



Western Area
Power Administration

Western Area Power Administration (WAPA)
Upper Great Plains Region (WAPA-UGP)
Transmission and Ancillary Services
Rate Calculation

Effective October 1, 2020

WAPA-UGP 2020 Rate Estimate Calculation

(Rate Order No. WAPA-188)

WAPA-UGP

Transmission and Ancillary Services List of Workpapers and Schedules

Worksheet Tab Label

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WS2-AllocFactor
WS3-RevCredits
WS4-CostData
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WS6-BPUr
WS7-BPUFac
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Worksheet Tab Description

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WAPA-UGP 2020 Rate Estimate Calculation

Summary-ATRR - Calculation of ATRRs (Sched 9, Sched 11)

12 Months Ending 09/30/2020 ESTIMATE

Line No.	(1)	REFERENCE (2)	COMPANY TOTAL (3)	ALLOCATOR	ALLOCATION % (4)	TRANSMISSION
						ALLOCATED AMOUNT (5)
1	Gross Zonal Revenue Requirement-Sch 9	WS1-RateBase C5L1				156,860,972
2	REVENUE CREDITS					
3	Firm Point-to-Point Revenue Credit	WS3-RevCredits C5L3	(4,837,343)	NA	100%	(4,837,343)
4	Non-Firm Point-to-Point Revenue Credit	WS3-RevCredits C5L9	(2,255,482)	NA	100%	(2,255,482)
5	Revenue from Existing Transmission Agreements	WS3-RevCredits C5L12	(1,141,626)	NA	100%	(1,141,626)
6	Scheduling, System Control, and Dispatch Service Credit	WS3-RevCredits C5L15	(10,681,455)	NA	100%	(10,681,455)
7	Account No. 454	WS3-RevCredits C5L18	(79,567)	TP	100%	(79,567)
8	Z2 Nonfirm Point-to-Point Revenue Credit	WS3-RevCredits C5L3	231,453	NA	100%	231,453
9	Shedule 11 Point-to-Point Revenue Credit	WS3-RevCredits C5L33	(18,333)	NA	100%	(18,333)
10	TOTAL REVENUE CREDITS	Subtotal L3:L8	(18,782,353)			(18,782,353)
11	TRUE-UP ADJUSTMENT (from TRUEUP Sheet)	Summary-TrueUp L12	(1,752,993)			(1,752,993)
12	Net Revenue Requirement	Total L1-L9+L10				136,325,626
13						
14						
Line No.	-1	TOTAL PROJECT ATRR (2)	ZONAL (3)	REGIONAL (4)	REVENUE CREDIT (5)	ALLOCATED AMOUNT (6)
14	SPP Upgrades - Gross Revenue Requirement-Sch 11*	795,808	682,241	113,568	(18,371)	777,437
15	Zonal less Revenue Credit					666,093
16	Regional less Revenue Credit					111,344
17	Breakout by Facility:					
18	Lewis-Richland 115 kV Ckt 1, 72052	16,683	11,885	4,798	(375)	16,307
19	Roberts County 115 kV Substation, 71926	378,210	269,440	108,770	(8,507)	369,703
20	Roberts County 115/69 kV Transformer, 71927	400,915	400,915	0	(9,489)	391,427

WAPA-UGP 2020 Rate Estimate Calculation					
Worksheet 1 - Schedule 9 Revenue Requirement - Non-Levelized					
Utilizing Financial Statement Results of Operations (ROOs)					
12 Months Ending 09/30/2020 ESTIMATE					
Line No.	REFERENCE	COMPANY TOTAL	ALLOCATOR		TRANSMISSION ALLOCATED AMOUNT
(1)	(2)	(3)		(4)	(5)
1	GROSS REVENUE REQUIREMENT	(L69) 156,860,972			\$ 156,860,972
2	REVENUE CREDITS	Estimate (18,782,353)			(18,782,353)
3	PRIOR PERIOD TRUE-UP (Over-collection)	(1,752,993)			(1,752,993)
4	NET REVENUE REQUIREMENT	\$(L1 + L2 + L3) 136,325,626			\$ 136,325,626
	RATE BASE:				(Col 3 times Col 4)
	GROSS PLANT IN SERVICE	(Note A)			
5	Production	WS4-CostData L4 C2+C3+C4 1,109,513,660	NA		
6	Transmission	WS4-CostData L3 C2+C3+C4 1,522,421,803	TP	1.00000	1,522,421,803
7	Distribution	WS4-CostData C2 L2-L3-L4 55,291,887	NA		
		Bal Sheet - Other Assets - SGL 175002 -	W/S	1.00000	0
8	General & Intangible	-	CE	0.00000	0
9	Common	-	GP=	56.654%	0
10	TOTAL GROSS PLANT	(sum L5 : 9) 2,687,227,350			1,522,421,803
	ACCUMULATED DEPRECIATION				
11	Production	WS4-CostData L15 C2+C3+C4 575,084,959	NA		
12	Transmission	WS4-CostData L14 C2+C3+C4 761,487,844	TP	1.00000	761,487,844
13	Distribution	WS4-CostData C2 L14-L15-L16 27,592,797	NA		
		Bal Sheet - Other Assets - SGL 175902 0	W/S	1.00000	0
14	General & Intangible	0	CE	0.00000	0
15	Common	0			0
16	TOTAL ACCUM. DEPRECIATION	(sum L11 : 15) 1,364,165,600			761,487,844
	NET PLANT IN SERVICE				
17	Production	(L5 - L11) 534,428,701			
18	Transmission	(L6 - L12) 760,933,959			760,933,959
19	Distribution	(L7 - L13) 27,699,090			
20	General & Intangible	(L8 - L14) 0			0
21	Common	(L9 - L15) 0			0
22	TOTAL NET PLANT	(sum L17 : 21) 1,323,061,750	NP=	57.513%	760,933,959
	ADJUSTMENTS TO RATE BASE	(Note B)			
23	Account No. 281	(enter negative) 0		0.00000	0
24	Account No. 282	(enter negative) 0	NP	0.57513	0
25	Account No. 283	(enter negative) 0	NP	0.57513	0
26	Account No. 190	0	NP	0.57513	0
27	Account No. 255	(enter negative) 0	NP	0.57513	0
28	TOTAL ADJUSTMENTS	(sum L23 : 27) 0			0
29	LAND HELD FOR FUTURE USE	(Note C) 0	TP	1.00000	0
	WORKING CAPITAL	(Note D)			
30	CWC	calculated 23,395,797			0
		Bal Sheet - Other Assets - SGL 151191 (Note C) 0	TE	0.00000	0
31	Materials & Supplies	0	GP	0.56654	0
32	Prepayments	Bal Sheet Other Assets 0			0
33	TOTAL WORKING CAPITAL	(sum L30 : 32) 23,395,797			0
34	RATE BASE	(sum L22, 28, 29, 33) 1,346,457,547			760,933,959
	O&M				
	Transmission	ROOs Schedule 11 (Note E)			
35	Western-UGP	WS4-CostData L106 C2 64,251,178	PTP/UGP	0.95041	61,065,177
36	Western-RMR	WS4-CostData L106 C3 46,417,099	PTP/RMR	0.01246	578,470
37	COE	WS4-CostData L106 C4 46,743,530	PTP/COE	0.07896	3,690,920
38	Less Account 565	(Note E) 0	NA	1.00000	0
	A&G	ROOs Schedule 11 (Note F)			
39	Western-UGP	WS4-CostData L79 C2 19,840,517	PTP/UGP	0.95041	18,856,692
40	Western-RMR	WS4-CostData L79 C3 9,914,052	PTP/RMR	0.01246	123,553
		Less FERC Annual Fees 0	W/S	1.00000	0
41	Less EPRI & Reg. Comm. Exp. & Non-safety Ad	(Note G) 0	W/S	1.00000	0
42	Plus Transmission Related Reg. Comm. Exp	(Note G) 0	TE	0.00000	0
43	Common	0	CE	0.00000	0
44	Transmission Lease Payments	0	NA	1.00000	0
45		(sum L35, 36, 37, 39, 40, 43, 44 less 38, 41, 42) 187,166,376			84,314,812
46	TOTAL O&M				
	DEPRECIATION EXPENSE				
47	Transmission	ROOs Schedule 4			
48	Western-UGP	WS4-CostData L38 C2 35,378,568	PTP/UGP	0.95041	33,624,263
49	Western-RMR	WS4-CostData L38 C3 19,115,399	PTP/RMR	0.01246	238,224
50	COE	WS4-CostData L38 C4 15,118,338	PTP/COE	0.07896	1,193,760
51	General	0	W/S	1.00000	0
52	Common	0	CE	0.00000	0
53	TOTAL DEPRECIATION	(sum L47 : 52) 69,612,305			35,056,248
	TAXES OTHER THAN INCOME TAXES	(Note H)			
	LABOR RELATED				
54	Payroll	0	W/S	1.00000	0
55	Highway and vehicle	0	W/S	1.00000	0
	PLANT RELATED				
56	Property	0	GP	0.56654	0
57	Gross Receipts	0		0.00000	0
58	Other	0	GP	0.56654	0
59	Payments in lieu of taxes	0	GP	0.56654	0
60	TOTAL OTHER TAXES	(sum L54 : 59) 0			0
	INCOME TAXES	(Note I)			
61	T=1 - (((1 - SIT) * (1 - FIT)) / (1 - SIT * FIT * p)) =	0.00%			
62	CIT=(T/1-T) * (1-(WCLTD/R)) = where WCLTD=(line 100) and R=(line 102) and FIT, SIT & p are as given in footnote I.	0.00%			
63	1 / (1 - T) = (from line 61)	0.0000			
64	Amortized Investment Tax Credit	(enter negative) 0			0
65	Income Tax Calculation	(L62 * L68) 0	NA		0
66	ITC adjustment	(L63 * L64) 0	NP	0.57513	0
67	Total Income Taxes	(L65 + L66) 0			0
68	RETURN [Rate Base * Rate of Return]	(L34 * L102) 66,337,657	NA		37,489,913
69	REV. REQUIREMENT	(sum L46, 53, 60, 67, 68) 323,116,338			156,860,972

SUPPORTING CALCULATIONS AND NOTES

TRANSMISSION PLANT INCLUDED IN UMZ RATES						
70	Total transmission plant	(L6, C3)				1,522,421,803
71	Less transmission plant excluded from UMZ rates	(Note K)				0
72	Less transmission plant included in OATT Ancillary Services	(Note L)				0
73	Transmission plant included in UMZ rates	(L70 less L71 and L72)				1,522,421,803
74	Percentage of transmission plant included in UMZ Rates	(L73 / L70)			TP=	1.00000
TRANSMISSION EXPENSES						
75	Total transmission expenses	(sum L35 to L37, C3)				
76	Less transmission expenses included in OATT Ancillary Services	(Note J)				0
77	Included transmission expenses	(L75 - L76)				0
	Percentage of transmission expenses after adjustment (line 8 divided by line 6)	(L77/ L75)				0.00000
78	Percentage of transmission plant included in UMZ Rates	(L74)			TP	1.00000
79	Percentage of transmission expenses included in UMZ Rates	(L79 * L78)			TE=	0.00000
80	WAGES & SALARY ALLOCATOR (W&S)					
			\$		TP	
81	Production		0	0.00	Allocation	0
82	Transmission		18,856,692	1.00		18,856,692
83	Distribution		0	0.00		0
84	Other		0	0.00		0
85	Total	(sum L81 to L84)	18,856,692			18,856,692
	PERCENTAGE OF TOTAL PLANT ALLOCATOR PTP	(Note M)				= 1.00000
			\$			
86	Transmission Plant in Service Western-UGP		1,418,874,523			
87	Total Plant in Service Western-UGP		1,492,902,586			
88	UGP Percentage of Transmission Plant to Total Plant	(L86 / L87)			PTP/UGP =	0.95041
89	Transmission Plant in Service Western-RMR		10,034,426			
90	Total Plant in Service Western-RMR		805,173,863			
91	RMR Percentage of Transmission Plant to Total Plant	(L89 / L90)			PTP/RMR =	0.01246
92	Transmission Plant in Service COE		93,512,853			
93	Total Plant in Service COE		1,184,290,338			
94	COE Percentage of Transmission Plant to Total Plant	(L92 / L93)			PTP/COE =	0.07896
	COMMON PLANT ALLOCATOR (CE)	(Note N)				
			\$		% Electric	Labor Ratio =
95	Electric		0		(L95 / L98)	(L85)
96	Gas		0		0.00000	* 1.00000
97	Water		0			
98	Total	(sum L95 : L97)	0			
	RETURN (R)		\$			
99	Long Term Interest ROOs Schedule 5		\$44,417,468			
			\$		Cost	=WCLTD
					(Note O)	
						Weighted
100	Long Term Debt	HFD Sch's 21RX & 21X Col 8	901,542,756	100%	0.0493	0.0493 =R
101	Proprietary Capital	L23,25,26,29,30	0	0%	0.1238	0.0000
102	Total (sum L100-101)	(sum L100 : 101)	901,542,756	100%		0.0493
103					Proprietary Capital Cost Rate =	12.38%
104					TIER =	1.00
	REVENUE CREDITS					
	ACCOUNT 447 (SALES FOR RESALE)					Load
105	a. Bundled Non-RQ Sales for Resale	(Note P)				0
106	b. Bundled Sales for Resale included in Divisor on page 1					0
107	Total of (a)-(b)					0
108	ACCOUNT 454 (RENT FROM ELECTRIC PROPERTY)	(Note Q)				79,567
109	ACCOUNT 456 (OTHER ELECTRIC REVENUES)					0
110	a. Transmission charges for all transmission transactions					0
111	b. Transmission charges for all transmission transactions included in Divisor on page 1					0
112	Total of (a)-(b)					0

Note Letter General Note: References to Results of Operations in this revenue requirement template indicate the Financial Statement Results of Operations (ROOs) Schedule where data is located. To the extent the references to ROOs data are missing, the entity will include a "Notes" section to provide this data.

A Combines plant data for both the Western-Upper Great Plains Region (Western-UGP) and Western-Rocky Mountain Region (Western-RMR).

B Does not apply to Western. For others, the balances in Accounts 190, 281, 282 and 283, as adjusted by any contra accounts identified as regulatory assets amounts in or liabilities related to FASB 106 or 109. Balance of Account 255 is reduced by prior flow throughs and excluded if the utility chose to utilize amortization of tax credits against taxable income as discussed in Note K. Account 281 is not allocated.

C Transmission related only.

D Cash Working Capital assigned to transmission is one-eighth of O&M allocated to transmission at line 46 column 5. Prepayments are the electric related prepayments booked to Account No. 165 and reported in the Other Assets Section of the Balance Sheet.

E For O&M Expense, Calculated from ROOs Schedule 11 as Total O&M less Purchase Power, Transmission Service Provided by Others (FERC 565), O&M Expense Fort Peck Powerhouse, Prior Year Adjustments, A&G Expense from ROOs Schedule 11, plus CME and Warehouse Interest from ROOs Schedule 5. Depreciation Expense from ROOs Schedule 4.

F Totals of ROOs Schedule 11A Object Classes 1411, 1412, 1415, 1416, 1421, 1422, 1425, 1426, 1431, 1432, 1441, 1442.

G Line 42 - EPRI Annual Membership Dues, all Regulatory Commission Expenses, and non-safety related advertising. Line 43 - Regulatory Commission Expenses directly related to transmission service, ISO filings, or transmission siting.

H Includes only FICA, unemployment, highway, property, gross receipts, and other assessments charged in the current year. Taxes related to income are excluded. Gross receipts taxes are not included in transmission revenue requirement in the Rate Formula Template, since they are recovered elsewhere.

I Western is not subject to Federal or State Income Tax.

Inputs Required:

FIT =	0.00%	
SIT=	0.00%	(State Income Tax Rate or Composite SIT)
p =	0.00%	(percent of federal income tax deductible for state purposes)

J Removes dollar amount of transmission expenses included in the OATT ancillary services rates, including Acct No. 561. Western does not include transmission expenses in ancillary service rates.

K Removes transmission plant determined by Commission order to be state-jurisdictional according to the seven-factor test (until RUS 12 balances are adjusted to reflect application of seven-factor test).

L Removes dollar amount of transmission plant included in the development of OATT ancillary services rates and generation step-up facilities, which are deemed to be included in OATT ancillary services. For these purposes, generation step-up facilities are those facilities at a generator substation on which there is no through-flow when the generator is shut down.

M Percentage of Total Plant Allocators are developed separately for Western-UGP and Western-RMR to allocate O&M, A&G, and Depreciation Expenses between Transmission and Generation.

N Western does not have Common Plant.

O Debt cost rate = long-term interest (line 99) / long term debt (line 100). The Proprietary Capital Cost rate is implicit, a residual calculation after TIER is determined. TIER will be supported in the filing and no change in TIER may be made absent a filing with the ISO and the FERC, if the entity is under FERC's jurisdiction.

P Line 105 must equal zero since all short-term power sales must be unbundled and the transmission component reflected in Account No. 456 and all other uses are to be included in the divisor.

Q Includes income related only to transmission facilities, such as pole attachments, rentals and special use.

R The revenues credited shall include only the amounts received directly reflecting the Transmission Owner's integrated transmission facilities. They do not include revenues associated with FERC annual charges, gross receipts taxes, facilities not included in this template (e.g., direct assignment facilities and GSUs) which are not recovered under this Revenue Requirement Template.

