea outage at the end of October. Dak Sul 45 demand has started to pick up, though dry conditions have affected all products for fall. October demand for diesel exhaust fluid is strong due to other plant outages. There are production challenges with tar oil
 - Production (see slides below)
3. Dakota Coal Company
 - Dean Bray, manager of Dakota Coal and Montana Limestone, said the coal pile at Leland Olds Station was at 30.8 days of burn at the end of September (target is 47.9 days of burn). At Laramie River Station, the coal pile is at 98.4 days of burn (target is 34.6 days of burn). A 2013 LeTourneau L-1150 loader was purchased for Freedom Mine. All of Wyoming Lime Company's customers have taken less lime than projected, with the exception of Antelope Valley Station.
 - ACTION: Dakota Coal directors approved establishment of Promissory Note No. 28 between The Coteau Properties Company and Dakota Coal.
4. Basin Electric
 - Board Audit Committee
 - Faye Miller, chief auditor, gave a progress report on the Internal Auditing 2020 work plan.
 - Mark Foss, senior vice president and general counsel
 - ACE Rule: Oral arguments were held Oct. 8, before the DC Circuit, via Zoom.
 - Federal Energy Regulatory Commission (FERC) accepted the Wholesale Power Contract and Rate Schedule A filings on Sept. 14, and set them for hearing and settlement effective Sept. 15. A settlement judge and trial staff have been assigned.

- FERC issued three orders in the Basin Electric transmission dockets. These orders became final Oct. 8.
- A hearing is set for Nov. 16 on the McKenzie vs. Basin Electric and Upper Missouri Power Cooperative case.
- Dale Niezwaag, vice president of government relations
 - Basin Electric is participating in a Wind Industry of North Dakota (WIND) study. Conducted by North Dakota State University, the last study was done in 2016.
 - Ladd Erickson, McLean County (North Dakota) State's Attorney plans to make several proposals during the 2021 Legislative Session: no renewable energy development on mining lands; Public Service Commission approval required to close a coal plant; Bank of North Dakota financing for coal projects; consumer protections for landowners on wind leases and farmers for utility/transmission accidents; and concerning pore space.
 - Lignite Energy Council is evaluating proposals to support coal generation.
 - Iowa Economic Development Authority received federal funds for utility accounts that experience a loss of income due to the COVID-19 global pandemic. Due to low commercial account applications, Iowa is now allowing residential customers to apply for those funds.
 - The South Dakota legislature held a special session on Oct. 5 to appropriate \$1.25 billion in federal COVID-19 relief funds. Ten million dollars has been designated for "housing assistance" (rent, utilities, and mortgages).
 - The Minnesota Supreme Court heard oral arguments on a case involving the Nemadji Trail Energy Center on Oct. 6.
 - U.S. Senate and House are in negotiations for USE IT Act.
 - FERC held a listening session on Sept. 30 on carbon dioxide pricing, hearing comments from universities, regional transmission organizations, and utilities and generators.
 - Basin Electric staff will present during an upcoming Southwest Power Pool virtual conference, and during an upcoming Bismarck-Mandan Chamber Leadership class on energy.
- Troy Tweeten, senior vice president of Operations
 - Actual Generation (see slide below)
 - Laramie River Station has needed boiler tube repairs on all three units.
- Dave Raatz, senior vice president of Asset Management, Resource Planning, and Rates
 - The Wyoming Municipal Power Agency board voted to approve joining Basin Electric as a Class A member in District 9 during its meeting

