

**MONTANA-DAKOTA UTILITIES CO.
DEPRECIATION EXPENSE ON PLANT ADDITIONS
ELECTRIC UTILITY - SOUTH DAKOTA
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2014**

Acct. No.	Account	Plant Additions 1/	Annual Depreciation Rate	Amount
	<u>Steam Production Plant</u>			
	<u>Heskett - 810</u>			
311	Structures & Improvements	\$52,074	5.75%	\$2,994
312	Boiler Plant Equipment	41,684	3.37%	1,405
314	Turbogenerator units	7,363	4.03%	297
315	Accessory Equipment	31,152	3.51%	1,093
316	Miscellaneous Equipment	3,566	3.72%	133
	Total Heskett	\$135,839		\$5,922
	<u>Lewis & Clark - 820</u>			
311	Structures & Improvements	\$35,077	2.14%	\$751
312	Boiler Plant Equipment	45,321	4.16%	1,885
314	Turbogenerator units	16,733	2.41%	403
316	Miscellaneous Equipment	1,043	4.67%	49
	Total Lewis & Clark	\$98,174		\$3,088
	<u>Coyote - 830</u>			
311	Structures & Improvements	\$524	1.01%	\$5
312	Boiler Plant Equipment	70,509	1.35%	952
314	Turbogenerator units	20,787	2.42%	503
315	Accessory Equipment	459	1.67%	8
316	Miscellaneous Equipment	3,008	3.85%	116
	Total Coyote	\$95,287		\$1,584
	<u>Big Stone - 861</u>			
311	Structures & Improvements	\$3,467	0.69%	\$24
312	Boiler Plant Equipment	167,414	3.48%	5,826
314	Turbogenerator units	500	3.57%	18
315	Accessory Equipment	240	2.33%	6
316	Miscellaneous Equipment	572	4.32%	25
	Total Big Stone	\$172,193		\$5,899
	<u>Total Steam Production</u>			
311	Structures & Improvements	\$91,142		\$3,774
312	Boiler Plant Equipment	324,928		10,068
314	Turbogenerator units	45,383		1,221
315	Accessory Equipment	31,851		1,107
316	Miscellaneous Equipment	8,189		323
	Total Steam Production	\$501,493		\$16,493

**MONTANA-DAKOTA UTILITIES CO.
DEPRECIATION EXPENSE ON PLANT ADDITIONS
ELECTRIC UTILITY - SOUTH DAKOTA
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2014**

Acct. No.	Account	Plant Additions 1/	Annual Depreciation Rate	Amount
	<u>Other Production Plant</u>			
	<u>Heskett III Gas Turbine - 810</u>			
344	Generators	\$46,813	2.48%	\$1,161
	<u>Glendive Turbine - Unit 1 and Common - 851</u>			
344	Generators	\$7,518	2.74%	\$206
346	Miscellaneous Equipment	944	10.42%	98
	Total Glendive Turbine - Unit 1	<u>\$8,462</u>		<u>\$304</u>
	<u>Miles City Turbine - 852</u>			
342	Fuel Holders, Producers & Acces.	\$4,667	10.69%	\$499
344	Generators	9,160	4.11%	376
345	Accessory Equipment	5,030	11.41%	574
	Total Miles City Turbine	<u>\$18,857</u>		<u>\$1,449</u>
	<u>Diamond Willow Wind Farm - 856</u>			
344	Generators	\$15,796	5.88%	\$929
	<u>Ormat - 857</u>			
344	Generators	\$6,322	5.21%	\$329
	<u>Cedar Hills Wind Farm - 858</u>			
344	Generators	\$6,903	5.03%	\$347
	<u>Other Production Summary</u>			
342	Fuel Holders, Producers & Acces.	\$4,667		\$499
344	Generators	92,512		3,348
345	Accessory Equipment	5,030		574
346	Miscellaneous Equipment	944		98
	Total Other Production	<u>\$103,153</u>		<u>\$4,519</u>
	<u>Transmission Plant</u>			
353	Station Equipment	\$290,552	1.58%	\$4,591
355	Poles and Fixtures	204,842	2.99%	6,125
356	Overhead Conductor & Devices	177,145	1.53%	2,710
	Total Transmission Plant	<u>\$672,539</u>		<u>\$13,426</u>
	<u>Distribution Plant</u>			
362	Station Equipment	\$97,492	1.92%	\$1,872
365	Overhead Conductors & Devices	18,758	2.91%	546
367	Underground Conductor & Devices	116,924	3.00%	3,508
368	Line Transformers	264,849	2.10%	5,562
369	Services	40,739	2.65%	1,080
370	Meters	40,167	7.19%	2,888
373	Street Lights	17,656	2.88%	508
	Total Distribution Plant	<u>\$596,585</u>		<u>\$15,964</u>

**MONTANA-DAKOTA UTILITIES CO.
DEPRECIATION EXPENSE ON PLANT ADDITIONS
ELECTRIC UTILITY - SOUTH DAKOTA
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2014**

Acct. No.	Account	Plant Additions 1/	Annual Depreciation Rate	Amount
	<u>General Plant</u>			
392.2	Trans. Equip., Unitized	\$73,835	5.48% 2/	\$4,046
394.1	Tools, Shop & Gar. Eq.-Non-Un.	15,243	5.00%	762
396.2	Power Operated Equip.	147,861	5.39% 2/	7,970
397.1	Radio Comm. Equip.-Fixed	810	6.67%	54
	Total General Plant	\$237,749		\$12,832
303	Intangible Plant - General	\$34,167	3/	\$3,417
	<u>Common Plant</u>			
390	Structures and Improvements	\$11,627	2.31%	\$269
391.1	Furniture and Fixtures	14,903	6.67%	994
391.3	Computer Equip. - PC	4,587	20.00%	917
391.5	Computer Equip. - Other	35,503	20.00%	7,101
392.2	Trans. Equip., Unitized	36,167	6.65% 2/	2,405
394.1	Tools, Shop & Gar. Equip., Non-Un.	291	5.56%	16
397.1	Radio Comm. Equip.-Fixed	32,880	6.67%	2,193
397.3	General Tele. Comm. Equip.	5,415	10.00%	542
397.8	Network Equipment	2,966	20.00%	593
398	Miscellaneous Equipment	978	5.00%	49
	Total Common Plant	\$145,317		\$15,079
303	Intangible Plant - Common	\$122,533	3/	\$10,548
	Total Electric Plant in Service	\$2,413,536		\$92,278

1/ See Rule 20:10:13:54, Statement D, pages 3 - 9.

2/ Charged to a clearing account.

3/ Amortization based on life of each item.