WAPA-UGP 2020 Rate Estimate Calculation
Worksheet 2 - Allocation Factor, Determination of Pick-Sloan Missouri Basin Program--Eastern Division Annual Costs
12 Months Ending 09/30/2020 ESTIMATE

Line No.	DESCRIPTION (1)	TRANSMISSION (2)	GENERATION (3)	COE GENERATION (5)	BASE PLAN UPGRADES- REGIONAL (4)	BASE PLAN UPGRADES- ZONAL (5)	REFERENCE (6)
1	A. Operation and Maintenance Expense						
2	O&M Expense	\$65,334,567	\$86,475,951	\$43,052,610	\$46,276	\$289,720	WS4-Cost Data (O&M Expenses Worksheet)
3	Transmission of Electricity by Others	\$0	\$0	\$0	\$0	\$0	
4	Total O&M Expense	\$65,334,567	\$86,475,951	\$43,052,610	\$46,276	\$289,720	L2 + L3
5	Net Plant Investment	\$760,933,959	\$697,810,962	\$525,042,604	\$538,649	\$3,372,355	WS4-Cost-Data (Net Plant Investment Worksheet)
6	O&M as % of Net Plant Investment	8.586%	12.392%	8.200%	8.591%	8.591%	L4/L5
7	B. A&G Expense						
8	A&G Expense	\$18,980,245	\$249,002	\$0	\$14,290	\$89,465	WS4-CostData (A&G Expenses Worksheet)
9	Net Plant Investment	\$760,933,959	\$697,810,962	\$525,042,604	\$538,649	\$3,372,355	L5
10	A&G as % of Net Plant Investment	2.494%	0.036%	0.000%	2.653%	2.653%	L8/L9
11	C. Depreciation Expense						
12	Depreciation Expense	\$35,056,248	\$17,592,617	\$13,924,578	\$25,481	\$159,528	WS4-CostData (Depreciation Expense Worksheet)
13	Net Plant Investment	\$760,933,959	\$697,810,962	\$525,042,604	\$538,649	\$3,372,355	L5
14	Depreciation as a % of Net Plant Investment	4.607%	2.521%	2.652%	4.730%	4.730%	L12/L13
15	D. Taxes Other than Income Taxes for Transmission						
16	Not applicable.						
17	E. Allocation of General Plant						
18	No General Plant identified at this time, all plant is identified as either generation or transmission related.						
19	F. Cost of Capital						
20	Weighted Transmission Composite Interest Rate	4.917%	3.494%	3.494%	4.917%	4.917%	WS4-CostData (Cost of Capital Worksheet)
21	G. Fixed Charge Rate						
22	Operation and Maintenance Expense	8.586%	12.392%	8.200%	8.591%	8.591%	L6
23	A&G Expense	2.494%	0.036%	0.000%	2.653%	2.653%	L10
24	Depreciation Expense	4.607%	2.521%	2.652%	4.730%	4.730%	L14
25	Taxes Other than Income Taxes	0.000%	0.000%	0.000%	0.000%	0.000%	
26	Allocation of General Plant to Transmission	0.000%	0.000%	0.000%	0.000%	0.000%	
27	Cost of Capital	4.917%	3.494%	3.494%	4.917%	4.917%	L20
28	Total	20.605%	18.444%	14.346%	20.892%	20.892%	
29	H. Revenue Requirement						
30	Fixed Charge Rate	20.605%	18.444%	14.346%	20.892%	20.892%	L28
31	Net Plant Investment	\$760,933,959	\$697,810,962	\$525,042,604	\$538,649	\$3,372,355	L5
32	Annual Western-UGPR Cost	\$156,788,637	\$128,702,306	\$75,324,599	\$112,533	\$704,543	L30 * L31

WAPA-UGP 2020 Rate Estimate Calculation
Worksheet 3 - Revenue Credit Calculation
12 Months Ending 09/30/2020 ESTIMATE

Line No.	ACCOUNT	MONTH (1)	REFERENCE (2)	COMPANY TOTAL ALLOCATION			TRANSMISSION
				(3)	(4)	(5)	ALLOCATED AMOUNT
1	Z2 Sch 7/8		Z2	231,453	NA	100%	231,453
2	Z2 Sch 7/8 Adjustments			-		100%	0
3	Subtotal			231,453			231,453
4	45644		OTHER ELEC. REVENUE	(4,837,343)	TP	100%	(4,837,343)
5	45644 Adjustments			-		100%	0
6	Subtotal			(4,837,343)			(4,837,343)
7	45645		OTHER ELEC. REVENUE	(2,255,482)	TP	100%	(2,255,482)
8	45645 Adjustments			-	TP	100%	0
9	Subtotal			(2,255,482)			(2,255,482)
10	Sch 7/8		MISO SEAMS	(1,141,626)	TP	100%	(1,141,626)
11	Sch 7/8 Adjustments			-	TP	100%	0
12	Subtotal			(1,141,626)			(1,141,626)
13	7088		SSCD	(10,681,455)	NA	100%	(10,681,455)
14	7088 Adjustments			-	NA	100%	0
15	Subtotal			(10,681,455)			(10,681,455)
16	45420		RENT FROM ELECTRIC PROPERTY	(79,567)	TP	100%	(79,567)
17	45420 Adjustments			-	TP	100%	0
18	Subtotal			(79,567)			(79,567)
19	45643		REVENUE FROM TRANS.	-	TP	100%	0
20	45643 Adjustments			-	TP	100%	0
21	Subtotal			-			0
22	7080		RESRV-SUPPLEMENTAL	-	NA	100%	0
23	7080 Adjustments			-	NA	100%	0
24	Subtotal			-			0
25	7089		RESRV-SPIN	-	NA	100%	0
26	7089 Adjustments			-	NA	100%	0
27	Subtotal			-			0
28	7091		REGULATION	-	NA	100%	0
29	7091 Adjustments			-	NA	100%	0
30	Subtotal			-			0
31	Sch 11		PTP	(18,333)	NA	100%	(18,333)
32	Sch 11 Adjustments			-	NA	100%	0
33	Subtotal			(18,333)			(18,333)

34 NOTES: Includes twelve months of revenue credits from January-December or February-January depending on when WAPA began receiving revenue credits from SPP.
35 Revenue credit sheet may be updated or adjusted as necessary to include all revenue credits received.
36 Z2 Schedule 7/8 clawbacks
37 45644 - Firm PTP Transmission revenues
38 45645 - Non-Firm PTP Transmission revenues
39 Schedule 7/8 - MISO's SPP PTP Transmission service revenues
40 7088 - Scheduling, System Control and Dispatch Services revenues
41 45420 - Other Rental revenues
42 45643 - Firm Network Transmission revenues
43 7080 - Supplemental Reserves revenues
44 7089 - Spinning Reserves revenues
45 7091 - Regulation Service revenues
46 Schedule 11 PTP revenues

WAPA-UGP 2020 Rate Estimate Calculation
Worksheet 4 - Cost Support Data
12 Months Ending 09/30/2020 ESTIMATE

Line No.	(1)	WESTERN-UGP (2)		WESTERN-RMR (3)		COE (4)		BOR (5)		TOTAL (6)	
1	Net Plant Investment Worksheet										
2	Total PS Plant-in-Service	1,492,902,586	1/	805,173,863	2/	1,184,290,338	3/	530,109,730	12/	4,012,476,517	
3	PS-ED Transmission Plant-in-Service	1,418,874,523	4/	10,034,426	5/	93,512,853	6/	0		1,522,421,803	
4	PS-ED Generation Plant-in-Service	18,736,176	7/	0		1,090,777,485	L2-L3	530,109,730	L2-L3	1,639,623,390	
5	PS-ED SSCD Plant-in-Service	13,029,266	8/							13,029,266	
6	BPU-Regional Plant-in-Service	1,075,230								1,075,230	
7	BPU-Zonal Plant-in-Service	6,731,770								6,731,770	
8	Generation Plant to Total Plant	0.01255	L4/L2	0.00000	L4/L2	0.92104	L4/L2	1.00000	L4/L2		
9	Transmission Plant to Total Plant	0.95041	L3/L2	0.01246	L3/L2	0.07896	L3/L2	0.00000	L3/L2		
10	SSCD Plant to Total Plant	0.00873	L5/L2								
11	BPU-Regional Plant to Total Plant	0.00072									
12	BPU-Zonal Plant to Total Plant	0.00451									
13	PS Accumulated Depreciation	745,016,307	9/	394,281,087	10/	614,235,591	11/	366,727,469	13/	2,120,260,454	
14	PS-ED Trans. Accumulated Depreciation	708,073,432	L13*L9	4,913,702	L13*L9	48,500,710	L13*L9	0	L13*L9	761,487,844	
15	PS-ED Gen. Accumulated Depreciation	9,350,078	L13*L8	0		565,734,881	L9-L10	366,727,469	L13*L8	941,812,428	
16	PS-ED SSCD Accumulated Depreciation	6,502,109	L13*L10							6,502,109	
17	BPU-Regional Accumulated Depreciation	536,582								536,582	
18	BPU-Zonal Accumulated Depreciation	3,359,414								3,359,414	
19	PS-ED Net Transmission Plant	710,801,091	L3-L14	5,120,724	L3-L14	45,012,143	L3-L14	0	L3-L14	760,933,959	
20	PS-ED Net Generation Plant	9,386,097	L4-L15	0	L4-L10	525,042,604	L4-L15	163,382,261	L4-L15	697,810,962	
21	PS-ED Net SSCD Plant	6,527,157	L5-L16							6,527,157	
22	Regional Net Plant	538,649	L6-L17							538,649	
23	Base Plan Upgrade Net Plant	3,372,355	L7-L18							3,372,355	
24	1/ Transmission Plant-in-Service Worksheet, C2L498										
25	2/ FY RMCSR - Pick-Sloan Missouri River Basin Results of Operations, Schedule 1										
26	3/ FY Corps of Engineers Financial Statements, Electric and Power Multi-Purpose Plant in Service										
27	4/ Transmission Plant-in-Service Worksheet, C5L498										
28	5/ Transmission Plant-in-Service Worksheet, C5L489										
29	6/ Transmission Plant-in-Service Worksheet, C5L496										
30	7/ Transmission Plant-in-Service Worksheet, C4L498										
31	8/ SSCD Plant-in-Service is based on a percentage of Watertown Operations Centers cost, based on FTE										
32	9/ FY UGPCSR - Pick-Sloan Missouri River Basin and UGPCSR - Ft. Peck Power System Results of Operations, Schedule 4										
33	10/ FY RMCSR - Pick-Sloan Missouri River Basin Results of Operations, Schedule 4										
34	11/ FY Corps of Engineers Financial Statements, Statement of Assets and Liabilities										
35	12/ FY Historical Financial Data in Support of the Power Repayment Study for the P-SMBP, Schedule 15										
36	13/ FY Historical Financial Data in Support of the Power Repayment Study for the P-SMBP, Schedule 17										

WAPA-UGP 2020 Rate Estimate Calculation										
Line No.	(1)	WESTERN-UGP (2)		WESTERN-RMR (3)		COE (5)		BOR (6)		TOTAL (7)
37	Depreciation Worksheet									
38	PS Depreciation Expense	35,378,568	1/	19,115,399	2/	15,118,338	3/	3,224,033	4/	72,836,338
39	PS-ED Transmission Depreciation 5/	33,624,263	L38*L9	238,224	L38*L9	1,193,760	L38*L9	0	L38*L9	35,056,248
40	PS-ED Generation Depreciation 6/	444,007	L38*L8	0	L38*L8	13,924,578	L38*L8	3,224,033	L38*L8	17,592,617
41	PS-ED SSCD Depreciation 7/	308,765	L38*L10							308,765
42	BPU-Regional Depreciation	25,481	L38*L11							25,481
43	BPU-Zonal Depreciation	159,528	L38*L12							159,528
44	1/ FY UGPCSR - Pick-Sloan Missouri River Basin and UGPCSR - Ft. Peck Power System Results of Operations, Schedule 4									
45	2/ FY RMCSR - Pick-Sloan Missouri River Basin Results of Operations, Schedule 4									
46	3/ FY Corps of Engineers Statement of Revenues and Expenses									
47	4/ From data provided by BOR									
48	5/ For Western-UGP, Western-RMR, COE, and BOR the portion of depreciation expense allocated to PS-ED transmission is based on the ratio of transmission plant-in-service to total									
49	plant-in-service, calculated on L7 of the Net Plant Investment Worksheet									
50	6/ For Western-UGP, Western-RMR and BOR the portion of depreciation expense allocated to PS-ED generation is based on the ratio of generation plant-in-service to total plant-in-service,									
51	calculated on L6 of the Net Plant Investment Worksheet. COE generation depreciation is COE total depreciation less transmission depreciation									
52	7/ For Western-UGP, the portion of depreciation expense allocated to PS-ED SSCD is based on the ratio of SSCD plant-in-service to total plant in service, calculated on L8 of the Net Plant									
53	Investment Worksheet									

WAPA-UGP 2020 Rate Estimate Calculation											
Line No.	(1)	WESTERN-UGP (2)		WESTERN-RMR (3)		COE (5)		BOR (6)		TOTAL (7)	
54	Cost of Capital Worksheet										
55	Long Term Debt:										
56	FY Balances	890,868,593	1/	414,497,509	1/	629,217,755	1/	219,568,497	1/	2,154,152,354	
57	Interest Expenses:										
58	FY Interest	44,653,166	13/	26,616,546	13/	20,855,793	2/	8,367,734	2/	100,493,239	
59	Average Interest Rate	5.012%	L58/L56	6.421%	L58/L56	3.315%	L58/L56	3.811%	L58/L56		
60	Transmission Plant Factor	0.9320	3/	0.0066	4/	0.0614	5/	0.0000	6/		
61	Weighted Trans. Composite Rate									4.917%	7/
62	Generation Plant Factor	0.0114	8/	0.0000	9/	0.6653	10/	0.3233	11/		
63	Weighted Gen. Composite Rate									3.494%	12/
64	1/ FY Historical Financial Data in Support of the Power Repayment Study for the P-SMBP, Schedules 21X and 21RX										
65	2/ FY Historical Financial Data in Support of the Power Repayment Study for the P-SMBP, Schedule 33, 33A and ROOs Schedule 5										
66	3/ C2L3, Net Plant Investment Worksheet/C6L3, Net Plant Investment Worksheet										
67	4/ C3L3, Net Plant Investment Worksheet/C6L3, Net Plant Investment Worksheet										
68	5/ C4L3, Net Plant Investment Worksheet/C6L3, Net Plant Investment Worksheet										
69	6/ C5L3, Net Plant Investment Worksheet/C6L3, Net Plant Investment Worksheet										
70	7/ (C2L59*C2L62)+(C3L59*C3L62)+(C4L59*C4L62)+(C5L59*C5L62)										
71	8/ C2L4, Net Plant Investment Worksheet/C6L4, Net Plant Investment Worksheet										
72	9/ C3L4, Net Plant Investment Worksheet/C6L4, Net Plant Investment Worksheet										
73	10/ C4L4, Net Plant Investment Worksheet/C6L4, Net Plant Investment Worksheet										
74	11/ C5L4, Net Plant Investment Worksheet/C6L4, Net Plant Investment Worksheet										
75	12/ (C2L59*C2L62)+(C3L59*C3L62)+(C4L59*C4L62)+(C5L59*C5L62)										
76	13/ Interest from Results of Operations Schedule 5										

WAPA-UGP 2020 Rate Estimate Calculation						
Line No.	(1)	WESTERN-UGP (2)	WESTERN-RMR (3)	COE (5)	BOR (6)	TOTAL (7)
77	A&G Expenses Worksheet					
78		WESTERN-UGP 1/	WESTERN-RMR 2/	COE 3/	BOR 3/	Total
79	PS Total Est. A&G	19,840,517	9,914,052	0	0	29,754,569
80	PS-ED Est. Transmission A&G 4/	18,856,692	123,553	0	0	18,980,245
81	PS-ED Generation A&G 5/	249,002	0	0	0	249,002
82	PS-ED SSCD A&G 6/	173,158	0	0	0	173,158
83	BPU-Regional A&G	14,290	0	0	0	14,290
84	BPU-Zonal A&G	89,465	0	0	0	89,465
85	1/ Western-UGP A&G Est. Expenses are from the FY UGPCSR - Pick-Sloan Missouri River Basin and UGPCSR - Ft. Peck Power System Budget					
86	2/ Western RMR A&G Expenses are from the FY RMCSR - Pick-Sloan Missouri River Basin Budget					
87	3/ A&G Expenses for COE and BOR are unavailable. All COE and BOR A&G expenses are included in O&M Expenses					
88	4/ The portion of A&G expenses allocated to PS-ED transmission is based on the ratio of transmission plant-in-service to total plant-in-service, calculated on L7 of the Net Plant Investment Worksheet					
89	Investment Worksheet					
90	5/ The portion of A&G expenses allocated to PS-ED generation is based on the ratio of generation plant-in-service to total plant-in-service, calculated on L6 of the Net Plant Investment Worksheet					
91	Investment Worksheet					
92	6/ The portion of A&G expenses allocated to PS-ED SSCD is based on the ratio of SSCD plant-in-service to total plant-in-service, calculated on L8 of the Net Plant Investment Worksheet					

WAPA-UGP 2020 Rate Estimate Calculation						
Line No.	(1)	WESTERN-UGP (2)	WESTERN-RMR (3)	COE (5)	BOR (6)	TOTAL (7)
93	O&M Expenses Worksheet					
94		WESTERN-UGP 1/	WESTERN-RMR 2/	COE 3/	BOR 4/	
95	Total Electric Operating Expense	76,219,000				76,219,000
96	Less:					
97	Other Power Supply Expenses					
98	A&G Expenses	19,840,517				19,840,517
99	Prior Year Adjustments					
100	Annual Reserve Sharing Group Cost	68,305				68,305
101	Plus:					
102	Moveable Property Interest	7,941,000				7,941,000
103	Warehouse Stores Interest					
104	Scheduling, System Control & Dispatch	9,878,571				9,878,571
105	COE/BOR Total			46,743,530	42,616,978	89,360,508
106	PS Total O&M	64,251,178	46,417,099	46,743,530	42,616,978	163,558,562
107	PS-ED Transmission O&M 5/	61,065,177	578,470	3,690,920	0	65,334,567
108	PS-ED Generation O&M 6/	806,363	0	43,052,610	42,616,978	86,475,951
109	BPU-Regional O&M	46,276				46,276
110	BPU-Zonal O&M	289,720				289,720
111	1/ All Western-UGP O&M Expenses are from the FY UGPCSR - Pick-Sloan Missouri River Basin and UGPCSR - Ft. Peck Power System Budget					
112	2/ All Western RMR O&M Expenses are from the FY RMCSR - Pick-Sloan Missouri River Basin Results of Operations, Schedule 11; except Moveable Property and Warehouse					
113	Stores Interest, which are from Schedule 5					
114	3/ Total Corps O&M Expenses are from the FY Corps of Engineers Financial Statements					
115	4/ Total BOR O&M Expenses are from the FY Historical Financial Data in Support of the Power Repayment Study for the Pick-Sloan Missouri Basin Program, Schedule 14					
116	5/ The portion of O&M expenses allocated to PS-ED transmission is based on the ratio of transmission plant-in-service to total plant-in-service, calculated on L7 of the					
117	Net Plant Investment Worksheet					
118	6/ The portion of O&M expenses allocated to PS-ED generation is based on the ratio of generation plant-in-service to total plant-in-service, calculated on L6 of the					
119	Net Plant Investment Worksheet					