- Sept. 17. Next steps include contract development and finalization and effective date discussion, to occur after Feb. 1.
- Corn Belt Power Cooperative's wholesale power contract amendment #4 was filed with FERC.
 - Val Weigel, director of asset management and commodity strategy
 - September on-peak power prices spiked over the Labor Day weekend due to high temperatures and fire in California.
 - Tom Christensen, senior vice president of Transmission, Engineering, and Construction
 - Southwest Power Pool approved its 2020 Integrated Transmission Plan. There are 45 projects, totaling \$500 million. In the Upper Missouri Zone, there are seven projects totaling \$22 million.
 - Gavin McCollam, vice president of engineering and construction
 - Leland Olds Station bottom ash dewatering, pond closure, and coal pond expansion project is complete.
 - Chapelle Creek Switchyard construction is complete.
 - Dirtwork has begun at Lonesome Creek Station Unit 6.
 - Preliminary work has begun on the Neset-to-North Shore 230-kilovolt project.
 - The LOS-to-Groton line was energized on Sept. 9, and the LOS-to-Fort Thompson line was energized on Sept. 23. Both were flooded out and needed to be raised up.
 - Justin Kringstad, director of the North Dakota Pipeline Authority, presented to the board on oil and gas in the state.
 - Large Capital Projects (see slide below)
 - ACTION: Basin Electric directors authorized sending a letter of intent to SPP to work toward expanding the regional transmission organization into the West
 - Chris Baumgartner, senior vice president of Member Services and Administration
 - Attendance at the Manager's Conference was 123 people. It was held virtually due to the COVID-19 global pandemic.
 - The 2020 Basin Electric Annual Meeting of the Membership will be held virtually on Nov. 4 due to the COVID-19 global pandemic. Voting delegates will attend via secure Webex. Everyone else can watch via a livestream at basinelectric.com.
 - Voting delegates must sign on by 8:15 a.m. so that quorum can be established. If quorum is not established by 8:30 a.m., the meeting will be delayed.

- The Members-Only Meeting will be held the afternoon of Nov. 4. Webex invites will be sent to all co-op managers.
- Robert Johnston of the Eurasia Group may visit with the board in December.
- Diane Paul, senior vice president of Human Resources
 - There have been 113 positive COVID-19 cases within employee base.
 - ACTION: Basin Electric directors approved the Labor Contract with IBEW N0. 1593 (AVS, LOS, PWND, PWSD, & TSM).
 - ACTION: Basin Electric directors amended and updated the Health and Welfare WRAP Plan.
 - ACTION: Basin Electric directors appointed Troy Tweeten to replace John Jacobs on the 401(k) Investment Committee.
- Steve Johnson, chief financial officer and senior vice president
 - The group Insure our Future (formerly Unfriend Coal) has broadened its scope in making insurance companies step away from underwriting and investing in coal to now include oil and gas projects.

Generation

Total energy available for sale in September was estimated to be 2.5 million megawatt hours (MWh). (Note: This line used to signify total generation from Basin Electric's resource portfolio. This number now includes purchases in the Southwest Power Pool.)

Electricity sold to member systems during September was estimated at 2.0 million MWh compared to the forecast of 2.0 million MWh. Surplus sales were estimated at 450,000 MWh, compared to the forecast of 562,000 MWh.

At the Great Plains Synfuels Plant, deliveries to the pipeline averaged 36.8 million standard cubic feet per day of natural gas produced from coal. The plant operated at 56 percent of capacity during the month.

Total tons of saleable fertilizer produced was 32,621 tons. That includes anhydrous ammonia, granular urea, urea content in diesel exhaust fluid, and ammonium sulfate.

Synfuels Plant production, shipment, and storage

Production, shipment, and storage data for September 2020 for selected products at the Great Plains Synfuels Plant were as follows:

Anhydrous ammonia – 16,742 tons produced; 10,300 tons were shipped.

Urea – 21,180 tons produced; 21,936 tons shipped.

DAK SUL 45 (ammonium sulfate) – 6,701 tons produced; 8,867 tons were shipped.

Carbon dioxide – About 2,341 million standard cubic feet were delivered during the month.

