



Western Area
Power Administration

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

Effective January 1, 2021
(Revision 1)

WAPA-UGP 2021 Rate Estimate Calculation

(Rate Order No. WAPA-188)

WAPA-UGP

Transmission and Ancillary Services List of Workpapers and Schedules

Worksheet Tab Label

Summary-ATRR

WS1-RateBase

WS2-AllocFactor

WS3-RevCredits

WS4-CostData

WS5-BPUz

WS6-BPUr

WS7-BPUFac

WS8-TranFac

WS9-AI-Incl

WS10-AI-Excl

WS11-FacChanges

WS12-SSCD

WS13-SSCDFac

WS14-Reg

WS15-Res

Worksheet Tab Description

[Worksheet "Summary-ATRR" -- Calculation of ATRRs](#)

[Worksheet 1 -- Calculation of Rate Base](#)

[Worksheet 2 -- Allocation Factors](#)

[Worksheet 3 -- Revenue Credit Detail](#)

[Worksheet 4 -- Cost Support Data](#)

[Worksheet 5 -- SPP Base Plan Upgrades \(BPU\) - Zonal](#)

[Worksheet 6 -- SPP Base Plan Upgrades \(BPU\) - Regional](#)

[Worksheet 7 -- SPP Base Plan Upgrades \(BPU\) - Facilities](#)

[Worksheet 8 -- Transmission Facilities](#)

[Worksheet 9 -- WAPA-UGP Facilities Included per SPP Tariff Attachment A1](#)

[Worksheet 10 -- WAPA-UGP Facilities Excluded per SPP Tariff Attachment A1](#)

[Worksheet 11 -- Facility Changes Detail](#)

[Worksheet 12 -- Scheduling, System Control and Dispatch Service \(SSCD\) ARR](#)

[Worksheet 13 -- Scheduling, System Control and Dispatch Service \(SSCD\) Facilities](#)

[Worksheet 14 -- Regulation and Frequency Response ARR](#)

[Worksheet 15 -- Reserves ARR](#)

Date	Worksheet	Reference Cell(s)	Change From	Change To	Description
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11/1/2020

Summary of incremental changes (Rev1): thru 11/1/2020 -- New filename: WAPA-UGP-Trans-Anc-Service-Rates-ESTIMATE-Templates-2021-0101-Rev1.xlsx; **Rates changed due to updates:** (1) ATRRs and Ancillaries generally decreased due to updates to HFD Schedule 21X and 21RX source data unless other impacts; (2) Schedule 11 ATTR Total increased due to WS5-BPUz equation corrections noted below, and (3) Operating Reserves increased due to WS15-Res correction noted below that increased the WAUW Max Generation value.

11/1/2020	Cover Sheets	A9			Added "(Revision 1)" to Workbook Title
11/1/2020	WS4-Reg	B21			Updated footnote (2) to reference source data
10/29/2020	WS8-TranFac	D514			Updated description for clarification
10/29/2020	WS8-TranFac	H514	\$ -	\$ 109,191,494	Moved values to new cell for clarification
10/29/2020	WS8-TranFac	K514	\$ -	\$ 1,542,656,099	Moved values to new cell for clarification
10/29/2020	WS8-TranFac	H517	\$ 109,191,494	\$ -	Moved values to new cell for clarification
10/29/2020	WS8-TranFac	K517	\$ 1,542,656,099		Moved values to new cell for clarification
10/29/2020	WS8-TranFac	B515			Footnote was moved down one cell
10/29/2020	WS8-TranFac	B516			Footnote was moved down one cell
10/29/2020	WS8-TranFac	B517			Added footnote reference for clarification
10/29/2020	WS8-TranFac	B518			Added footnote reference for clarification
10/29/2020	WS8-TranFac	B519			Added footnote reference for clarification
10/29/2020	WS8-TranFac	B520			Added footnote reference for clarification
10/29/2020	WS12-SSCD	B21			Updated description for clarification
10/29/2020	WS12-SSCD	D21			Update cell reference
10/21/2020	WS15-Res	C12	85,000	92,000	Updated value
9/24/2020	WS4-CostData	C67	\$ 875,855,578	\$ 868,928,781	HFD Schedule 21X and 21RX source data updated
9/24/2020	WS4-CostData	E67	\$ 436,601,675	\$ 362,568,804	HFD Schedule 21X and 21RX source data updated
9/24/2020	WS4-CostData	G67	\$ 556,434,650	\$ 716,044,977	HFD Schedule 21X and 21RX source data updated
9/24/2020	WS4-CostData	I67	\$ 276,471,705	\$ 213,871,288	HFD Schedule 21X and 21RX source data updated
9/24/2020	Summary-ATTR	D16	\$ 7,469,836	\$ 7,289,377	Changes to the True-up sheet affecting values
9/24/2020	WS12-SSCD	C18	\$ 116,503	\$ 115,912	Changes to the True-up sheet affecting values
9/24/2020	WS14-Reg	C7	\$ 116,769	\$ 110,939	Changes to the True-up sheet affecting values
9/24/2020	WS15-Res	C16	\$ 132,344	\$ 135,769	Changes to the True-up sheet affecting values
9/24/2020	WS5-BPUz	I6	\$ 154	\$ 1,014	Updated equation
9/24/2020	WS5-BPUz	I7	\$ 3,895	\$ 25,564	Updated equation
9/24/2020	WS5-BPUz	I8	\$ 9,041	\$ 59,344	Updated equation

WAPA-UGP 2021 Rate Estimate Calculation

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

12 Months Ending 09/30/2021 ESTIMATE

						TRANSMISSION
Line No.	REFERENCE	COMPANY TOTAL	ALLOCATOR	ALLOCATION %	ALLOCATED AMOUNT	
(1)	(2)	(3)		(4)	(5)	
1	Gross Zonal Revenue Requirement-Sch 9	WS1-RateBase C5L1			\$ 159,272,879	
2	REVENUE CREDITS					
3	Firm Point-to-Point Revenue Credit	WS3-RevCredits C5L3+C5L6	\$ (4,275,634)	NA	100%	\$ (4,275,634)
4	Non-Firm Point-to-Point Revenue Credit	WS3-RevCredits C5L9	\$ (2,576,834)	NA	100%	\$ (2,576,834)
5	Revenue from Existing Transmission Agreements	WS3-RevCredits C5L12	\$ (1,195,616)	NA	100%	\$ (1,195,616)
6	Scheduling, System Control, and Dispatch Service Credit	WS12-SSCD	\$ (11,370,493)	NA	100%	\$ (11,370,493)
7	Account No. 454	WS3-RevCredits C5L18	\$ (78,071)	TP	100%	\$ (78,071)
8	Z2 Nonfirm Point-to-Point Revenue Credit		\$ -	NA	100%	\$ -
9	Schedule 11 Point-to-Point Revenue Credit	WS3-RevCredits C5L15	\$ (10,636)	NA	100%	\$ (10,636)
10	TOTAL REVENUE CREDITS	Subtotal L3:L9	\$ (19,507,284)			\$ (19,507,284)
11	TRUE-UP ADJUSTMENT (from TRUEUP Sheet)	Summary-TrueUp L12	\$ 7,289,377			\$ 7,289,377
12	Net Revenue Requirement	Total L1-L10+L11				\$ 147,054,972
13						
14						
Line No.	TOTAL PROJECT ATRR	ZONAL	REGIONAL	REVENUE CREDIT	ALLOCATED AMOUNT	
(1)	(2)	(3)	(4)	(5)	(6)	
14	SPP Upgrades - Gross Revenue Requirement-Sch 11*	\$ 932,918	\$ 809,576	\$ 123,342	\$ (18,333)	\$ 914,585
15	Zonal less Revenue Credit					\$ 793,667
16	Regional less Revenue Credit					\$ 120,918
17	Breakout by Facility:					
18	Lewis-Richland 115 kV Ckt 1, 72052	\$ 14,261	\$ 9,555	\$ 4,706	\$ (280)	\$ 13,980
19	Roberts County 115 kV Substation, 71926	\$ 359,503	\$ 240,867	\$ 118,636	\$ (7,065)	\$ 352,438
20	Roberts County 115/69 kV Transformer, 71927	\$ 559,154	\$ 559,154	\$ -	\$ (10,988)	\$ 548,166
21	5/ WS3-Rev Credits C5L21+C5L24					

WAPA-UGP 2021 Rate Estimate Calculation
Worksheet 1 - Schedule 9 Revenue Requirement - Non-Levelized
Utilizing Financial Statement Results of Operations (ROOs)
12 Months Ending 09/30/2021 ESTIMATE

Line No.	REFERENCE	COMPANY TOTAL	ALLOCATOR	TRANSMISSION ALLOCATED AMOUNT
(1)	(2)	(3)	(4)	(5)
1	GROSS REVENUE REQUIREMENT	159,272,879		\$ 159,272,879
2	REVENUE CREDITS	(19,507,284)		(19,507,284)
3	PRIOR PERIOD TRUE-UP (Under-collection)	7,289,377		7,289,377
4	NET REVENUE REQUIREMENT	\$ 147,054,972		\$ 147,054,972
	RATE BASE:			(Col 3 times Col 4)
	GROSS PLANT IN SERVICE	(Note A)		
5	Production	WS4-CostData L4 C2+C3+C4 1,182,679,407	NA	
6	Transmission	WS4-CostData L3 C2+C3+C4 1,546,543,055	TP 1.00000	1,546,543,055
7	Distribution	WS4-CostData C2 L2-L3-L4 60,084,412	NA	
8	General & Intangible	Bal Sheet - Other Assets - SGL 175002	W/S	0
9	Common	-	CE 0.00000	0
10	TOTAL GROSS PLANT	(sum L5 : 9) 2,789,306,874	GP= 55.445%	1,546,543,055
	ACCUMULATED DEPRECIATION			
11	Production	WS4-CostData L15 C2+C3+C4 593,694,164	NA	
12	Transmission	WS4-CostData L14 C2+C3+C4 787,315,612	TP 1.00000	787,315,612
13	Distribution	WS4-CostData C2 L13-L14-L15 30,623,127	NA	
14	General & Intangible	Bal Sheet - Other Assets - SGL 175902	W/S	0
15	Common	0	CE 0.00000	0
16	TOTAL ACCUM. DEPRECIATION	(sum L11 : 15) 1,411,632,903		787,315,612
	NET PLANT IN SERVICE			
17	Production	(L5 - L11) 588,985,243		
18	Transmission	(L6 - L12) 759,227,443		759,227,443
19	Distribution	(L7 - L13) 29,461,285		
20	General & Intangible	(L8 - L14) 0		0
21	Common	(L9 - L15) 0		0
22	TOTAL NET PLANT	(sum L17 : 21) 1,377,673,971	NP= 55.109%	759,227,443
	ADJUSTMENTS TO RATE BASE	(Note B)		
23	Account No. 281	(enter negative) 0		0
24	Account No. 282	(enter negative) 0	NP 0.55109	0
25	Account No. 283	(enter negative) 0	NP 0.55109	0
26	Account No. 190	0	NP 0.55109	0
27	Account No. 255	(enter negative) 0	NP 0.55109	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 24,140,113		0
31	Materials & Supplies	Bal Sheet - Other Assets - SGL 151191 (Note C) 0	TE 0.00000	0
32	Prepayments	Bal Sheet Other Assets 0	GP 0.55445	0
33	TOTAL WORKING CAPITAL	(sum L30 : 32) 24,140,113		0
34	RATE BASE	(sum L22, 28, 29, 33) 1,401,814,084		759,227,443
	O&M			
	Transmission	ROOs Schedule 11 (Note E)		
35	Western-UGP	WS4-CostData L105 C2 69,037,079	PTP/UGP 0.94957	65,555,401
36	Western-RMR	WS4-CostData L105 C3 46,417,099	PTP/RMR 0.01318	611,774
37	COE	WS4-CostData L105 C4 48,758,210	PTP/COE 0.08257	4,025,913
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 16,768,396	PTP/UGP 0.94957	15,922,733
40	Western-RMR	WS4-CostData L79 C3 12,140,120	PTP/RMR 0.01318	160,006
41	Less FERC Annual Fees	0	W/S 1.00000	0
42	Less EPRI & Reg. Comm. Exp. & Non-safety Ad	(Note G) 0	W/S 1.00000	0
43	Plus Transmission Related Reg. Comm. Exp	(Note G) 0	TE 0.00000	0
44	Common	0	CE 0.00000	0
45	Transmission Lease Payments	0	NA 1.00000	0
46	TOTAL O&M	(sum L35, 36, 37, 39, 40, 43, 44 less 38, 41, 42) 193,120,904		86,275,826
	DEPRECIATION EXPENSE			
47	Transmission	ROOs Schedule 4		
48	Western-UGP	WS4-CostData L38 C2 35,606,174	PTP/UGP 0.94957	33,810,483
49	Western-RMR	WS4-CostData L38 C3 18,370,894	PTP/RMR 0.01318	242,127
50	COE	WS4-CostData L38 C4 16,257,165	PTP/COE 0.08257	1,342,337
51	General	0	W/S 1.00000	0
52	Common	0	CE 0.00000	0
53	TOTAL DEPRECIATION	(sum L47 : 52) 70,234,233		35,394,947
	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 0.55445	0
57	Gross Receipts	0	0.00000	0
58	Other	0	GP 0.55445	0
59	Payments in lieu of taxes	0	GP 0.55445	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%	NA	
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 0.55109	0
67	Total Income Taxes	(L65 + L66) 0		0
68	RETURN [Rate Base * Rate of Return]	(L34 * L102) 69,427,364	NA	37,602,105
69	REV. REQUIREMENT	(sum L46, 53, 60, 67, 68) 332,782,502		159,272,879