WAPA-UGP 2020 Rate Estimate Calculation
 Worksheet 5 - Zonal SPP Upgrade Calculations
 12 Months Ending 09/30/2020 ESTIMATE

Line No.	Project Name and # (1)	Type (2)	Project Gross Plant (Zonal Allocation) (3)	Allocation Factor % (4)	Project Accumulated Depreciation (5)	Allocation for Transmission O&M (6)	Allocation for General Plant Depreciation (7)	Allocation for A&G (8)	Cost of Capital (9)	Project Net Plant (10)	Cost of Capital (11)	Project ATRR (12)	Revenue Credit Allocation (13)	Net ATRR (14)
1	Lewis-Richland 115kV Ckt 1, 72052	TL	136,000	1.742%	58,522	\$5,047	2,779	\$249	4.917%	77,478	\$ 3,810	\$ 11,885	\$ (281)	\$ 11,604
2	Roberts County 115kV Substation, 71926	SUB	3,083,253	39.493%	1,326,748	\$114,420	63,003	\$5,643	4.917%	1,756,505	\$ 86,373	\$ 269,440	\$ (6,377)	\$ 263,063
3	Roberts County 115/69kV Transformer, 71927	SUB	4,587,747	58.765%	1,974,144	\$170,253	93,746	\$8,397	4.917%	2,613,603	\$ 128,519	\$ 400,915	\$ (9,489)	\$ 391,427
4														
5														
6														
7														
8														
9														
10														
11														
12														
13	Revenue Credit Total		(18,333)						88.08%				(16,147)	
14	Total		7,807,000	100%	3,359,414	289,720	159,528	14,290		4,447,586	218,702	682,241	(16,147)	666,093

WAPA-UGP 2020 Rate Estimate Calculation
 Worksheet 6 - Base Plan Upgrades-Regional
 12 Months Ending 09/30/2020 ESTIMATE

Line No.	Project Name and # (1)	Type (2)	Project Gross Plant (Regional Allocation) (3)	Allocation Factor % (4)	Project Accumulated Depreciation (5)	Allocation for Transmission O&M (6)	Allocation for General Plant Depreciation (7)	Allocation for A&G (8)	Cost of Capital (9)	Project Net Plant (10)	Cost of Capital (11)	Project ATRR (12)	Revenue Credit Allocation (13)	Net ATRR (14)
1	Lewis & Clark-Richland 115kv Ckt 1, 72052	TL	45,424	4.298%	23,062	\$1,989	1,095	\$614	4.917%	22,362	\$ 1,100	\$ 4,798	\$ (94)	\$ 4,704
2	Roberts County 115kv Substation, 71926	SUB	1,029,806	97.437%	522,828	\$45,089	24,828	\$13,923	4.917%	506,979	\$ 24,930	\$ 108,770	\$ (2,130)	\$ 106,640
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13	Revenue Credit Total		(18,333)						11.92%				(2,186)	
14	Total		1,056,897	100%	545,889	\$47,078	25,923	14,538		529,341	26,029	113,568	(2,224)	111,344

WAPA-UGP 2020 Rate Estimate Calculation Worksheet 7 - SPP Base Plan Upgrades-Facilities 12 Months Ending 09/30/2020 ESTIMATE							
2020 SPP ESTIMATE SUMMARY	FID	DESCRIPTION	PRIOR YEAR FACILITY TOTALS (\$)	FY2019-20 ESTIMATE ADD/REPL/RETIRE (\$)	BASE PLAN UPGRADES-REGIONAL	BASE PLAN UPGRADES-ZONAL	FY2020 EST SPP TOTALS (\$)
2020 SPP ESTIMATE SUMMARY	LC-RH	LEWIS - RICHLAND 115 kV Ckt 1, 72052 (SPP set Regional/Zonal Allocation to 33%/67%)	-	136,000	45,424	90,576	136,000
	RCO	ROBERTS COUNTY 115kV SUBSTATION, 71926 (SPP set Regional/Zonal Allocation to 33%/67%)	-	3,083,253	1,029,806	2,053,446	3,083,253
2020 SPP ESTIMATE SUMMARY	RCO	ROBERTS COUNTY 115/69kV TRANSFORMER, 71927 (SPP set Regional/Zonal Allocation to 0%/100%)	-	4,587,747	0	4,587,747	4,587,747
		TOTAL	-	7,807,000	1,075,230	6,731,770	7,807,000
2020 SPP ESTIMATE DETAIL:		DESCRIPTION	FID COST DETAIL (\$)	REG %	REG TOTAL (\$)	ZONAL %	ZONAL TOTAL (\$)
	LC-RH	WOOD POLE	20,000	33%	6,680	67%	13,320
	LC-RH	CONDUCTOR	116,000	33%	38,744	67%	77,256
		LEWIS - RICHLAND 115kV Ckt 1, 72052 - SUBTOTAL (SPP directed Regional/Zonal Split of 33%/67%)	136,000		45,424		90,576
	RCO	115-kV BREAKERS	456,211	33%	152,374	67%	303,836
	RCO	115-kV SWITCHES	261,537	33%	87,353	67%	174,184
	RCO	115-kV INSTRUMENT TRANSFORMERS	92,393	33%	30,859	67%	61,534
	RCO	115-kV RELAYS AND PANELS	368,805	33%	123,181	67%	245,624
	RCO	CONCRETE FOR 115-kV	428,624	33%	143,161	67%	285,464
	RCO	LAND FOR 115-kV	1,475,683	33%	492,878	67%	982,805
		ROBERTS COUNTY 115kV SUBSTATION, 71926 - SUBTOTAL	3,083,253		1,029,806		2,053,446
	RCO	69-kV BREAKERS	440,315	0%	0	100%	440,315
	RCO	69-kV SWITCHES	176,085	0%	0	100%	176,085
	RCO	69-kV INSTRUMENT TRANSFORMERS	29,461	0%	0	100%	29,461
	RCO	69-kV RELAYS AND PANELS	614,722	0%	0	100%	614,722
	RCO	115/69-kV TRANSFORMER	1,363,301	0%	0	100%	1,363,301
	RCO	CONCRETE FOR 69-kV	581,533	0%	0	100%	581,533
	RCO	LAND FOR 69-kV	1,382,331	0%	0	100%	1,382,331
		ROBERTS COUNTY 115/69kV TRANSFORMER, 71927 - SUBTOTAL	4,587,747	0%	0		4,587,747
		TOTAL SPP UPGRADES	7,807,000		1,075,230		6,731,770

WAPA-UGP 2020 Rate Estimate Calculation
Worksheet 8 - Transmission Facilities
12 Months Ending 09/30/2020 ESTIMATE

Line No.	FID	DESCRIPTION	(1)	(2)	(3)	(4)	(5)	(6)	(7)
			PRIOR YEAR FACILITY TOTALS (\$)	EST ADD/REPL/RETIRE (\$)	ESTIMATED FACILITY TOTAL (\$)	ATTACHMENT AI ADJUSTMENTS (\$)	GENERATION ADJUSTMENTS (\$)	BASE UPGRADE ADJUSTMENTS (\$)	FY2020 EST SPP TOTALS (\$)
1	TL	AUR BR	AURORA- BROOKINGS 115-KV T/L	133,158		133,158	-	-	133,158
2	TL	AUR FL	AURORA-FLANDREAU 115-KV T/L	96,623		96,623	-	-	96,623
3	TL	BK HET	BAKER-HETTINGER	459,778		459,778	-	-	459,778
4	TL	BU GA	BEULAH-GARRISON	357,312		357,312	-	-	357,312
5	TL	BS GH	BISMARCK-GLENHAM	5,076,897		5,076,897	-	-	5,076,897
6	TL	BS JT 1	BISMARCK-JAMESTOWN NO. 1	9,755,200		9,755,200	-	-	9,755,200
7	TL	BS JT 2	BISMARCK-JAMESTOWN NO. 2	4,229,572		4,229,572	-	-	4,229,572
8	TL	BS MDR	BISMARCK-MEDORA	12,764,457	-	12,764,457	-	-	12,764,457
9	TL	BR SF	BROOKINGS-SIOUX FALLS	2,587,518		2,587,518	-	-	2,587,518
10	TL	BR WT 1	BROOKINGS-WATERTOWN NO. 1	1,718,240		1,718,240	-	-	1,718,240
11	TL	BR WT 2	BROOKINGS-WATERTOWN NO. 2	3,318,558		3,318,558	-	-	3,318,558
12	TL	BR WHT	BROOKINGS-WHITE 115/230KV	2,952,237		2,952,237	-	-	2,952,237
13	TL	CF EH A	CANYON FERRY-EAST HELENA "A"	141,044		141,044	-	-	141,044
14	TL	CF EH B	CANYON FERRY-EAST HELENA "B"	141,044		141,044	-	-	141,044
15	TL	CA JT	CARRINGTON-JAMESTOWN	1,259,668		1,259,668	-	-	1,259,668
16	TL	WC BU	CHARLIE CREEK - WATFORD CITY	13,451,446		13,451,446	-	-	13,451,446
17	TL	CCRBFE	CHARLIE CREEK-BELFIELD	14,513,308		14,513,308	-	-	14,513,308
18	TL	CONSH2	CONRAD-SHELBY #2	5,804,318		5,804,318	-	-	5,804,318
19	TL	CS MY	CRESTON-MARYVILLE	1,366,481		1,366,481	-	-	1,366,481
20	TL	DC MC	DAWSON COUNTY - MILES CITY	2,605,678		2,605,678	-	-	2,605,678
21	TL	DC GL	DAWSON-GLENDIVE	553,800		553,800	-	-	553,800
22	TL	DC MDR	DAWSON-MEDORA	3,464,064		3,464,064	-	-	3,464,064
23	TL	DC OF	DAWSON-O'FALLON CREEK	918,676		918,676	-	-	918,676
24	TL	DC WN	DAWSON-WILLISTON	1,258,900		1,258,900	-	-	1,258,900
25	TL	DN CS	DENISON-CRESTON	20,977,731		20,977,731	-	-	20,977,731
26	TL	DL CA	DEVILS LAKE-CARRINGTON	7,672,600		7,672,600	-	-	7,672,600
27	TL	DL LA	DEVILS LAKE-LAKOTA	1,872,142		1,872,142	-	-	1,872,142
28	TL	ED FO	EDGELEY-FORMAN	375,316		375,316	-	-	375,316
29	TL	ED GR	EDGELEY-GROTON	771,572		771,572	-	-	771,572
30	TL	ELCMA	ELK CREEK-NEWELL-MAURINE 115-	60,704		60,704	-	-	60,704
31	TL	FA GK	FARGO-GRAND FORKS	2,369,098		2,369,098	-	-	2,369,098
32	TL	FA MO	FARGO-MORRIS	7,305,876		7,305,876	-	-	7,305,876
33	TL	FO SU D	FORMAN-SUMMIT (BISMARCK)	922,098		922,098	-	-	922,098
34	TL	FO SU C	FORMAN-SUMMIT (HURON)	4,465,037		4,465,037	-	-	4,465,037
35	TL	FP DC 1	FORT PECK-DAWSON 1	261,417		261,417	-	-	261,417
36	TL	FP DC 2	FORT PECK-DAWSON 2	8,301,710		8,301,710	-	-	8,301,710
37	TL	FP HV	FORT PECK-HAVRE	28,806,330		28,806,330	-	-	28,806,330
38	TL	FP WH	FORT PECK-WHATELY	157,876		157,876	-	-	157,876
39	TL	FP WN	FORT PECK-WILLISTON	10,096,097		10,096,097	-	-	10,096,097
40	TL	FP WP 2	FORT PECK-WOLF POINT #2	7,554,492		7,554,492	-	-	7,554,492
41	TL	FR FT D	FORT RANDALL-FORT THOMPSON	7,782,247		7,782,247	-	-	7,782,247
42	TL	FR GP	FORT RANDALL-GAVIN'S POINT	2,319,939		2,319,939	-	-	2,319,939
43	TL	FR GY	FORT RANDALL-GREGORY	777,327		777,327	-	-	777,327
44	TL	FR MV	FORT RANDALL-MT VERNON	1,308,562		1,308,562	-	-	1,308,562
45	TL	FR ON	FORT RANDALL-O'NEILL	679,540		679,540	-	-	679,540

46	TL	FR SC D	FORT RANDALL-SIOUX CITY 1&2	11,019,006		11,019,006	-	-	11,019,006
47	TL	FT GI	FORT THOMPSON-GRAND ISLAND	16,397,505		16,397,505	-	-	16,397,505
48	TL	FT HU D	FORT THOMPSON-HURON 230-KV	6,788,951	471,477	7,260,428	-	-	7,260,428
49	TL	FT SF D	FORT THOMPSON-SIOUX FALLS 1&	10,455,917		10,455,917	-	-	10,455,917
50	TL	GA BS D	GARRISON-BISMARCK 230KV 1&2	10,713,977		10,713,977	-	-	10,713,977
51	TL	GA JT	GARRISON-JAMESTOWN	4,763,399		4,763,399	-	-	4,763,399
52	TL	GA ML	GARRISON-MALLARD	1,948,079		1,948,079	-	-	1,948,079
53	TL	GA WJ	GARRISON-WM. J. NEAL	1,521,174		1,521,174	-	-	1,521,174
54	TL	GP BN	GAVINS POINT-BELDEN	455,727		455,727	-	-	455,727
55	TL	GP SF	GAVINS POINT-SIOUX FALLS	3,361,449		3,361,449	-	-	3,361,449
56	TL	GF MO	GRANITE FALLS- MORRIS	3,279,089		3,279,089	-	-	3,279,089
57	TL	GF MNV	GRANITE FALLS-MINNESOTA VALLE	156,778		156,778	-	-	156,778
58	TL	GTFCO	GREAT FALLS-CONRAD	12,744,945		12,744,945	-	-	12,744,945
59	TL	GY MS	GREGORY-MISSION	10,110,752		10,110,752	-	-	10,110,752
60	TL	GR HU	GROTON-HURON	2,869,906		2,869,906	-	-	2,869,906
61	TL	GR SU	GROTON-SUMMIT	3,255,847		3,255,847	-	-	3,255,847
62	TL	HV RB	HAVRE-RAINBOW	8,681,332		8,681,332	-	-	8,681,332
63	TL	HV SH2	HAVRE-SHELBY#2	5,561,905		5,561,905	-	-	5,561,905
64	TL	HE DV	HESKETT-DEVAUL	3,647,666		3,647,666	-	-	3,647,666
65	TL	HETNU	HETTINGER-NEW UNDERWOOD	11,263,708		11,263,708	-	-	11,263,708
66	TL	HU MV	HURON-MT VERNON	617,623		617,623	-	-	617,623
67	TL	HU WT D	HURON-WATERTOWN 230KV 1&3	6,319,622		6,319,622	-	-	6,319,622
68	TL	JT ED	JAMESTOWN-EDGELEY	1,189,520		1,189,520	-	-	1,189,520
69	TL	JT FA 1	JAMESTOWN-FARGO NO. 1	4,941,649		4,941,649	-	-	4,941,649
70	TL	JT FA 2	JAMESTOWN-FARGO NO. 2	3,155,850		3,155,850	-	-	3,155,850
71	TL	JT GK	JAMESTOWN-GRAND FORKS	28,751,577		28,751,577	-	-	28,751,577
72	TL	JT VC	JAMESTOWN-VALLEY CITY	1,055,414		1,055,414	-	-	1,055,414
73	TL	LE DL	LEEDS-DEVILS LAKE	8,982,948		8,982,948	-	-	8,982,948
74	TL	LE RL	LEEDS-ROLLA	5,274,134		5,274,134	-	-	5,274,134
75	TL	LC RH	LEWIS & CLARK-RICHLAND	-	136,000	136,000	-	(136,000)	-
76	TL	ML RG	MALLARD-RUGBY	1,089,083		1,089,083	-	-	1,089,083
77	TL	MR MS	MARTIN-MISSION	1,816,904		1,816,904	-	-	1,816,904
78	TL	MR PL	MARTIN-PHILIP	1,790,108		1,790,108	-	-	1,790,108
79	TL	MA RC	MAURINE-RAPID CITY	6,346,265		6,346,265	-	-	6,346,265
80	TL	MC BK	MILES CITY-BAKER	10,569,338		10,569,338	-	-	10,569,338
81	TL	MC CU	MILES CITY-CUSTER	3,750,704		3,750,704	-	-	3,750,704
82	TL	NU PL	NEW UNDERWOOD-PHILIP	2,915,316		2,915,316	-	-	2,915,316
83	TL	NU RC 1	NEW UNDERWOOD-RAPID CITY NC	1,132,486		1,132,486	-	-	1,132,486
84	TL	NU RC 2	NEW UNDERWOOD-RAPID CITY NC	309,991		309,991	-	-	309,991
85	TL	NU SG C	NEW UNDERWOOD-STEGALL (HUR	2,651,860		2,651,860	-	-	2,651,860
86	TL	OA FT N	OAHE-FORT THOMPSON 230KV 1&	3,973,416		3,973,416	-	-	3,973,416
87	TL	OA FT S	OAHE-FORT THOMPSON 230KV 3&	5,563,296		5,563,296	-	-	5,563,296
88	TL	OA GH	OAHE-GLENHAM	5,949,648		5,949,648	-	-	5,949,648
89	TL	OA MA	OAHE-MAURINE	1,967,901		1,967,901	-	-	1,967,901
90	TL	OA NU	OAHE-NEW UNDERWOOD	6,683,770		6,683,770	-	-	6,683,770
91	TL	OA PI	OAHE-PIERRE	388,816		388,816	-	-	388,816
92	TL	OF MC	O'FALLON CREEK-MILES CITY	2,488,318		2,488,318	-	-	2,488,318
93	TL	PI PL	PIERRE-PHILIP	2,140,436		2,140,436	-	-	2,140,436
94	TL	RC DRY	RAPID CITY-DRY CREEK	9,269,194		9,269,194	-	-	9,269,194
95	TL	ELCRC	RAPID CITY-ELK CREEK 115-kV T/L	52,064		52,064	-	-	52,064
96	TL	RG LE	RUGBY-LEEDS	2,235,655		2,235,655	-	-	2,235,655
97	TL	SH SH2	SHELBY-SHELBY #2	576,090		576,090	(576,090)	-	(0)
98	TL	SC DN	SIOUX CITY-DENISON	7,485,606		7,485,606	-	-	7,485,606