Montana-Dakota Utilities Company
Common Plant

Summary of Original Cost of Utility Plant in Service as of December 31, 2014
and Related Annual Depreciation Expense Under Present and Proposed Rates

Account No. (a)	Description (b)	Original Cost 12/31/14 (c)	Present Rates		Proposed Rates						Net Change Depr. Exp. (l)		
			Rate % (d)	Annual Accrual (e)	Proposed Plant Only Rates		Proposed Gross Salv Rates		Proposed COR Rates			Total Proposed Rates	
					Rate % (f)	Annual Accrual (g)	Rate % (i)	Annual Accrual (j)	Rate % (h)	Annual Accrual (k)	Rate % (m)	Annual Accrual (n)	
DEPRECIABLE PLANT													
General Plant													
390.0	General Structures	49,299,196.01	2.11%	1,042,311.35	2.60%	1,281,779.10	0.02%	9,859.84	-0.31%	(152,827.51)	2.31%	1,138,811.43	96,500.08
OFFICE FURNITURE & EQUIPMENT													
391.1	Office Furniture & Equipment	2,599,028.93	6.67%	173,268.60	6.67%	173,268.60	0.00%	0.00	0.00%	0.00	6.67%	173,268.60	0.00
391.3	Computer Equipment - PC	1,796,304.13	20.00%	359,260.83	20.00%	359,260.83	0.00%	0.00	0.00%	0.00	20.00%	359,260.83	0.00
391.5	Computer Equipment - Other	2,083,247.21	20.00%	416,649.44	20.00%	416,649.44	0.00%	0.00	0.00%	0.00	20.00%	416,649.44	0.00
	TOTAL Account 391	6,478,580.27	14.65%	949,178.87	14.65%	949,178.87	0.00%	0.00	0.00%	0.00	14.65%	949,178.87	0.00
TRANSPORTATION EQUIPMENT													
392.1	Transportation Equipment (Trailers)	2,482.58	4.17%	103.52	0.00%	0.00	0.00%	0.00	0.00%	0.00 (1)	0.00%	0.00	(103.52)
392.2	Transportation Equipment (Cars & Trucks)	7,053,425.86	4.11%	289,895.80	10.73%	756,832.59	-4.08%	(287,779.78)	0.00%	0.00	6.65%	469,052.82	179,157.02
	TOTAL Account 392	7,055,908.44	4.11%	289,999.32	10.73%	756,832.59	-4.08%	(287,779.78)	0.00%	0.00	6.65%	469,052.82	179,053.50
393.0	Stores Equipment	97,054.09	3.33%	3,235.14	3.33%	3,235.14	0.00%	0.00	0.00%	0.00	3.33%	3,235.14	0.00
TOOLS, SHOP & GARAGE EQ.													
394.1	Tools, Shop & Garage Equip. (Non-Utilized)	514,458.89	5.56%	28,581.05	5.56%	28,581.05	0.00%	0.00	0.00%	0.00	5.56%	28,581.05	0.00
394.3	Vehicle Maintenance Equipment	104,823.25	5.00%	5,241.16	5.00%	5,241.16	0.00%	0.00	0.00%	0.00	5.00%	5,241.16	0.00
394.4	Vehicle Refueling Equipment	14,529.19	5.00%	726.46	5.00%	726.46	0.00%	0.00	0.00%	0.00	5.00%	726.46	0.00
	TOTAL Account 394	633,811.33	5.45%	34,548.67	5.45%	34,548.67	0.00%	0.00	0.00%	0.00	5.45%	34,548.67	0.00
COMMUNICATION EQUIPMENT													
397.1	Radio Communication Equip. (Fixed)	1,591,742.35	6.67%	106,116.16	6.67%	106,116.16	0.00%	0.00	0.00%	0.00	6.67%	106,116.16	0.00
397.2	Radio Communication Equip. (Mobile)	810,002.48	6.67%	54,000.17	6.67%	54,000.17	0.00%	0.00	0.00%	0.00	6.67%	54,000.17	0.00
397.3	General Telephone Communication Equip.	508,064.64	10.00%	50,806.46	10.00%	50,806.46	0.00%	0.00	0.00%	0.00	10.00%	50,806.46	0.00
397.5	Supervisory & Telemetering Equip.	26,716.56	6.67%	1,781.10	6.67%	1,781.10	0.00%	0.00	0.00%	0.00	6.67%	1,781.10	0.00
397.8	Network Equipment	275,521.69	20.00%	55,104.34	20.00%	55,104.34	0.00%	0.00	0.00%	0.00	20.00%	55,104.34	0.00
	TOTAL Account 397	3,212,047.72	8.34%	267,808.23	8.34%	267,808.23	0.00%	0.00	0.00%	0.00	8.34%	267,808.23	0.00
398.0	Miscellaneous Equipment	1,238,732.27	5.00%	61,936.61	5.00%	61,936.61	0.00%	0.00	0.00%	0.00	5.00%	61,936.61	0.00
	Sub-Total (General Plant) Amortization	11,660,225.68	11.29%	1,316,707.52	11.29%	1,316,707.52	0.00%	0.00	0.00%	0.00	11.29%	1,316,707.52	0.00
	TOTAL General Plant	68,015,330.13	3.89%	2,649,018.19	4.93%	3,355,319.21	-0.41%	(277,919.94)	-0.22%	(152,827.51)	4.30%	2,924,571.77	275,553.58
	TOTAL Depreciable Plant	68,015,330.13	3.89%	2,649,018.19	4.93%	3,355,319.21	-0.41%	(277,919.94)	-0.22%	(152,827.51)	4.30%	2,924,571.77	275,553.58

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Montana-Dakota Utilities Company
Common Plant

Summary of Original Cost of Utility Plant in Service as of December 31, 2014
and Related Annual Depreciation Expense Under Present and Proposed Rates

Account No. (a)	Description (b)	Original Cost 12/31/14 (c)	Present Rates		Proposed Plant Only Rates		Proposed Gross Salv Rates		Proposed COR Rates		Total Proposed Rates		Net Change Depr. Exp. (l)
			Rate % (d)	Annual Accrual (e)	Rate % (f)	Annual Accrual (g)	Rate % (i)	Annual Accrual (j)	Rate % (h)	Annual Accrual (k)			
<u>Amortizable Plant</u>													
392.3	Aircraft Equipment	4,333,824.70											
	TOTAL Amortizable Plant	4,333,824.70											
<u>NON-DEPRECIABLE PLANT</u>													
389.0	Land & Land Rights (General)	3,086,836.15											
	Total Land	3,086,836.15											
<u>INTANGIBLE PLANT</u>													
303.0	Miscellaneous Intangible Plant	50,883,328.74											
	Total Intangible Plant	50,883,328.74											
	TOTAL Non-Depreciable Plant	53,970,164.89											
	TOTAL Plant in Service	126,319,319.72											
	(1) Account Fully Depreciated. No further current depreciation accrual.												