SUPPORTING CALCULATIONS AND NOTES

TRANSMISSION PLANT INCLUDED IN UMZ RATES									
70	Total transmission plant	(L6, C3)							1,546,543,055
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)							1,546,543,055
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
78	Percentage of transmission expenses after adjustment (line 8 divided by line 6)	(L77/ L75)							0.00000
79	Percentage of transmission plant included in UMZ Rates	(L74)				TP			1.00000
80	Percentage of transmission expenses included in UMZ Rates	(L79 * L78)				TE=			0.00000
WAGES & SALARY ALLOCATOR (W&S)									
			\$		TP	Allocation			
81	Production		0	0.00		0			
82	Transmission		15,922,733	1.00		15,922,733			
83	Distribution		0	0.00		0			W&S Allocator
84	Other		0	0.00		0			(\$ / Allocation)
85	Total	(sum L81 to L84)	15,922,733			15,922,733	=		1.00000
PERCENTAGE OF TOTAL PLANT ALLOCATOR PTP									
			\$						
86	Transmission Plant in Service Western-UGP		1,430,782,793						
87	Total Plant in Service Western-UGP		1,506,772,334						
88	UGP Percentage of Transmission Plant to Total Plant	(L86 / L87)				PTP/UGP	=		0.94957
89	Transmission Plant in Service Western-RMR		10,750,408						
90	Total Plant in Service Western-RMR		815,665,206						
91	RMR Percentage of Transmission Plant to Total Plant	(L89 / L90)				PTP/RMR	=		0.01318
92	Transmission Plant in Service COE		105,009,854						
93	Total Plant in Service COE		1,271,784,132						
94	COE Percentage of Transmission Plant to Total Plant	(L92 / L93)				PTP/COE	=		0.08257
COMMON PLANT ALLOCATOR (CE)									
			\$			% Electric		Labor Ratio =	CE
95	Electric		0			(L95 / L98)		(L85)	0.00000
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		\$44,029,753						
			\$		%	Cost		Weighted	=WCLTD
						(Note O)			
100	Long Term Debt	HFD Sch's 21RX & 21X Col 8	889,008,663	100%		0.0495		0.0495	=R
101	Proprietary Capital	L23,25,26,29,30	0	0%		0.1238		0.0000	
102	Total (sum L31-32)	(sum L100 : 101)	889,008,663	100%				0.0495	
103								12.38%	
104								1.00	
REVENUE CREDITS									
ACCOUNT 447 (SALES FOR RESALE)									
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)						78,071	
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 Act 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 2021 Rate Estimate Calculation
Worksheet 2 - Allocation Factor, Determination of Pick-Sloan Missouri Basin Program--Eastern Division Annual Costs
12 Months Ending 09/30/2021 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	\$70,193,088	\$88,583,146	\$44,732,297	\$53,895	\$353,747	WS4-Cost Data (O&M Expenses Worksheet)
3	Transmission of Electricity by Others	\$0	\$0	\$0	\$0	\$0	
4	Total O&M Expense	\$70,193,088	\$88,583,146	\$44,732,297	\$53,895	\$353,747	L2 + L3
5	Net Plant Investment	\$759,227,443	\$751,713,915	\$581,186,456	\$576,768	\$3,785,712	WS4-Cost-Data (Net Plant Investment Worksheet)
6	O&M as % of Net Plant Investment	9.245%	11.784%	7.697%	9.344%	9.344%	L4/L5
7	B. A&G Expense						
8	A&G Expense	\$16,082,739	\$177,003	\$0	\$13,090	\$85,921	WS4-Cost-Data (A&G Expenses Worksheet)
9	Net Plant Investment	\$759,227,443	\$751,713,915	\$581,186,456	\$576,768	\$3,785,712	L5
10	A&G as % of Net Plant Investment	2.118%	0.024%	0.000%	2.270%	2.270%	L8/L9
11	C. Depreciation Expense						
12	Depreciation Expense	\$35,394,947	\$19,543,557	\$14,914,828	\$27,796	\$182,446	WS4-Cost-Data (Depreciation Expense Worksheet)
13	Net Plant Investment	\$759,227,443	\$751,713,915	\$581,186,456	\$576,768	\$3,785,712	L5
14	Depreciation as a % of Net Plant Investment	4.662%	2.600%	2.566%	4.819%	4.819%	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	4.952%	3.711%	3.711%	4.952%	4.952%	WS4-Cost-Data (Cost of Capital Worksheet)
21	G. Fixed Charge Rate						
22	Operation and Maintenance Expense	9.245%	11.784%	7.697%	9.344%	9.344%	L6
23	A&G Expense	2.118%	0.024%	0.000%	2.270%	2.270%	L10
24	Depreciation Expense	4.662%	2.600%	2.566%	4.819%	4.819%	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	4.952%	3.711%	3.711%	4.952%	4.952%	L20
28	Total	20.977%	18.119%	13.974%	21.385%	21.385%	
29	H. Revenue Requirement						
30	Fixed Charge Rate	20.977%	18.119%	13.974%	21.385%	21.385%	L28
31	Net Plant Investment	\$759,227,443	\$751,713,915	\$581,186,456	\$576,768	\$3,785,712	L5
32	Annual Western-UGPR Cost	\$159,266,243	\$136,199,631	\$81,214,816	\$123,342	\$809,576	L30 * L31

WAPA-UGP 2021 Rate Estimate Calculation
 Worksheet 3 - Revenue Credit Calculation
 12 Months Ending 09/30/2021 ESTIMATE

Line No.	ACCOUNT	MONTH (1)	REFERENCE (2)	COMPANY TOTAL ALLOCATORLOCATION			TRANSMISSION
				(3)	(4)	(5)	ALLOCATED AMOUNT
1	Z2 Sch 11		Z2	120,944	NA	100%	120,944
2	Z2 Sch 11 Adjustments		Z2	-		100%	0
3	Subtotal			120,944			120,944
4	Schedule 7		FIRM PTP	(4,396,578)	TP	100%	(4,396,578)
5	Schedule 7 Adjustments		FIRM PTP	-	TP	100%	0
6	Subtotal			(4,396,578)			(4,396,578)
7	Schedule 8		NONFIRM PTP	(2,576,834)	TP	100%	(2,576,834)
8	Schedule 8 Adjustments		NONFIRM PTP	-	TP	100%	0
9	Subtotal			(2,576,834)			(2,576,834)
10	Sch 7/8/11		MISO SEAMS	(1,195,616)	TP	100%	(1,195,616)
11	Sch 7/8/11 Adjustments		MISO SEAMS	-	TP	100%	0
12	Subtotal			(1,195,616)			(1,195,616)
13	Schedule 11		ZONAL PTP	(10,636)	NA	100%	(10,636)
14	Schedule 11 Adjustments		ZONAL PTP ADJUSTMENTS	-	NA	100%	0
15	Subtotal			(10,636)			(10,636)
16	45420		RENT FROM ELECTRIC PROPERTY	(78,071)	TP	100%	(78,071)
17	45420 Adjustments		RENT FROM ELECTRIC PROPERTY	-	TP	100%	0
18	Subtotal			(78,071)			(78,071)
19	Sch 11		BPU-ZONAL	(16,228)	NA	100%	(16,228)
20	Sch 11 Adjustments		BPU-ZONAL	-	NA	100%	0
21	Subtotal			(16,228)			(16,228)
22	Sch 11		BPU-REGIONAL	(2,138)	NA	100%	(2,138)
23	Sch 11 Adjustments		BPU-REGIONAL	-	NA	100%	0
24	Subtotal			(2,138)			(2,138)
25	NOTES:	Includes twelve months of revenue credits from January-December or February-January depending on when WAPA began receiving revenue credits from SPP.					
26		Revenue credit sheet may be updated or adjusted as necessary to include all revenue credits received.					
27		Z2 Schedule 7/8 clawbacks					
28		Schedule 7 - Firm PTP Transmission revenues					
29		Schedule 8 - Non-Firm PTP Transmission revenues					
30		Schedule 7/8/11 - MISO's SPP PTP transmission service revenues					
31		Schedule 11 - Zonal PTP adjustment revenues					
32		45420 - Other Rental revenues					
33		Schedule 11 Base Plan Upgrade, Zonal and Regional revenues					

WAPA-UGP 2021 Rate Estimate Calculation
Worksheet 4 - Cost Support Data
12 Months Ending 09/30/2021 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	1,506,772,334	1/	815,665,206	2/	1,271,784,132	3/	533,467,055	12/	4,127,688,727
3	PS-ED Transmission Plant-in-Service	1,430,782,793	4/	10,750,408	5/	105,009,854	6/	0		1,546,543,055
4	PS-ED Generation Plant-in-Service	15,905,129	7/	0		1,166,774,278	L2-L3	533,467,055	L2-L3	1,716,146,462
5	PS-ED SSCD Plant-in-Service	16,816,728	8/							16,816,728
6	BPU-Regional Plant-in-Service	1,176,282								1,176,282
7	BPU-Zonal Plant-in-Service	7,720,718								7,720,718
8	Generation Plant to Total Plant	0.01056	L4/L2	0.00000	L4/L2	0.91743	L4/L2	1.00000	L4/L2	
9	Transmission Plant to Total Plant	0.94957	L3/L2	0.01318	L3/L2	0.08257	L3/L2	0.00000	L3/L2	
10	SSCD Plant to Total Plant	0.01116	L5/L2							
11	BPU-Regional Plant to Total Plant	0.00078	L6/L2							
12	BPU-Zonal Plant to Total Plant	0.00512	L7/L2							
13	PS Accumulated Depreciation	767,954,270	9/	408,789,968	10/	638,290,811	11/	370,738,383	12/	2,185,773,432
14	PS-ED Trans. Accumulated Depreciation	729,224,801	L13*L9	5,387,822	L13*L9	52,702,989	L13*L9	0	L13*L9	787,315,612
15	PS-ED Gen. Accumulated Depreciation	8,106,342	L13*L18	0		585,587,822	L9-L10	370,738,383	L13*L18	964,432,547
16	PS-ED SSCD Accumulated Depreciation	8,570,955	L13*L10							8,570,955
17	BPU-Regional Accumulated Depreciation	599,514	L13*L11							599,514
18	BPU-Zonal Accumulated Depreciation	3,935,006	L13*L12							3,935,006
19	PS-ED Net Transmission Plant	701,557,992	L3-L14	5,362,586	L3-L14	52,306,865	L3-L14	0	L3-L14	759,227,443
20	PS-ED Net Generation Plant	7,798,787	L4-L15	0	L4-L10	581,186,456	L4-L15	162,728,672	L4-L15	751,713,915
21	PS-ED Net SSCD Plant	8,245,773	L5-L16							8,245,773
22	Regional Net Plant	576,768	L6-L17							576,768
23	Base Plan Upgrade Net Plant	3,785,712	L7-L18							3,785,712
24	1/ Transmission Plant-in-Service Worksheet, C2L508									
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, C5L508									
28	5/ Transmission Plant-in-Service Worksheet, C5L498									
29	6/ Transmission Plant-in-Service Worksheet, C5L505									
30	7/ Transmission Plant-in-Service Worksheet, C4L507									
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/ Combined Financial Statements, Detail by Agency									
36										

WAPA-UGP 2021 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	35,606,174	1/	18,370,894	2/	16,257,165	3/	4,252,879	4/	74,487,112
39	PS-ED Transmission Depreciation 5/	33,810,483	L38*L9	242,127	L38*L9	1,342,337	L38*L9	0	L38*L9	35,394,947
40	PS-ED Generation Depreciation 6/	375,850	L38*L8	0	L38*L8	14,914,828	L38*L8	4,252,879	L38*L8	19,543,557
41	PS-ED SSCD Depreciation 7/	397,392	L38*L10							397,392
42	BPU-Regional Depreciation	27,796	L38*L11							27,796
43	BPU-Zonal Depreciation	182,446	L38*L12							182,446
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/ Combined Financial Statements, Detail by Agency									
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 2021 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	868,928,781	1/	362,568,804	1/	716,044,977	1/	213,871,288	1/	2,161,413,850	
57	Interest Expenses:										
58	FY Interest	44,132,105	2/	22,810,770	2/	22,074,580	2/	10,787,676	2/	99,805,131	
59	Average Interest Rate	5.079%	L58/L56	6.291%	L58/L56	3.083%	L58/L56	5.044%	L58/L56		
60	Transmission Plant Factor	0.9251	3/	0.0070	4/	0.0679	5/	0.0000	6/		
61	Weighted Trans. Composite Rate									4.952%	7/
62	Generation Plant Factor	0.0093	8/	0.0000	9/	0.6799	10/	0.3109	11/		
63	Weighted Gen. Composite Rate									3.711%	12/
64	1/ FY Historical Financial Data in Support of the Power Repayment Study for the P-SMBP, Schedules 21X and 21RX										
65	2/ Interest from Combined Financial Statements, Detail By Agency/Col M L53										
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											

WAPA-UGP 2021 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	16,768,396	12,140,120	0	0	28,908,516
80	PS-ED Est. Transmission A&G 4/	15,922,733	160,006	0	0	16,082,739
81	PS-ED Generation A&G 5/	177,003	0	0	0	177,003
82	PS-ED SSCD A&G 6/	187,148	0	0	0	187,148
83	BPU-Regional A&G	13,090	0	0	0	13,090
84	BPU-Zonal A&G	85,921	0	0	0	85,921
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 2021 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	77,620,000	46,417,099	48,758,210	43,122,110	215,917,419
96	Less:					
97	Other Power Supply Expenses					
98	A&G Expenses	16,768,396				16,768,396
99	Prior Year Adjustments					
100	Annual Reserve Sharing Group Cost	65,525				65,525
101	Plus:					
102	Moveable Property Interest	8,251,000				8,251,000
103	Warehouse Stores Interest					
104	Scheduling, System Control & Dispatch	10,377,638				10,377,638
105	PS Total O&M	69,037,079	46,417,099	48,758,210	43,122,110	207,334,498
106	PS-ED Transmission O&M 5/	65,555,401	611,774	4,025,913	0	70,193,088
107	PS-ED Generation O&M 6/	728,739	0	44,732,297	43,122,110	88,583,146
108	BPU-Regional O&M	53,895				53,895
109	BPU-Zonal O&M	353,747				353,747
110	1/ All Western-UGP O&M Expenses are from the FY UGPCSR - Pick-Sloan Missouri River Basin and UGPCSR - Ft. Peck Power System Budget					
111	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					
112	Stores Interest, which are from Schedule 5					
113	3/ Total Corps O&M Expenses are from the FY Corps of Engineers Financial Statements					
114	4/ Total BOR O&M Expenses are from the Combined Financial Statements					
115	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					
116	Net Plant Investment Worksheet					
117	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					
118	Net Plant Investment Worksheet					

WAPA-UGP 2021 Rate Estimate Calculation
 Worksheet 5 - Zonal SPP Upgrade Calculations
 12 Months Ending 09/30/2021 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	91,120	1.180%	46,441	\$4,175	2,153	\$1,014	4.952%	44,679	\$ 2,212	\$ 9,555	\$ (188)	\$ 9,367
2	Roberts County 115kV Substation, 71926	SUB	2,297,088	29.752%	1,170,753	\$105,248	54,282	\$25,564	4.952%	1,126,335	\$ 55,774	\$ 240,867	\$ (4,733)	\$ 236,134
3	Roberts County 115/69kV Transformer, 71927	SUB	5,332,510	69.068%	2,717,812	\$244,324	126,011	\$59,344	4.952%	2,614,698	\$ 129,475	\$ 559,154	\$ (10,988)	\$ 548,166
4														
5														
6														
7														
8														
9														
10														
11														
12														
13	Revenue Credit Total		(18,333)						86.78%				(15,909)	
14	Total		7,720,718	100%	3,935,006	353,747	182,446	85,921		3,785,712	187,461	809,576	(15,909)	793,667

WAPA-UGP 2021 Rate Estimate Calculation
 Worksheet 6 - Base Plan Upgrades-Regional
 12 Months Ending 09/30/2021 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	44,880	3.815%	22,874	\$2,056	1,061	\$499	4.952%	22,006	\$ 1,090	\$ 4,706	\$ (92)	\$ 4,614
2	Roberts County 115kV Substation, 71926	SUB	1,131,402	96.185%	576,640	\$51,838	26,736	\$12,591	4.952%	554,762	\$ 27,471	\$ 118,636	\$ (2,331)	\$ 116,305
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13	Revenue Credit Total		(18,333)						13.22%				(2,424)	
14	Total		1,176,282	100%	599,514	\$53,895	27,796	13,090		576,768	28,560	123,342	(2,424)	120,918