99	TL	SC SP	SIOUX CITY-SPENCER	1,938,353		1,938,353	-	-	1,938,353
100	TL	SC SF	SIOUX FALLS- SIOUX CITY	3,217,192		3,217,192	-	-	3,217,192
101	TL	SF VFO	SIOUX FALLS-VIRGIL FODNESS 230kV	277,897		277,897	-	-	277,897
102	TL	SU WT	SUMMIT-WATERTOWN	6,743,203		6,743,203	-	-	6,743,203
103	TL	TT TI	TIBER TAP-TIBER	1,084,858		1,084,858	-	-	1,084,858
104	TL	UJ SF	UTICA JCT-SIOUX FALLS	3,485,236		3,485,236	-	-	3,485,236
105	TL	VC FO	VALLEY CITY-FORMAN	1,527,895		1,527,895	-	-	1,527,895
106	TL	VR GTF	VERONA GREAT FALLS 161-kV LINE	5,110,115		5,110,115	-	-	5,110,115
107	TL	UJ VFO	VIRGIL FODNESS-UTICA JUNCTION-	312,931		312,931	-	-	312,931
108	TL	WT GF D	WATERTOWN-GRANITE FALLS 1&2	7,488,154		7,488,154	-	-	7,488,154
109	TL	WT SC	WATERTOWN-SIOUX CITY	26,924,889		26,924,889	-	-	26,924,889
110	TL	WC BU	WATFORD CITY-BEULAH	349,954		349,954	-	-	349,954
111	TL	WN WC	WILLISTON-WATFORD CITY	17,627,868		17,627,868	-	-	17,627,868
112	TL	WP CR	WOLF POINT-CIRCLE	11,035,514		11,035,514	-	-	11,035,514
113	TL	WJ RG	WM. J. NEAL-RUGBY	4,629,316		4,629,316	-	-	4,629,316
114	TL	YT CU	YELLOWTAIL-CUSTER	2,265,163		2,265,163	-	-	2,265,163
115	TL Total	TRANSMISSION LINES		568,215,935	607,477	568,823,412	(576,090)	-	568,111,322
116	SUB	AN	ANITA	6,259		6,259	-	-	6,259
117	SUB	APD	APPELDORN SUBSTATION	5,878,984		5,878,984	-	-	5,878,984
118	SUB	AR	ARMOUR SUBSTATION	2,318,295		2,318,295	(800,024)	-	1,518,271
119	SUB	AHS	ASH SUBSTATION	63,325		63,325	-	-	63,325
120	SUB	AB	ASSINNIBOINE	35,005		35,005	(35,005)	-	(0)
121	SUB	AUR	AURORA SUBSTATION	2,899,881		2,899,881	(124,344)	-	2,775,537
122	SUB	BK	BAKER	279,691		279,691	-	-	279,691
123	SUB	BN	BELDEN SUBSTATION	309,701		309,701	-	-	309,701
124	SUB	BEF	BELFIELD SUBSTATION	13,779,308		13,779,308	(163,836)	-	13,615,472
125	SUB	BE	BERESFORD SUBSTATION	4,706,447		4,706,447	(231,321)	-	4,475,126
126	SUB	BB	BISBEE SUBSTATION	272,529		272,529	(218,122)	-	54,407
127	SUB	BS	BISMARCK SUBSTATION	17,751,915	4,338,955	22,090,870	(187,218)	-	21,903,652
128	SUB	BI	BISON	12,472		12,472	-	-	12,472
129	SUB	BOL	BOLE SUB	2,997,082		2,997,082	(630,455)	-	2,366,627
130	SUB	BO	BONESTEEL SUBSTATION	3,398,446		3,398,446	(1,226,623)	-	2,171,823
131	SUB	BR	BROOKINGS SUBSTATION	4,460,377	9,024,920	13,485,297	-	-	13,485,297
132	SUB	CB	CAMPBELL COUNTY SWITCHING ST	-	4,765,826	4,765,826	-	-	4,765,826
133	SUB	CF	CANYON FERRY	45,210		45,210	-	-	45,210
134	SUB	CRP	CARPENTER SUBSTATION	2,463,312		2,463,312	-	-	2,463,312
135	SUB	CA	CARRINGTON SUBSTATION	3,819,873		3,819,873	(1,007,873)	-	2,812,000
136	SUB	CCR	CHARLIE CREEK	1,376,076		1,376,076	-	-	1,376,076
137	SUB	CR	CIRCLE SUBSTATION	9,139,054		9,139,054	(2,140,670)	-	6,998,384
138	SUB	CON	CONRAD SUB	5,986,123		5,986,123	(315,045)	-	5,671,078
139	SUB	CS	CRESTON SUBSTATION	8,453,084		8,453,084	-	-	8,453,084
140	SUB	CRO	CROSSOVER SUB	11,630,045		11,630,045	-	-	11,630,045
141	SUB	CQE	CULBERTSON EAST SWITCHING ST/	2,390,851		2,390,851	-	-	2,390,851
142	SUB	CU	CUSTER SUBSTATION	4,633,608		4,633,608	(346,142)	-	4,287,466
143	SUB	CT	CUSTER TRAIL SUBSTATION	1,484,722		1,484,722	(1,484,722)	-	0
144	SUB	DC	DAWSON COUNTY SUBSTATION	10,478,271		10,478,271	(2,305)	-	10,475,966
145	SUB	DNT	DENBIGH TAP	848,872		848,872	(109,673)	-	739,199
146	SUB	DN	DENISON SUBSTATION	16,188,021		16,188,021	(183,385)	-	16,004,636
147	SUB	DV	DEVAUL SUBSTATION	1,602,554		1,602,554	(1,602,554)	-	0
148	SUB	DL	DEVILS LAKE SUBSTATION	2,918,979		2,918,979	(81,504)	-	2,837,475
149	SUB	DK	DICKINSON	23,704		23,704	-	-	23,704
150	SUB	EJ	E. J. MANNING	49,112		49,112	-	-	49,112
151	SUB	EA	EAGLE	66,108		66,108	-	-	66,108

152	SUB	EB	EAGLE BUTTE SUBSTATION	1,347,433		1,347,433	(351,323)	-	996,110
153	SUB	ED	EDGELEY SUBSTATION	6,878,146		6,878,146	(1,197,122)	-	5,681,024
154	SUB	ELC	ELK CREEK SUBSTATION	2,099,907		2,099,907	(17,147)	-	2,082,760
155	SUB	EL	ELLENDALE SUBSTATION	579		579	(579)	-	0
156	SUB	ELI	ELLIOTT SWITCHING STATION	3,507,129		3,507,129	(41,652)	-	3,465,477
157	SUB	END	ENDERLIN TAP STATION	749,768		749,768	(247,423)	-	502,345
158	SUB	EXI	EXIRA SWITCHING STATION	5,530,495		5,530,495	(164,229)	-	5,366,266
159	SUB	FVW	FAIRVIEW WEST SWITCHING STATI	4,296,873		4,296,873	-	-	4,296,873
160	SUB	FH	FAITH SUBSTATION	1,270,127		1,270,127	(572,275)	-	697,852
161	SUB	FA	FARGO SUBSTATION	27,656,157	1,411,015	29,067,172	-	-	29,067,172
162	SUB	FL	FLANDREAU SUBSTATION	4,266,040		4,266,040	(40,435)	-	4,225,605
163	SUB	FO	FORMAN SUBSTATION	7,744,394		7,744,394	(1,030,790)	-	6,713,604
164	SUB	FR	FORT RANDALL	253,710		253,710	-	-	253,710
165	SUB	FT2	FORT THOMPSON #2	10,832,303		10,832,303	-	-	10,832,303
166	SUB	FT	FORT THOMPSON SUBSTATION	17,698,960	1,892,000	19,590,960	(163,144)	-	19,427,816
167	SUB	GL	GLENDIVE SUBSTATION	1,725,310		1,725,310	-	-	1,725,310
168	SUB	GK	GRAND FORKS SUBSTATION	10,645,252		10,645,252	-	-	10,645,252
169	SUB	GI	GRAND ISLAND SUBSTATION	17,791,351	-	17,791,351	-	-	17,791,351
170	SUB	GRP	GRAND PRAIRIE SUBSTATION /1	0		0	-	-	0
171	SUB	GF	GRANITE FALLS SUBSTATION	23,855,781		23,855,781	(2,224,203)	-	21,631,578
172	SUB	GTF	GREAT FALLS SUB	8,439,044		8,439,044	-	-	8,439,044
173	SUB	GY	GREGORY SUBSTATION	1,510,561		1,510,561	(43,752)	-	1,466,809
174	SUB	GR	GROTON SUBSTATION	5,578,082	-	5,578,082	(326,877)	-	5,251,205
175	SUB	GSO	GROTON SOUTH SUBSTATION	9,869,842	9,626,000	19,495,842	-	-	19,495,842
176	SUB	HA	HARLEM	98,534		98,534	-	-	98,534
177	SUB	HV	HAVRE SUBSTATION	11,868,241		11,868,241	(62,475)	-	11,805,766
178	SUB	HBN	HEBRON SUBSTATION /1	-	6,841,034	6,841,034	-	-	6,841,034
179	SUB	HET	HETTINGER	10,832		10,832	-	-	10,832
180	SUB	HLK	HILKEN SUSTATION	3,894,020		3,894,020	(143,716)	-	3,750,304
181	SUB	HU	HURON SUBSTATION	11,683,545		11,683,545	(320,531)	-	11,363,014
182	SUB	JT	JAMESTOWN SUBSTATION	23,290,588	3,152,063	26,442,651	(1,837,674)	-	24,604,977
183	SUB	KD	KILLDEER SUBSTATION	7,092,854	551,423	7,644,277	(1,180,480)	-	6,463,797
184	SUB	LA	LAKOTA SUBSTATION	2,861,375		2,861,375	(1,307,837)	-	1,553,538
185	SUB	LE	LEEDS SUBSTATION	3,943,917		3,943,917	(158,722)	-	3,785,195
186	SUB	LET	LETCHER SUBSTATION	11,108,748		11,108,748	-	-	11,108,748
187	SUB	ML	MALLARD	29,969		29,969	-	-	29,969
188	SUB	MT	MALTA	340,848		340,848	-	-	340,848
189	SUB	MDN	MANDAN SUBSTATION	19,476		19,476	-	-	19,476
190	SUB	MR	MARTIN SUBSTATION	1,829,481	3,928,000	5,757,481	(1,134,120)	-	4,623,361
191	SUB	MA	MAURINE SUBSTATION	7,925,435		7,925,435	(593,801)	-	7,331,634

192	SUB	MD	MIDLAND SUBSTATION	838,166		838,166	(154,097)	-	684,069
193	SUB	MC2	MILES CITY SUB #2	6,920,614		6,920,614	-	-	6,920,614
194	SUB	MC3	MILES CITY SUB #3	1,895,702		1,895,702	-	-	1,895,702
195	SUB	MC	MILES CITY SUBSTATION	1,202,099		1,202,099	-	-	1,202,099
196	SUB	MGV	MINGUSVILLE	5,351,152	-	5,351,152	-	-	5,351,152
197	SUB	MS	MISSION SUBSTATION	3,473,710		3,473,710	(586,992)	-	2,886,718
198	SUB	MO	MORRIS SUBSTATION	7,254,341		7,254,341	(1,095,435)	-	6,158,906
199	SUB	MV	MT VERNON SUBSTATION	2,030,824		2,030,824	(139,236)	-	1,891,588
200	SUB	NA	NASHUA SUB	72,368		72,368	(72,368)	-	(0)
201	SUB	NEL	NELSON SUBSTATION	1,944,817		1,944,817	(33,744)	-	1,911,073
202	SUB	NU	NEW UNDERWOOD SUBSTATION	18,333,139	-	18,333,139	-	-	18,333,139
203	SUB	NL	NEWELL SUBSTATION	1,152,964	1,827,144	2,980,108	(287,497)	-	2,692,611
204	SUB	OF	O'FALLON CREEK SUBSTATION	3,242,234		3,242,234	(58,595)	-	3,183,639
205	SUB	ON	O'NEILL SUB (NPP)	180,660		180,660	-	-	180,660
206	SUB	PET	PENN TAP	890,607		890,607	(108,485)	-	782,122
207	SUB	PL	PHILIP SUBSTATION	2,037,148		2,037,148	(209,290)	-	1,827,858
208	SUB	PI	PIERRE SUBSTATION	4,284,664		4,284,664	(699,890)	-	3,584,774
209	SUB	PLL	PLEASANT LAKE TAP	992,415		992,415	(101,191)	-	891,224
210	SUB	RB	RAINBOW SUBSTATION	250,629		250,629	(250,629)	-	(0)
211	SUB	RC	RAPID CITY SUBSTATION	5,739,051		5,739,051	(556,793)	-	5,182,258
212	SUB	RH	RICHLAND SUBSTATION	1,733,528		1,733,528	(1,733,528)	-	(0)
213	SUB	RCO	ROBERTS COUNTY SUBSTATION	-	7,671,000	7,671,000	-	(7,671,000)	-
214	SUB	RL	ROLLA SUBSTATION	623,513		623,513	-	-	623,513
215	SUB	RY	RUDYARD SUBSTATION	3,193,683		3,193,683	(1,380,449)	-	1,813,234
216	SUB	RG	RUGBY SUBSTATION	8,722,780		8,722,780	(570,712)	-	8,152,068
217	SUB	SA	SAVAGE SUB	74,403		74,403	-	-	74,403
218	SUB	SH	SHELBY SUBSTATION	861,699		861,699	(861,699)	-	0
219	SUB	SH2	SHELBY SUBSTATION #2	5,490,902		5,490,902	(169,696)	-	5,321,206
220	SUB	SL	SHIRLEY TAP	22,102		22,102	-	-	22,102
221	SUB	SC2	SIOUX CITY #2	13,019,488	2,251,474	15,270,962	-	-	15,270,962
222	SUB	SC	SIOUX CITY SUBSTATION	17,196,541	2,409,316	19,605,857	-	-	19,605,857
223	SUB	SF	SIOUX FALLS SUBSTATION	14,952,320		14,952,320	(516,513)	-	14,435,807
224	SUB	SP	SPENCER	8,021,789	3,413,767	11,435,556	(245,264)	-	11,190,292
225	SUB	SNY	STANLEY	49,735		49,735	-	-	49,735
226	SUB	SB	SULLY BUTTES	74,428		74,428	-	-	74,428
227	SUB	SU	SUMMIT SUBSTATION	2,881,761		2,881,761	(373,848)	-	2,507,913
228	SUB	TR	TERRY TAP	606,044		606,044	(103,121)	-	502,923
229	SUB	TT	TIBER TAP	166,306		166,306	-	-	166,306
230	SUB	TN	TOWNER SUBSTATION	5,187,463	5,014,000	10,201,463	-	-	10,201,463
231	SUB	TY	TYNDALL SUBSTATION	948,490		948,490	(125,594)	-	822,896
232	SUB	UJ	UTICA JCT.	12,974,150		12,974,150	-	-	12,974,150
233	SUB	VH	V. T. HANLON	12,390,931	5,700,000	18,090,931	-	-	18,090,931
234	SUB	VC	VALLEY CITY SUBSTATION	6,819,468		6,819,468	(176,541)	-	6,642,927
235	SUB	VR	VERONA	108,751		108,751	-	-	108,751
236	SUB	VE	VETAL TAP	232,375		232,375	-	-	232,375
237	SUB	VFO	VIRGIL FODNESS SUBSTATION	3,206,763		3,206,763	-	-	3,206,763
238	SUB	WL	WALL SUBSTATION	1,571,437		1,571,437	(654,299)	-	917,138
239	SUB	WDD	WARD SUBSTATION	3,453,847		3,453,847	(45,361)	-	3,408,486
240	SUB	WB	WASHBURN SUBSTATION	2,075,909		2,075,909	(938,020)	-	1,137,889
241	SUB	WT2	WATERTOWN #2	3,609,306		3,609,306	-	-	3,609,306