Montana-Dakota Utilities Company
Common Plant

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General Plant														
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OFFICE FURNITURE & EQUIPMENT														
391.1	Office Furniture & Equipment	2,599,028.93	6.67%	173,268.60	6.67%	173,268.60	0.00%	0.00	0.00%	0.00	6.67%	173,268.60	0.00	
391.3	Computer Equipment - PC	1,796,304.13	20.00%	359,260.83	20.00%	359,260.83	0.00%	0.00	0.00%	0.00	20.00%	359,260.83	0.00	
391.5	Computer Equipment - Other	2,083,247.21	20.00%	416,649.44	20.00%	416,649.44	0.00%	0.00	0.00%	0.00	20.00%	416,649.44	0.00	
	TOTAL Account 391	6,478,580.27	14.65%	949,178.87	14.65%	949,178.87	0.00%	0.00	0.00%	0.00	14.65%	949,178.87	0.00	
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	TOTAL Account 392	7,055,908.44	4.11%	289,999.32	10.73%	756,832.59	-4.08%	(287,779.78)	0.00%	0.00	6.65%	469,052.82	179,053.50	
393.0	Stores Equipment	97,054.09	3.33%	3,235.14	3.33%	3,235.14	0.00%	0.00	0.00%	0.00	3.33%	3,235.14	0.00	
TOOLS, SHOP & GARAGE EQ.														
394.1	Tools, Shop & Garage Equip. (Non-Unitized)	514,458.89	5.56%	28,581.05	5.56%	28,581.05	0.00%	0.00	0.00%	0.00	5.56%	28,581.05	0.00	
394.3	Vehicle Maintenance Equipment	104,823.25	5.00%	5,241.16	5.00%	5,241.16	0.00%	0.00	0.00%	0.00	5.00%	5,241.16	0.00	
394.4	Vehicle Refueling Equipment	14,529.19	5.00%	726.46	5.00%	726.46	0.00%	0.00	0.00%	0.00	5.00%	726.46	0.00	
	TOTAL Account 394	633,811.33	5.45%	34,548.67	5.45%	34,548.67	0.00%	0.00	0.00%	0.00	5.45%	34,548.67	0.00	
COMMUNICATION EQUIPMENT														
397.1	Radio Communication Equip. (Fixed)	1,591,742.35	6.67%	106,116.16	6.67%	106,116.16	0.00%	0.00	0.00%	0.00	6.67%	106,116.16	0.00	
397.2	Radio Communication Equip. (Mobile)	810,002.48	6.67%	54,000.17	6.67%	54,000.17	0.00%	0.00	0.00%	0.00	6.67%	54,000.17	0.00	
397.3	General Telephone Communication Equip.	508,064.64	10.00%	50,806.46	10.00%	50,806.46	0.00%	0.00	0.00%	0.00	10.00%	50,806.46	0.00	
397.5	Supervisory & Telemetry Equip.	26,716.56	6.67%	1,781.10	6.67%	1,781.10	0.00%	0.00	0.00%	0.00	6.67%	1,781.10	0.00	
397.8	Network Equipment	275,521.69	20.00%	55,104.34	20.00%	55,104.34	0.00%	0.00	0.00%	0.00	20.00%	55,104.34	0.00	
	TOTAL Account 397	3,212,047.72	8.34%	267,808.23	8.34%	267,808.23	0.00%	0.00	0.00%	0.00	8.34%	267,808.23	0.00	
398.0	Miscellaneous Equipment	1,238,732.27	5.00%	61,936.61	5.00%	61,936.61	0.00%	0.00	0.00%	0.00	5.00%	61,936.61	0.00	
	Sub-Total (General Plant) Amortization	11,660,225.68	11.29%	1,316,707.52	11.29%	1,316,707.52	0.00%	0.00	0.00%	0.00	11.29%	1,316,707.52	0.00	
	TOTAL General Plant	68,015,330.13	3.89%	2,649,018.19	4.93%	3,355,319.21	-0.41%	(277,919.94)	-0.22%	(152,827.51)	4.30%	2,924,571.77	275,553.58	
	TOTAL Depreciable Plant	68,015,330.13	3.89%	2,649,018.19	4.93%	3,355,319.21	-0.41%	(277,919.94)	-0.22%	(152,827.51)	4.30%	2,924,571.77	275,553.58	

Montana-Dakota Utilities Company
Common Plant

Summary or Original Cost of Utility Plant in Service as of December 31, 2014
and Related Annual Depreciation Expense Under Present and Proposed Rates

Account No. (a)	Description (b)	Original Cost 12/31/14 (c)	Proposed Rates										Net Change Depr. Exp. (l)
			Present Rates		Proposed Plant Only Rates		Proposed Gross Salv Rates		Proposed COR Rates		Total Proposed Rates		
			Rate % (d)	Annual Accrual (e)	Rate % (f)	Annual Accrual (g)	Rate % (f)	Annual Accrual (g)	Rate % (h)	Annual Accrual (i)	Rate % (j)	Annual Accrual (k)	
<u>Amortizable Plant</u>													
392.3	Aircraft Equipment	4,333,824.70											
	TOTAL Amortizable Plant	4,333,824.70											
<u>NON-DEPRECIABLE PLANT</u>													
389.0	Land & Land Rights (General)	3,086,836.15											
	Total Land	3,086,836.15											
INTANGIBLE PLANT													
303.0	Miscellaneous Intangible Plant	50,883,328.74											
	Total Intangible Plant	50,883,328.74											
	TOTAL Non-Depreciable Plant	53,970,164.89											
	TOTAL Plant in Service	126,319,319.72											
	(1) Account Fully Depreciated. No further current depreciation accrual.												

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**MONTANA-DAKOTA UTILITIES CO.
CALCULATION OF INTANGIBLE AMORTIZATION
GAS UTILITY - SOUTH DAKOTA
PRO FORMA 2015**

		<u>Total Company</u>	<u>Expected Year Life</u>	<u>Amortization</u>	<u>Average</u>
	<u>2015 General Intangible Additions</u>				
FP-307783	Purchase Powerbase software - General Office	\$3,512	10	\$351	
FP-309100	Install Distribution SCADA - General Office	30,655	10	3,066	
		<u>\$34,167</u>		<u>\$3,417</u>	\$1,709

		<u>Total Company</u>	<u>Expected Year Life</u>	<u>Amortization</u>	
	<u>2015 Common Intangible Additions</u>				
FP-100256	Mobile workforce software - General Office	\$7,242	10	\$724	
FP-101673	Customer information system upgrade - General Office	73,956	13	5,689	
FP-200902	Upgrade Endpoint program - General Office	2,916	10	292	
FP-301563	GIS data conversion - General Office	31,986	10	3,199	
FP-302625	ECM upgrade - General Office	2,679	10	268	
FP-307224	Purchase additional CC&B App License - General Office	2,358	10	236	
FP-307421	PowerPlan CPI tax calculation - General Office	809	10	81	
FP-307530	Purchase Customer Care Software - General Office	587	10	59	
		<u>\$122,533</u>		<u>\$10,548</u>	\$5,274

Summary

2015

General Intangible

2014 Plant	\$16,268
2015 additions	1,709
Total general intangible	<u>\$17,977</u>

Common Intangible

2014 Plant	\$69,516
2015 additions	5,274
Total common intangible	<u>\$74,790</u>

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Object/Subsidiary: 4040 Select / Skip To Period / Date

Company: 00001 Montana Dakota Utilities Co. Thru Date: 01/31/2015

Ledger Type 1: UG South Dakota Electric Type/Subledger: *

Ledger Type 2: AA General Ledger

// Tangible Asset Category

Records 1 - 2 [Customize Grid](#) Default

<input type="checkbox"/> Account Number	Level Of Detail	Account Description	South Dakota Electric Balance	South I Balanc
<input type="checkbox"/> 1.4040	4	Common	5,792.96	
<input type="checkbox"/>		Total Object Account 4040	5,792.96	

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Trial Balance By Object - Trial Balance by Object



Select Find Close Row Tools

Object/Subsidiary Select / Skip To Period / Date

Company Montana Dakota Utilities Co. Thru Date

Ledger Type 1 South Dakota Electric Type/Subledger *

Ledger Type 2 General Ledger

Records 1--2 Customize Grid Default

<input type="checkbox"/>	Account Number	Level Of Detail	Account Description	South Dakota Electric Balance	South Dakota Period Balance
<input checked="" type="checkbox"/>	1.4041	4	Electric	1,355.64	
<input checked="" type="checkbox"/>			Total Object Account 4041	1,355.64	

MONTANA-DAKOTA UTILITIES CO.
AMORTIZATION OF GENERATION FACILITY DECOMMISSIONING EXPENSE
ELECTRIC UTILITY - SOUTH DAKOTA
TWELVE MONTHS ENDED DECEMBER 31, 2014

Facility	Decommissioning Cost		Estimated Remaining Life	Annual Amortization	Pro Forma South Dakota
	Total	Electric 1/			
R.M. Heskett Plant 2/	\$3,939,192		13	\$303,015	\$15,638
Lewis & Clark 2/	6,648,080		10	664,808	34,309
Coyote 2/	5,372,575		26	206,638	10,664
Big Stone 2/	3,444,725		12	287,060	14,814
Glendive Unit 1 2/	1,023,620		7	146,231	7,547
Glendive Unit 2 2/	2,564,923		31	82,739	4,270
Miles City 2/	1,328,819		2	664,410	34,288
Glen Ullin 2/	79,030		14	5,645	291
Heskett III Turbine 2/, 4/	1,639,121		42	39,027	2,014
RICE Unit - L&C 2/, 4/	1,639,121		40	40,978	2,115
Diamond Willow Wind Farm 3/	380,922		12	31,744	1,629
Cedar Hills Wind Farm 3/	713,978		15	47,599	2,443
Thunder Spirit Wind Farm 3/, 5/	2,361,619		20	118,081	6,061
Total	\$31,135,725			\$2,637,975	\$136,083

1/ Based on decommissioning studies performed by Sargent & Lundy (Montana-Dakota Utilities Co. facilities) and Rachel Contracting (joint owned facilities).