WAPA-UGP 2021 Rate Estimate Calculation Worksheet 7 - SPP Base Plan Upgrades-Facilities 12 Months Ending 09/30/2021 ESTIMATE								
2021 SPP ESTIMATE SUMMARY	FID	DESCRIPTION	PRIOR YEAR FACILITY TOTALS (\$)	FY2020-21 ESTIMATE ADD/REPL/RETIRE (\$)	BASE PLAN UPGRADES-REGIONAL	BASE PLAN UPGRADES-ZONAL	FY2021 EST SPP TOTALS (\$)	
		DATA SOURC						
	LC-RH	LEWIS - RICHLAND 115 kV Ckt 1, 72052 (SPP set Regional/Zonal Allocation to 33%/67%)	Engineering I	-	136,000	44,880	91,120	136,000
	RCO	ROBERTS COUNTY 115kV SUBSTATION, 71926 (SPP set Regional/Zonal Allocation to 33%/67%)		-	3,428,490	1,131,402	2,297,088	3,428,490
	RCO	ROBERTS COUNTY 115/69kV TRANSFORMER, 71927 (SPP set Regional/Zonal Allocation to 0%/100%)	Subtotal	-	5,332,510	0	5,332,510	5,332,510
		TOTAL	Subtotal	-	8,897,000	1,176,282	7,720,718	8,897,000
2020 SPP ESTIMATE DETAIL:	FID	DESCRIPTION	ADDITIONAL	FID COST DETAIL (\$)	REG %	REG TOTAL (\$)	ZONAL %	ZONAL TOTAL (\$)
	LC-RH	WOOD POLE		20,000	33%	6,600	67%	13,400
	LC-RH	CONDUCTOR		116,000	33%	38,280	67%	77,720
		LEWIS - RICHLAND 115kV Ckt 1, 72052 - SUBTOTAL (SPP directed Regional/Zonal Split of 33%/67%)		136,000		44,880		91,120
	RCO	115-kV BREAKERS	IDC	507,079	33%	167,336	67%	339,743
	RCO	115-kV SWITCHES	LAND & LANI	290,698	33%	95,930	67%	194,768
	RCO	115-kV INSTRUMENT TRANSFORMERS	LAND & LANI	102,695	33%	33,889	67%	68,806
	RCO	115-kV RELAYS AND PANELS	ANTENNA TC	409,927	33%	135,276	67%	274,651
	RCO	CONCRETE FOR 115-kV	IDC	476,416	33%	157,217	67%	319,199
	RCO	LAND FOR 115-kV	PLANT NOT C	1,641,675	33%	541,753	67%	1,099,922
		ROBERTS COUNTY 115kV SUBSTATION, 71926 - SUBTOTAL		3,428,490		1,131,402		2,297,088
	RCO	69-kV BREAKERS	PLANT NOT C	510,765	0%	0	100%	510,765
	RCO	69-kV SWITCHES	SEQUENTIAL	204,259	0%	0	100%	204,259
	RCO	69-kV INSTRUMENT TRANSFORMERS	LAND & LANI	34,175	0%	0	100%	34,175
	RCO	69-kV RELAYS AND PANELS	SERVICE BUIL	713,078	0%	0	100%	713,078
	RCO	115/69-kV TRANSFORMER	ROOFING	1,592,151	0%	0	100%	1,592,151
	RCO	CONCRETE FOR 69-kV	OIL STORAGE	674,578	0%	0	100%	674,578
	RCO	LAND FOR 69-kV	HEATING	1,603,504	0%	0	100%	1,603,504
		ROBERTS COUNTY 115/69kV TRANSFORMER, 71927 - SUBTOTAL		5,332,510	0%	0		5,332,510
		TOTAL SPP UPGRADES		8,897,000		1,176,282		7,720,718

WAPA-UGP 2021 Rate Estimate Calculation
 Worksheet 8 - Transmission Facilities
 12 Months Ending 09/30/2021 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 (\$)	FY2021 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	591,296	5,668,193	-	-	5,668,193
6	TL	BS JT 1	BISMARCK-JAMESTOWN NO. 1	9,317,120		9,317,120	-	-	9,317,120
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	2,564,429		2,564,429	-	-	2,564,429
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	CCRBEF	CHARLIE CREEK-BELFIELD	14,513,308		14,513,308	-	-	14,513,308
18	TL	CR DC	CIRCLE-DAWSON COUNTY 3/	2,417,703		2,417,703	-	-	2,417,703
19	TL	CONSH2	CONRAD-SHELBY #2	6,735,890		6,735,890	-	-	6,735,890
20	TL	CS MY	CRESTON-MARYVILLE	1,366,481		1,366,481	-	-	1,366,481
21	TL	DC MC	DAWSON COUNTY - MILES CITY	2,605,678		2,605,678	-	-	2,605,678
22	TL	DC GL	DAWSON-GLENDIVE	553,800		553,800	-	-	553,800
23	TL	DC MDR	DAWSON-MEDORA	3,464,064		3,464,064	-	-	3,464,064
24	TL	DC OF	DAWSON-O'FALLON CREEK	918,676		918,676	-	-	918,676
25	TL	DC WN	DAWSON-WILLISTON	1,258,900		1,258,900	-	-	1,258,900
26	TL	DN CS	DENISON-CRESTON	20,977,731		20,977,731	-	-	20,977,731
27	TL	DL CA	DEVILS LAKE-CARRINGTON	9,358,003		9,358,003	-	-	9,358,003
28	TL	DL LA	DEVILS LAKE-LAKOTA	1,872,142		1,872,142	-	-	1,872,142
29	TL	ED FO	EDGELEY-FORMAN	375,316	621,522	996,838	-	-	996,838
30	TL	ED GR	EDGELEY-GROTON	771,572		771,572	-	-	771,572
31	TL	ELCMA	ELK CREEK-NEWELL-MAURINE 115-kv T/L	60,704		60,704	-	-	60,704
32	TL	FA GK	FARGO-GRAND FORKS	2,369,098		2,369,098	-	-	2,369,098
33	TL	FA MO	FARGO-MORRIS	7,305,876	704,397	8,010,273	-	-	8,010,273
34	TL	FO SU D	FORMAN-SUMMIT (BISMARCK)	922,098		922,098	-	-	922,098
35	TL	FO SU C	FORMAN-SUMMIT (HURON)	4,465,037		4,465,037	-	-	4,465,037
36	TL	FP DC 1	FORT PECK-DAWSON 1	261,417		261,417	-	-	261,417
37	TL	FP DC 2	FORT PECK-DAWSON 2	8,301,710		8,301,710	-	-	8,301,710
38	TL	FP HV	FORT PECK-HAVRE	28,806,330		28,806,330	-	-	28,806,330
39	TL	FP WH	FORT PECK-WHATELY	157,876		157,876	-	-	157,876
40	TL	FP WN	FORT PECK-WILLISTON	13,298,531		13,298,531	-	-	13,298,531
41	TL	FP WP 2	FORT PECK-WOLF POINT #2	7,554,492		7,554,492	-	-	7,554,492
42	TL	FR FT D	FORT RANDALL-FORT THOMPSON 1&2	7,782,247		7,782,247	-	-	7,782,247
43	TL	FR GP	FORT RANDALL-GAVIN'S POINT	2,319,939		2,319,939	-	-	2,319,939
44	TL	FR GY	FORT RANDALL-GREGORY	777,327		777,327	-	-	777,327
45	TL	FR MV	FORT RANDALL-MT VERNON	1,308,562		1,308,562	-	-	1,308,562
46	TL	FR ON	FORT RANDALL-O'NEILL	679,540		679,540	-	-	679,540

47	TL	FR SC D	FORT RANDALL-SIOUX CITY 1&2	11,019,006		11,019,006	-	-	11,019,006
48	TL	FT GI	FORT THOMPSON-GRAND ISLAND	17,876,166		17,876,166	-	-	17,876,166
49	TL	FT HU D	FORT THOMPSON-HURON 230-KV 1&2	6,788,951	640,072	7,429,023	-	-	7,429,023
50	TL	FT SF D	FORT THOMPSON-SIOUX FALLS 1&2	10,455,917		10,455,917	-	-	10,455,917
51	TL	GA BS D	GARRISON-BISMARCK 230KV 1&2	10,713,977		10,713,977	-	-	10,713,977
52	TL	GA JT	GARRISON-JAMESTOWN	5,097,353		5,097,353	-	-	5,097,353
53	TL	GA ML	GARRISON-MALLARD	1,948,079		1,948,079	-	-	1,948,079
54	TL	GA WJ	GARRISON-WM. J. NEAL	1,521,174		1,521,174	-	-	1,521,174
55	TL	GP BN	GAVINS POINT-BELDEN	455,727		455,727	-	-	455,727
56	TL	GP SF	GAVINS POINT-SIOUX FALLS	3,361,449		3,361,449	-	-	3,361,449
57	TL	GF MO	GRANITE FALLS- MORRIS	3,279,089		3,279,089	-	-	3,279,089
58	TL	GF MNV	GRANITE FALLS-MINNESOTA VALLEY	156,778		156,778	-	-	156,778
59	TL	GTFCO	GREAT FALLS-CONRAD	12,744,945		12,744,945	-	-	12,744,945
60	TL	GY MS	GREGORY-MISSION	10,110,752		10,110,752	-	-	10,110,752
61	TL	GR HU	GROTON-HURON	1,270,645		1,270,645	-	-	1,270,645
62	TL	GR SU	GROTON-SUMMIT	3,255,847		3,255,847	-	-	3,255,847
63	TL	HV RB	HAVRE-RAINBOW	8,681,332		8,681,332	-	-	8,681,332
64	TL	HV SH2	HAVRE-SHELBY#2	5,561,905		5,561,905	-	-	5,561,905
65	TL	HE DV	HESKETT-DEVAUL	6,450,033		6,450,033	-	-	6,450,033
66	TL	HETNU	HETTINGER-NEW UNDERWOOD	11,263,708		11,263,708	-	-	11,263,708
67	TL	HU MV	HURON-MT VERNON	617,623		617,623	-	-	617,623
68	TL	HU WT D	HURON-WATERTOWN 230KV 1&3	6,319,622		6,319,622	-	-	6,319,622
69	TL	JT ED	JAMESTOWN-EDGELEY	1,189,520		1,189,520	-	-	1,189,520
70	TL	JT FA 1	JAMESTOWN-FARGO NO. 1	4,941,649		4,941,649	-	-	4,941,649
71	TL	JT FA 2	JAMESTOWN-FARGO NO. 2	3,155,850		3,155,850	-	-	3,155,850
72	TL	JT GK	JAMESTOWN-GRAND FORKS	28,856,299		28,856,299	-	-	28,856,299
73	TL	JT VC	JAMESTOWN-VALLEY CITY	1,055,414		1,055,414	-	-	1,055,414
74	TL	KD CCR	KILLDEER-CHARLIE CREEK 4/	-	3,628,323	3,628,323	-	-	3,628,323
75	TL	LE DL	LEEDS-DEVILS LAKE	8,982,948		8,982,948	-	-	8,982,948
76	TL	LE RL	LEEDS-ROLLA	6,738,649		6,738,649	-	-	6,738,649
77	TL		LEWIS & CLARK-RICHLAND 2/		136,000	136,000	-	-	-
78	TL	ML RG	MALLARD-RUGBY	1,089,083		1,089,083	-	-	1,089,083
79	TL	MR MS	MARTIN-MISSION	1,816,904		1,816,904	-	-	1,816,904
80	TL	MR PL	MARTIN-PHILIP	1,790,108		1,790,108	-	-	1,790,108
81	TL	MA RC	MAURINE-RAPID CITY	6,346,265		6,346,265	-	-	6,346,265
82	TL	MC BK	MILES CITY-BAKER	10,569,338		10,569,338	-	-	10,569,338
83	TL	MC CU	MILES CITY-CUSTER	3,750,704		3,750,704	-	-	3,750,704
84	TL	NU PL	NEW UNDERWOOD-PHILIP	2,915,316		2,915,316	-	-	2,915,316
85	TL	NU RC 1	NEW UNDERWOOD-RAPID CITY NO. 1	1,132,486		1,132,486	-	-	1,132,486
86	TL	NU RC 2	NEW UNDERWOOD-RAPID CITY NO. 2	309,991		309,991	-	-	309,991
87	TL	NU SG C	NEW UNDERWOOD-STEGALL (HURON)	2,651,860		2,651,860	-	-	2,651,860
88	TL	OA FT N	OAHE-FORT THOMPSON 230KV 1&2	3,973,416		3,973,416	-	-	3,973,416
89	TL	OA FT S	OAHE-FORT THOMPSON 230KV 3&4	5,563,296		5,563,296	-	-	5,563,296
90	TL	OA GH	OAHE-GLENHAM	5,949,648		5,949,648	-	-	5,949,648
91	TL	OA MA	OAHE-MAURINE	1,967,901		1,967,901	-	-	1,967,901
92	TL	OA NU	OAHE-NEW UNDERWOOD	6,683,770		6,683,770	-	-	6,683,770
93	TL	OA PI	OAHE-PIERRE	388,816		388,816	-	-	388,816
94	TL	OF MC	O'FALLON CREEK-MILES CITY	2,488,318		2,488,318	-	-	2,488,318
95	TL	PI PL	PIERRE-PHILIP	2,140,436		2,140,436	-	-	2,140,436
96	TL	RC DRY	RAPID CITY-DRY CREEK	9,269,194		9,269,194	-	-	9,269,194
97	TL	ELCRC	RAPID CITY-ELK CREEK 115-KV T/L	52,064		52,064	-	-	52,064
98	TL	RG LE	RUGBY-LEEDS	2,235,655		2,235,655	-	-	2,235,655
99	TL	SH SH2	SHELBY-SHELBY #2	576,090		576,090	(576,090)	-	(0)
100	TL	SC DN	SIOUX CITY-DENISON	9,038,247	2,783,468	11,821,715	-	-	11,821,715