242	SUB	WTS	WATERTOWN STATIC VAR SYSTEM	11,778,775		11,778,775	-	-	11,778,775	
243	SUB	WT	WATERTOWN SUBSTATION	16,007,533		16,007,533	-	-	16,007,533	
244	SUB	WC	WATFORD CITY SUB	7,600,294		7,600,294	(108,365)	-	7,491,929	
245	SUB	WSG	WESSINGTON SPRINGS SUBSTATIO	5,141,440		5,141,440	(181,849)	-	4,959,591	
246	SUB	WH2	WHATELY (NORTHERN)	40,860		40,860	-	-	40,860	
247	SUB	WH	WHATELY SUBSTATION	109,910		109,910	(54,083)	-	55,827	
248	SUB	WHT	WHITE 345/115 SUB	11,047,497		11,047,497	-	-	11,047,497	
249	SUB	WV	WICKSVILLE SUBSTATION	831,304		831,304	(250,593)	-	580,711	
250	SUB	WN2	WILLISTON 2 SUBSTATION	15,594,604		15,594,604	-	-	15,594,604	
251	SUB	WN	WILLISTON SUBSTATION	8,198,987		8,198,987	(97,320)	-	8,101,667	
252	SUB	WI	WINNER SUBSTATION	3,234,614		3,234,614	(101,869)	-	3,132,745	
253	SUB	WJ	WM. J. NEAL	183,222		183,222	-	-	183,222	
254	SUB	WP	WOLF POINT SUBSTATION	7,181,905		7,181,905	(1,346,899)	-	5,835,006	
255	SUB	WO	WOONSOCKET SUBSTATION	2,775,992		2,775,992	(1,579,680)	-	1,196,312	
256	SUB	YJ	YANKTON JCT.	76,396		76,396	-	-	76,396	
257	SUB	YA	YANKTON SUBSTATION	2,935		2,935	-	-	2,935	
258	SUB Total		SUBSTATIONS	690,475,891	73,817,937	764,293,828	(40,020,673)	-	(7,671,000)	716,602,155
259	O&M	ARC	ARMOUR O&M SER. CEN.	3,488,667		3,488,667	-	-	3,488,667	
260	O&M	BSM	BISMARCK O&M SER. CEN.	9,917,899		9,917,899	-	-	9,917,899	
261	O&M	DCF	DAWSON SER. CEN.	6,845,966		6,845,966	-	-	6,845,966	
262	O&M	DLM	DEVILS LAKE O&M SER. CEN.	3,852,064		3,852,064	-	-	3,852,064	
263	O&M	FAO	FARGO LINE MAINTENANCE FACILI	2,040,287		2,040,287	-	-	2,040,287	
264	O&M	FAM	FARGO O&M SER. CEN.	794,673		794,673	-	-	794,673	
265	O&M	FPM	FORT PECK SER. CEN.	8,351,982		8,351,982	-	-	8,351,982	
266	O&M	FTM	FORT THOMPSON O&M S. C.	2,435,619		2,435,619	-	-	2,435,619	
267	O&M	HVM	HAVRE SERVICE CENTER	493,999		493,999	-	-	493,999	
268	O&M	HUM	HURON O&M SER. CEN.	2,709,639		2,709,639	-	-	2,709,639	
269	O&M	JTM	JAMESTOWN O&M SER. CEN.	3,841,398		3,841,398	-	-	3,841,398	
270	O&M	MCM	MILES CITY MTCE FAC.	1,025,254		1,025,254	-	-	1,025,254	
271	O&M	NUM	NEW UNDERWOOD SER. CEN.	96,884		96,884	-	-	96,884	
272	O&M	PLM	PHILIP O&M SER. CENT.	1,679,674		1,679,674	-	-	1,679,674	
273	O&M	PIM	PIERRE O&M SER. CEN.	1,051,383		1,051,383	-	-	1,051,383	
274	O&M	RCM	RAPID CITY GARAGE & STOR.	2,221,967		2,221,967	-	-	2,221,967	
275	O&M	SCM	SIOUX CITY O&M SER. CEN.	3,007,882		3,007,882	-	-	3,007,882	
276	O&M	SFC	SIOUX FALLS O&M SER. CEN.	239,920		239,920	-	-	239,920	
277	O&M	WTM	WATERTOWN MAINT. CEN.	7,452,151		7,452,151	-	-	7,452,151	
278	O&M Total		O&M SERVICE & MAINT. CENTERS	61,547,306	-	61,547,306	-	-	61,547,306	
279	OPS	WAO	WATERTOWN ALTERNATE OPERAT	6,006,058		6,006,058	-	(1,501,515)	4,504,544	
280	OPS	WTO	WATERTOWN OPERATIONS CENT	2,542,600		2,542,600	-	(412,326)	2,130,274	
281	OPS	WTO F	WATERTOWN OPER CTR (BFPS)	12,430,495		12,430,495	-	(3,161,797)	9,268,699	
282	OPS Total		OPERATION CENTERS	20,979,153	-	20,979,153	-	(5,075,637)	15,903,516	

283	MOB	MOBW2	MOB 115KV SWITCH TRAILER	69,741	69,741	-	-	69,741
284	MOB	MOBT13	MOB TRANSF 111KV 15MVA	213,000	213,000	-	-	213,000
285	MOB	MOBT2	MOB TRANSF 115KV 10MVA	218,493	218,493	-	-	218,493
286	MOB	MOBT12	MOB TRANSF 115KV 25MVA	813,860	813,860	-	-	813,860
287	MOB	MOBT4	MOB TRANSF 115KV 40MVA	526,201	526,201	-	-	526,201
288	MOB	MOBT6	MOB TRANSF 230KV 1-33MVA	170,278	170,278	-	-	170,278
289	MOB	MOBB2	MOBILE BY PASS KIT (BISMARCK)	35,071	35,071	-	-	35,071
290	MOB	MOBB1	MOBILE BY PASS KIT (HURON)	163,695	163,695	-	-	163,695
291	MOB	MOBC4	MOBILE CAPACITOR BANK	19,075	19,075	-	-	19,075
292	MOB	MOBS6	MOBILE SUB 110KV	127,144	127,144	-	-	127,144
293	MOB	MOBS9	MOBILE SUB 115KV 20MVA	404,166	404,166	-	-	404,166
294	MOB	MOBS7	MOBILE SUB 41.8 KV	192,498	192,498	(192,498)	-	0
295	MOB	MOBS5	MOBILE SUB 69KV	71,118	71,118	-	-	71,118
296	MOB	MOBR2	MOB SH.REACTOR	179,328	179,328	-	-	179,328
297	MOB Total	MOBILE EQUIPMENT		3,203,667	3,203,667	(192,498)	-	3,011,169
298	GEN	BG FT L	BIG BEND-FORT THOMPSON (LOW	81,944	81,944	-	(81,944)	-
299	GEN	FP	FORT PECK POWERPLANT (COE)	64,611	64,611	-	(64,611)	0
300	GEN	FT BG 1	FORT THOMPSON-BIG BEND NO. 1	922,164	922,164	-	-	922,164
301	GEN	FT BG 2	FORT THOMPSON-BIG BEND NO. 2	690,735	690,735	-	-	690,735
302	GEN Total	TRANSMISSION-RELATED GEN. FA		1,759,454	1,759,454	-	(146,555)	1,612,899
303	COM	ATC	ATLANTIC COMMUNICATION SITE	17,199	17,199	-	(5,495)	11,704
304	COM	BK2	BAKER RELAY	246,175	246,175	-	(78,653)	167,522
305	COM	BTY	BANTRY	421,019	421,019	-	(134,516)	286,503
306	COM	BAE	BARRETT	99,835	99,835	-	(31,897)	67,937
307	COM	BMW	BATTLE MT. MICROWAVE	324,151	324,151	-	(103,566)	220,585
308	COM	BPR	BELLE PRAIRIE	255,498	255,498	-	(81,632)	173,866
309	COM	BET	BENEDICT	196,601	196,601	-	(62,814)	133,787
310	COM	BU	BEULAH	10,679	10,679	-	(3,412)	7,267
311	COM	BG	BIG BEND	113,362	113,362	-	(36,219)	77,143
312	COM	BJR	BIJOU REPEATER	568,562	568,562	-	(181,655)	386,906
313	COM	BAO	BILLINGS AREA OFFICE	158,946	158,946	-	(136,495)	22,451
314	COM	BSR	BISMARCK REPEATER	396,674	396,674	-	(126,737)	269,936
315	COM	BIR	BISON REPEATER	227,955	227,955	-	(72,832)	155,124
316	COM	BON	BOLE NORTH REPEATER	149,228	149,228	-	(47,678)	101,550
317	COM	BRI	BRINSMADE	147,129	147,129	-	(47,008)	100,121
318	COM	BSL	BRISTOL	11,441	11,441	-	(3,655)	7,786
319	COM	BRV	BRUNSVILLE REPEATER	92,595	92,595	-	(29,584)	63,011
320	COM	BFF	BUFFALO	107,342	107,342	-	(34,296)	73,046
321	COM	CAH	CAHOON	194,709	194,709	-	(62,209)	132,499
322	COM	CAZ	CARRINGTON REPEATER	693,236	693,236	-	(221,489)	471,747
323	COM	CHK	CHARTER OAK REPEATER	15,667	15,667	-	(5,006)	10,661
324	COM	CHI F	CHINOOK (BEFP)	284,048	284,048	-	(90,753)	193,295
325	COM	CHR	CHINOOK REPEATER	15,293	15,293	-	(4,886)	10,407
326	COM	CKR	CLARK MW REPEATER	735,399	735,399	-	(234,960)	500,439
327	COM	CLV	CLEVELAND REPEATER, N.D.	66,872	66,872	-	(21,366)	45,507
328	COM	CMR	COLEMAN REPEATER	105,281	105,281	-	(33,637)	71,644
329	COM	CME	COLOME REPEATER	293,101	293,101	-	(93,646)	199,455
330	COM	CBR	CONRAD BUTTE REPEATER	1,159,070	1,159,070	-	(370,323)	788,747
331	COM	CNN	COTTON	1,399	1,399	-	(447)	952
332	COM	CSR	CRESTON REPEATER	11,107	11,107	-	(3,549)	7,558
333	COM	CLR	CROW LAKE REPEATER	251,029	251,029	-	(80,204)	170,825
334	COM	CBT	CROWN BUTTE	52,565	52,565	-	(16,795)	35,770
335	COM	CRR	CULBERTSON RADIO RELAY SITE	1,926	1,926	-	(615)	1,311

336	COM	CUL	CUSTER LOOKOUT	80,620	80,620	-	(25,758)	54,862
337	COM	DAL	DALTON (WES)	63,660	63,660	-	(20,339)	43,321
338	COM	DLC	DEVILS LAKE FIBER REGEN	273,047	273,047	-	(87,239)	185,809
339	COM	DLZ	DEVILS LAKE REPEATER	518,898	518,898	-	(165,788)	353,110
340	COM	DOD	DODSON REPEATER	882,795	882,795	-	(282,053)	600,742
341	COM	DO	DOGDEN BUTTE	399,367	399,367	-	(127,598)	271,769
342	COM	DRS	DRISCOLL	79,113	79,113	-	(25,277)	53,837
343	COM	DU	DUPREE REPEATER	1,821	1,821	-	(582)	1,239
344	COM	DUT	DUTTON REPEATER (BEFP)	75,190	75,190	-	(24,023)	51,167
345	COM	ERB	EAST RAINY BUTTE	147,041	147,041	-	(46,980)	100,061
346	COM	ECK	ECKELSON	231,893	231,893	-	(74,090)	157,803
347	COM	EKR	ELKTON	165,481	165,481	-	(52,871)	112,610
348	COM	ELZ	ELLENDALE REPEATER	962,213	962,213	-	(307,427)	654,786
349	COM	EWA	ELLSWORTH AIR BASE	204,548	204,548	-	(65,353)	139,195
350	COM	ERH	ERHARD	99,569	99,569	-	(31,812)	67,757
351	COM	EX	EXIRA REPEATER	2,527	2,527	-	(807)	1,720
352	COM	FB	F. L. BLAIR	76,407	76,407	-	(24,412)	51,995
353	COM	FAP	FAIRPOINT REPEATER	206,550	206,550	-	(65,993)	140,557
354	COM	FNR	FALLON REPEATER	212,944	212,944	-	(68,036)	144,908
355	COM	FAC	FARGO MICROWAVE	21,003	21,003	-	(6,711)	14,293
356	COM	FCS	FERGUS FALLS COMMUNICATIONS	507,270	507,270	-	(162,073)	345,197
357	COM	FLW	FLOWING WELLS	68,763	68,763	-	(21,970)	46,793
358	COM	FBS	FORBES COMMUNICATION SITE	114,124	114,124	-	(36,463)	77,662
359	COM	FTH	FORSYTH	130,348	130,348	-	(41,646)	88,702
360	COM	FP1	FORT PECK RELAY (WES)	326,153	326,153	-	(104,206)	221,947
361	COM	FPC	FORT PECK COMMUNICATIONS BU	380,212	380,212	-	(121,478)	258,734
362	COM	FPR	FORT PECK REPEATER	109,069	109,069	-	(34,847)	74,221
363	COM	FPI	FORT PIERRE POLE YARD	785,698	785,698	-	(251,031)	534,668
364	COM	FTR	FORT THOMPSON REPEATER	99,223	99,223	-	(31,702)	67,521
365	COM	FTP	FORT THOMPSON REPEATER (EAST)	301,614	301,614	-	(96,366)	205,248
366	COM	FCR	FOX CREEK MICROWAVE	423,094	423,094	-	(135,179)	287,915
367	COM	FRY	FRYBURG SUB & MICROWAVE	61,204	61,204	-	(19,555)	41,649
368	COM	GA	GARRISON	303,954	303,954	-	(97,113)	206,841
369	COM	GRR	GARY REPEATER	80,799	80,799	-	(25,815)	54,983
370	COM	GP	GAVIN'S POINT	148,752	148,752	-	(47,526)	101,226
371	COM	GPR	GAVINS POINT REPEATER	315,049	315,049	-	(100,658)	214,391
372	COM	GET	GETTYSBURG REPEATER	368,771	368,771	-	(117,822)	250,949
373	COM	GH	GLENHAM	272,857	272,857	-	(87,178)	185,679
374	COM	GKM	GRAND FORKS MINNKOTA (MPC)	23,847	23,847	-	(7,619)	16,228
375	COM	GWN	GWINNER COMMUNICATIONS SITE	736,184	736,184	-	(235,211)	500,974
376	COM	HSB	HAILSTONE BUTTE	74,835	74,835	-	(23,910)	50,926
377	COM	HOY	HALLOWAY REPEATER	109,706	109,706	-	(35,051)	74,655
378	COM	HRT	HARLEM REPEATER	882,588	882,588	-	(281,987)	600,601
379	COM	HTH	HATHAWAY	68,891	68,891	-	(22,011)	46,880
380	COM	HMW	HERMOSA MICROWAVE	302,701	302,701	-	(96,713)	205,988
381	COM	HLR	HIGHLAND REPEATER	22,884	22,884	-	(7,311)	15,572
382	COM	HMR	HIGHMORE REPEATER	145,723	145,723	-	(46,559)	99,165
383	COM	HIW	HIGHWOOD	22,896	22,896	-	(7,315)	15,581
384	COM	HI	HINSDALE	201,837	201,837	-	(64,487)	137,350
385	COM	HIR	HINSDALE REPEATER	66,495	66,495	-	(21,245)	45,250
386	COM	HOE	HOPEWELL REPEATER	231,172	231,172	-	(73,860)	157,313
387	COM	HNT	HUNTER MICROWAVE	210,227	210,227	-	(67,168)	143,060
388	COM	HUD	HURON DISTRICT OFFICE	768,139	768,139	-	(245,420)	522,719

389	COM	HYS	HYSHAM	90,227	90,227	-	(28,827)	61,399
390	COM	JTR	JAMESTOWN REPEATER	46,981	46,981	-	(15,011)	31,971
391	COM	JCK	JONES CREEK	267,395	267,395	-	(85,433)	181,962
392	COM	KCK	KELLY CREEK	202,226	202,226	-	(64,611)	137,614
393	COM	KDZ	KILLDEER REPEATER	536,504	536,504	-	(171,413)	365,091
394	COM	KNE	KNEE HILL MW	1,051,554	1,051,554	-	(335,972)	715,583
395	COM	LAC	LAC QUI PARLE	751,513	751,513	-	(240,108)	511,404
396	COM	LKR	LAKE ANDES REPEATER	723,452	723,452	-	(231,143)	492,309
397	COM	LEF	LEFOR	48,470	48,470	-	(15,486)	32,984
398	COM	LI	LINDSAY RIDGE	79,074	79,074	-	(25,264)	53,810
399	COM	LCS	LINTON COMMUNICATIONS SITE	330,604	330,604	-	(105,628)	224,976
400	COM	LMO	LITTLE MISSOURI SUBSTATION	54,516	54,516	-	(17,418)	37,098
401	COM	LDP	LODGEPOLE REPEATER	32,445	32,445	-	(10,366)	22,079
402	COM	MRP	MALTA REPEATER	793,844	793,844	-	(253,633)	540,211
403	COM	MNM	MANDAN MICROWAVE SITE	69,988	69,988	-	(22,361)	47,627
404	COM	MPR	MAPLE RIVER	172,792	172,792	-	(55,207)	117,585
405	COM	MRR	MARTIN REPEATER	300,728	300,728	-	(96,083)	204,646
406	COM	MAV	MAYVILLE	196,624	196,624	-	(62,821)	133,802
407	COM	MLR	MIDLAND REPEATER	516,515	516,515	-	(165,026)	351,488
408	COM	MOX	MOE REPEATER	15,012	15,012	-	(4,796)	10,215