2/ Allocated based on the 12-month integrated system peak demand factor (factor no. 15).

3/ Allocated based on 80% of the interconnected system Kwh sales and 20% of the 12-month integrated system peak demand factor (factor no. 271).

4/ Average of existing turbines: Glendive Units 1 & 2 and Miles City.

5/ Based on Cedar Hills estimated cost.

Probably Retirement Date (2014 Depreciation Study)

Generating Unit	Retire Date	Remaining
Heskett Generating Station	2028	13
Lewis & Clark Generating Station	2025	10
Coyote Generating Station	2041	26
Big Stone Generating Station	2027	12
Glendive Turbine 1	2022	7 1/
Glendive Turbine 2	2046	31 1/
Miles City Turbine	2017	2
Portable Generators	2047	32
Ormat Generation Facility	2029	14
Heskett III Turbine	2057	42
RICE Unit - L&C	2055	40
Diamond Willow Wind Farm	2027	12
Cedar Hills Wind Farm	2030	15
Thunder Spirit Wind Farm	2035	20

1/ Study was conducted with one cost for both units. Allocated based on Plant Investment.

Montana-Dakota Utilities
Electric Division

Summary of Original Cost of Utility Plant In Service as of December 31, 2014
And Related Annual Depreciation Expense (By Location) Under Present and Proposed Rates

Account No. (a)	Location Code	Probable Retirement Date	Description (b)	Original Cost	Present Rates		Proposed Rates		Net Change
				12/31/14 (c)	Rate % (d)	Annual Accrual (e)	Rate % (f)	Annual Accrual (g)	Depr. Exp. (h)
DEPRECIABLE PLANT									
311.00			Structures and Improvements						
	8100	2028	(1) Heskett Generating Station	29,286,009.04	5.11%	1,496,515.06	5.75%	1,683,945.52	187,430.46
	8200	2025	Lewis & Clark Generating Station	4,529,429.02	1.91%	86,512.09	2.14%	96,929.78	10,417.69
	8300	2041	Coyote Generating Station	26,506,987.36	1.42%	376,399.22	1.01%	267,720.57	(108,678.65)
	8610	2027	Big Stone Generating Station	9,509,529.19	0.75%	71,321.47	0.69%	65,615.75	(5,705.72)
	8720	2060	Wygen III Generating Station	3,131,340.50	2.00%	62,626.81	2.09%	65,445.02	2,818.21
			Total Account 311	72,963,295.11	2.87%	2,093,374.65	2.99%	2,179,666.64	86,281.99
312.00			Boiler Plant Equipment						
	8100	2028	Heskett Generating Station	53,007,326.24	3.46%	1,834,053.49	3.37%	1,785,346.89	(47,706.60)
	8200	2025	Lewis & Clark Generating Station	24,225,690.93	2.92%	707,390.18	4.16%	1,007,788.74	300,398.56
	8300	2041	Coyote Generating Station	70,892,375.25	1.75%	1,240,616.57	1.35%	957,047.07	(283,569.50)
	8610	2027	Big Stone Generating Station	34,242,520.56	2.48%	849,214.51	3.48%	1,191,639.72	342,425.21
	8720	2060	Wygen III Generating Station	29,649,043.71	2.00%	592,980.87	2.68%	794,594.37	201,613.50
			Total Account 312	212,016,956.69	2.46%	5,224,255.62	2.71%	5,737,416.79	513,161.17
314.00			Turbogenerator Units						
	8100	2028	Heskett Generating Station	16,946,831.28	3.85%	652,453.00	4.03%	682,957.30	30,504.30
	8200	2025	Lewis & Clark Generating Station	6,292,021.98	0.87%	54,740.59	2.41%	151,637.73	96,897.14
	8300	2041	Coyote Generating Station	19,576,599.97	2.46%	481,584.33	2.42%	473,753.70	(7,830.63)
	8610	2027	Big Stone Generating Station	12,161,777.33	3.99%	485,254.92	3.57%	434,175.45	(51,079.47)
	8720	2060	Wygen III Generating Station	29,068,711.91	2.00%	581,374.24	2.79%	811,017.06	229,642.82
			Total Account 314	84,045,941.47	2.68%	2,255,407.08	3.04%	2,553,541.24	288,134.16
315.00			Accessory Electric Equipment						
	8100	2028	Heskett Generating Station	2,168,858.49	1.05%	22,773.01	3.51%	76,126.93	53,353.92
	8200	2025	Lewis & Clark Generating Station	1,003,799.83	1.12%	11,242.56	0.57%	5,721.66	(5,520.90)
	8300	2041	Coyote Generating Station	8,748,736.96	1.76%	153,977.81	1.67%	146,103.94	(7,873.87)
	8610	2027	Big Stone Generating Station	4,237,158.97	1.00%	42,371.59	2.33%	98,725.80	56,354.21
	8720	2060	Wygen III Generating Station	3,588,263.76	2.00%	71,765.28	2.51%	90,065.42	18,300.14
			Total Account 315	19,746,820.01	1.53%	302,130.25	2.11%	416,743.75	114,613.50
316.00			Miscellaneous Power Plant Equipment						
	8100	2028	Heskett Generating Station	7,625,713.21	4.56%	347,732.52	3.72%	283,676.53	(64,055.99)
	8200	2025	Lewis & Clark Generating Station	5,096,633.26	5.34%	272,160.22	4.67%	238,012.77	(34,147.45)
	8300	2041	Coyote Generating Station	3,610,109.70	4.67%	168,592.12	3.85%	138,969.22	(29,602.90)
	8610	2027	Big Stone Generating Station	1,258,777.87	2.09%	26,308.46	4.32%	54,379.20	28,070.74
	8720	2060	Wygen III Generating Station	9,443.78	2.00%	188.88	3.43%	323.92	135.04
			Total Account 316	17,600,677.82	4.63%	814,982.20	4.06%	715,381.64	-89,600.56
			Total Depreciable Steam Production Plant	406,373,691.10	2.63%	10,690,149.80	2.86%	11,602,740.06	912,590.26
OTHER PRODUCTION PLANT									
341.10			Structures and Improvements						
	8510	2022	Glendive Turbine 1	278,336.07	3.42%	9,519.09	0.51%	1,419.51	(8,099.58)
	8512	2046	Glendive Turbine 2	15,386.47	3.42%	526.22	0.16%	24.62	(501.60)
	8520	2015	Miles City Turbine	207,622.13	3.53%	7,329.06	8.23%	17,087.30	9,758.24
	8550	2047	Portable Generators	166,110.50	3.43%	5,697.59	0.15%	249.17	(5,448.42)
			Total Account 341.10	667,455.26	3.46%	23,071.96	2.81%	18,780.60	(4,291.36)
341.20			Structures & Impr-Wind Farm						
	8560	2027	Diamond Willow Wind Farm	3,363,993.85	5.17%	173,918.48	1.92%	64,588.68	(109,329.80)
	8580	2030	Cedar Hills Wind Farm	2,799,226.32	5.00%	139,961.32	4.59%	128,484.49	(11,476.83)
			Total Account 341.20	6,163,220.17	5.09%	313,879.80	3.13%	193,073.17	-120,806.63
			Total Account 341	6,830,675.42	4.93%	336,951.76	3.10%	211,853.77	-125,097.99
342.00			Fuel Holders, Producers and Accessories						
	8510	2022	Glendive Turbine 1	309,452.61	1.09%	3,373.03	2.68%	8,293.33	4,920.30
	8512	2046	Glendive Turbine 2	2,055,650.83	1.09%	22,406.59	0.81%	16,650.77	(5,755.82)
	8520	2015	Miles City Turbine	200,837.28	2.33%	4,679.51	27.44%	55,109.75	50,430.24
	8550	2047	Portable Generators	156,064.84	3.19%	4,978.47	0.75%	1,170.49	(3,807.98)
			Total Account 342	2,722,005.56	1.30%	35,437.60	2.98%	81,224.34	45,786.74
344.10			Generators						
	8110	2057	Heskett III	52,131,730.78	0.00%	0.00	1.75%	912,305.29	912,305.29
	8510	2022	Glendive Turbine 1	6,735,796.33	2.54%	171,089.23	1.97%	132,695.19	(38,394.04)
	8512	2046	Glendive Turbine 2	17,968,383.93	1.69%	303,665.69	1.84%	330,618.26	26,952.57
	8520	2015	Miles City Turbine	2,668,314.37	1.00%	26,683.14	25.93%	691,893.92	665,210.78