101	TL	SC SP	SIOUX CITY-SPENCER	1,938,353		1,938,353	-	-	1,938,353
102	TL	SC SF	SIOUX FALLS- SIOUX CITY	3,217,192		3,217,192	-	-	3,217,192
103	TL	SF VFO	SIOUX FALLS-VIRGIL FODNESS 230KV T-LINE	277,897		277,897	-	-	277,897
104	TL	SU WT	SUMMIT-WATERTOWN	6,743,203		6,743,203	-	-	6,743,203
105	TL	TT TI	TIBER TAP-TIBER	1,084,858		1,084,858	-	-	1,084,858
106	TL	UJ SF	UTICA JCT-SIOUX FALLS	3,485,236		3,485,236	-	-	3,485,236
107	TL	VC FO	VALLEY CITY-FORMAN	2,428,606		2,428,606	-	-	2,428,606
108	TL	VR GTF	VERONA GREAT FALLS 161-KV LINE	5,110,115		5,110,115	-	-	5,110,115
109	TL	UJ VFO	VIRGIL FODNESS-UTICA JUNCTION-FT RANDALL/F	312,931		312,931	-	-	312,931
110	TL	WT GF D	WATERTOWN-GRANITE FALLS 1&2	7,488,154		7,488,154	-	-	7,488,154
111	TL	WT SC	WATERTOWN-SIOUX CITY	26,924,889		26,924,889	-	-	26,924,889
112	TL	WC BU	WATFORD CITY-BEULAH	349,954		349,954	-	-	349,954
113	TL	WN WC	WILLISTON-WATFORD CITY	17,627,868		17,627,868	-	-	17,627,868
114	TL	WP CR	WOLF POINT-CIRCLE	11,035,514		11,035,514	-	-	11,035,514
115	TL	WJ RG	WM. J. NEAL-RUGBY	4,629,316		4,629,316	-	-	4,629,316
116	TL	YT CU	YELLOWTAIL-CUSTER	2,265,163		2,265,163	-	-	2,265,163
117	TL Total		TRANSMISSION LINES	583,030,189	9,105,078	592,135,267	(576,090)	-	591,423,177
118	SUB	AN	ANITA	6,259		6,259	-	-	6,259
119	SUB	APD	APPELDORN SUBSTATION	5,878,984		5,878,984	-	-	5,878,984
120	SUB	AR	ARMOUR SUBSTATION	2,318,295		2,318,295	(800,024)	-	1,518,271
121	SUB	AHS	ASH SUBSTATION	63,325		63,325	-	-	63,325
122	SUB	AB	ASSINNIBOINE	35,005		35,005	(35,005)	-	(0)
123	SUB	AUR	AURORA SUBSTATION	2,899,881		2,899,881	(124,344)	-	2,775,537
124	SUB	BK	BAKER	279,691		279,691	-	-	279,691
125	SUB	BN	BELDEN SUBSTATION	298,522		298,522	-	-	298,522
126	SUB	BEF	BELFIELD SUBSTATION	13,779,308		13,779,308	(163,836)	-	13,615,472
127	SUB	BE	BERESFORD SUBSTATION	4,771,588		4,771,588	(231,321)	-	4,540,267
128	SUB	BB	BISBEE SUBSTATION	272,529		272,529	(218,122)	-	54,407
129	SUB	BS	BISMARCK SUBSTATION	17,834,753		17,834,753	(187,218)	-	17,647,535
130	SUB	BI	BISON	12,472		12,472	-	-	12,472
131	SUB	BOL	BOLE SUB	2,997,082		2,997,082	(630,455)	-	2,366,627
132	SUB	BO	BONESTEEL SUBSTATION	3,398,446		3,398,446	(1,226,623)	-	2,171,823
133	SUB	BR	BROOKINGS SUBSTATION	4,460,377	12,445,000	16,905,377	-	-	16,905,377
134	SUB	CB	CAMPBELL COUNTY SWITCHING STATION /1	-		-	-	-	-
135	SUB	CF	CANYON FERRY	45,210		45,210	-	-	45,210
136	SUB	CRP	CARPENTER SUBSTATION	2,463,312		2,463,312	-	-	2,463,312
137	SUB	CA	CARRINGTON SUBSTATION	3,824,594		3,824,594	(1,007,873)	-	2,816,721
138	SUB	CCR	CHARLIE CREEK	1,376,076		1,376,076	-	-	1,376,076
139	SUB	CR	CIRCLE SUBSTATION	9,139,054		9,139,054	(2,140,670)	-	6,998,384
140	SUB	CON	CONRAD SUB	5,416,038		5,416,038	(315,045)	-	5,100,993
141	SUB	CS	CRESTON SUBSTATION	8,453,084		8,453,084	-	-	8,453,084
142	SUB	CRO	CROSSOVER SUB	12,152,103		12,152,103	-	-	12,152,103
143	SUB	CQE	CULBERTSON EAST SWITCHING STATION	2,390,851		2,390,851	-	-	2,390,851
144	SUB	CU	CUSTER SUBSTATION	4,678,069		4,678,069	(346,142)	-	4,331,927
145	SUB	CT	CUSTER TRAIL SUBSTATION	1,583,038		1,583,038	(1,484,722)	-	98,316
146	SUB	DC	DAWSON COUNTY SUBSTATION	10,478,271		10,478,271	(2,305)	-	10,475,966
147	SUB	DNT	DENBIGH TAP	848,872		848,872	(109,673)	-	739,199
148	SUB	DN	DENISON SUBSTATION	16,188,021		16,188,021	(183,385)	-	16,004,636
149	SUB	DV	DEVAUL SUBSTATION	1,602,554		1,602,554	(1,602,554)	-	0
150	SUB	DL	DEVILS LAKE SUBSTATION	2,918,979		2,918,979	(81,504)	-	2,837,475
151	SUB	DK	DICKINSON	23,704		23,704	-	-	23,704
152	SUB	EJ	E. J. MANNING	49,112		49,112	-	-	49,112
153	SUB	EA	EAGLE	66,108		66,108	-	-	66,108
154	SUB	EB	EAGLE BUTTE SUBSTATION	1,347,433	2,929,000	4,276,433	(351,323)	-	3,925,110

155	SUB	ED	EDGELEY SUBSTATION	6,791,632		6,791,632	(1,197,122)	-	5,594,510
156	SUB	ELC	ELK CREEK SUBSTATION	2,099,907		2,099,907	(17,147)	-	2,082,760
157	SUB	EL	ELLEDALE SUBSTATION	579		579	(579)	-	0
158	SUB	ELI	ELLIOTT SWITCHING STATION	3,507,129		3,507,129	(41,652)	-	3,465,477
159	SUB	END	ENDERLIN TAP STATION	749,768		749,768	(247,423)	-	502,345
160	SUB	EXI	EXIRA SWITCHING STATION	5,508,746		5,508,746	(164,229)	-	5,344,517
161	SUB	FVW	FAIRVIEW WEST SWITCHING STATION	4,296,873		4,296,873	-	-	4,296,873
162	SUB	FH	FAITH SUBSTATION	1,235,034		1,235,034	(572,275)	-	662,759
163	SUB	FA	FARGO SUBSTATION	27,616,496		27,616,496	-	-	27,616,496
164	SUB	FL	FLANDREAU SUBSTATION	4,266,040		4,266,040	(40,435)	-	4,225,605
165	SUB	FO	FORMAN SUBSTATION	7,438,835		7,438,835	(1,030,790)	-	6,408,045
166	SUB	FR	FORT RANDALL	253,710		253,710	-	-	253,710
167	SUB	FT2	FORT THOMPSON #2	10,808,617	2,102,514	12,911,131	-	-	12,911,131
168	SUB	FT	FORT THOMPSON SUBSTATION	17,933,245		17,933,245	(163,144)	-	17,770,101
169	SUB	GL	GLENDIVE SUBSTATION	1,725,310		1,725,310	-	-	1,725,310
170	SUB	GK	GRAND FORKS SUBSTATION	10,557,730	2,444,000	13,001,730	-	-	13,001,730
171	SUB	GI	GRAND ISLAND SUBSTATION	17,411,531		17,411,531	-	-	17,411,531
172	SUB	GRP	GRAND PRAIRIE SUBSTATION /1	12,220,371		12,220,371	-	-	12,220,371
173	SUB	GF	GRANITE FALLS SUBSTATION	23,855,781		23,855,781	(2,224,203)	-	21,631,578
174	SUB	GTF	GREAT FALLS SUB	8,439,044		8,439,044	-	-	8,439,044
175	SUB	GY	GREGORY SUBSTATION	1,522,398		1,522,398	(43,752)	-	1,478,646
176	SUB	GR	GROTON SUBSTATION	6,180,011	-	6,180,011	(326,877)	-	5,853,134
177	SUB	GSO	GROTON SOUTH SUBSTATION	8,552,324		8,552,324	-	-	8,552,324
178	SUB	HA	HARLEM	98,534		98,534	-	-	98,534
179	SUB	HV	HAVRE SUBSTATION	11,862,454		11,862,454	(62,475)	-	11,799,979
180	SUB	HBN	HEBRON SUBSTATION /1	-		-	-	-	-
181	SUB	HET	HETTINGER	10,832		10,832	-	-	10,832
182	SUB	HLK	HILKEN SUBSTATION	3,894,020		3,894,020	(143,716)	-	3,750,304
183	SUB	HU	HURON SUBSTATION	11,727,891		11,727,891	(320,531)	-	11,407,360
184	SUB	JT	JAMESTOWN SUBSTATION	23,673,902	2,324,587	25,998,489	(4,162,261)	-	21,836,228
185	SUB	KD	KILLDEER SUBSTATION	7,092,854		7,092,854	(1,180,480)	-	5,912,374
186	SUB	LA	LAKOTA SUBSTATION	2,837,121		2,837,121	(1,307,837)	-	1,529,284
187	SUB	LE	LEEDS SUBSTATION	3,943,917		3,943,917	(158,722)	-	3,785,195
188	SUB	LET	LETCHER SUBSTATION	11,108,748		11,108,748	-	-	11,108,748
189	SUB	ML	MALLARD	29,969		29,969	-	-	29,969
190	SUB	MT	MALTA	340,848		340,848	-	-	340,848
191	SUB	MDN	MANDAN SUBSTATION	19,476		19,476	-	-	19,476
192	SUB	MR	MARTIN SUBSTATION	1,829,481	4,142,000	5,971,481	(557,455)	-	5,414,026
193	SUB	MA	MAURINE SUBSTATION	8,607,538		8,607,538	(593,801)	-	8,013,737

194	SUB	MD	MIDLAND SUBSTATION	889,967		889,967	(154,097)	-	735,870
195	SUB	MC2	MILES CITY SUB #2	6,839,121		6,839,121	-	-	6,839,121
196	SUB	MC3	MILES CITY SUB #3	1,895,702		1,895,702	-	-	1,895,702
197	SUB	MC	MILES CITY SUBSTATION	1,202,099		1,202,099	-	-	1,202,099
198	SUB	MGV	MINGUSVILLE	5,351,152		5,351,152	-	-	5,351,152
199	SUB	MS	MISSION SUBSTATION	3,473,710		3,473,710	(586,992)	-	2,886,718
200	SUB	MO	MORRIS SUBSTATION	7,446,005		7,446,005	(1,095,435)	-	6,350,570
201	SUB	MV	MT VERNON SUBSTATION	2,030,824	2,204,326	4,235,150	(139,236)	-	4,095,914
202	SUB	NA	NASHUA SUB	72,368		72,368	(72,368)	-	(0)
203	SUB	NEL	NELSON SUBSTATION	1,944,817		1,944,817	(33,744)	-	1,911,073
204	SUB	NU	NEW UNDERWOOD SUBSTATION	18,333,139		18,333,139	-	-	18,333,139
205	SUB	NL	NEWELL SUBSTATION	4,116,914		4,116,914	(287,497)	-	3,829,417
206	SUB	OF	O'FALLON CREEK SUBSTATION	3,242,234		3,242,234	(58,595)	-	3,183,639
207	SUB	ON	O'NEILL SUB (NPP)	180,660		180,660	-	-	180,660
208	SUB	PET	PENN TAP	890,607		890,607	(108,485)	-	782,122
209	SUB	PL	PHILIP SUBSTATION	2,037,148		2,037,148	(209,290)	-	1,827,858
210	SUB	PI	PIERRE SUBSTATION	4,347,185		4,347,185	(699,890)	-	3,647,295
211	SUB	PLL	PLEASANT LAKE TAP	992,415		992,415	(101,191)	-	891,224
212	SUB	RB	RAINBOW SUBSTATION	250,629		250,629	(250,629)	-	(0)
213	SUB	RC	RAPID CITY SUBSTATION	5,739,051		5,739,051	(556,793)	-	5,182,258
214	SUB	RH	RICHLAND SUBSTATION	1,733,528		1,733,528	(1,733,528)	-	(0)
215	SUB	RCO	ROBERTS COUNTY SUBSTATION 2/	-	8,761,000	8,761,000	-	-	(8,761,000)
216	SUB	RL	ROLLA SUBSTATION	623,513		623,513	-	-	623,513
217	SUB	RY	RUDYARD SUBSTATION	3,160,305		3,160,305	(1,380,449)	-	1,779,856
218	SUB	RG	RUGBY SUBSTATION	8,727,498		8,727,498	(570,712)	-	8,156,786
219	SUB	SA	SAVAGE SUB	74,403		74,403	-	-	74,403
220	SUB	SH	SHELBY SUBSTATION	861,699		861,699	(861,699)	-	0
221	SUB	SH2	SHELBY SUBSTATION #2	5,557,388	1,760,000	7,317,388	(169,696)	-	7,147,692
222	SUB	SL	SHIRLEY TAP	22,102		22,102	-	-	22,102
223	SUB	SC2	SIOUX CITY #2	13,019,488		13,019,488	-	-	13,019,488
224	SUB	SC	SIOUX CITY SUBSTATION	16,760,099		16,760,099	-	-	16,760,099
225	SUB	SF	SIOUX FALLS SUBSTATION	14,898,451		14,898,451	(516,513)	-	14,381,938
226	SUB	SP	SPENCER	8,022,741		8,022,741	(245,264)	-	7,777,477
227	SUB	SNY	STANLEY	49,735		49,735	-	-	49,735
228	SUB	SB	SULLY BUTTES	74,428		74,428	-	-	74,428
229	SUB	SU	SUMMIT SUBSTATION	2,851,689		2,851,689	(373,848)	-	2,477,841
230	SUB	TR	TERRY TAP	606,044		606,044	(103,121)	-	502,923
231	SUB	TT	TIBER TAP	166,306		166,306	-	-	166,306
232	SUB	TN	TOWNER SUBSTATION	5,204,626		5,204,626	-	-	5,204,626
233	SUB	TY	TYNDALL SUBSTATION	937,621		937,621	(125,594)	-	812,027
234	SUB	UJ	UTICA JCT.	12,974,150		12,974,150	-	-	12,974,150
235	SUB	VH	V. T. HANLON	12,197,585		12,197,585	-	-	12,197,585
236	SUB	VC	VALLEY CITY SUBSTATION	6,819,468		6,819,468	(176,541)	-	6,642,927
237	SUB	VR	VERONA	108,751		108,751	-	-	108,751
238	SUB	VE	VETAL TAP	232,375		232,375	-	-	232,375
239	SUB	VFO	VIRGIL FODNESS SUBSTATION	3,206,763		3,206,763	-	-	3,206,763
240	SUB	WL	WALL SUBSTATION	1,571,437		1,571,437	(654,299)	-	917,138
241	SUB	WNB	WANBLEE TAP 5/	-		-	-	-	-
242	SUB	WDD	WARD SUBSTATION	3,453,847		3,453,847	(45,361)	-	3,408,486
243	SUB	WB	WASHBURN SUBSTATION	2,072,439		2,072,439	(938,020)	-	1,134,419
244	SUB	WT2	WATERTOWN #2	3,223,563		3,223,563	-	-	3,223,563