409	COM	MH	MOORHEAD	125,057	125,057	-	(39,956)	85,101
410	COM	MSR	MORRIS REPEATER & MICROWAVE	128,242	128,242	-	(40,973)	87,268
411	COM	NWC	NEWCASTLE REPEATER	216,330	216,330	-	(69,117)	147,213
412	COM	OA	OAHE	577,874	577,874	-	(184,631)	393,243
413	COM	OK	O'KREEK REPEATER	367,630	367,630	-	(117,458)	250,172
414	COM	OR	ORCHARD REPEATER	578,066	578,066	-	(184,692)	393,374
415	COM	OTO	OTO MICROWAVE	16,445	16,445	-	(5,254)	11,191
416	COM	OTW	OTTUMWA ROAD REPEATER SITE	7,685	7,685	-	(2,455)	5,229
417	COM	PGE	PAGE N.D.	1,646	1,646	-	(526)	1,120
418	COM	PAH	PAHOJA SUB	107,003	107,003	-	(34,187)	72,816
419	COM	PEK	PEAK	83,844	83,844	-	(26,788)	57,056
420	COM	PLJ	PHILIP JCT. REPEATER	530,459	530,459	-	(169,482)	360,977
421	COM	PIR	PINE RIDGE	186,735	186,735	-	(59,662)	127,073
422	COM	PO	POPLAR (MDU)	3,758	3,758	-	(1,201)	2,558
423	COM	PRR	PRIMGHAR REPEATER	27,264	27,264	-	(8,711)	18,553
424	COM	PUR	PUKWANNA REPEATER	4,772	4,772	-	(1,525)	3,247
425	COM	RCR	RAPID CITY REPEATER	340,932	340,932	-	(108,928)	232,004
426	COM	RE	RICHARDSON COULEE	161,748	161,748	-	(51,679)	110,070
427	COM	RER	RICHARDSON COULEE REPEATER	166,315	166,315	-	(53,138)	113,177
428	COM	RHM	RICHLAND MW REPEATER (BEPS)	267,563	267,563	-	(85,487)	182,077
429	COM	RRR	ROCKY RIDGE REPEATER	226,934	226,934	-	(72,505)	154,428
430	COM	ROG	ROLLAG	172,922	172,922	-	(55,248)	117,673
431	COM	RGZ	RUGBY REPEATER	396,722	396,722	-	(126,753)	269,969
432	COM	RI	RUTLAND	1,164,374	1,164,374	-	(372,018)	792,357
433	COM	SAO	SACO	1,237	1,237	-	(395)	842
434	COM	SNB	SENTINEL BUTTE	87,667	87,667	-	(28,010)	59,657
435	COM	SRE	SHEEP COULEE REPEATER	1,052,566	1,052,566	-	(336,295)	716,271
436	COM	SCQ	SIOUX CITY REPEATER	427,162	427,162	-	(136,478)	290,684
437	COM	SFR	SIOUX FALLS REPEATER	330,718	330,718	-	(105,664)	225,054
438	COM	SI	SIOUX PASS	1,366	1,366	-	(436)	930
439	COM	SNA	SNAKE BUTTE REPEATER	532,435	532,435	-	(170,113)	362,322
440	COM	SPN	SPALDING REPEATER	549,514	549,514	-	(175,570)	373,945
441	COM	SM	SPIRIT MOUND	295,982	295,982	-	(94,566)	201,416
442	COM	STR	STRASBERG	1,853	1,853	-	(592)	1,261
443	COM	SMR	SUMMIT REPEATER	50,053	50,053	-	(15,992)	34,061
444	COM	TCS	TAPPEN COMMUNICATIONS SITE	469,050	469,050	-	(149,862)	319,189
445	COM	TA	TAPPEN REPEATER	459,861	459,861	-	(146,926)	312,936
446	COM	TEN	TENNANT COMMUNICATIONS SITE	8,782	8,782	-	(2,806)	5,976
447	COM	TOR	TORONTO REPEATER	106,096	106,096	-	(33,898)	72,198
448	COM	TFR	TRIPP REPEATER	216,887	216,887	-	(69,295)	147,592
449	COM	TU	TURKEY RIDGE REPEATER	588,190	588,190	-	(187,927)	400,263
450	COM	TYE	TYLER REPEATER	1,239,694	1,239,694	-	(396,082)	843,612
451	COM	VIC	VICTOR (EREC)	145,956	145,956	-	(46,633)	99,323

452	COM	VIA	VIDA	98,597	98,597	-	(31,502)	67,095
453	COM	WLR	WALL REPEATER	479,343	479,343	-	(153,150)	326,193
454	COM	WTR	WATERTOWN REPEATER	721,884	721,884	-	(230,642)	491,242
455	COM	WS	WAYSIDE	17,781	17,781	-	(5,681)	12,100
456	COM	WSR	WESSINGTON SPGS. REPEATER	682,469	682,469	-	(218,049)	464,420
457	COM	WEF	WESTFIELD	19,003	19,003	-	(6,071)	12,932
458	COM	WSW	WHITE SWAN	91,987	91,987	-	(29,390)	62,597
459	COM	WK C	WHITLOCK (BCPS)	165,594	165,594	-	(52,907)	112,687
460	COM	WOB	WOLBACH REPEATER	28,280	28,280	-	(9,035)	19,244
461	COM	YT P	YELLOWTAIL SWITCHYARD (BEPS)	223,367	223,367	-	(71,366)	152,001
462	COM Total		COMMUNICATION FACILITIES	42,029,019	42,029,019	-	(13,513,984)	28,515,036
463	MCCS	MC4	MILES CITY CONVERTER STATION -	19,890,752	19,890,752	-	-	19,890,752
464	MCCS	MC4	MILES CITY CONVERTER STATION -	3,680,369	3,680,369	-	-	3,680,369
465	MCCS Total		MILES CITY CONVERTER STATION	23,571,121	23,571,121	-	-	23,571,121
466	DIST	BFTBP	BUFORD TRENTON TAP - BUFORD	650,001	650,001	(650,001)	-	(0)
467	DIST	BP	BUFORD TRENTON PUMP SUB	184,827	184,827	(184,827)	-	0
468	DIST	FN	FALLON PUMPING PLANT SUBS	223,594	223,594	(223,594)	-	0
469	DIST	FE	FALLON RELIFT PUMPING PLA	171,257	171,257	(171,257)	-	(0)
470	DIST	FN GG	FALLON-GLENDIVE PUMP #4	25,506	25,506	(25,506)	-	(0)
471	DIST	FP WP	FORT PECK-WOLF POINT	297,423	297,423	(297,423)	-	-
472	DIST	FG	FRAZER PUMP SUB	253,597	253,597	(253,597)	-	0
473	DIST	GA SK	GARRISON-SNAKE CREEK	1,079,092	1,079,092	(1,079,092)	-	(0)
474	DIST	GG	GLENDIVE P.P. #1 SUB.	425,706	425,706	(425,706)	-	0
475	DIST	IN	INTAKE SUBSTATION	108,040	108,040	(108,040)	-	0
476	DIST	IN INP	INTAKE-INTAKE PUMP	6,494	6,494	(6,494)	-	-
477	DIST	SV	SAVAGE PUMPING PLANT SUBS	102,283	102,283	(102,283)	-	(0)
478	DIST	SY	SHIRLEY PUMP SUBSTATION	1,237,730	1,237,730	(1,237,730)	-	0
479	DIST	SK	SNAKE CREEK PUMP SUBSTATION	920,941	920,941	(920,941)	-	0
480	DIST	TE	TERRY PUMPING PLANT SWITCH	474,404	474,404	(474,404)	-	(0)
481	DIST	TI	TIBER DAM SUBSTATION	318,568	318,568	(318,568)	-	(0)
482	DIST	VA	WIOTA SUBSTATION	216,163	216,163	(216,163)	-	(0)
483	DIST Total		DISTRIBUTION FACILITIES	6,695,626	6,695,626	(6,695,626)	-	(0)

484	RMR	NU SG	NEW UNDERWOOD-STEGALL	287,835		287,835	-	-	287,835	
485	RMR	SG	STEGALL SUBSTATION	11,422,174		11,422,174	(8,728,156)	-	2,694,018	
486	RMR	SG WY	STEGALL-WAYSIDE	2,978,205		2,978,205	-	-	2,978,205	
487	RMR	WY	WAYSIDE	237,296		237,296			237,296	
488	RMR	YT PY	YELLOWTAIL SWITCHYARD-YELLOW	121,495		121,495	(91,121)		30,374	
489	RMR	PY	YELLOWTAIL (PPL)	692,335		692,335	(519,251)		173,084	
490	RMR	YT P	YELLOWTAIL SWITCHYARD	12,752,527		12,752,527	(9,564,395)	-	3,188,132	
491	RMR	YT	YELLOWTAIL SWITCHYARD (YT)	445,483		445,483			445,483	
492	RMR Total		ROCKY MOUNTAIN REGION FACIL	28,937,350	-	28,937,350	(18,902,924)	-	10,034,426	
493	COE		BIG BEND	2,370,873		2,370,873	(1,772,523)		598,350	
494	COE		FORT PECK	6,186,445	1,273,100	7,459,545	(933,623)		6,525,922	
495	COE		FORT RANDALL	10,953,006	9,187,100	20,140,106	(2,565,236)		17,574,870	
496	COE		GARRISON	85,427,859	3,851,000	89,278,859	(42,372,683)		46,906,176	
497	COE		GAVINS POINT	10,079,123	1,289,400	11,368,523	(7,015,929)		4,352,594	
498	COE		OAHE	10,234,031	10,665,000	20,899,031	(3,344,088)		17,554,943	
499	COE Total		CORPS OF ENGINEERS FACILITIES	125,251,335	26,265,600	151,516,935	(58,004,082)	-	93,512,853	
500	Grand Total		TOTAL FACILITIES	1,572,665,857	100,691,014	1,673,356,871	(124,391,893)	(18,736,176)	(7,807,000)	1,522,421,803
501			SUBTOTAL WESTERN-UGP ONLY	1,418,477,172	74,425,414	1,492,902,586	(47,484,887)	18,736,176	7,807,000	1,418,874,523
502			1/ Plant balance does not include customer liability for network upgrades. Investment is only brought							
503			into plant balance as WAPA incurs expense (e.g. if transmission credits are provided to customer)							
504			DISTRIBUTION FACILITIES			105,488,969				1,518,347,435

Line No.	FID	Facility	Specific Plant Included	Attachment A1 Criteria						Further Description
				1	1(b)	2	3	4	5	
Substations										
1	APD	Appeldorn	230-kV breakers 482, 586, 682 and assoc. switches and switch 487	x						
2			station service KW4A, KW30A and switches	x						
3	AR	Armour	115-kV switches 16x, 26x, 76x	x						
4			12.47-kV switches 172x, KW1A	x						maintenance building SS
5			station service KZ1A, KX2A and switches	x						
6			115/69 kV transformer KY1A		x					Three East River members are served through KY1A (Charles Mix, Douglas and Southeastern)
7			69 kV breaker 1052 and assoc switches		x					Two East River members are served through 1052 (Douglas and Southeastern)
8	AHT	Ash Tap	115-kV switches 1161, 1261, 1361	x						
9	AUR	Aurora	115-kV breakers 266, 464, 562, 662 and assoc. switches	x						
10			capacitor PY4A	x						
11			station service KY2A and KW2A	x						
12	BN	Belden (NPPD)	115-kV breaker 1106 and assoc. switches	x						
13	BEF	Belfield	230-kV breakers 1282, 1382, 1582 and assoc. switches	x						
14			345/230-kV transformer KU1A	x						
15			345-kV breakers 292, 396, 492 and assoc. switches	x						
16			station service KW1B and assoc. switches	x						
17			reactor KW2A, 13.8 breaker 3224 and assoc. switches	x						
18	BE	Beresford	115-kV breakers 262, 362, 462, 566, 764, 864 and assoc. switches	x						
19			capacitors PY7A, PY8A	x						
20			station service KZ1A and switch 1451	x						
21			115/69kV transformer KY1A		x					Two East River members are served through KY1A (Clay-Union and Southeastern)
22			69kV breaker 1652 and assoc. switches		x					Two East River members are served through 1652 (Clay-Union and Southeastern)
23	BB	Bisbee	69-kV switches 247, 347	x						
24	BS	Bismarck	230-kV breakers 182, 282, 382, 386, 482, 582, 682, 782, 882, 986, 9182 and assoc. switches	x						
25			230/115-kV transformers KV3A, KV8A	x						
26			115-kV breakers 3062, 3162, 3362, 3562 and assoc. switches	x						
27			station service KW4A, KW4E, KW4F and assoc. switches	x						
28			12.47-kV breaker 1422, switches 142x, 152x, 1221, 1829	x						maintenance buildings ss
29	BOL	Bole	230-kV switches 182, 282, 481, 482	x						
30			station service KW21A, switch 2123	x						
31			230/69-kV transformer KV1A	x						
32			69-kV switches 1351, 1355	x						
33			69-kV breaker 1152 and assoc. switches		x					Sun River Electric Cooperative and NorthWestern MT
34	BO	Bonesteel	115-kV breakers 664, 764 and assoc. switches	x						
35			capacitors PY6A, PY7A	x						
36			115-kV switches 46x, 26x	x						
37			station service KW1A, switch 1521	x						
38	BR	Brookings	115-kV breakers 1166, 1562, 1462, 1762, 1362, 1861, 1932 and assoc. switches	x						
39			capacitors PY11A and PY20A, breakers 1164, 2064	x						
40			station service KW1A, KZ1A and assoc. switches	x						
41			115/69kV transformer KY1A		x					One East River member and two municipal customers served through KY1A (Sioux Valley Energy, City of White, and City of Volga)
42			115 kV switches 161, 361, 461		x					One East River member and two municipal customers served through KY1A (Sioux Valley Energy, City of White, and City of Volga)
43			69 kV breaker 1052 and assoc. switches		x					One East River member and two municipal customers served through 1052 (Sioux Valley Energy, City of White, and City of Volga)
44		Campbell County	230-kV breakers 182, 282, 382 and assoc. switches	x						
45	CD	Cando Tap	69-kV switches 1751, 1753	x						
46	CF	Canyon Ferry	100-kV breakers 162, 262, 266, 362, 366 and assoc. switches	x						
47	CRP	Carpenter	230-kV breakers 182, 382, 486 and assoc. switches	x	x					Two East River members (Coddington Clark and Kingsbury)
48			station service KW1A, KW3A and assoc. switches	x						
49	CA	Carrington	115-kV breakers 262, 362 and assoc. switches, switch 161	x						
50			capacitor PX3A	x						
51			station service KW9A and assoc. switches	x						
52		Charlie Creek	345-kV breakers 4096, 4192 and assoc switches	x						
53	CR	Circle	115-kV breakers 1462, 1562, 1666, 1764, 1864 and assoc. switches	x						
54			capacitors PY17A, PY18A	x						
55			reactor KY17A	x						
56			station service KX9A, switches 94x	x						
57	CON	Conrad	230-kV breakers 182, 382, 482 and assoc. switches	x						
58			230/115-kV transformer KV1A	x						
59			reactor KW31A, breaker 3124, switch 3123	x						
60			115-kV breaker 1162, 1362, 1452, and assoc. switches / switches 1263, 1265	x						
61			station service KW30A, switch 3023	x						
62	CS	Creston	161 kV breakers 162, 262, 362, 466, 562, 662, 762, 964, 8161, 8262 and assoc. switches	x						
63			161/69-kV transformer KY3A	x						
64			capacitors PZ21A and PY9A	x						
65			69-kV breakers 2252, 2352, 2456 and assoc. switches	x						
66			station service KW3A, KW6A, Breakers 323, 623 and assoc. switches	x						
67	CRO	Crossover	230-kV breakers 582, 586, 786, 882 and assoc. switches	x		x				to NWMT
68			230-kV switches 981, 983, 985, 987, 989, 990	x						
69			phase shifter KV8A	x						
70	CQE	Culbertson East	115-kV switches 16x, 26x, 36x	x	x					two customers (Oreg Generation and Basin Generation)
71	CU	Custer	230-kV breakers 182, 382, 482 and assoc. switches	x						
72			station service KW2A and assoc. switches	x						
73			reactor KW1B and assoc. switches	x						
74			230/69/12.47-kV transformer KV1A	x						
75			reactor KZ2A, 69-kV breaker 2152 and assoc. switches	x						
76	DC	Dawson County	115-kV breakers 162, 262, 362, 462, 662, 762, 862 and assoc. switches	x						
77			230-kV breakers 2282, 2382, 2482, 2582, 2682 and assoc switches	x						
78			230/115-kV transformer KUSA	x						
79			capacitors PY7A, PY8A	x						
80			reactor KY8A	x						
81			station service KZ2B, KW2B and assoc. switches	x						
82			reactors KZ1A, KZ2A, KZ3A, breakers 3122, 3222, 3322 and assoc. switches	x						
83	DN	Denison	161-kV breakers 1362, 1566, 1662 and assoc. switches / switches 1461, 1465	x						
84			230-kV breakers 186, 282, 382, 386 and assoc. switches	x						
85			230/161-kV transformer KV1A	x						
86			reactor KW30A and assoc. switches	x						
87			230/69-kV transformers KV2A and KV3A	x						
88			69-kV breakers 2156, 2254, 2352, 2452, 2652, 2754, 2952 and assoc. switches	x						
89			capacitors PZ27A, PZ22A	x						