*Extend Costs
to 2017*

Montana-Dakota Utilities
Electric Division

Summary of Original Cost of Utility Plant in Service as of December 31, 2014
And Related Annual Depreciation Expense (By Location) Under Present and Proposed Rates

Account No. (a)	Location Code (b)	Probable Retirement Date (c)	Description (d)	Original Cost	Present Rates		Proposed Rates		Net Change Depr. Exp. (h)
				12/31/14 (e)	Rate % (f)	Annual Accrual (g)	Rate % (i)	Annual Accrual (j)	
DEPRECIABLE PLANT									
	8550	2047	Portable Generators	1,397,371.30	1.97%	27,528.21	2.14%	29,903.75	2,375.54
	8570	2029	Ormat Generation Facility	15,184,122.44	5.00%	759,206.12	3.74%	567,886.18	(191,319.94)
			Total Account 344.10	96,085,719.15	1.34%	1,288,172.39	2.77%	2,665,302.59	1,377,130.20
344.20			Generators-Wind Farm						
	8560	2027	Diamond Willow Wind Farm	49,146,139.62	5.17%	2,540,855.42	4.32%	2,123,113.23	(417,742.19)
	8580	2030	Cedar Hills Wind Farm	35,054,454.74	5.00%	1,752,722.74	3.69%	1,293,509.38	(459,213.36)
			Total Account 344.20	84,200,594.36	5.10%	4,293,578.16	4.06%	3,416,622.61	-876,955.55
			Total Account 344	180,286,313.51	3.10%	5,581,750.55	3.37%	6,081,925.20	500,174.65
345.10			Accessory Electric Equipment						
	8510	2022	Glendive Turbine 1	466,573.49	3.62%	16,889.96	0.88%	4,105.85	(12,784.11)
	8520	2015	Miles City Turbine	346,031.49	3.78%	13,079.99	12.29%	42,527.27	29,447.28
	8550	2047	Portable Generators	572,984.71	4.75%	27,216.77	0.39%	2,234.64	(24,982.13)
			Total Account 345.10	1,385,589.69	4.13%	57,186.72	3.53%	48,867.76	(8,318.96)
345.20			Accessory Elec Equip-Wind Farm						
	8560	2027	Diamond Willow Wind Farm	8,293,787.94	5.17%	428,789.35	3.82%	316,823.08	(111,966.27)
	8580	2030	Cedar Hills Wind Farm	5,967,801.82	5.00%	298,390.09	3.88%	231,550.71	(66,839.38)
			Total Account 345.20	14,261,589.76	5.10%	727,179.44	3.85%	548,373.79	-178,805.65
			Total Account 345	15,647,189.45	5.01%	784,366.16	3.82%	597,241.55	-187,124.61
346.10			Miscellaneous Power Plant Equipment						
	8110	2057	Heskett III	1,045,533.32	0.00%	0.00	2.10%	21,956.20	21,956.20
	8510	2022	Glendive Turbine 1	126,677.17	2.27%	2,875.57	6.45%	8,170.68	5,295.11
	8512	2046	Glendive Turbine 2	12,613.98	2.27%	286.34	2.57%	324.18	37.84
	8520	2015	Miles City Turbine	17,989.02	2.50%	449.73	59.56%	10,714.26	10,264.53
			Total Account 346.10	1,202,813.49	0.30%	3,611.64	3.42%	41,165.32	37,553.68
346.20			Accessory Elec Equip-Wind Farm						
	8560	2027	Diamond Willow Wind Farm	55,790.93	5.17%	2,884.39	3.02%	1,684.89	(1,199.50)
	8580	2030	Cedar Hills Wind Farm	63,308.47	5.00%	3,165.42	3.03%	1,918.25	(1,247.17)
			Total Account 346.20	119,099.40	5.08%	6,049.81	3.03%	3,603.14	-2,446.67
			Total Account 346	1,321,912.89	0.73%	9,661.45	3.39%	44,768.46	35,107.01
			Total Depreciable Other Production Plant	206,808,096.83	3.26%	6,748,167.52	3.39%	7,017,013.32	268,845.80

(1) Life Span Method Utilized. Interim Retirement Rate. Service Lives Vary. Heskett 2028; Heskett # 1 2021; Heskett # 2 2028

Object/Subsidiary	1085	<input checked="" type="checkbox"/> Select / Skip To	<input type="checkbox"/> Period / Date
Company	*	Thru Date	12/31/2014
Ledger Type 1	AA	<input type="checkbox"/> General Ledger	Type/Subledger <input type="checkbox"/> *
Ledger Type 2	AA	<input type="checkbox"/> General Ledger	

Records 1 - 2		Customize Grid	Default
<input type="checkbox"/> Account Number	Level Of Detail	Account Description	General Ledger Balance
<input type="checkbox"/> 1.1085	3	Montana Decommissioning	13,869,894.32-
<input type="checkbox"/>		Total Object Account 1085	13,869,894.32-

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Montana-Dakota Utilities Co.

Decommissioning Study Report

**Prepared for
Montana-Dakota Utilities Co.**



**SL-011737
Project 13065-001
May 2013**
.....

Prepared by

Sargent & Lundy ^{LLC}
Consulting

55 East Monroe Street • Chicago, IL 60603-5780 USA

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**Montana-Dakota Utilities Co.
Decommissioning Study Report**

Prepared for
Montana-Dakota Utilities Co.