Financial data

Basin Electric Consolidated NET INCOME AFTER TAX

UNAUDITED						
September 2020						
	Monthly Actuals	Monthly Budget	Over/(Under) Budget	YTD Actuals	YTD Budget	Over/(Under) Budget
(in millions)						
Basin Electric	\$ 8.9	\$ 13.6	\$ (4.7)	\$ 116.2	\$ 94.8	\$ 21.4
Dakota Gasification Company	(17.8)	(7.8)	(10.0)	(89.5)	(31.4)	(58.1)
Dakota Coal Company	(5.9)	(1.4)	(4.5)	0.5	(1.0)	1.5
Interco. Eliminations & Other*	17.8	7.9	9.9	89.7	31.6	58.1
Consolidated Net Income/(Loss) After Tax	\$ 3.0	\$ 12.3	\$ (9.3)	\$ 116.9	\$ 94.0	\$ 22.9

Basin Electric

For the month of September, Basin Electric reported an after-tax margin of \$8.9 million compared to a budgeted after-tax margin of \$13.6 million.

- Member sales were under budget mainly due to lower volumes; an unfavorable variance of \$9.1 million.
- Surplus sales were under budget mainly due to lower DGC sales; an unfavorable variance of \$0.8 million.
- Operating and maintenance expenses were lower than budget; a favorable variance of \$14.4 million.
 - Mainly due to lower fuel costs, transmission wheeling and other power supply expenses.

Dakota Gas

For the month of September, Dakota Gasification reported an after-tax net loss of \$17.8 million compared to a budgeted net loss of \$7.8 million.

- Synthetic natural gas revenue was lower than budget due to lower prices; an unfavorable variance of \$2.7 million.
- By-product and co-product sales were lower than budget; an unfavorable variance of \$8.0 million.
 - Urea revenue was \$4.1 million lower, tar oil revenue was \$1.0 million lower, and phenol revenue was \$0.6 million lower all as a result of lower prices and lower volumes.
 - Naphtha revenue was \$0.6 million lower and ammonia revenue was \$0.3 million lower as a result of lower prices as volumes were higher than budgeted.
- Operating expenses were greater than budget; an unfavorable variance of \$0.8 million.
- The income tax benefit for the month was \$1.3 million more than budgeted due to a greater net loss than budgeted.

Dakota Coal

For the month of September, Dakota Coal Company reported after-tax net loss of \$5.9 million, compared to a budgeted net loss of \$1.4 million.

- An unrealized loss of \$2.0 million was recorded on mine closing fund investments.
- Lignite coal sales were \$5.9 million lower than budget as a result of fewer tons sold.
- Lignite coal purchases were \$2.6 million lower than budget.

Slides of interest:

Dakota Gas Production

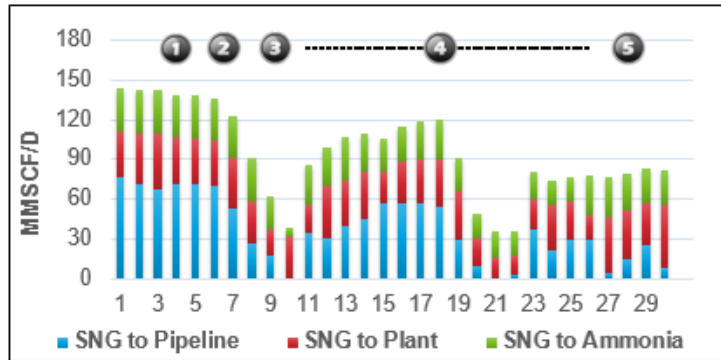
Synthetic Natural Gas (SNG)

Actual Capacity Factor	56.0%
Budgeted Capacity Factor	85.3%
YTD Actual Capacity Factor	83.8%
YTD Budget Capacity Factor	87.3%

Availability	71.9%
Utilization	77.9%

Actual Production (dts)	1,084,263
Budget (dts)	2,597,010
YTD Actual Production (dts)	21,974,958
YTD Budget (dts)	24,568,205