285		69kV breaker 1252 and assoc breakers		x					One East River member and two irrigation districts served through KY2A and 1252 (Oahe, Grey Goose Irrigation and Crow Creek Irrigation)
286		Station Service KW1D, KW1E, KW1F and assoc switches		x					
287	RC	Rapid City	115-kV breakers 162, 262, 362, 462, 562, 664, 766, 862, 2164 and assoc switches	x					
288			reactors KY10A, KY21A	x					
289			capacitors PY6A, PY21A	x					
290			station service KW20A, KW43A KW42A, switches 202x, 422x, 432x, 431x	x					
291		Roberts County	115-kV breakers 2162, 2262, 2362, 2462 and assoc switches	x					
292			69-kV breakers 5152, 5252 and assoc switches	x					
293			station service Ky21A	x					
294	RL	Rolla	115-kV breaker 1162 and assoc switches	x					
295	RY	Rudyard	115-kV switches 260, 261, 160, 161	x					
296			station service KW1A, switches 521, 523	x					
297	RG	Rugby	115-kV breakers 1262, 1362, 1462, 1566, 1662, 1762, 1864, 1966 and assoc switches	x					
298			capacitor PY8A	x					
299			reactor KY2A	x					
300			Station Service KX2A, KW1A and assoc. switches and equipment	x					
301	SH2	Shelby 2	115-kV breakers 1062, 1362, 1462 and assoc. switches, switches 1263, 1265	x					
302			230/115-kV transformer KV3A	x					
303			reactor KW3A, breaker 3124 and assoc switches	x					
304			station service KW2A and assoc. switches	x					
305			230-kV breakers 482, switches 481, 383, 281, 183	x					
306	SC	Sioux City	230-kV breakers 182, 282, 382, 482, 582, 682, 9182 and assoc switches, switch 7283	x					
307			230/161-kV transformers KV1A and KV5A	x					
308			161-kV breakers 1062, 1162, 1262, 1362, 1562, 1662, 8162	x					
309			reactors KW53A, KW54A, breakers 5324, 5424 and assoc switches	x					
310			station service KW1B, KW1C, switches 502x, 512x, 522x	x					
311			69-kV breakers 2156, 2352, 2852, 2952, 3052, 3152 and assoc switches	x	x				to NIPCO (looped) and MEC
312	SC2	Sioux City 2	345-kV breakers 8498, 8592, 8692, 8696 and assoc switches	x					
313			reactor KU6A	x					
314			345/230-kV transformers KU1A, KU1B, switches 8091, 8081, 8291, 8281	x					
315			230-kV breakers 7382, 7482 and assoc switches	x					
316			reactors KW10A, KW10B, breakers 5522, 5622 and assoc switches	x					
317			station service K1, K2 and assoc switches	x					
318	SF	Sioux Falls	230-kV breakers 2182, 2282, 2382, 2482, 2582, 2682, 2782, 9182 and assoc switches	x					
319			230/115-kV transformers KV3A, KV5A	x					
320			reactors KW31A, KW51A	x					
321			breakers 3124, 5124 and assoc switches	x					
322			station service KW33A, KW53A, KZ1A, switches 33xx, 53xx, 1851	x					
323			115-kV breakers 162, 262, 362, 462, 562, 662, 762, 966, 7162 and assoc switches	x					
324	SP	Spencer	161-kV breakers 162,462,562, 662 and assoc switches	x					
325			Reactor PY6A	x					
326			161/69-kV transformer KY1A	x					
327			69-kV breakers 1142, 1242, 1342, 1442, 1542 and assoc switches	x	x				to NIPCO and Wisdom Sub
328			station service KW10A and assoc switches	x					
329		Stegall	230 kV main and transfer bus, breaker 382 and assoc switches	x					
330			Reactor KV3A, breaker 384 and assoc. switches	x					
331	SU	Summit	115-kV breakers 262, 362, 462, 562, 762, and assoc switches , switch 163	x					
332			station service KZ1A, switch 1351	x					
333			115/69 kV transformer KY1A		x				Four East River members served through KY1A (Whetstone, Lake Region, Traverse, and Codington-Clark)
334			69 kV breaker 1152 and assoc. switches		x				Three East River members served through 1152 (Whetstone, Lake Region, and Traverse)
335	TI	Tiber	115-kV switches 1260, 1261		x				2 customers (generator and Marias)
336		Towner	115-kV breakers 2166, 2262, 2362 and assoc switches	x					
337			station service KY1A1	x					
338	TY	Tyndall	115-kV switches 16x, 26x, 361	x					
339			Station Service KZ1A and switches 351 and 751	x					
340	UJ	Utica Junction	230-kV breakers 382, 486, 582, 686 and assoc switches	x					
341			230/115-kV transformer KV3A	x					
342			115-kV breakers 1266, 1362, 1562, 1762 and assoc switches	x					
343			station service KW3A and assoc switches	x					
344	VC	Valley City	115-kV 162, 262, 362, 462, 562 and assoc switches	x					
345			115/69-kV transformer KY1A		x	x			2 customers (Minnkota Power and City of Valley City)
346			station service KW2A and switch 321	x					
347	VFO	Virgil Fodness	230-kV breakers 382, 386, 482, 486 and assoc switches	x					
348			230-kV switches 185 and 283	x					
349	VT	Hanlon	230-kV breakers 382, 482, 582, 682, 686 and assoc switches	x					
350			Reactor KW70A and breaker 7024	x					
351			69-kV breaker 5053 and assoc switch	x					
352			station service KW60A, KW24A, breaker 7423 and assoc switches	x					
353	WL	Wall	115-kV switches 16x, 26x, 36x, 461	x					
354			station service KW1B, switch 821	x					
355		Wanblee Tap	115-kV interrupters 162 and 262 and assoc. switches	x					Zero costs, customer funded
356	WDD	Ward	230-kV breakers 182, 282, 286 and assoc switches	x					
357			new 230-kV breaker in ring bus	x					Zero costs, customer funded
358	WB	Washburn	230-kV switches 18x, 28x	x					
359			station service KX3A, KW9A and assoc switches	x					
360	WT	Watertown	230-kV breakers 182, 282, 382, 482, 582, 682, 882, 984, 1182, 9182 and assoc switches	x					
361			reactor KV9A	x					
362			capacitor PV9A	x					
363			230/115-kV transformers KV2A, KV8A	x					
364			115-kV breakers 862, 1162, 1262, 1362, 1562, 1762, 1862, 1962, 8162 and assoc switches	x	x				1762 - two customers MRES and NorthWestern Energy
365			station service KY3A, KHA, KHB, K1, K2 and assoc switches	x					
366			reactor KW1A, breaker 3122 and assoc switches	x					
367			13.2-kV switches 372x, 362x, 82x	x					
368			115/69 kV transformer KY3A		x				Two East River members are served through KY3A (Codington-Clark and H-D)
369			69 kV breaker 2752 and assoc switches		x				Two East River members served through 2752 (Codington-Clark and H-D)
370	WT2	Watertown 2	345-kV breakers 7296, 7292, 7398 and assoc switches	x					
371			reactor KU3A	x					
372	WTS	Watertown Static Var	All Facilities and Equipment	x					
373	WC	Watford City	230-kV breakers 682, 782, 882 and assoc switches	x					
374			230-kV switches 282, 283, 182, 183	x					
375			station service KW1B, switches 121, 123	x					
376			reactor KY16A, switches 166x	x					
377			capacitor PY16A	x					
378			115-kV breakers 1262, 1362 and assoc switches	x					
379			reactor KY17A, switches 176x	x					
380			capacitor PY17A	x					
381			230-kV Bay Addition			x			MDU
382	WSG	Wessington Springs	230-kV breakers 586, 682, 786, 882 and assoc switches	x					

WAPA-UGP 2020 Rate Estimate Calculation
 Worksheet 10 - WAPA-UGP Facilities Excluded under SPP Tariff Attachment A1*
 12 Months Ending 09/30/2020 ESTIMATE

Line No.	FID	Facility	Specific Plant NOT Included	Further Description
1		Substations		
2				
3	AR	Armour	34.5-kV breaker 542 and assoc. switches	NWPS
4			115/34.5-kV transformer KY2A	
5			115-kV interrupter 462 and assoc. switches	
6	AUR	Aurora	115-kV breaker 162, 362 and assoc. switches	
7	BEF	Belfield	230-kV breaker 1482 and assoc switches	
8	BE	Beresford	69-kV breaker 1552 and assoc. switches	East River
9			12.47-kV switch 821, 823, 829	City of Beresford
10	BG	Big Bend	230-kV interrupters 1081, 2081, 2081, 4081 and assoc switches	
11	BB	Bisbee	69/12.5-kV transformer K21A and switch 145	
12			12.5-kV breaker 124 and assoc. switches	CPEC
13	BS	Bismarck	115-kV breaker 3462 and assoc. switches	Capitol Electric
14			12.5-kV switches 1527, 1529	USBR
15	BOL	Bole	69-kV breaker 1452 and 1252 and assoc. switches	NWMT
16	BO	Bonesteel	115-kV breaker 362 and assoc. switches	
17			115/12.47-kV transformer KY1A	
18			12.47-kV breaker 1422 and assoc. switches	Rosebud Electric
19	BFT	Buford Trenton Tap	All Not Included	
20	BP	Buford Trenton Pumping	All Not Included	
21	CA	Carrington	115-kV interrupter 162	protection for non-included transformer (transformer not owned by Western)
22			41.8-kV breakers 142, 242, 342, 442, 542, 642, 842 and assoc. switches	Otter Tail and CPE
23	CR	Circle	115-kV breaker 1162 and assoc. switches	Keystone
24			115-kV breaker 1262, 1362 and assoc. switches	McCone
25			115/34.5-kV transformer KY12A	
26			34.5-kV breaker 142 and assoc. switches	McCone
27	CON	Conrad	115-kV breaker 1062 and assoc. switches	Sun River
28	CU	Custer	69-kV breakers 2252, 2352 and assoc. switches	Yellowstone Valley and Mid-Yellowstone
29	CT	Custer Trail	All Not Included	
30	DC	Dawson County	115-kV switch 1061	protection for non-included transformer (transformer not owned by Western)
31	DNT	Denbigh Tap	Switches 1460, 1461	
32	DN	Denison	69-kV breaker 2552 and assoc. switches	City of Denison
33	DV	Deval	All Not Included	
34	DL	Devils Lake	41.8-kV breaker 1442 and assoc. switches	Otter Tail normally open-emergency tie
35			12.5-kV breaker 1122 and assoc. switches	Minnkota
36	EB	Eagle Butte	115/69-kV transformer KY1A and 115-kV interrupter 762	
37			69-kV breaker 1752 and assoc. switches	Moreau Grand
38	ED	Edgeley	115/41.8-kV transformer KY2A	
39			115-kV breaker 362	
40			41.8-kV breaker 2342 and assoc. switches	Otter Tail
41			69-kV breaker 1252 and assoc. switches	
42	ELC	Elk Creek	115-kV ground switch 1160	
43	ELI	Elliot	115-kV interrupter 2063 and assoc. switches, 115-kV switch 369	
44	END	Enderlin Tap	Interrupter 1862 and assoc. switches	
45	EXI	Exira	Switches 169, 369, 569	Generator Lead
46	FH	Faith	115/12.47-kV transformer KY1A and 115-kV interrupter 362	
47			12.47-kV breaker 1022 and assoc. switches	City of Faith
48	FN	Fallon Pumping	All Not Included	
49	FE	Fallon Relift	All Not Included	
50	FL	Flandreau	12.47-kV switches 3121, 3122, 3123, 3129, 3223	City of Flandreau
51	FO	Forman	69-kV breaker 452 and assoc. switches	
52			69/41.8-kV transformer K23A and 69-kV switches 353, 355	
53			115-kV breaker 1662 and assoc. switches	Otter Tail
54			41.8-kV breaker 2142 and assoc. switches	
55			41.8/12.5-kV transformer KX6A and switch 1443	Dakota Valley
56			12.5-kV breaker 2222 and assoc. switches	
57	FR	Fort Randall	115-kV breaker 962 and assoc. switches	
58	FT	Fort Thompson	69-kV breaker 4452 and assoc. switches	West Central
59	FG	Frazier Pumping	All Not Included	
60	GA	Garrison	115-kV breakers 462, 562 and assoc switches	generator leads
61	GP	Gavins Point	115-kV breakers 162, 262, 362 and assoc. switches	generator leads
62	GGT	Glendive Pumping No. 1 Tap	All Not Included	
63	GG	Glendive Pumping No. 1	All Not Included	
64	GF	Granite Falls	69-kV breakers 4352, 4452, 4552, 4652 and assoc. switches	GRE normally open and Minn. Valley
65			115/69-kV transformer KY2A	
66			115-kV breaker 3262 and assoc. switches	
67	GY	Gregory	115-kV Disconnect Switch 463	protection for non-included transformer (transformer not owned by Western)
68			12.47-kV breaker 422 and assoc. switches	
69	GR	Groton	69-kV breaker 1552 and assoc. switches	East River
70	HV	Havre	12.5-kV breaker 822 and assoc. switches	Hill County
71	HLK	Hilken	take-off structure to Baldwin Wind	generator lead
72	HU	Huron	115-kV switches 1261, 1265	
73			115/69-kV transformer KY1A	
74			69-kV breakers 1952, 2052 and assoc. switches	East River
75	IN	Intake	All Not Included	
76	INP	Intake Pumping	All Not Included	
77	JT	Jamestown	115/41.8-kV transformers KY1A and KY2A	
78			115-kV breaker 662 and assoc. switches	
79			41.8-kV breaker 1142 and assoc. switches	Otter Tail, Normally Open - emergency tie
80			12.47-kV breaker 1522, 1722 and assoc. switches	
81	KD	Killdeer	115/41.8-kV transformer KY4A and switch 469	MDU and Upper Mo.
82			41.8-kV breaker 442, 642 and switches 343, 345	City of Lakota
83	LA	Lakota	12.5-kV breaker 1022 and assoc. switches	
84			69-kV breaker 152 and assoc. switches	
85			115/69-kV transformer KY1A, switches 362, 363	
86	LE	Leeds	69/12.5-kV transformer K23A and switch 645	
87			12.5-kV breaker 624 and assoc. switches	CPEC
88	MR	Martin	115/34.5-kV transformer KY1A and interrupter 962	
89			34.5-kV breaker 1242 and assoc. switches	LaCreek
90	MA	Maurine	115/69-kV transformer KY1A and switches 1263, 1265	
91			115-kV breaker 1762	
92			69-kV breaker 2252 and assoc. switches	Grand Electric
93	MD	Midland	Capacity Rights in 115/69 kV Transformer KY1A	
94	MS	Mission	115/24.9-kV transformer KY1A and interrupter 362	Cherry-Todd
95	MO	Morris	41.8-kV breakers 3132, 3232, 3332 and assoc switches	
96			115/41.8-kV transformer KY3A	
97			115-kV breaker 1362 and assoc switches	
98	MV	Mount Vernon	69-kV breaker 1852 and assoc. switches	East River
99	NAT	Nashua Tap	All Not Included	
100	NEL	Nelson Tap	Switch 1861	
101	NL	Newell	69-kV breakers 2252, 2452 and assoc. switches	Rushmore
102	NU	New Underwood	13.8 kV interrupter 4423 and assoc. switch	
103	OA	Oahe	230-kV breakers 2882, 2482, 2486, 2082, 1162 and assoc. switches	generator lead
104			115-kV breaker 1162 and assoc. switches	generator lead
105	OF	O'Fallon Creek	12.47-kV breaker 522 and assoc. switches and equipment	MDU
106	PET	Penn Tap	Switches 1860, 1861	

107	PL	Philip	115/69-kV transformer KY1A and switches 1963	
108			69-kV breaker 2152 and assoc. switches	West Central
109	PI	Pierre	115/12.47-kV transformer KY1A and 115-kV interrupter 762	
110			12.47-kV breakers 2212, 2312, 2412 and assoc. switches	City of Pierre
111	PLL	Pleasant Lake Tap	Switched 760, 761	
112	RC	Rapid City	115/12.47-kV transformer KY1A	
113	RH	Richland	All Not Included	
114		Roberts County	69-kV breakers 5456, 5652 and assoc switches	
115	RY	Rudyard	115/69/12.5-kV transformer KY1A and interrupter 362	
116			69-kV breaker 752 and assoc. switches	Hill County
117			12.5-kV breaker 422 and assoc. switches	Hill County
118	RG	Rugby	115/41.8-kV transformer KY1A and breaker 1162 and assoc. switches	
119			41.8-kV breaker 2142 and assoc. switches	Otter Tail
120	SV	Savage Pumping	All Not Included	
121	SH2	Shelby	All Not Included	
122	SH2	Shelby 2	115-kV breaker 1162 and assoc. switches	to Shelby
123	SY	Shirley Pumping	All Not Included	
124	SF	Sioux Falls	115-kV breaker 862 and assoc. switches	East River
125			69-kV breaker 1552 and assoc. switches	East River
126	SP	Spencer	69-kV breaker 1642 and assoc. switches	City of Spencer
127	SU	Summit	41.8-kV breakers 2142, 2242 and assoc. switches	
128			115/41.8-kV transformer KY1B	
129			115-kV interrupter 862 and switch 861	
130	TE	Terry Pumping	All Not Included	
131	TR	Terry Tap	115/34.5-kV transformer KY1A and switch 363	
132			34.5-kV breaker 342 and assoc. switches	Buffalo Rapids and MDU
133	TI	Tiber	115/12.5-kV transformer KY1A and breaker 1262	
134			12.5-kV breaker 122 and assoc. switches	USBR
135	TY	Tyndall	69-kV breaker 452 and assoc. switches	East River
136			115-kV interrupter 362	protection for non-included transformer (transformer not owned by Western)
137	VC	Valley City	69-kV breakers 344, 1144 and assoc. switches	City of Valley City
138	WL	Wall	115/12.47-kV transformer KY1B and interrupters 461 and 562	
139			12.47-kV breaker 622 and assoc. switches	West River
140		Wanblee	Interrupter 462 and assoc. switches	
141	WDD	Ward	230-kV switch 889	
142	WB	Washburn	230/41.8-kV transformer KU1A and breaker 282	
143			41.8-kV breaker 342 and assoc. switches	Otter Tail - emergency tie
144	WC	Watford City	115-kV interrupter 162	protection for non-included transformer (transformer not owned by Western)
145	WSG	Wessington Springs	230-kV switch 989	generator outlet
146	WH	Whately	69/12.5-kV transformer KYA and switches 253, 257	
147			12.5-kV breaker 224 and assoc. switches	Norval
148	WV	Wicksville	115-kV interrupter 362	protection for non-included transformer (transformer not owned by Western)
149			24.9-kV breaker 1032 and assoc. switches	West River
150	WN	Williston	60-kV breaker 3552 and assoc. switches	MDU non-credited line
151	WN2	Williston 2	115-kV breaker 2562 and assoc. switches	
152	WI	Winner	12.47-kV breakers 2222, 2422, 2523 and assoc. switches	City of Winner and Rosebud Electric
153	VAT	Wiota	All Not Included	
154	VAT	Wiota Tap	All Not Included	
155	WP	Wolf Point	115/34.5-kV transformer KY1A and switches 1963, 1965	
156			34.5-kV breakers 2142, 2242, 2342, 2442 and assoc. switches	MDU and Norval
157			12.5-kV breakers 3222, 3322, 3422 and assoc. switches	Norval and McCone
158	WO	Woonsocket	34.5-kV breakers 442 and 542 and assoc. switches	NWPS and City of Wessington Springs
159			115/69-kV transformer KY1B and 115-kV breaker 862	
160			Mobile Transformer 115/34.5-kV	
161			115-kV interrupters 362 and 862 and assoc. switches, switch M263, M261	
162		Transmission Lines		
163		SHELBY-SHELBY2	115-kV	
164		Corps Switchyard Facilities		
165		Big Bend	230-kV interrupters 1081, 2081, 3081, 4081 and assoc switches	
166		Fort Peck	230-kV interrupters 481, 581 and assoc switches	
167			115-kV switches 861, 961	
168		Fort Randall	115-kV switch 960	
169			230-kV switches 1180, 1280, 1380	
170		Garrison	230-kV breakers 182, 282, 382 and assoc switches	
171			115-kV breakers 462, 561, 1762 and assoc switches	
172			13.8-kV breaker 2722 and assoc switches	
173		Gavins Point	115-kV breakers 162, 262, 362 and assoc. switches	
174		Oahe	115-kV breaker 1162 and assoc. switches	
175			230-kV breakers 2082, 2882 and assoc. switches	

* Based upon Attachment AI of SPP's Tariff and consistent with criteria set forth in the "Zone 19 (Upper Missouri Zone) - Attachment AI Guidance Document", dated 06/14/2016, as prepared by the Attachment AI Working Group in FERC docket ER15-1775-000.