SL-011737
May 2013

Sargent & Lundy^{LLC}

55 East Monroe Street
Chicago, IL 60603-5780 USA

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**Montana-Dakota Utilities Co.
Decommissioning Study Report**

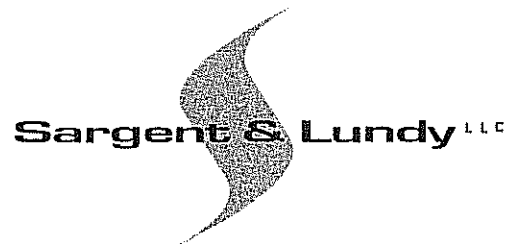
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Evaluator

B.Andric
Borko Andric
Estimator

Reviewed by Mark E. Dowd
Mark E. Dowd
Project Lead

Approved by Robert P. Charles June 7, 2013
Robert P. Charles Date
Project Manager

**SL-011737
May 2013**



55 East Monroe Street
Chicago, IL 60603-5780 USA

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Decommissioning Study Report

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- B. R. M. Heskett Decommissioning Cost Estimate
- C. Lewis & Clark Decommissioning Cost Estimate
- D. Glendive Decommissioning Cost Estimate
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ACRONYMS AND ABBREVIATIONS

<u>Term</u>	<u>Definition or Clarification</u>
ACM	Asbestos-containing material
ACWM	Asbestos-containing waste material
AST	Aboveground storage tank
CCR	Coal combustion residuals
CT	Combustion turbine
DEQ	Department of Environmental Quality
FD	Forced draft (fan)
FGD	Flue-gas desulfurization
G&A	General and Administrative
HDPE	High-density polyethylene
ID	Induced draft (fan)
MSDS	Material safety data sheet
PACM	Presumed asbestos containing material
PCB	Polychlorinated biphenyl compounds
RCRA	Resource Conservation and Recovery Act
REG facility	Recovered Energy Generation facility
RO	Reverse osmosis
S&L	Sargent & Lundy LLC
SCCT	Simple-cycle combustion turbine
SPCC	Spill prevention, control, and countermeasures
USEPA	U.S. Environmental Protection Agency
UST	Underground storage tank

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EXECUTIVE SUMMARY

This report documents the findings of a study on the following sites to determine a budgetary cost to decommission the plants and a review of environmental regulations to determine the impact of those regulations on decommissioning these plants:

- R. M. Heskett Station in Mandan, North Dakota
- Lewis & Clark Station in Sidney, Montana
- Miles City combustion turbine in Miles City, Montana
- Glendive combustion turbines in Glendive, Montana
- Cedar Hills wind farm located near Rhame, North Dakota
- Diamond Willow wind farms located near Baker, Montana
- A recovered energy generation (REG) facility located near Glen Ullin, North Dakota

The environmental and regulatory evaluation revealed no substantive issues that could affect the cost of decommissioning any of the seven facilities evaluated.

The specific issues of note are the following:

- The removal to a recycling facility of pentane and Dowtherm from the Glen Ullin REG.
- R. M. Heskett will require some lead paint and some asbestos remediation.
- R. M. Heskett had a significant oil spill in the substation yard 10 years ago that was remediated and should not effect decommissioning.
- R. M. Heskett has no ash ponds to close therefore minimizing the cost to decommission the plant.
- Lewis & Clark has two scrubber ash ponds and a bottom ash pond that will require closure.
- Lewis & Clark has significant amounts of asbestos that will require remediation. The plant must also remediate lead paint.
- Glendive experienced significant oil spills in 2003 and 2005 that have been remediated. Historically, there have been other smaller oil spills in the vicinity of the fuel forwarding building. There may still be some contaminated soils present near the fuel forwarding building; however, this should not cause any effect on the decommissioning of the facility.

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- Scrap values for the Cedar Hills and Diamond Willow wind farms exceeded the labor costs to dismantle the facilities resulting in a higher cost to dismantle the smaller Cedar Hills wind farm strictly due to the 15% contingency applied to the cost.
- The cost of decommissioning the single-unit Lewis & Clark (L&C) station exceeded the dual-unit R. M. Heskett station. The major contributor to this result was the removal of the ash ponds at L&C. R. M. Heskett has no ash ponds. L&C also has two stacks.
- R. M. Heskett ash landfill decommissioning costs determined by EngTech Inc.

The results of the cost estimate are shown in the following table:

Table ES-1 — Cost Estimate Summary

Site	Decommissioning Cost Estimate
Glen Ullin	\$79,030
R. M. Heskett Plant *	\$3,939,192
Lewis & Clark	\$6,648,080
Glendive	\$3,588,543
Miles City	\$1,328,819
Diamond Willow Wind Farms	\$380,922
Cedar Hills Wind Farm	\$713,978
Total	\$16,678,564

* R. M. Heskett Ash landfill closure Estimate of \$350,278 provided by Montana-Dakota Utilities. Estimate performed by EngTech Inc and not reviewed by Sargent & Lundy. This cost is provided for completeness of the estimate

These estimates were determined using inputs from the environmental review, staff interviews and documentation reviews. The accuracy of the estimates is +20% to -30%.

1. INTRODUCTION

1.1 SCOPE

A study on the following sites was conducted to determine a budgetary cost to decommission the plants and a review of environmental regulations to determine the impact of those regulations on decommissioning these plants:

- R. M. Heskett Station in Mandan, North Dakota
- Lewis & Clark Station in Sidney, Montana
- Miles City combustion turbine in Miles City, Montana
- Glendive combustion turbines in Glendive, Montana
- Cedar Hills wind farm located near Rhame, North Dakota
- Diamond Willow wind farms located near Baker, Montana
- A recovered energy generation (REG) facility located near Glen Ullin, North Dakota

The following tasks were evaluated for each site listed above:

- Review of applicable state and local environmental requirements for each site
- Identification, removal and disposal of hazardous materials on site (i.e., lead paint, batteries, asbestos, polychlorinated biphenyls (PCBs), mercury and mercury containing devices, contaminated soils and other surfaces, radioactive materials, diesel, gasoline, mineral oil, other lubricating, insulating and process oils and chemicals, water treatment chemicals, treated lumber and poles, etc.)
- Removal of all aboveground structures (i.e., buildings, emissions monitoring and pollution control equipment, stack, fuel and material handling equipment, tanks and piping, ash handling, water intakes, water plant equipment, wastewater management facilities and discharge structures, etc.)
- Removal of underground foundations, utilities and piping (i.e., industrial process, city or rural water, sanitary, natural gas lines, corrosion protection systems) to below finished grade (2 ft)
- Groundwater well abandonment(s)
- Removal of electric cable vaults/duct bank
- Remediation of residual on-site fly ash, coal storage, tire-derived fuel, etc.

Confidential

- Ash pond closures
- Ash landfill closure (R. M. Heskett ash disposal site already has estimates for closure costs)
- Ash landfill closure Estimated to be \$350,278.91 from EngTech Inc. and Montana Dakota Utilities Co. (Montana Dakota)
- Removal of on-site access roads, parking lots, and rail lines
- Electrical isolation (modify existing switchyard facilities to maintain continuity of local transmission grid system, removal and disposal of electric poles and electrical equipment)
- Demolition debris (haul away or on-site burial of inert waste)
- Salvage of any equipment or materials, including consideration of soil spoil from operations such as dredging and ash site construction
- Verify earthen top cover and site grade
- Re-seed grass to all reclaimed areas

This report includes a demolition/decommissioning cost estimate dated December 20, 2012, including decommissioning estimate assumptions, explanation of cost categories, summary of decommissioning costs, crew rates, productivity factors and unit costs, and any other information deemed pertinent.

1.2 APPROACH

1.2.1 Environmental Assessment and Environmental Regulatory Review

As input into the Decommissioning Study and high-level cost estimate for the Montana-Dakota Utilities generating stations, an environmental assessment and environmental regulatory review was conducted to quantify potential decommissioning requirements, remediation requirements, solid waste management and disposal standards, and site closure and post-closure requirements. The general approach used to prepare the environmental assessment included the following:

- Environmental Site Assessment
- Regulatory Review
- Decommissioning and Remediation Plan
- Cost Estimate Inputs



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July 17th, 2013

Mr. Loyal Demmer
Depreciation Accountant
Otter Tail Power Company
215 South Cascade Street
Fergus Falls, MN 56537

Re: Decommissioning Study for Big Stone Plant in Big Stone City, South Dakota

Introduction:

Rachel Contracting was hired to provide estimating services for the decommissioning and demolition of several sites owned by Otter Tail Power Company.