Delivery Average (MMSCF/D)	36.864
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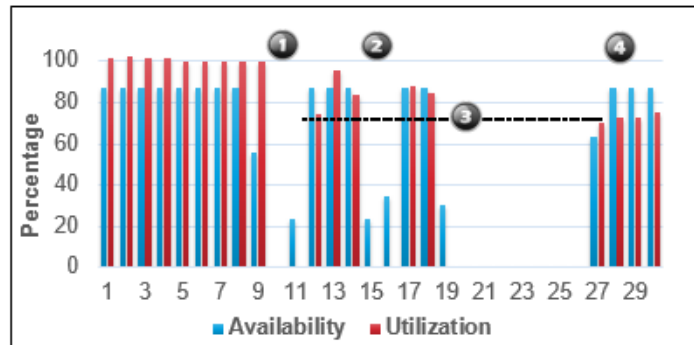


Production Impacts (MMSCF)		
1	DA4602 tower leak - gas path rate reduced	27.75
2	AMAC bearing replacement - gas path at half rate	76.37
3	Control system communications failure - plant trip	189.29
4	Scheduled B-Riley boiler turnaround, A & S-Riley tube leaks	1009.52
5	GB1402 seal leak	190.61

Ammonia

Average Capacity Factor	50.7%
YTD Capacity Factor	75.6%

Ammonia Production (tons)	16,742
Ammonia Budget (tons)	29,700
YTD Actual Production (tons)	227,730
YTD Budget (tons)	271,260



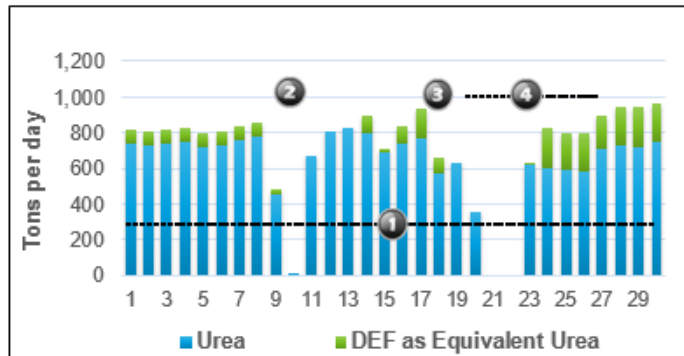
Production Impacts (tons)		
1	Control system communications failure	2,167
2	Trip due to blown fuse	
3	Scheduled B-Riley boiler turnaround, A & S-Riley tube leaks	10,185
4	GB1402 seal leak	763

Average Capacity Factor	64.2%
YTD Capacity Factor	76.5%
Urea Independent Capacity Factor	76.5%

Actual Equivalent Production (tons)	21,180
DEF as Equivalent Urea (tons)	2,641
Budget (tons)	30,300
YTD Actual Equivalent Production (tons)	230,469
YTD Budget (tons)	278,530

Ammonia Consumed (tons)	12,002
YTD Ammonia Consumed (tons)	131,886

Urea



Production Impacts (tons)		
1	CO2 compressor limited due to vibrations on oil skid	2,871
2	Control system communications failure	1,864
3	CO2 compressor lube oil leak	345
4	Scheduled B-Riley boiler turnaround, A& S-Riley tube leaks	4,040

Diesel Exhaust Fluid (DEF)

Total Actual Production (gal)	1,110,772
Budget (gal)	1,636,620
YTD Actual Production (gal)	12,921,070
YTD Budget (gal)	14,947,796

Production Impacts (gal)	
Inventory management	185,416
Control system communications failure - plant trip	319,422
CO2 compressor oil leak	17,484
Scheduled B-Riley boiler turnaround, A& S-Riley tube leaks	266,116



Ammonium Sulfate (Dak Sul 45®)

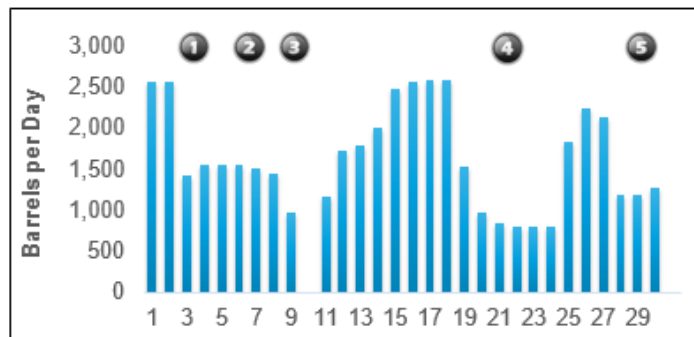
Actual Production (tons)	6,701
Budget (tons)	8,250
YTD Actual Production (tons)	68,111
YTD Budget (tons)	82,413