WAPA-UGP 2020 Rate Estimate Calculation Worksheet 11 - Facility Changes 12 Months Ending 09/30/2020 ESTIMATE	
Roberts County 115kV Substation, 71926	New 115-kV substation added due to 2017 ITP. NTC ID 200452.
Roberts County 115/69kV Transformer, 71927	Roberts County 115/69 kV transformer and 69-kV yard added due to 2017 ITP. NTC ID 200452.
Lewis - Richland 115 kV Ckt 1, 72052	Reconductor 0.1 miles of 115-kV Transmission Line to increase rating due to 2018 ITP. NTC ID 210497. This project will be regionally shared.

WAPA-UGP 2020 Rate Estimate Calculation
 Worksheet 12 - Scheduling, System Control, and Dispatch Service
 12 Months Ending 09/30/2020 ESTIMATE

Line No.	DESCRIPTION (1)	SSCD (2)	REFERENCE (3)
1	A. Operation and Maintenance Expense	\$9,878,571	WS4-CostData (O&M Expenses Worksheet)
2	B. A&G Expense	\$173,158	WS4-CostData (A&G Expenses Worksheet)
3	C. Depreciation Expense	\$308,765	WS4-CostData (Depreciation Expense Worksheet)
4	D. Taxes Other than Income Taxes for Transmission	\$0	Not Applicable
5	E. Allocation of General Plant	\$0	No General Plant identified at this time, all plant is identified as either generation or transmission related
6	F. Cost of Capital		
7	Weighted Transmission Composite Interest Rate	4.917%	WS4-CostData (C6 L61)
8	Net Plant Investment	\$6,527,157	WS4-CostData (C2 L21)
9	Cost of Capital	\$320,961	L7*L8
10	H. Revenue Requirement		
11	Annual Western-UGPR Cost	\$10,681,455	L1+L2+L3+L9
12	Estimated SSCD Revenue from non-Transmission facilities	\$ 742,107	L11*L16
13	Prior Year True-Up	\$ 1,594,814	Prior year true-up
14	Revenue Requirement for SSCD for Transmission facilities	\$11,534,163	L11-L12+L13
15			
16	Ratio for Line 12	6.95%	WS8-TranFac (L504 C4/C7)

2020 SPP ESTIMATE SUMMARY		FID	DESCRIPTION	PRIOR YEAR FACILITY TOTALS (\$)	FY2019-20 ESTIMATE ADD/REPL/RETIRE (\$)	ATTACHMENT AI ADJUSTMENTS (\$)	GENERATION ADJUSTMENTS (\$)	FY2020 EST SPP TOTALS (\$)
		WAO	WATERTOWN ALTERNATE OPERATIONS CENTER	6,006,058	-	0	(1,501,515)	4,504,544
		WTO	WATERTOWN OPERATIONS CENTER	1,311,373	-	0	(412,326)	899,047
		WTO F	WATERTOWN OPERATIONS CENTER (BFPS)	12,647,186	-	0	(3,161,797)	9,485,390
				19,964,617	-	0	(5,075,637)	14,888,980
2020 SPP ESTIMATE DETAIL:		FID	DESCRIPTION	FID COST DETAIL (\$)	SSCD %	SSCD TOTAL (\$)	TRANS %	TRANS TOTAL (\$)
		WAO	IDC	299	75.00%	224	75.00%	224
		WAO	LAND & RIGHTS	9,790	75.00%	7,342	75.00%	7,342
		WAO	LAND AT KCR	1,539	75.00%	1,154	75.00%	1,154
		WAO	MICROWAVE TOWER	295,486	75.00%	221,614	75.00%	221,614
		WAO	IDC	57,816	75.00%	43,362	75.00%	43,362
		WAO	IDC	5,246	75.00%	3,935	75.00%	3,935
		WAO	ANTENNA	17,480	75.00%	13,110	75.00%	13,110
		WAO	MICROWAVE SYSTEM	122,582	75.00%	91,937	75.00%	91,937
		WAO	MICROWAVE SYSTEM	12,407	75.00%	9,305	75.00%	9,305
		WAO	SCADA COMMUNICATION EQUIPMENT	20,217	75.00%	15,163	75.00%	15,163
		WAO	LAND & RIGHTS	54,138	75.00%	40,603	75.00%	40,603
		WAO	BUILDINGS	531,049	75.00%	398,287	75.00%	398,287
		WAO	BUILDINGS	90,309	75.00%	67,732	75.00%	67,732
		WAO	OTHER STRUCTURES AND IMPROVEMENTS	54,257	75.00%	40,693	75.00%	40,693
		WAO	OTHER STRUCTURES AND IMPROVEMENTS	475,746	75.00%	356,809	75.00%	356,809
		WAO	STATION EQUIPMENT	95,962	75.00%	71,972	75.00%	71,972
		WAO	SCADA COMMUNICATION EQUIPMENT	12,679	75.00%	9,510	75.00%	9,510
		WAO	SCADA COMMUNICATION EQUIPMENT	1,022,154	75.00%	766,616	75.00%	766,616
		WAO	MICROWAVE COMMUNICATION EQUIPMENT	122,476	75.00%	91,857	75.00%	91,857
		WAO	MICROWAVE COMMUNICATION EQUIPMENT	733,679	75.00%	550,260	75.00%	550,260
		WAO	MICROWAVE COMMUNICATION EQUIPMENT	35,292	75.00%	26,469	75.00%	26,469
		WAO	MICROWAVE COMMUNICATION EQUIPMENT	13,959	75.00%	10,470	75.00%	10,470
		WAO	TELEPHONE COMMUNICATION EQUIPMENT	53,112	75.00%	39,834	75.00%	39,834
		WAO	FIBER OPTIC EQUIPMENT	184,307	75.00%	138,230	75.00%	138,230
		WAO	FIBER OPTIC EQUIPMENT	97,180	75.00%	72,885	75.00%	72,885
		WAO	FIBER OPTIC EQUIPMENT	28,885	75.00%	21,663	75.00%	21,663
		WAO	FIBER OPTIC EQUIPMENT	41,066	75.00%	30,799	75.00%	30,799
		WAO	BUILDINGS	1,320,913	75.00%	990,685	75.00%	990,685
		WAO	IDC	454,813	75.00%	341,110	75.00%	341,110
		WAO	PLANT COMM SYSTEM	40,642	75.00%	30,481	75.00%	30,481
		WAO	IDC	577	75.00%	433	75.00%	433
			TOTAL	6,006,058		4,504,544		4,504,544
		WTO	TELEPHONE COMMUNICATION EQUIPMENT	559,892	52.30%	292,824	66.78%	373,896
		WTO	IDC	33,280	52.30%	17,405	66.78%	22,224
		WTO	WALLS	276,284	52.30%	144,496	66.78%	184,502
		WTO	SIDEWALKS	153,428	52.30%	80,243	66.78%	102,459
		WTO	IDC	2,052	52.30%	1,073	66.78%	1,370
		WTO	IDC	2,835	52.30%	1,483	66.78%	1,893
			TOTAL	1,027,770		537,524		686,345
		WTO	FIBER OPTICS EQUIPMENT	267,249	75.00%	200,437	75.00%	200,437
		WTO	IDC	16,354	75.00%	12,265	75.00%	12,265
			TOTAL	283,603		212,702		212,702
		WTO F	ALCATEL 5620 FIBER TERMINAL EQUIP (PART 2 OF 2)	134,174	75.00%	100,631	75.00%	100,631
		WTO F	ADD DROP MULTIPLEXER (PART 2 OF 2)	59,005	75.00%	44,254	75.00%	44,254
		WTO F	POWER SYSTEM DISPATCH CONSOLES	119,667	75.00%	89,751	75.00%	89,751
		WTO F	MICROWAVE ALARM SYSTEM MASTER STATION	19,292	75.00%	14,469	75.00%	14,469
		WTO F	FIBER OPTIC EQUIPMENT	53,165	75.00%	39,873	75.00%	39,873
		WTO F	FIBER OPTIC EQUIPMENT	307,465	75.00%	230,599	75.00%	230,599
		WTO F	FIBER OPTIC EQUIPMENT	12,820	75.00%	9,615	75.00%	9,615
		WTO F	FIBER OPTIC EQUIPMENT	415,983	75.00%	311,987	75.00%	311,987

WTO F	IDC	150,136	75.00%	112,602	75.00%	112,602
WTO F	IDC	2,533	75.00%	1,900	75.00%	1,900
WTO F	TELEPHONE COMMUNICATION EQUIPMENT	31,658	75.00%	23,743	75.00%	23,743
WTO F	MICROWAVE COMMUNICATION EQUIPMENT	85,009	75.00%	63,757	75.00%	63,757
WTO F	FIBER OPTICS EQUIPMENT	108,685	75.00%	81,513	75.00%	81,513
WTO F	FIBER OPTICS EQUIPMENT	1,934	75.00%	1,450	75.00%	1,450
WTO F	FIBER OPTICS EQUIPMENT	38,123	75.00%	28,592	75.00%	28,592
WTO F	IDC	23,486	75.00%	17,614	75.00%	17,614
WTO F	MULTIPLEXER EXPANDED CAPABILITY ASSET 166934 - PROJECT WTO 0025C (PART 2)	25,032	75.00%	18,774	75.00%	18,774
WTO F	IDC - ASSET 166934 MULTIPLEXER EXPANSION (PART 2)	514	75.00%	385	75.00%	385
WTO F	IDC	18,650	75.00%	13,987	75.00%	13,987
WTO F	ADD DROP MULTIPLEXER (PART 1 OF 2)	2,850	75.00%	2,137	75.00%	2,137
WTO F	ALCATEL 5620 FIBER TERMINAL EQUIP (PART 1 OF 2)	6,625	75.00%	4,968	75.00%	4,968
WTO F	VHF RADIO COMPARATOR	98,003	75.00%	73,502	75.00%	73,502
WTO F	IDC	3,248	75.00%	2,436	75.00%	2,436
WTO F	MICROWAVE COMMUNICATION EQUIPMENT	226,333	75.00%	169,750	75.00%	169,750
WTO F	IDC	13,471	75.00%	10,103	75.00%	10,103
WTO F	TELEPHONE SYSTEM - 40 CHANNEL RECORDER & CRASH KIT	70,115	75.00%	52,586	75.00%	52,586
WTO F	INTEREST DURING CONSTRUCTION	1,421	75.00%	1,066	75.00%	1,066
WTO F	VOICE RECORDER SYSTEM	61,005	75.00%	45,754	75.00%	45,754
WTO F	SCADA SYSTEM HISTORIAN SOFTWARE	202,050	75.00%	151,538	75.00%	151,538
WTO F	IDC	6,761	75.00%	5,071	75.00%	5,071
WTO F	IDC	10,395	75.00%	7,796	75.00%	7,796
WTO F	SCADA MAPBOARD	506,493	75.00%	379,870	75.00%	379,870
WTO F	SCADA	121,027	75.00%	90,771	75.00%	90,771
WTO F	IDC	2,484	75.00%	1,863	75.00%	1,863
WTO F	AUX PWR SYS - BACKUP GENERATOR	454,504	75.00%	340,878	75.00%	340,878
WTO F	IDC	12,877	75.00%	9,658	75.00%	9,658
WTO F	(5) DIGITAL VOICE RECORDERS - WTO F	20,217	75.00%	15,163	75.00%	15,163
WTO F	IDC	1,979	75.00%	1,484	75.00%	1,484
WTO F	BATTERY BANK FOR UPS	36,320	75.00%	27,240	75.00%	27,240
WTO F	IDC	631	75.00%	473	75.00%	473
WTO F	DIGITAL TRANS & REC EQUIP	23,847	75.00%	17,885	75.00%	17,885
WTO F	FREQUENCY CONTROL ADDITIONS	57,731	75.00%	43,298	75.00%	43,298
WTO F	TELEPHONE COMMUNICATION EQUIPMENT	144,190	75.00%	108,143	75.00%	108,143
WTO F	SCADA COMMUNICATION EQUIPMENT	1,233,220	75.00%	924,915	75.00%	924,915
WTO F	IDC	15,694	75.00%	11,770	75.00%	11,770
WTO F	PLANT COMM SYSTEM	167,020	75.00%	125,265	75.00%	125,265
WTO F	IDC	2,373	75.00%	1,780	75.00%	1,780
	TOTAL	5,110,212		3,832,659		3,832,659
WTO F	WATERTOWN OPERATIONS BUILDING	636,802	52.30%	333,047	75.00%	477,601
WTO F	IDC	3,422	52.30%	1,790	75.00%	2,567
WTO F	RESURFACE PARKING LOT AT WATERTOWN OPS OFFICE	152,204	52.30%	79,603	75.00%	114,153
WTO F	REPLACE ROOF AT WATERTOWN OPS OFFICE	41,538	52.30%	21,725	75.00%	31,154
WTO F	IDC	6,304	52.30%	3,297	75.00%	4,728
WTO F	MICROWAVE COMMUNICATION EQUIPMENT	20,893	52.30%	10,927	75.00%	15,670
WTO F	MICROWAVE COMMUNICATION EQUIPMENT	20,482	52.30%	10,712	75.00%	15,361
WTO F	IDC	405,078	52.30%	211,856	75.00%	303,809
WTO F	VEHICLE/STORAGE BUILDING	651,816	52.30%	340,900	75.00%	488,862
WTO F	IDC	39,508	52.30%	20,663	75.00%	29,631
WTO F	IDC	1,654	52.30%	865	75.00%	1,240
WTO F	OTHER STRUCTURES AND IMPROVEMENTS	15,703	52.30%	8,213	75.00%	11,777
WTO F	IDC	8,042	52.30%	4,206	75.00%	6,032
WTO F	IDC	8,042	52.30%	4,206	75.00%	6,032
WTO F	BUILDINGS	81,569	52.30%	42,661	75.00%	61,177
WTO F	BUILDINGS	81,569	52.30%	42,661	75.00%	61,177
WTO F	BUILDINGS	818,051	52.30%	427,841	75.00%	613,538
WTO F	IDC	66,517	52.30%	34,788	75.00%	49,887
WTO F	TELEPHONE COMMUNICATION EQUIPMENT	146,115	52.30%	76,418	75.00%	109,586
WTO F	IDC - REPLACEMENTS	1,845	52.30%	965	75.00%	1,384
WTO F	IDC - ADDITIONS	3,845	52.30%	2,011	75.00%	2,883
WTO F	BUILDINGS	220,908	52.30%	115,535	75.00%	165,681
WTO F	IDC	5,015	52.30%	2,623	75.00%	3,761
WTO F	PSOO-WATER SYSTEM	219,050	52.30%	114,563	75.00%	164,288
WTO F	IDC	285,734	52.30%	149,439	75.00%	214,301

	WTO F	PWR SYS OPERATIONS OFFICE BUILDING (PART 1 OF 2)	1,929,776	52.30%	1,009,273	75.00%	1,447,332
	WTO F	WATERTOWN OPS BLDG EXPANSION (PSOO)	303,096	52.30%	158,519	75.00%	227,322
	WTO F	WATERTOWN OPS BLDG EXPANSION	1,362,395	52.30%	712,532	75.00%	1,021,796
		TOTAL	7,536,974		3,941,837		5,652,730

WAPA-UGP 2020 Rate Estimate Calculation

Worksheet 14 - Rate for Regulation and Frequency Response

12 Months Ending 09/30/2020 ESTIMATE

Line No.	DESCRIPTION (1)	REGULATION and FREQUENCY RESPONSE (2)	REFERENCE (3)
1	Western Regulation Revenue Requirement	\$291,973	L19 C2
2	Under Collection - 2018 Regulation Revenue Rqmt	\$108,955	Prior year true-up
3	Total Regulation Revenue Rqmt with True-up	400,928	L1 + L6
Regulation and Frequency Response (Western's Costs)			
4	Fixed Charge Rate	14.346%	WS2-AllocFactor C5 L28
5	Corps Generation Net Plant Costs (\$)	\$ 525,042,604	WS2-AllocFactor C5 L5
6	Annual Corps Generation Cost (\$)	\$ 75,324,599	L1*L2
7	Plant Capacity (kW)	2,286,000	(1)
8	Cost/kW (\$/kW)	\$ 32.95	L3/L4
9	Capacity Used for Regulation (kW)	8,861	(2)
10	Regulation Revenue Requirement (\$) - Capacity	\$291,973	L8*L9
18	Regulation Revenue Requirement (\$) - Purchases	\$0	(3)
19	Total Regulation Revenue Requirement (\$)	\$291,973	
(1)	WAPA Annual Report plant capacity		
(2)	WAUW capacity used for regulation		
(3)	Cost of purchases required to regulate for Intermittent Resources		

WAPA-UGP 2020 Rate Estimate Calculation

Worksheet 15 - Rate for Reserves

12 Months Ending 09/30/2020 ESTIMATE

Line No.	DESCRIPTION (1)	RESERVES (2)	REFERENCE (3)
1	Fixed Charge Rate	14.346%	WS2-AllocFactor C5 L28
2	Corps Generation Net Plant Costs (\$)	\$ 525,042,604	WS2-AllocFactor C5 L5
3	Annual Corps Generation Cost (\$)	\$ 75,324,599	L1*L2
4	Plant Capacity (kW)	2,286,000	(1)
5	Cost/kW (\$/kW-Yr)	\$ 32.95	L3/L4
6	Monthly Charge (\$/kW-mo)	\$ 2.75	L5/12 months
7	Western's Maximum Load in WAUW Control Area (kW)	161,000	(2)
8	Maximum Generation in WAUW Control Area (kW)	97,500	(3)
9	Capacity used for Reserves (kW) -- 3% Load + 3% Gen	7,755	L7*3% + L8*3% (4)
10	Annual Reserves Revenue Requirement	\$ 255,530	L9*L5
11	Under Collection - 2018 WAUW Reserve Revenue Rqmt	\$ 85,954	Prior year true-up
12	Annual Reserve Sharing Group Cost	\$ 68,305	(5)
13	Total Regulation Reserves Rqmt with True-up	\$ 409,789	L10+L11+L12
(1)	WAPA Annual Report plant capacity		
(2)	Control Area metering data		
(3)	WAUW maximum generation data		
(4)	Northwest Power Pool Reserve Sharing System		
(5)	Annual cost associated with Western-UGP's current reserve sharing group membership		