245	SUB	WTS	WATERTOWN STATIC VAR SYSTEM	11,778,775		11,778,775	-	-	11,778,775	
246	SUB	WT	WATERTOWN SUBSTATION	16,150,539	1,156,827	17,307,366	-	-	17,307,366	
247	SUB	WC	WATFORD CITY SUB	7,600,294		7,600,294	(108,365)	-	7,491,929	
248	SUB	WSG	WESSINGTON SPRINGS SUBSTATION	5,141,440		5,141,440	(181,849)	-	4,959,591	
249	SUB	WH2	WHATELY (NORTHERN)	40,860		40,860	-	-	40,860	
250	SUB	WH	WHATELY SUBSTATION	109,910		109,910	(54,083)	-	55,827	
251	SUB	WHT	WHITE 345/115 SUB	11,235,762		11,235,762	-	-	11,235,762	
252	SUB	WV	WICKSVILLE SUBSTATION	831,304		831,304	(250,593)	-	580,711	
253	SUB	WN2	WILLISTON 2 SUBSTATION	15,594,604		15,594,604	-	-	15,594,604	
254	SUB	WN	WILLISTON SUBSTATION	8,198,987		8,198,987	(97,320)	-	8,101,667	
255	SUB	WI	WINNER SUBSTATION	3,234,614		3,234,614	(101,869)	-	3,132,745	
256	SUB	WJ	WM. J. NEAL	183,222		183,222	-	-	183,222	
257	SUB	WP	WOLF POINT SUBSTATION	7,279,212		7,279,212	(1,346,899)	-	5,932,313	
258	SUB	WO	WOONSOCKET SUBSTATION	2,775,992		2,775,992	(1,579,680)	-	1,196,312	
259	SUB	YJ	YANKTON JCT.	76,396		76,396	-	-	76,396	
260	SUB	YA	YANKTON SUBSTATION	2,935		2,935	-	-	2,935	
261	SUB Total		SUBSTATIONS	705,122,335	40,269,254	745,391,589	(41,768,595)	-	(8,761,000)	694,861,994
262	O&M	ARC	ARMOUR O&M SER. CEN.	3,488,667		3,488,667	-	-	3,488,667	
263	O&M	BSM	BISMARCK O&M SER. CEN.	9,917,899	2,309,980	12,227,879	-	-	12,227,879	
264	O&M	DCF	DAWSON SER. CEN.	6,853,289		6,853,289	-	-	6,853,289	
265	O&M	DLM	DEVILS LAKE O&M SER. CEN.	3,852,064		3,852,064	-	-	3,852,064	
266	O&M	FAO	FARGO LINE MAINTENANCE FACILITY	2,104,871		2,104,871	-	-	2,104,871	
267	O&M	FAM	FARGO O&M SER. CEN.	794,673		794,673	-	-	794,673	
268	O&M	FPM	FORT PECK SER. CEN.	8,407,259		8,407,259	-	-	8,407,259	
269	O&M	FTM	FORT THOMPSON O&M S. C.	2,209,623		2,209,623	-	-	2,209,623	
270	O&M	HVM	HAVRE SERVICE CENTER	493,999		493,999	-	-	493,999	
271	O&M	HUM	HURON O&M SER. CEN.	2,709,639		2,709,639	-	-	2,709,639	
272	O&M	JTM	JAMESTOWN O&M SER. CEN.	3,874,657		3,874,657	-	-	3,874,657	
273	O&M	MCM	MILES CITY MTCE FAC.	1,025,254		1,025,254	-	-	1,025,254	
274	O&M	NUM	NEW UNDERWOOD SER. CEN.	96,884		96,884	-	-	96,884	
275	O&M	PLM	PHILIP O&M SER. CENT.	1,736,226		1,736,226	-	-	1,736,226	
276	O&M	PIM	PIERRE O&M SER. CEN.	1,051,383		1,051,383	-	-	1,051,383	
277	O&M	RCM	RAPID CITY GARAGE & STOR.	2,221,967		2,221,967	-	-	2,221,967	
278	O&M	SCM	SIOUX CITY O&M SER. CEN.	7,099,422		7,099,422	-	-	7,099,422	
279	O&M	SFC	SIOUX FALLS O&M SER. CEN.	239,920		239,920	-	-	239,920	
280	O&M	WTM	WATERTOWN MAINT. CEN.	7,452,151		7,452,151	-	-	7,452,151	
281	O&M Total		O&M SERVICE & MAINT. CENTERS	65,629,846	2,309,980	67,939,826	-	-	67,939,826	
282	OPS	WAO	WATERTOWN ALTERNATE OPERATIONS CENTER	6,006,058		6,006,058	-	-	6,006,058	
283	OPS	WTO	WATERTOWN OPERATIONS CENT	1,549,110		1,549,110	-	(265,348)	1,283,763	
284	OPS	WTO F	WATERTOWN OPER CTR (BFPS)	12,069,072		12,069,072	-	(1,190,999)	10,878,073	
285	OPS Total		OPERATION CENTERS	19,624,240	-	19,624,240	-	(1,456,346)	18,167,894	

286	MOB	MOBW2	MOB 115KV SWITCH TRAILER	69,741	69,741	-	-	69,741
287	MOB	MOBT13	MOB TRANSF 111KV 15MVA	213,000	213,000	-	-	213,000
288	MOB	MOBT2	MOB TRANSF 115KV 10MVA	218,493	218,493	-	-	218,493
289	MOB	MOBT12	MOB TRANSF 115KV 25MVA	814,665	814,665	-	-	814,665
290	MOB	MOBT4	MOB TRANSF 115KV 40MVA	526,201	526,201	-	-	526,201
291	MOB	MOBT6	MOB TRANSF 230KV 1-33MVA	170,278	170,278	-	-	170,278
292	MOB	MOBB2	MOBILE BY PASS KIT (BISMARCK)	35,071	35,071	-	-	35,071
293	MOB	MOBB1	MOBILE BY PASS KIT (HURON)	163,695	163,695	-	-	163,695
294	MOB	MOBC4	MOBILE CAPACITOR BANK	19,075	19,075	-	-	19,075
295	MOB	MOBS6	MOBILE SUB 110KV	127,144	127,144	-	-	127,144
296	MOB	MOBS9	MOBILE SUB 115KV 20MVA	404,166	404,166	-	-	404,166
297	MOB	MOBS10	MOBILE SUB 115/41.8KV	-	1,615,988	1,615,988	(1,615,988)	-
298	MOB	MOBS7	MOBILE SUB 41.8 KV	192,498	192,498	(192,498)	-	0
299	MOB	MOBS5	MOBILE SUB 69KV	71,118	71,118	-	-	71,118
300	MOB	MOBR2	MOB SH.REACTOR	179,328	179,328	-	-	179,328
301	MOB Total	MOBILE EQUIPMENT		3,204,472	1,615,988	4,820,460	(1,808,486)	3,011,974
302	GEN	BG FT L	BIG BEND-FORT THOMPSON (LOW VOLTAGE)	81,944	81,944	-	(81,944)	-
303	GEN	FP	FORT PECK POWERPLANT (COE)	64,611	64,611	-	(64,611)	0
304	GEN	FT BG 1	FORT THOMPSON-BIG BEND NO. 1	922,164	922,164	-	-	922,164
305	GEN	FT BG 2	FORT THOMPSON-BIG BEND NO. 2	690,735	690,735	-	-	690,735
306	GEN Total	TRANSMISSION-RELATED GEN. FACILITIES		1,759,454	-	1,759,454	(146,555)	1,612,899
307	COM	ATC	ATLANTIC COMMUNICATION SITE	17,199	17,199	-	(5,495)	11,704
308	COM	BK2	BAKER RELAY	264,163	264,163	-	(84,400)	179,763
309	COM	BTY	BANTRY	423,147	423,147	-	(135,195)	287,952
310	COM	BAE	BARRETT	99,835	99,835	-	(31,897)	67,937
311	COM	BMW	BATTLE MT. MICROWAVE	324,151	324,151	-	(103,566)	220,585
312	COM	BPR	BELLE PRAIRIE	273,290	273,290	-	(87,316)	185,974
313	COM	BET	BENEDICT	196,601	196,601	-	(62,814)	133,787
314	COM	BU	BEULAH	10,679	10,679	-	(3,412)	7,267
315	COM	BG	BIG BEND	113,362	113,362	-	(36,219)	77,143
316	COM	BJR	BIJOU REPEATER	568,562	568,562	-	(181,655)	386,906
317	COM	BAO	BILLINGS AREA OFFICE	158,946	158,946	-	(136,495)	22,451
318	COM	BSR	BISMARCK REPEATER	412,803	412,803	-	(131,891)	280,913
319	COM	BIR	BISON REPEATER	227,955	227,955	-	(72,832)	155,124
320	COM	BON	BOLE NORTH REPEATER	149,228	149,228	-	(47,678)	101,550
321	COM	BRI	BRINSMAD	147,129	147,129	-	(47,008)	100,121
322	COM	BSL	BRISTOL	11,441	11,441	-	(3,655)	7,786
323	COM	BRV	BRUNSVILLE REPEATER	92,595	92,595	-	(29,584)	63,011
324	COM	BFF	BUFFALO	107,342	107,342	-	(34,296)	73,046
325	COM	CAH	CAHOON	212,380	212,380	-	(67,855)	144,525
326	COM	CAZ	CARRINGTON REPEATER	709,735	709,735	-	(226,760)	482,975
327	COM	CHK	CHARTER OAK REPEATER	15,667	15,667	-	(5,006)	10,661
328	COM	CHI F	CHINOOK (BEFP)	284,048	284,048	-	(90,753)	193,295
329	COM	CHR	CHINOOK REPEATER	31,664	31,664	-	(10,117)	21,547
330	COM	CKR	CLARK MW REPEATER	735,399	735,399	-	(234,960)	500,439
331	COM	CLV	CLEVELAND REPEATER, N.D.	66,872	66,872	-	(21,366)	45,507
332	COM	CMR	COLEMAN REPEATER	105,281	105,281	-	(33,637)	71,644
333	COM	CME	COLOME REPEATER	293,101	293,101	-	(93,646)	199,455
334	COM	CBR	CONRAD BUTTE REPEATER	887,627	887,627	-	(283,597)	604,030
335	COM	CNN	COTTON	1,399	1,399	-	(447)	952
336	COM	CSR	CRESTON REPEATER	11,107	11,107	-	(3,549)	7,558
337	COM	CLR	CROW LAKE REPEATER	251,029	251,029	-	(80,204)	170,825
338	COM	CBT	CROWN BUTTE	52,565	52,565	-	(16,795)	35,770
339	COM	CRR	CULBERTSON RADIO RELAY SITE	1,926	1,926	-	(615)	1,311

340	COM	CQR	CULBERSTON REPEATER	20,986	20,986	-	(6,705)	14,281
341	COM	CUL	CUSTER LOOKOUT	97,845	97,845	-	(31,262)	66,584
342	COM	DAL	DALTON (WES)	63,660	63,660	-	(20,339)	43,321
343	COM	DLC	DEVILS LAKE FIBER REGEN	273,047	273,047	-	(87,239)	185,809
344	COM	DLZ	DEVILS LAKE REPEATER	535,244	535,244	-	(171,010)	364,234
345	COM	DOD	DODSON REPEATER	882,795	882,795	-	(282,053)	600,742
346	COM	DO	DOGDEN BUTTE	417,939	417,939	-	(133,531)	284,407
347	COM	DRS	DRISCOLL	79,113	79,113	-	(25,277)	53,837
348	COM	DU	DUPREE REPEATER	1,821	1,821	-	(582)	1,239
349	COM	DUT	DUTTON REPEATER (BEFP)	91,561	91,561	-	(29,254)	62,307
350	COM	ERB	EAST RAINY BUTTE	164,501	164,501	-	(52,558)	111,943
351	COM	ECK	ECKELSON	231,893	231,893	-	(74,090)	157,803
352	COM	EKR	ELKTON	208,139	208,139	-	(66,501)	141,639
353	COM	ELZ	ELLENDALE REPEATER	839,614	839,614	-	(268,257)	571,357
354	COM	EWA	ELLSWORTH AIR BASE	229,647	229,647	-	(73,372)	156,275
355	COM	ERH	ERHARD	99,569	99,569	-	(31,812)	67,757
356	COM	EX	EXIRA REPEATER	2,527	2,527	-	(807)	1,720
357	COM	FB	F. L. BLAIR	76,407	76,407	-	(24,412)	51,995
358	COM	FAP	FAIRPOINT REPEATER	206,550	206,550	-	(65,993)	140,557
359	COM	FNR	FALLON REPEATER	230,735	230,735	-	(73,720)	157,015
360	COM	FAC	FARGO MICROWAVE	109,866	109,866	-	(35,102)	74,764
361	COM	FCS	FERGUS FALLS COMMUNICATIONS SITE	513,516	513,516	-	(164,068)	349,448
362	COM	FLW	FLOWING WELLS	68,763	68,763	-	(21,970)	46,793
363	COM	FBS	FORBES COMMUNICATION SITE	70,575	70,575	-	(22,549)	48,026
364	COM	FTH	FORSYTH	149,663	149,663	-	(47,817)	101,846
365	COM	FP1	FORT PECK RELAY (WES)	335,095	335,095	-	(107,063)	228,032
366	COM	FPC	FORT PECK COMMUNICATIONS BUILDING	380,212	380,212	-	(121,478)	258,734
367	COM	FPR	FORT PECK REPEATER	127,571	127,571	-	(40,759)	86,812
368	COM	FPI	FORT PIERRE POLE YARD	785,698	785,698	-	(251,031)	534,668
369	COM	FTR	FORT THOMPSON REPEATER	99,223	99,223	-	(31,702)	67,521
370	COM	FTP	FORT THOMPSON REPEATER (EAST RIVER)	301,614	301,614	-	(96,366)	205,248
371	COM	FCR	FOX CREEK MICROWAVE	423,094	423,094	-	(135,179)	287,915
372	COM	FRY	FRYBURG SUB & MICROWAVE	61,204	61,204	-	(19,555)	41,649
373	COM	GA	GARRISON	303,954	303,954	-	(97,113)	206,841
374	COM	GRR	GARY REPEATER	80,799	80,799	-	(25,815)	54,983
375	COM	GP	GAVIN'S POINT	148,752	148,752	-	(47,526)	101,226
376	COM	GPR	GAVINS POINT REPEATER	315,049	315,049	-	(100,658)	214,391
377	COM	GET	GETTYSBURG REPEATER	368,771	368,771	-	(117,822)	250,949
378	COM	GH	GLENHAM	272,857	272,857	-	(87,178)	185,679
379	COM	GKM	GRAND FORKS MINNKOTA (MPC)	23,847	23,847	-	(7,619)	16,228
380	COM	GWN	GWINNER COMMUNICATIONS SITE	736,184	736,184	-	(235,211)	500,974
381	COM	HSB	HAILSTONE BUTTE	92,486	92,486	-	(29,549)	62,937
382	COM	HOY	HALLOWAY REPEATER	109,706	109,706	-	(35,051)	74,655
383	COM	HRT	HARLEM REPEATER	882,588	882,588	-	(281,987)	600,601
384	COM	HTH	HATHAWAY	68,891	68,891	-	(22,011)	46,880
385	COM	HMW	HERMOSA MICROWAVE	302,701	302,701	-	(96,713)	205,988
386	COM	HLR	HIGHLAND REPEATER	22,884	22,884	-	(7,311)	15,572
387	COM	HMR	HIGHMORE REPEATER	145,723	145,723	-	(46,559)	99,165
388	COM	HIW	HIGHWOOD	22,896	22,896	-	(7,315)	15,581
389	COM	HI	HINSDALE	201,837	201,837	-	(64,487)	137,350
390	COM	HIR	HINSDALE REPEATER	85,068	85,068	-	(27,179)	57,889
391	COM	HOE	HOPEWELL REPEATER	273,932	273,932	-	(87,521)	186,411
392	COM	HNT	HUNTER MICROWAVE	210,227	210,227	-	(67,168)	143,060
393	COM	HUD	HURON DISTRICT OFFICE	841,053	841,053	-	(268,716)	572,337

394	COM	HYS	HYSHAM	90,227	90,227	-	(28,827)	61,399
395	COM	JTR	JAMESTOWN REPEATER	46,981	46,981	-	(15,011)	31,971
396	COM	JCK	JONES CREEK	267,395	267,395	-	(85,433)	181,962
397	COM	KCK	KELLY CREEK	222,023	222,023	-	(70,936)	151,087
398	COM	KDZ	KILLDEER REPEATER	555,780	555,780	-	(177,572)	378,208
399	COM	KNE	KNEE HILL MW	941,914	941,914	-	(300,941)	640,972
400	COM	LAC	LAC QUI PARLE	751,513	751,513	-	(240,108)	511,404
401	COM	LKR	LAKE ANDES REPEATER	723,452	723,452	-	(231,143)	492,309
402	COM	LEF	LEFOR	48,470	48,470	-	(15,486)	32,984
403	COM	LI	LINDSAY RIDGE	96,865	96,865	-	(30,948)	65,917
404	COM	LCS	LINTON COMMUNICATIONS SITE	330,604	330,604	-	(105,628)	224,976
405	COM	LMO	LITTLE MISSOURI SUBSTATION	54,516	54,516	-	(17,418)	37,098
406	COM	LDP	LODGEPOLE REPEATER	32,445	32,445	-	(10,366)	22,079
407	COM	MRP	MALTA REPEATER	811,849	811,849	-	(259,386)	552,463
408	COM	MNM	MANDAN MICROWAVE SITE	69,988	69,988	-	(22,361)	47,627
409	COM	MPR	MAPLE RIVER	172,792	172,792	-	(55,207)	117,585
410	COM	MRR	MARTIN REPEATER	300,728	300,728	-	(96,083)	204,646
411	COM	MAV	MAYVILLE	214,547	214,547	-	(68,548)	145,999
412	COM	MLR	MIDLAND REPEATER	686,507	686,507	-	(219,339)	467,168
413	COM	MOX	MOE REPEATER	15,012	15,012	-	(4,796)	10,215