The primary scope of work would include the removal of:

- 2 Mile Intake Line including Screen House
- Administrative Building
- Turbine Room and Boiler Building
- Bag House Structure
- Lime Prep and Unloading Buildings
- Boiler Stack
- Live Coal Storage Building including Transfer House, Crusher and Conveying Equipment
- Reclamation of existing Cooling Pond, Cooling Pond, Evaporation Pond, Holding Pond and Make-up Pond
- Miscellaneous Yard Buildings (Warehouse, Pump House, Fab Shop, Coal Yard Garage, Alternative Fuel Building, etc.)
- Yard Structures (Ash Silo, Fuel Oil Tanks, Water Tanks, etc.)
- Reclamation of the Ash Pond and Ash Disposal Facility (ARO)
- Removal of Site Concrete, Roads and Parking Lots

For this estimate we contacted the local and state municipalities regarding permit fees. We contacted local landfills and recycling facilities to discuss disposal options. At the time of this estimate, disposal costs locally were at \$12.00 per cubic yard, concrete recycling will take place on the site, recycled steel was valued locally at approximately \$250.00 per ton and #1 copper was valued at approximately \$3.15 per pound.

Since 2008, the date of the last decommissioning studies, there has been increases in costs of services for the decommissioning projects. Labor costs have increased 12.5% in five years. Trucking and equipment rates have increased 25%. Disposal rates have increased 30%. The value for recycled carbon steel decreased 26%, while non-ferrous metals recycle market remained primarily unchanged. The pricing in this study reflects these changes as of December of 2012.

Due to the age of construction and based on visual observation, it is assumed that no asbestos containing materials are present at the site. Regulated wastes are present in the structures being estimated.



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Work Included Pricing Estimate:

- Permit Fees and Notifications
- Engineering Surveys and Storm Water Prevention Plans
- Site Security
- Mobilization Fees and Competent Supervision
- Erosion Controls (Rock Entrances, Silt Fence and Inlet Protection)
- Well Abandonment and Septic Abandonment
- Allowance provided for collection of regulated wastes (Bulbs, Ballasts, Switches, Batteries, Freon, Oils, etc.).
- Demolition of Buildings and Structures Noted Above
- Removal of all Slabs, Foundations and Utility Vaults
- Removal of Underground Lines
- Re-Grade Site to Match Surrounding Grades
- Topsoil and Seed Site Upon Completion

Total Estimated Costs:

1. All Work describe above (excluding AQCS systems and ARO) –	\$ 18,354,000
2. Breakout for AQCS demolition	\$ 840,000
3. ARO breakdown	\$ 2,770,000
1. Includes capping disposal area with 2.5' clay liner	
4. <u>Salvage values in 2012</u>	<u>(\$ 6,789,000)</u>
Total net estimated costs for decommissioning -	\$ 15,175,000

Estimated Cost Breakdowns of Decommissioning Services:

Pre-Demolition Services

General Conditions (Permit Fees, Notifications, Engineering Fees) -	\$ 82,000
Cost of Mobilization, Per Diems and Competent Supervision -	\$ 405,000
Erosion Control -	\$ 91,000
<u>Well Abandonment, Septic, Environmental and Hazardous Material Remediation-</u>	<u>\$ 545,000</u>
Pre-Demolition Costs	\$ 1,123,000

Demolition Services

Offices, Turbine Floor, Boiler Building and Lime Prep

Costs of Labor and Equipment	\$ 10,798,000
<u>Transportation, On Site Crushing and Disposal Fees</u>	<u>\$ 2,762,000</u>
Total	\$ 13,560,000

Demolition of AQCS systems (bag house and associated equipment)

Costs of Labor and Equipment	\$ 743,000
<u>Transportation, On Site Crushing and Disposal Fees</u>	<u>\$ 97,000</u>
Total	\$ 840,000

498' Boiler Stack

Costs of Labor and Equipment	\$ 360,000
<u>Transportation, On Site Crushing and Disposal Fees</u>	<u>\$ 117,000</u>
Total	\$ 477,000



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Live Coal Storage Conveying Equipment and Associated Coal Buildings

Costs of Labor and Equipment	\$ 621,000
<u>Transportation, On Site Crushing and Disposal Fees</u>	<u>\$ 112,000</u>
Total	\$ 733,000

Warehouse, Service Building, Maintenance Shop, Lime Softener, Fab Shop and Alternative Fuel Building

Costs of Labor and Equipment	\$ 230,000
<u>Transportation, On Site Crushing and Disposal Fees</u>	<u>\$ 135,000</u>
Total	\$ 365,000

Fuel Tanks, Water Storage Tank, Hydrogen Storage, Ash Silo, Roads, Parking, RR Spurs and Miscellaneous Site Removals.

Costs of Labor and Equipment	\$ 323,000
<u>Transportation, On Site Crushing and Disposal Fees</u>	<u>\$ 112,000</u>
Total	\$ 435,000

Abandon 36" Intake and Return Line and demolition of Screen House

Costs of Labor and Equipment	\$ 642,000
<u>Transportation, On Site Crushing and Disposal Fees</u>	<u>\$ 109,000</u>
Total	\$ 751,000

ARO's – reclamation of ash pits, lime sludge ponds, and brine ponds 1 & 2 (It is assumed that all spent materials will remain onsite and all fill materials will be provided from the site for this pricing)

<u>Costs of labor and equipment</u>	<u>\$ 2,770,000</u>
Total	\$ 2,770,000

<u>Site Restoration</u>	<u>\$ 910,000</u>
Total Estimated Costs for Services	\$ 21,964,000

Estimated Salvage Revenue in 2012 Values (\$6,789,000)

All labor, equipment, materials, fuel and scrap values were priced at the values in December of 2012. Pricing may fluctuate in the future. Salvage revenue was based on scrap values only, no residual resale values were utilized for this estimate.

Sincerely,

Don Ritsen
 Senior Demolition Estimator
 Rachel Contracting



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July 19, 2013

Mr. Loyal Demmer
Depreciation Accountant
Otter Tail Power Company
215 South Cascade Street
Fergus Falls, MN 56537

Re: Decommissioning Study for Coyote Station Power Facility in Beulah, North Dakota.

Introduction:

Rachel contracting was hired to provide estimating services for the decommissioning and demolition of several sites owned by Otter Tail Power Company.

The primary scope of work would include the removal of;

- Administrative Building
- Turbine room and Boiler Building
- Bag house structure
- Lime prep building and lime unloading building
- Boiler Stack
- Live Coal Storage building including transfer house, crusher and conveying equipment
- Cooling tower
- Misc. yard buildings (Warehouses, training, coal yard garage, carpenters, ambulance, ect)
- Yard structures (Ash silo, fuel oil tanks, water tanks, ect)
- Reclamation of the ash pond, discharge ponds, ect)
- Removal of site concrete, roads and parking lots
- Removal of existing screen house, 26 mile intake and return line with surge pond reclamation

For this estimate we contacted the appropriate municipalities regarding permit fees. We contacted local landfills and recycling facilities to discuss disposal options. This estimate reflects costs as of December, 2012. Disposal costs locally were at \$27.00 per ton, concrete recycling would take place on the site, recycle steel was valued locally at approximately \$198.00 per ton and #1 copper was valued at approximately \$3.15 per pound.

Since 2008, the date of the last decommissioning studies, there has been significant increases in the demands for local North Dakota labor. Due to housing, per diems and payroll increases, labor costs have increased 60% in five years. Trucking and equipment rates have increased 25%. Disposal rates have increased 8%. The demand for recycled carbon steel decreased 26%, while non-ferrous metals recycle market remained primarily unchanged. The pricing in this study reflects these changes as of December of 2012.

Due to the age of construction and based on visual observation it is assumed that no asbestos containing materials are present at the site. Regulated wastes are present in the structures being estimated.