Production Impacts (tons)	
Gas path rate reduced due to scheduled B-Riley boiler turnaround and A & S-Riley boiler tube leaks	668
B-compactor motor replacement	738
A-compactor roll replacement	385



Fuel Grade Tar Oil

Actual Production (bbl)	48,000
Budget (bbl)	76,680
YTD Actual Production (bbl)	326,058
YTD Budget (bbl)	716,478



Production Impacts (bbl)	
① DA4602 tower leak - gas path rate reduced	172,567
② AMAC bearing replacement - gas path at half rate	90,118
③ Control system communications failure - plant trip	173,117
④ Scheduled B-Riley boiler turnaround, A & S-Riley tube leaks	609,180
⑤ GB1402 seal leak	166,928

Co-Products

	CO ₂	Naphtha	Phenol	Cresylic Acid	Krypton Xenon	Liquid CO ₂	Nitrogen
	MMSCF	gallons	gallons	gallons	liters	tons	gallons
Actual Production	2,341	463,389	119,578	116,958	230,232	2,115	28,090
Budget	2,850	643,710	275,760	258,120	261,000	4,500	60,000
YTD Actual Production	22,795	5,582,881	1,848,921	1,535,803	2,320,290	8,167	427,342
YTD Budget	25,730	6,014,668	2,468,559	2,310,657	2,438,700	34,420	393,000

Production Impacts

- All co-products were impacted by reduced gas path rate throughout the majority of the month

Actual Generation

Actual Generation*

Facilities	2020 September		%	2020 Year-to-Date		%
Coal Plants	Budgeted MW's	2,047,166	-20.7	Budgeted MW's	18,951,471	-20.2
	Actual MW's	1,623,580		Actual MW's	15,132,301	
	Difference	-423,586		Difference	-3,819,170	
Oil / Gas Plants	Budgeted MW's	202,347	-45.2	Budgeted MW's	1,979,961	-8.5
	Actual MW's	110,971		Actual MW's	1,812,462	
	Difference	-91,376		Difference	-167,499	
Wind	Budgeted MW's	83,467	-17.5	Budgeted MW's	750,796	-11.5
	Actual MW's	68,820		Actual MW's	664,097	
	Difference	-14,647		Difference	-86,699	
Fleet	Budgeted MW's	2,332,979	-22.7	Budgeted MW's	21,682,228	-18.8
	Actual MW's	1,803,371		Actual MW's	17,608,860	
	Difference	-529,608		Difference	-4,073,368	

*Solid Fuel Plants includes 100% of DFS and LRS / Wind, Oil and Gas include only Basin Electric Owned/Operated Facilities

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Large Capital Projects

Project Name	Approved Budget (M)	Total Committed (M)	Forecast at Completion (M)	Completion Date
LOS Bottom Ash Dewatering/Pond Closure/Coal Pond Expansion	\$81.6	\$73.5	\$73.5	October 2020
Chapelle Creek Switchyard	\$22.5	\$15.3	\$15.5	October 2020
LRS SCR	\$337.1	\$199.9	\$201.5	May 2021
Dickinson Second Transformer	\$12.6	\$7.9	\$9.6	August 2021
Lonesome Creek 6	\$63.7	\$36.2	\$43.7	December 2021
Neset to Northshore 230kV	\$57.4	\$0.7	\$50.8	December 2022
LRS U3 480V Switchgear Upgrade	\$13.5	\$7.1	\$12.0	June 2023
LRS CCR Holding Ponds Closure and Reconstruction	\$35.3	\$18.2	\$33.1	October 2025