414	COM	MH	MOORHEAD	125,057	125,057	-	(39,956)	85,101
415	COM	MSR	MORRIS REPEATER & MICROWAVE	146,583	146,583	-	(46,833)	99,750
416	COM	NWC	NEWCASTLE REPEATER	216,330	216,330	-	(69,117)	147,213
417	COM	OA	OAHE	577,874	577,874	-	(184,631)	393,243
418	COM	OK	O'KREEK REPEATER	367,630	367,630	-	(117,458)	250,172
419	COM	OR	ORCHARD REPEATER	2,616,986	2,616,986	-	(836,127)	1,780,859
420	COM	OTO	OTO MICROWAVE	16,445	16,445	-	(5,254)	11,191
421	COM	OTW	OTTUMWA ROAD REPEATER SITE	7,685	7,685	-	(2,455)	5,229
422	COM	PGE	PAGE N.D.	1,646	1,646	-	(526)	1,120
423	COM	PAH	PAHOJA SUB	107,003	107,003	-	(34,187)	72,816
424	COM	PEK	PEAK	99,877	99,877	-	(31,911)	67,966
425	COM	PLJ	PHILIP JCT. REPEATER	530,459	530,459	-	(169,482)	360,977
426	COM	PKT	PICKERT MINNKOTA (MPC)	17,849	17,849	-	(5,703)	12,147
427	COM	PIR	PINE RIDGE	206,656	206,656	-	(66,027)	140,630
428	COM	PO	POPLAR (MDU)	3,758	3,758	-	(1,201)	2,558
429	COM	PRR	PRIMGHAR REPEATER	27,264	27,264	-	(8,711)	18,553
430	COM	PUR	PUKWANNA REPEATER	4,772	4,772	-	(1,525)	3,247
431	COM	RCR	RAPID CITY REPEATER	393,067	393,067	-	(125,585)	267,482
432	COM	RE	RICHARDSON COULEE	161,748	161,748	-	(51,679)	110,070
433	COM	RER	RICHARDSON COULEE REPEATER	166,315	166,315	-	(53,138)	113,177
434	COM	RHM	RICHLAND MW REPEATER (BEPS)	267,563	267,563	-	(85,487)	182,077
435	COM	RRR	ROCKY RIDGE REPEATER	226,934	226,934	-	(72,505)	154,428
436	COM	ROG	ROLLAG	172,922	172,922	-	(55,248)	117,673
437	COM	RGZ	RUGBY REPEATER	412,994	412,994	-	(131,952)	281,043
438	COM	RI	RUTLAND	1,122,799	1,122,799	-	(358,734)	764,064
439	COM	SAO	SACO	1,237	1,237	-	(395)	842
440	COM	SNB	SENTINEL BUTTE	105,438	105,438	-	(33,687)	71,750
441	COM	SRE	SHEEP COULEE REPEATER	933,275	933,275	-	(298,181)	635,093
442	COM	SCQ	SIOUX CITY REPEATER	427,162	427,162	-	(136,478)	290,684
443	COM	SFR	SIOUX FALLS REPEATER	330,718	330,718	-	(105,664)	225,054
444	COM	SI	SIOUX PASS	1,366	1,366	-	(436)	930
445	COM	SNA	SNAKE BUTTE REPEATER	532,435	532,435	-	(170,113)	362,322
446	COM	SPN	SPALDING REPEATER	549,514	549,514	-	(175,570)	373,945
447	COM	SM	SPIRIT MOUND	295,982	295,982	-	(94,566)	201,416
448	COM	STR	STRASBERG	1,853	1,853	-	(592)	1,261
449	COM	SMR	SUMMIT REPEATER	50,053	50,053	-	(15,992)	34,061
450	COM	TCS	TAPPEN COMMUNICATIONS SITE	502,734	502,734	-	(160,624)	342,111
451	COM	TA	TAPPEN REPEATER	475,545	475,545	-	(151,937)	323,608
452	COM	TEN	TENNANT COMMUNICATIONS SITE	8,782	8,782	-	(2,806)	5,976
453	COM	TOR	TORONTO REPEATER	106,096	106,096	-	(33,898)	72,198
454	COM	TFR	TRIPP REPEATER	216,887	216,887	-	(69,295)	147,592
455	COM	TU	TURKEY RIDGE REPEATER	588,190	588,190	-	(187,927)	400,263
456	COM	TYE	TYLER REPEATER	1,256,065	1,256,065	-	(401,313)	854,753
457	COM	VIC	VICTOR (EREC)	110,425	110,425	-	(35,281)	75,144

458	COM	VIA	VIDA	116,388	116,388	-	(37,186)	79,202
459	COM	WLR	WALL REPEATER	536,444	536,444	-	(171,394)	365,050
460	COM	WTR	WATERTOWN REPEATER	721,884	721,884	-	(230,642)	491,242
461	COM	WS	WAYSIDE	17,781	17,781	-	(5,681)	12,100
462	COM	WSR	WESSINGTON SPGS. REPEATER	682,469	682,469	-	(218,049)	464,420
463	COM	WEF	WESTFIELD	19,003	19,003	-	(6,071)	12,932
464	COM	WSW	WHITE SWAN	91,987	91,987	-	(29,390)	62,597
465	COM	WK C	WHITLOCK (BCPS)	165,594	165,594	-	(52,907)	112,687
466	COM	WRP	WILLISTON REPEATER	19,230	19,230	-	(6,144)	13,086
467	COM	WOB	WOLBACH REPEATER	28,280	28,280	-	(9,035)	19,244
468	COM	YT P	YELLOWTAIL SWITCHYARD (BEPS)	223,367	223,367	-	(71,366)	152,001
469	COM Total		COMMUNICATION FACILITIES	44,496,135	-	44,496,135	(14,302,227)	30,193,908
470	MCCS	MC4	MILES CITY CONVERTER STATION - BEPS	19,890,752	19,890,752	-	-	19,890,752
471	MCCS	MC4	MILES CITY CONVERTER STATION - BEFP	3,680,369	3,680,369	-	-	3,680,369
472	MCCS Total		MILES CITY CONVERTER STATION	23,571,121	-	23,571,121	-	23,571,121
473	DIST	BFTBP	BUFORD TRENTON TAP - BUFORD TRENTON P.P.	650,001	650,001	(650,001)	-	(0)
474	DIST	BP	BUFORD TRENTON PUMP SUB	184,827	184,827	(184,827)	-	0
475	DIST	FN	FALLON PUMPING PLANT SUBS	223,594	223,594	(223,594)	-	0
476	DIST	FE	FALLON RELIFT PUMPING PLA	171,257	171,257	(171,257)	-	(0)
477	DIST	FN GG	FALLON-GLENDIVE PUMP #4	25,506	25,506	(25,506)	-	(0)
478	DIST	FP WP	FORT PECK-WOLF POINT	295,238	295,238	(295,238)	-	0
479	DIST	FG	FRAZER PUMP SUB	253,597	253,597	(253,597)	-	0
480	DIST	GA SK	GARRISON-SNAKE CREEK	1,079,092	1,079,092	(1,079,092)	-	(0)
481	DIST	GG	GLENDIVE P.P. #1 SUB.	425,706	425,706	(425,706)	-	0
482	DIST	IN	INTAKE SUBSTATION	108,040	108,040	(108,040)	-	0
483	DIST	IN INP	INTAKE-INTAKE PUMP	6,494	6,494	(6,494)	-	-
484	DIST	SV	SAVAGE PUMPING PLANT SUBS	102,283	102,283	(102,283)	-	(0)
485	DIST	SY	SHIRLEY PUMP SUBSTATION	1,237,730	1,237,730	(1,237,730)	-	0
486	DIST	SK	SNAKE CREEK PUMP SUBSTATION	920,941	920,941	(920,941)	-	0
487	DIST	TE	TERRY PUMPING PLANT SWITCH	474,404	474,404	(474,404)	-	(0)
488	DIST	TI	TIBER DAM SUBSTATION	659,368	659,368	(659,368)	-	0
489	DIST	VA	WIOTA SUBSTATION	216,163	216,163	(216,163)	-	(0)
490	DIST Total		DISTRIBUTION FACILITIES	7,034,241	-	7,034,241	(7,034,241)	0

491	RMR	NU SG	NEW UNDERWOOD-STEGALL	287,835		287,835	-	-	287,835	
492	RMR	SG	STEGALL SUBSTATION	12,325,568		12,325,568	(8,728,156)	-	3,597,412	
493	RMR	SG WY	STEGALL-WAYSIDE	2,978,205		2,978,205	-	-	2,978,205	
494	RMR	WY	WAYSIDE	237,296		237,296			237,296	
495	RMR	YT PY	YELLOWTAIL SWITCHYARD-YELLOWTAIL (PPL)	121,495		121,495	(91,121)		30,374	
496	RMR	PY	YELLOWTAIL (PPL)	692,335		692,335	(519,251)		173,084	
497	RMR	YT P	YELLOWTAIL SWITCHYARD	13,211,288		13,211,288	(9,908,466)	-	3,302,822	
498	RMR	YT	YELLOWTAIL SWITCHYARD (YT)	143,380		143,380			143,380	
499	RMR Total		ROCKY MOUNTAIN REGION FACILITIES	29,997,402	-	29,997,402	(19,246,994)	-	10,750,408	
500	COE		BIG BEND	2,370,873		2,370,873	(1,772,523)		598,350	
501	COE		FORT PECK	6,346,403	844,900	7,191,303	(933,623)		6,257,680	
502	COE		FORT RANDALL	24,411,946	1,490,300	25,902,246	(2,565,236)		23,337,010	
503	COE		GARRISON	85,572,618	3,464,000	89,036,618	(42,372,683)		46,663,935	
504	COE		GAVINS POINT	10,079,123	-	10,079,123	(7,015,929)		3,063,194	
505	COE		OAHE	20,141,773	8,292,000	28,433,773	(3,344,088)		25,089,685	
506	COE Total		CORPS OF ENGINEERS FACILITIES	148,922,736	14,091,200	163,013,936	(58,004,082)	-	105,009,854	
507	Grand Total		TOTAL FACILITIES	1,632,392,172	67,391,500	1,699,783,672	(128,438,488)	(15,905,129)	(8,897,000)	1,546,543,055
508			SUBTOTAL WESTERN-UGP ONLY	1,453,472,034	53,300,300	1,506,772,334	(51,187,412)	15,905,129	8,897,000	1,430,782,793
509			SUBTOTAL for SSCD Ratios /6				109,191,494			1,542,656,099

510 1/ Plant balance does not include customer liability for network upgrades. Investment is only brought into plant balance as WAPA incurs expense (e.g. if transmission credits are provided to customer)

511 2/ Plant balance does not include facilities included in Zonal and Regional Worksheet, WS7-BPUFac

512 3/ Formerly part of the Ft. Peck-Dawson County 1 line

513 4/ Formerly part of the Watford City-Beulah line

514 5/ Included in 2018 True-Up WS11-FacChanges but inadvertently not included in this Tab due to being constructed with contributed funds and having zero plant costs

515 6/ C4 is total Western-UGP Facilities + total COE Facilities; C7 is total Western-UGP Facilities + total COE Facilities + total RMR Facilities dispatched by Western UGP for SSCD. Ref WS12-SSCD.