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Work Included pricing estimate:

- Permit fees and notifications
- Engineering surveys and storm water prevention plans
- Site security
- Mobilization fees and competent supervision
- Erosion controls (Rock entrances, silt fence and inlet protection)
- Well abandonment and septic abandonment
- Allowance provided for collection of regulated wastes (Bulbs, ballasts, switches, batteries, freon, oils, ect.)
- Demolition of buildings and structures noted above
- Removal of all slabs, foundations and utility vaults
- Removal of underground lines
- Re-grade site to match surrounding grades
- Topsoil and seed site upon completion

Total Estimated Costs

1. All work describe above –	\$20,629,300
2. Ash Disposal Facilities -	\$861,000
a. <u>Includes capping disposal area with 2.5' clay liner</u>	\$861,000
Total Estimated costs for decommissioning	\$21,490,300

Estimate breakdown:

Estimated Cost of Decommissioning Services:

Pre-Demolition Services

General Conditions (Permit fees, notifications, engineering fees) -	\$83,000
Cost of Mobilization, per diems and competent supervision -	\$405,000
Erosion control -	\$115,000
<u>Well abandonment, septic, environmental and hazardous material remediation-</u>	<u>\$731,000</u>
Pre-demolition costs	\$1,334,000

Demolition Services

Offices, turbine floor, boiler building, lime prep, aux. boiler building and bag house

Costs of labor and equipment	\$11,814,000
<u>Transportation, on site crushing and disposal fees</u>	<u>\$2,189,000</u>
Total	\$14,003,000

Boiler Stack

Costs of labor and equipment	\$496,000
<u>Transportation, on site crushing and disposal fees</u>	<u>\$109,000</u>
Total	\$605,000

Live coal storage conveying equipment and associated coal buildings

Costs of labor and equipment	\$731,000
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Transportation, on site crushing and disposal fees \$88,000
Total \$819,000

Cooling Tower, 2 - warehouses, carpenters shop, maintenance shop, coal yard garage, mech. shop, lime unloading building, ambulance building, training center and guard shack
 Costs of labor and equipment \$324,000
Transportation, on site crushing and disposal fees \$215,000
Total \$539,000

Fuel tanks 1 and 2, water storage tank, hydrogen storage, ash silo, roads, parking, RR spurs and misc. site removals.
 Costs of labor and equipment \$743,000
Transportation, on site crushing and disposal fees \$108,000
Total \$851,000

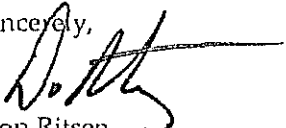
Removal of 36" intake and return line including; demolition of screen house, reclamation of surge pond and site restoration
 Costs of labor and equipment \$5,900,000
 Restoration \$119,000
Transportation, on site crushing and disposal fees \$148,000
Total \$6,167,000

Removal of thermal water system and infrastructure
 Costs of labor and equipment \$72,000
Transportation and disposal fees \$29,300
Total \$101,300

Site Restoration \$3,431,000
Total Estimated costs for services \$27,850,300

Estimated salvage revenue in 2012 values (\$6,360,000)
Net estimated decommissioning costs \$21,490,300

All labor, equipment, materials, fuel and scrap values were priced at the values as of December 2012. Pricing may fluctuate in the future. Salvage revenue was based on scrap values only, no residual resale values were utilized for this estimate.

Sincerely,

 Don Ritsen
 Senior Demolition Estimator
 Rachel Contracting

Jacobson, Travis

From: Neigum, Darcy
Sent: Wednesday, April 22, 2015 9:12 AM
To: Jacobson, Travis
Subject: RE: Decomissioning

I read your original numbers wrong. Sorry.

Thanks for sending the report. The major difference between CH and DW is the number of turbines and the foundations used for each project. The TSW project will have foundations similar to CH which is probably a better comparison on a scope of decommissioning.

Using CH numbers the decommissioning costs of TSW would be:

$(\$713,978 / 13 \text{ turbines}) * 43 \text{ turbines} = \$2,361,619$ (I would not add any escalators to this value)

Efficiencies of decommissioning a larger project could yield a 10% savings for an estimated decommissioning cost for TSW of

$\$2,361,619 * (1 - 0.1) = \$2,125,457$

From: Jacobson, Travis
Sent: Wednesday, April 22, 2015 8:40 AM
To: Neigum, Darcy
Subject: RE: Decomissioning

Darcy,

I did the same thing as you and saw the bigger number as DW. However, Cedar Hills is actually the larger number. I looked at page 12 of the attachment and it talks about salvage values exceeding the cost of dismantling.

With that in mind, thoughts?

From: Neigum, Darcy
Sent: Wednesday, April 22, 2015 8:23 AM
To: Jacobson, Travis
Subject: RE: Decomissioning

Travis,

It would seem reasonable for TSW to look at the per unit decommissioning cost for CH and DW. DW has a decommissioning cost of \$35,700 per turbine while CH has a per unit decommissioning cost of \$29,300 per turbine. I would have expected the CH cost to be higher as there less turbines (13 versus 20).

I would suggest using the \$35,700 per turbine for TSW or \$1,548,000 for the entire project. If you wanted to apply a 10% escalation factor to this total that would seem appropriate for a current cost of \$1,702,800.

Darcy

From: Jacobson, Travis
Sent: Tuesday, April 21, 2015 2:25 PM
To: Neigum, Darcy
Subject: Decomissioning

Darcy,

Below you will see the estimated decommissioning costs for Montana-Dakota's generating units, except for units no yet placed in service. Can you provide your thoughts or contact a vendor to get an estimate for Thunder Spirit? Garret and Tamie thought Alete may have similar wind units that we could utilize.

Let me know you thoughts. Thanks

MONTANA-DAKOTA UTILITIES CO.
 AMORTIZATION OF GENERATION FACILITY DECOMMISSIONING EXPENSE
 ELECTRIC UTILITY - MONTANA
 TWELVE MONTHS ENDED DECEMBER 31, 2014

Facility	Decommissioning Cost		Estimated Remaining Life	Annual Amortization	Pro Forma Montana	Total Montana
	Total	Electric 1/				
R.M. Heskett Plant 2/	\$3,939,192		13	\$303,015	\$68,611	\$891,943
Lewis & Clark 2/	6,648,080		10	664,808	150,531	1,505,311
Coyote 2/	5,372,575		26	206,638	46,788	1,216,501
Big Stone 2/	3,444,725		12	287,060	64,998	779,982
Glendive Unit 1 2/	1,290,147		7	184,307	41,732	292,125
Glendive Unit 2 2/	2,298,396		31	74,142	16,788	520,421
Miles City 2/	1,328,819		0	1,328,819	300,882	300,882
Glen Ullin 2/	79,030		14	5,645	1,278	17,895
Heskett III Turbine	0		42	0	0	0
RICE Unit - L&C	0		43	0	0	0
Diamond Willow Wind Farm 3/	380,922		12	31,744	8,177	98,121
Cedar Hills Wind Farm 3/	713,978		15	47,599	12,261	183,911
Thunder Spirit Wind Farm 3/	0		20	0	0	0
Total	\$25,495,864			\$3,133,775	\$712,046	\$5,807,092

1/ Based on decommissioning studies performed by Sargent & Lundy (Montana-Dakota Utilities Co. facilities) and Rachel Contracting (joint owned facilities).

2/ Allocated based on the 12-month integrated system peak demand factor (factor no. 15).

3/ Allocated based on 80% of the interconnected system Kwh sales and 20% of the 12-month integrated system peak demand factor (factor no. 271).

Travis Jacobson
 Manager, Regulatory Affairs
 Montana-Dakota Utilities Co.
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