94		41.8-kV breaker 1042 and assoc. switches	x						
95		capacitors PX5A, PX5B and assoc. switches	x						
96		station service KX3A and KW4A and assoc. switches	x						
97		transformers KX3B, KW4B and assoc. switches	x						warehouse and maintenance buildings
98	EB	Eagle Butte 115-kV breakers 162, 362 and assoc. switches / switch 763	x						
99		Station Service KW1A	x						
100	ED	Edgeley 115-kV breakers 462, 562, 662, 762 and assoc. switches	x						
101		115/69-kV transformer KY6A	x						
102		69-kV breaker 1352 and assoc. switches	x						
103		capacitor KW31A, breaker 3124 and assoc. switches	x						
104	ELC	Elk Creek 115-kV breakers 1162, 1262, 1462 and assoc switches	x						
105		station service KY22A, switches 2261, 2221	x						
106	ELI	Elliot 115-kV breakers 262, 362, 462 and assoc switches	x						
107	END	Enderlin Tap 115-kV switches 176x, 196x	x						
108	EXI	Exira 161-kV breakers 162, 166, 262, 362, 366, 462, 562, 662 and assoc. switches	x						
109		station service KHA	x						
110	FVW	Fairview West 115-kV breakers 162, 262, 362, 462 and assoc. switches	x						
111		transformer KY20A for station service, switches 2011, 2061	x						
112	FH	Faith 115-kV switches 16x and 26x	x						
113	FA	Fargo 230-kV breakers 182, 282, 382, 582, 682, 782, 882, 9182 and assoc. switches	x						
114		115-kV breakers 1162, 1262, 1362, 1462, 1662, 1862, 1962, 2362, 2462, 2764, 2864, 2964 and assoc switches	x						
115		115-kV switch 5461	x						
116		capacitors PY14A, PY14B, PY14C	x						
117		230/115-kV transformers KV1A, KV2A	x						
118		115/69-kV transformers KY3A and KY3B	x		x				to Minnkota
119		69-kV breakers 3552, 3652 and assoc switches	x		x				to Minnkota
120		69-kV switches 315x, 335x, 345x	x		x				to Minnkota
121		station service KY4A, K5B, K5A, switches 5447, 552x	x						
122		13.2-kV breakers 4122, 4322, 4622, 4722, 4822 and assoc. switches	x						
123		reactors KW6A, KW7A, KW8A	x						
124		SVC and associated equipment	x						
125	FL	Flandreau 115-kV breakers 1162, 1262, 1362, 1662 and assoc. switches	x						
126		capacitor PY3A	x						
127		station service KZ1A, KW1C switches 302x, 205x, 401x	x						
128		115/69-kV transformer KY1A	x	x					One East River member, two municipal customers and Basin generation served through KY1A (Sioux Valley Energy, City of Colman, and City of Madison)
129		69-kV breaker 2152 and assoc. switches	x	x					One East River member, two municipal customers and Basin generation served through 2152 (Sioux Valley Energy, City of Colman, and City of Madison)
130	FO	Forman 115-kV breakers 1162, 1362, 1462, 1562, 1764 and assoc switches	x						
131		capacitor PY7A	x						
132		station service KW9A, switches 92x	x						
133		115/69-kV transformer KY1A, switches 126x	x						
134		69-kV breakers 152, 252, 452 and assoc. switches	x						
135		69-kV switches 353, 355	x						
136	FT	Fort Thompson 230-kV breakers 582, 586, 682, 782, 786, 882, 1182, 1186, 1282, 1382, 1386, 1482, 1582, 1586, 1682, 1782, 1786, 1882, 2382, 2386, 2482 and assoc. switches	x						
137		230-kV switches 181, 281, 381, 2583, 2683	x						
138		230/69-kV transformers KV1B, KV1A	x						
139		13.8-kV switches 121, 221, 253, 153, 6323, 6321, 6022, 3121, 3221	x						
140		station service KW1A, KW1B and assoc switches	x						
141		69-kV breakers 4352	x						
142	FT2	Fort Thompson 2 345-kV breakers 3392, 3396 and assoc. switches	x						
143		reactor KU4A, switch 3991	x						
144		345/230-kV transformers KU1A, KU1B and 345-kV switches 2391, 2491	x						
145		reactors KW2A, KW2B, breakers 6422, 6822 and assoc. switches	x						
146		capacitor PW2A	x						
147		reactor KW3A, breaker 6522 and assoc. switches	x						
148		capacitor PW3A	x						
149		station service KW1D, KW1C, switches 662x, 6611, 6311, 632x	x						
150	GL	Glendive 115-kV switch 362	x						
151		115/57-kV transformer KY1A	x	x					2 customers - MDU and Lower Yellowstone
152		57-kV breaker 342 and assoc. switches	x	x					2 customers - MDU and Lower Yellowstone
153	GK	Grand Forks 230-kV breakers 286, 382, 486 and associated switches / switches 183 and 580	x						
154		230/115-kV transformer KV1A	x						
155		reactor KW43A, breaker 4324 and assoc. switches	x						
156		station service KW41A, KW42A and associated switches	x						
157		115-kV breakers 1462, 1562, 1662, 1862, 1962 and assoc. switches	x						
158		115/69-kV transformer KY2B, switch 3261 and 3259	x						
159		69-kV breakers 2252, 2352, 2452, 2552 and assoc. switches / switches 2151, 2153	x	x					2452 to MPC, 2552 to NSP
160		capacitors P23A, P23B, switches 335x, 345x	x						
161	GI	Grand Island 345-kV breakers 1092, 1192, 1196, 1292, 1596, 1592, 1692, 1796 and assoc. switches	x						
162		reactor KU4A, switch 1098	x						
163		reactors KW1B, KW1A, breakers 5122, 5022 and assoc. switches	x						
164		345/230-kV transformers KU1A, KU1B and switch 293	x						
165		reactors KW2A, breakers 6022 and assoc. switches	x						
166		station service KHA, KHB and assoc switches	x						
167	GRP	Grande Prairie 345-kV breakers 196, 292, 396, 298, 198 and assoc. switches	x						
168		reactors KU1A and KU2A	x						
169	GF	Granite Falls 230-kV breakers 184, 282, 382, 486, 582, 682, 782, 882, 1082, 1184, 9182 and assoc. switches	x						
170		capacitors PV1A, PV11A	x						
171		reactors KV1A, KV11A	x						
172		230/115-kV transformers KV3A, KV8A	x						
173		reactors KW3A, KW54A, KW55A, KW56A, KW57A	x						
174		13.8-kV breakers 5424, 5524, 5624, 5724 with assoc. switches and switches 5121, 5123	x						
175		115-kV breakers 2062, 2262, 2366, 2762, 3162, 8162 and assoc. switches	x						
176		115-kV switches 246x, 296x	x						
177		capacitors PY25A, PY26A, breakers 2564, 2664 and assoc. switches	x						
178		reactors KY25A, KY26A	x						
179		station service KW50A, KW51A and assoc switches	x						
180	GTF	Great Falls 230-kV breakers 230/99, 230/100, 230/22, 230/23 and assoc. switches	x	x					in NWMT Great Falls Sub
181		230 kV switch 26B	x	x					in NWMT Great Falls Sub
182		230/161-kV transformer KV1A	x						
183		161-kV breaker 162 and assoc switches	x						
184		station service KW1A and switch 221	x						
185	GY	Gregory 115-kV breakers 162, 262, 762 and assoc. switches	x						
186		station service KW1A and switch 521	x						
187	GR	Groton 115-kV breakers 262, 362, 462, 562, 862, 966 and assoc. switches / switches 16x	x						862 due to Groton Synch Condenser
188		115-kV switches 16x, 126x	x						
189		115/69-kV transformer KY1A	x	x					Two East River members served through KY1A (Lake Region, Northern)
190		station service KZ1A and KW2A	x						

288		reactors KY10A, KY21A	x							
289		capacitors PY6A, PY21A	x							
290		station service KW20A, KW43A KW42A, switches 202x, 422x, 432x, 431x	x							
291	RCO	Roberts County	115-kV breakers 2162, 2262, 2362 and assoc switches	x						
292		69-kV breakers 5152, 5252, 5456, 5652 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, K21A, 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		230 kV main and transfer bus, breaker 382 and assoc switches	x							
330		Reactor KV3A, breaker 384 and assoc. switches	x							
331	SUH	Sulphur	115 kV breakers 162, 362, 462, interrupter 263 and assoc switches and station service	x						
332	SU	Summit	115-kV breakers 262, 362, 462, 562, 762, and assoc switches , switch 163	x						
333		station service K21A, switch 1351	x							
334		115/69 kV transformer KY1A	x	x						Four East River members served through KY1A (Whetstone, Lake Region, Traverse, and Codington-Clark)
335		69 kV breaker 1152 and assoc. switches	x	x						Three East River members served through 1152 (Whetstone, Lake Region, and Traverse)
336	TI	Tiber	115-kV switches 1260, 1261	x	x					2 customers (generator and Marias)
337	TN	Towner	115-kV breakers 2166, 2262, 2362, interrupter 161 and assoc switches	x						
338		station service KY1A1	x							
339	TY	Tyndall	115-kV switches 16x, 26x, 361	x						
340		Station Service K21A and switches 351 and 751	x							
341	UJ	Utica Junction	230-kV breakers 282, 286, 382, 482, 486, 582, 682, 686 and assoc switches	x						
342		230/115-kV transformer KV3A	x							
343		115-kV breakers 1266, 1362, 1562, 1762 and assoc switches	x							
344		station service KW3A and assoc switches	x							
345	VC	Valley City	115-kV 162, 262, 362, 462, 562 and assoc switches	x						
346		115/69-kV transformer KY1A	x	x	x					2 customers (Minnkota Power and City of Valley City)
347		station service KW2A and switch 321	x							
348	VFO	Virgil Fodness	230-kV breakers 382, 386, 482, 486 and assoc switches	x						
349		230-kV switches 185 and 283	x							
350	VH	VT Hanlon	230-kV breakers 382, 482, 582, 682, 686 and assoc switches	x						
351		Reactor KW70A and breaker 7024	x							
352		69-kV breaker 5053 and assoc switch	x							
353		station service KW60A, KW24A, breaker 7423 and assoc switches	x							
354	WL	Wall	115-kV switches 16x, 26x, 36x, 461	x						
355		station service KW1B, switch 821	x							
356	WNB	Wanblee Tap	115-kV interrupters 162 and 262 and assoc. switches	x						Zero costs, customer funded
357	WDD	Ward	230-kV breakers 182, 282, 286 and assoc switches	x						
358		new 230-kV breaker in ring bus	x							Zero costs, customer funded
359	WB	Washburn	230-kV switches 18x, 28x	x						
360		station service KX3A, KW9A and assoc switches	x							
361	WT	Watertown	230-kV breakers 182, 282, 382, 482, 582, 682, 882, 984, 1182, 9182 and assoc switches	x						
362		reactor KV9A	x							
363		capacitor PV9A	x							
364		230/115-kV transformers KV2A, KV8A	x							
365		115-kV breakers 862, 1162, 1262, 1362, 1562, 1762, 1862, 1962, 8162 and assoc switches	x	x						1762 - two customers MRES and NorthWestern Energy
366		station service KY3A, KHA, KHB, K1, K2 and assoc switches	x							
367		reactor KW1A, breaker 3122 and assoc switches	x							
368		13.2-kV switches 372x, 362x, 82x	x							
369		115/69 kV transformer KY3A	x	x						Two East River members are served through KY3A (Codington-Clark and H-D)
370		69 kV breaker 2752 and assoc switches	x	x						Two East River members served through 2752 (Codington-Clark and H-D)
371	WT2	Watertown 2	345-kV breakers 7296, 7292, 7398 and assoc switches	x						
372		reactor KU3A	x							
373	WTS	Watertown Static Var	All Facilities and Equipment	x						
374	WC	Watford City	230-kV breakers 682, 782, 882 and assoc switches	x						
375		230-kV switches 282, 283, 182, 183	x							
376		station service KW1B, switches 121, 123	x							
377		reactor KY16A, switches 166x	x							
378		capacitor PY16A	x							
379		115-kV breakers 1262, 1362 and assoc switches	x							
380		reactor KY17A, switches 176x	x							
381		capacitor PY17A	x							
382		230-kV Bay Addition	x	x						MDU
383	WSG	Wessington Springs	230-kV breakers 586, 682, 786, 882 and assoc switches	x						
384		Station Service	x							
385	WH	Whately	69 kV switches 151, 351	x						

561		MOB 115KV SWITCH TRAILER		x					
562		MOB 115KV SWITCH TRAILER		x					
563		MOB TRANSF 111KV 15MVA		x					
564		MOB TRANSF 115KV 10MVA		x					
565		MOB TRANSF 115KV 10MVA		x					
566		MOB TRANSF 115KV 25MVA		x					
567		MOB TRANSF 115KV 40MVA		x					
568		MOB TRANSF 230KV 1-33MVA		x					
569		MOBILE BY PASS KIT (BISMARCK)		x					
570		MOBILE BY PASS KIT (HURON)		x					
571		MOBILE CAPACITOR BANK		x					
572		MOBILE SUB 110KV		x					
573		MOBILE SUB 115KV 20MVA		x					
574		MOBILE SUB 41.8 KV		x					
575		MOBILE SUB 69KV		x					
576		MOB SH.REACTOR		x					
577									
578		Transmission-Related Generation Facilities							
579		FORT THOMPSON-BIG BEND NO. 1		x					
580		FORT THOMPSON-BIG BEND NO. 2		x					
581									
582		Communication Facilities							
583		ANITA	SCADA					x	
584	AB	ASSINIBOINE	meters for NWMT NITS from Havre					x	
585		BAKER	microwave, RTU					x	
586		ATLANTIC COMMUNICATION SITE						x	
587		BAKER RELAY						x	
588		BANTRY						x	
589		BARRETT						x	
590		BATTLE MT. MICROWAVE						x	
591		BELLE PRAIRIE						x	
592		BENEDICT						x	
593		BELLAH						x	
594		BIG BEND						x	
595		BIJOU REPEATER						x	
596		BISMARCK REPEATER						x	
597	BI	Bison	microwave alarm system					x	
598		BISON REPEATER						x	
599		BOLE NORTH REPEATER						x	
600		BRINSMADDE						x	
601		BRISTOL						x	
602		BRUNSVILLE REPEATER						x	
603		BUFFALO						x	
604		CAHOON						x	
605		CARRINGTON REPEATER						x	
606		CHARTER OAK REPEATER						x	
607		CHINOOK (BEFP)						x	
608		CHINOOK REPEATER						x	
609		CLARK MW REPEATER						x	
610		CLEVELAND REPEATER, N.D.						x	
611		COLEMAN REPEATER						x	
612		COLOME REPEATER						x	
613		CONRAD BUTTE REPEATER						x	
614		COTTON	meters for Central MT (Basin NITS)					x	
615		CRESTON REPEATER						x	
616		CROW LAKE REPEATER						x	
617		CROWN BUTTE						x	
618		CULBERTSON RADIO RELAY SITE						x	
619		CUSTER LOOKOUT						x	
620		DALTON (WES)						x	
621		DEVILS LAKE FIBER REGEN						x	
622		DEVILS LAKE REPEATER						x	
623		DICKINSON	communications equipment					x	
624		DODSON REPEATER						x	
625		DOGDEN BUTTE						x	
626		DRISCOLL						x	
627		DUPREE REPEATER						x	
628		DUTTON REPEATER (BEFP)						x	
629		EAGLE	microwave, RTU, SCADA					x	
630		EAST RAINY BUTTE						x	
631		ECKELSON						x	
632		E. J. MANNING	fiber, microwave, SCADA					x	
633		ELKTON						x	
634		ELLENDALE REPEATER						x	
635		ELLSWORTH AIR BASE						x	
636		ERHARD						x	
637		EXIRA REPEATER						x	
638		F. L. BLAIR						x	
639		FAIRPOINT REPEATER						x	
640		FALLON REPEATER						x	
641		FERGUS FALLS COMMUNICATIONS SITE						x	
642		FLOWING WELLS						x	
643		FORBES COMMUNICATION SITE						x	
644		FORSYTH	radio, quarters, fence					x	
645		FORT PECK RELAY (WES)						x	
646		FORT PECK COMMUNICATIONS BUILDING						x	
647		FORT PECK REPEATER						x	
648	FR	Fort Randall	Multiplexer, Termination Equipment					x	
649		FORT THOMPSON REPEATER						x	
650		FORT THOMPSON REPEATER (EAST RIVER)						x	
651		FOX CREEK MICROWAVE						x	
652		FRYBURG SUB & MICROWAVE						x	
653		GARRISON						x	
654		GARY REPEATER						x	
655		GAVIN'S POINT						x	
656		GAVINS POINT REPEATER						x	

657	GETTYSBURG REPEATER			X		
658	GLENHAM			X		
659	GRAND FORKS MINNKOTA (MPC)			X		
660	HAILSTONE BUTTE			X		
661	HALLOWAY REPEATER			X		
662	HARLEM	microwave, RTU		X		
663	HARLEM REPEATER			X		
664	HATHAWAY			X		
665	HERMOSA MICROWAVE			X		
666	HETTINGER	RTU, PTs		X		
667	HIGHLAND REPEATER			X		
668	HIGHMORE REPEATER			X		
669	HIGHWOOD	meters NWMT NITS from Great Falls		X		
670	HINSDALE			X		
671	HINSDALE REPEATER			X		
672	HOPEWELL REPEATER			X		
673	HUNTER MICROWAVE			X		
674	HURON DISTRICT OFFICE			X		
675	HYSHAM			X		
676	JAMESTOWN REPEATER			X		
677	JONES CREEK			X		
678	KELLY CREEK			X		
679	KILLDEER REPEATER			X		
680	KNEE HILL MW			X		
681	LAC QUI PARLE			X		
682	LAKE ANDES REPEATER			X		
683	LEFOR			X		
684	LINDSAY RIDGE			X		
685	LINTON COMMUNICATIONS SITE			X		
686	LITTLE MISSOURI SUBSTATION			X		
687	LODGEPOLE REPEATER			X		
688	MALLARD	RTU, SCADA		X		
689	MALTA	microwave, RTU		X		
690	MALTA REPEATER			X		
691	MDN Mandan	multiplexer		X		
692	MANDAN MICROWAVE SITE			X		
693	MAPLE RIVER			X		
694	MARTIN REPEATER			X		
695	MAYVILLE			X		
696	MIDLAND REPEATER			X		
697	MILES CITY SUB (BEFP)			X		
698	MOE REPEATER			X		
699	MOORHEAD			X		
700	MORRIS REPEATER & MICROWAVE			X		
701	NEWCASTLE REPEATER			X		
702	OAHE			X		
703	O'KREEK REPEATER			X		
704	ORCHARD REPEATER			X		
705	OTO MICROWAVE			X		
706	OTTUMWA ROAD REPEATER SITE			X		
707	PAGE N.D.			X		
708	PAHOJA SUB			X		
709	PEAK			X		
710	PHILIP JCT. REPEATER			X		
711	PINE RIDGE			X		
712	POPLAR (MDU)	antenna, meters for MDU		X		
713	PRIMGHAR REPEATER			X		
714	PUKWANNA REPEATER			X		
715	RAPID CITY REPEATER			X		
716	RICHARDSON COULEE			X		
717	RICHARDSON COULEE REPEATER			X		
718	RICHLAND MW REPEATER (BEPS)			X		
719	ROCKY RIDGE REPEATER			X		
720	ROLLAG			X		
721	RUGBY REPEATER			X		
722	RUTLAND			X		
723	SACO			X		
724	SA SAVAGE	land, steel structure, meter equipment		X		
725	SENTINEL BUTTE			X		
726	SHEEP COULEE REPEATER			X		
727	SIOUX CITY REPEATER			X		
728	SIOUX FALLS REPEATER			X		
729	SIOUX PASS			X		
730	SNAKE BUTTE REPEATER			X		
731	SPALDING REPEATER			X		
732	SPIRIT MOUND			X		
733	STANLEY	meters to MDU		X		
734	STRASBERG			X		
735	SB SULLY BUTTES	fiber termination equipment		X		
736	SUMMIT REPEATER			X		
737	TAPPEN COMMUNICATIONS SITE			X		
738	TAPPEN REPEATER			X		
739	TENNANT COMMUNICATIONS SITE			X		
740	TORONTO REPEATER			X		
741	TRIPP REPEATER			X		
742	TURKEY RIDGE REPEATER			X		
743	TYLER REPEATER			X		
744	VR Verona	comm, multiplex, battery		X		
745	VICTOR (EREC)			X		
746	VIDA			X		
747	V. T. HANLON	SCADA		X		
748	WALL REPEATER			X		
749	WATERTOWN REPEATER			X		
750	WAYSIDE			X		
751	WESSINGTON SPGS. REPEATER			X		
752	WESTFIELD			X		
753	WH2 Whately (Northern)	Instrument Transformer		X		
754	WHITE SWAN			X		
755	WHITLOCK (BCPS)			X		

756	WM. J. NEAL	multiplexer					x				
757	WOLBACH REPEATER						x				
758	YANKTON ICT.	multiplexer, channel bank, SCADA					x				
759	YELLOWTAIL SWITCHYARD (BEPS)						x				
760	Miles City Converter Station										
761	MILES CITY CONVERTER STATION - BEPS		x								
762	MILES CITY CONVERTER STATION - BEFP		x								
763	Rocky Mountain Region Facilities										
764	NEW UNDERWOOD-STEGALL		x								
765	SGQ	STEGALL SUBSTATION	x								
766		STEGALL-WAYSIDE	x								
767	YT	YELLOWTAIL SWITCHYARD 230-kV breakers 182, 282, 9182 and assoc switches	x								
768	Corps Switchyard Facilities										
770	BG	Big Bend 230-kV interrupters 1083, 7089, 4083 and assoc. switches	x								
771	FP	Fort Peck 69-kV breaker 1142 and assoc. switches	x								
772		161-kV breaker 762	x								
773		115-kV breakers 772, 776, 1572, 1576, 1672, 1676 and assoc switches	x								
774		230-kV breaker 1382 and associated switches	x								
775		230/115-kV transformer	x								
776		161/115-kV transformer KV7A	x								
777	FR	Fort Randall 230-kV breakers 1182, 1186, 1282, 1286, 1382, 1386, 1982, 1986, 2182, 2186, 2282, 2286, 2382, 2386, 2482, 2486, 2682, 2686 and assoc breakers	x								
778		115-kV breakers 962, 966, 1562, 1556, 1662, 1666, 1762, 1766, 1862, 1866, 1962, 1966 and assoc switches	x								
779		2 - 230/115-kV transformers	x								
780	GA	Garrison 115-kV breakers 2062, 2066, 2162, 2166, 2262, 2266, 2362, 2366, 2462, 2466, 2562, 2566, 2662, 2666, 2769 and assoc switches	x								
781		230-kV breakers 3389, 3482, 3486, 3682, 3686, 3782, 3786, 3882, 3886, 3982, 3986, 4082, 4086, 4182, 4186 and assoc switches, switches 33xx	x								
782		230/115-kV transformer	x								
783	GP	Gavins Point 115-kV breakers 462, 562, 662, 762, 862 and assoc switches	x								
784	OA	Oahe 230-kV breakers 2182, 2282, 2286, 2382, 2482, 2486, 2582, 2682, 2782, 2982, 3082 and assoc switches	x								
785		115-kV breakers 1062, 1262, 1362, 1386, 1462, 1562, 1566 and assoc switches	x								
786		2 - 230/115-kV transformers	x								

One-Line Diagrams showing these included facilities are available upon request.
The diagrams include CEII material and therefore require execution of a Non-Disclosure Agreement with Western Area Power Administration - Upper Great Plains Region.

- Criteria 1: Non-Radial above 60-kV / (b) Two or More Eligible Customers
- Criteria 2: Interconnect Zones / Surrounding Entities
- Criteria 3: Control and Protection
- Criteria 4: High Side of Transformer
- Criteria 5: DC Interconnection
- Criteria 6: 7 Factor Test

* 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 2021 Rate Estimate Calculation
 Worksheet 10 - WAPA-UGP Facilities Excluded under SPP Tariff Attachment A1*
 12 Months Ending 09/30/2021 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	
54			41.8-kV breaker 2142 and assoc. switches	Otter Tail
55			41.8/12.5-kV transformer KX6A and switch 1443	
56			12.5-kV breaker 2222 and assoc. switches	Dakota Valley
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 2862, 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 KY19A	
89			115-kV breaker 1962 and assoc switches	
90			34.5-kV switch 1943	LaCreek
91	MA	Maurine	115/69-kV transformer KY1A and switches 1263, 1265	
92			115-kV breaker 1762	
93			69-kV breaker 2252 and assoc. switches	Grand Electric
94	MD	Midland	Capacity Rights in 115/69 kV Transformer KY1A	
95	MS	Mission	115/24.9-kV transformer KY1A and interrupter 362	Cherry-Todd
96	MO	Morris	41.8-kV breakers 3132, 3232, 3332 and assoc switches	
97			115/41.8-kV transformer KY3A	
98			115-kV breaker 1362 and assoc switches	
99	MV	Mount Vernon	69-kV breaker 1852 and assoc. switches	East River
100	NAT	Nashua Tap	All Not Included	
101	NEL	Nelson Tap	Switch 1861	
102	NL	Newell	69-kV breakers 2252, 2452 and assoc. switches	Rushmore
103	NU	New Underwood	13.8 kV interrupter 4423 and assoc. switch	
104	OA	Oahe	230-kV breakers 2882, 2482, 2486, 2082, 1162 and assoc. switches	generator lead
105			115-kV breaker 1162 and assoc. switches	generator lead
106	OF	O'Fallon Creek	12.47-kV breaker 522 and assoc. switches and equipment	MDU

107	PET	Penn Tap	Switches 1860, 1861	
108	PL	Philip	115/69-kv transformer KY1A and switches 1963	
109			69-kv breaker 2152 and assoc. switches	West Central
110	PI	Pierre	115/12.47-kv transformer KY1A and 115-kv interrupter 762	
111			12.47-kv breakers 2212, 2312, 2412 and assoc. switches	City of Pierre
112	PLL	Pleasant Lake Tap	Switched 760, 761	
113	RC	Rapid City	115/12.47-kv transformer KY1A	
114	RH	Richland	All Not Included	
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	WNB	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			41.8 kv breaker 242 and assoc switches	MPC and CPEC Blue Flint
145	WC	Watford City	115-kv interrupter 162	protection for non-included transformer (transformer not owned by Western)
146	WSG	Wessington Springs	230-kv switch 989	generator outlet
147	WH	Whately	69/12.5-kv transformer KYA and switches 253, 257	
148			12.5-kv breaker 224 and assoc. switches	Norval
149	WV	Wicksville	115-kv interrupter 362	protection for non-included transformer (transformer not owned by Western)
150			24.9-kv breaker 1032 and assoc. switches	West River
151	WN	Williston	60-kv breaker 3552 and assoc. switches	MDU non-credited line
152	WN2	Williston 2	115-kv breaker 2562 and assoc. switches	
153	WI	Winner	12.47-kv breakers 2222, 2422, 2523 and assoc. switches	City of Winner and Rosebud Electric
154	VAT	Wiota	All Not Included	
155	VAT	Wiota Tap	All Not Included	
156	WP	Wolf Point	115/34.5-kv transformer KY1A and switches 1963, 1965	
157			34.5-kv breakers 2142, 2242, 2342, 2442 and assoc. switches	MDU and Norval
158			12.5-kv breakers 3222, 3322, 3422 and assoc. switches	Norval and McCone
159	WO	Woonsocket	34.5-kv breakers 442 and 542 and assoc. switches	NWPS and City of Wessington Springs
160			115/69-kv transformer KY1B and 115-kv breaker 862	
161			Mobile Transformer 115/34.5-kv	
162			115-kv interupters 362 and 862 and assoc. switches, switch M263, M261	
163		Transmission Lines		
164		SHELBY-SHELBY2	115-kv	
165		Corps Switchyard Facilities		
166		Big Bend	230-kv interrupters 1081, 2081, 3081, 4081 and assoc switches	
167		Fort Peck	230-kv interrupters 481, 581 and assoc switches	
168			115-kv switches 861, 961	
169		Fort Randall	115-kv switch 960	
170			230-kv switches 1180, 1280, 1380	
171		Garrison	230-kv breakers 182, 282, 382 and assoc switches	
172			115-kv breakers 462, 561, 1762 and assoc switches	
173			13.8-kv breaker 2722 and assoc switches	
174		Gavins Point	115-kv breakers 162, 262, 362 and assoc. switches	
175		Oahe	115-kv breaker 1162 and assoc. switches	
176			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 2021 Rate Estimate Calculation Worksheet 11 - Facility Changes 12 Months Ending 09/30/2021 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.
Roberts County	Addition of 115-kV breakers 5456 and 5652 due to East River adding Roberts Co - Britton Line to SPP
Utica Junction	Wind GIA drove conversion of the 230-kV from a ring bus to a break and half. Customer Funded. 230-kV breakers 182, 282, 286, 271, 482, 486, 582, 682, 686, 782, 882, 886 and assoc switches.
Towner	115-kV Bay Addition for CPEC. Customer funded.
Sulphur	Customer Funded for Wind Project on Newell-Maurine Line, 3 breaker 115-kV ring bus
Watford City	Breaker 982 in Ring Bus
Brookings	New breaker and half yard to replace the old main and transfer yard. Planned prior to SPP integration.
Miles City 2	115 Line Bay for MDU (customer funded) and Cap Bank Addition (20% customer funded)
Martin	Maintenance replacement of substation equipment. Ownership transfer from LaCreek to WAPA. Facilities already qualified for SPP inclusion.
Garrison	Grading Improvements
Fort Randall	Station Service Switchgear and Transformer replacement
Fort Peck	Replace SCADA PLCs and Instrument Transformers
Oahe	Replace SCADA PLCs

WAPA-UGP 2021 Rate Estimate Calculation
Worksheet 12 - Scheduling, System Control, and Dispatch Service
12 Months Ending 09/30/2021 ESTIMATE

Line No.	DESCRIPTION (1)	SSCD (2)	REFERENCE (3)
1	A. Operation and Maintenance Expense	\$10,377,638	WS4-CostData (O&M Expenses Worksheet)
2	B. A&G Expense	\$187,148	WS4-CostData (A&G Expenses Worksheet)
3	C. Depreciation Expense	\$397,392	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	4.952%	WS4-CostData (C6 L61)
8	Net Plant Investment	\$8,245,773	WS4-CostData (C2 L21)
9	Cost of Capital	\$408,315	L7*L8
10	H. Revenue Requirement		
11	Annual Western-UGPR Cost	\$11,370,493	L1+L2+L3+L9
12	Estimated SSCD Revenue from non-Transmission facilities	\$ 804,820	L11*L16
13	Prior Year True-Up	\$ 115,912	Prior year true-up
14	Revenue Requirement for SSCD for Transmission facilities	\$10,681,584	L11-L12+L13
15			
16	Total non-SPP facilities dispatched by Western-UGP for SSCD/Total facilities dispatched by Western UGP for SSCD	7.08%	WS8-TranFac (L514 C4/C7)

2021 SPP ESTIMATE SUMMARY		FID	DESCRIPTION	DATA SOURCE:	PRIOR YEAR FACILITY TOTALS (\$)	FY2020-21 ESTIMATE ADD/REPL/RETIRE (\$)	ATTACHMENT AI ADJUSTMENTS (\$)	GENERATION ADJUSTMENTS (\$)	FY2021 EST SPP TOTALS (\$)
	WAO		WATERTOWN ALTERNATE OPERATIONS CENTER	2019 ROOS BALANCE	6,006,058	-	0	0	6,006,058
	WTO		WATERTOWN OPERATIONS CENTER	2019 ROOS BALANCE	1,549,110	-	0	(265,348)	1,283,763
	WTO F		WATERTOWN OPERATIONS CENTER (BFPS)	2019 ROOS BALANCE	12,069,072	-	0	(1,190,999)	10,878,073
			Subtotal		19,624,240	-	0	(1,456,346)	18,167,894
2021 SPP ESTIMATE DETAIL:		FID	DESCRIPTION	ADDITIONAL:	FID COST DETAIL (\$)	SSCD %	SSCD TOTAL (\$)	TRANS %	TRANS TOTAL (\$)
	WAO		IDC	IDC	299	100%	299	100%	299
	WAO		LAND & RIGHTS	LAND & LAND RIGHTS	9,790	100%	9,790	100%	9,790
	WAO		LAND AT KCR	LAND & LAND RIGHTS	1,539	100%	1,539	100%	1,539
	WAO		MICROWAVE TOWER	ANTENNA TOWER	295,486	100%	295,486	100%	295,486
	WAO		IDC	IDC	57,816	100%	57,816	100%	57,816
	WAO		IDC	PLANT NOT CLASSIFIED	5,246	100%	5,246	100%	5,246
	WAO		ANTENNA	PLANT NOT CLASSIFIED	17,480	100%	17,480	100%	17,480
	WAO		MICROWAVE SYSTEM	SEQUENTIAL EVENT RECORDING SYST	122,582	100%	122,582	100%	122,582
	WAO		MICROWAVE SYSTEM		12,407	100%	12,407	100%	12,407
	WAO		SCADA COMMUNICATION EQUIPMENT	LAND & LAND RIGHTS	20,217	100%	20,217	100%	20,217
	WAO		LAND & RIGHTS	SERVICE BUILDINGS	54,138	100%	54,138	100%	54,138
	WAO		BUILDINGS	ROOFING	531,049	100%	531,049	100%	531,049
	WAO		BUILDINGS	OIL STORAGE TANK	90,309	100%	90,309	100%	90,309
	WAO		OTHER STRUCTURES AND IMPROVEMENTS	HEATING	54,257	100%	54,257	100%	54,257
	WAO		OTHER STRUCTURES AND IMPROVEMENTS	AUXILIARY POWER SYSTEM	475,746	100%	475,746	100%	475,746
	WAO		STATION EQUIPMENT	REMOTE TERMINAL UNIT	95,962	100%	95,962	100%	95,962
	WAO		SCADA COMMUNICATION EQUIPMENT	SCADA	12,679	100%	12,679	100%	12,679
	WAO		SCADA COMMUNICATION EQUIPMENT	UNITERRUPTABLE POWER SUPPLY	1,022,154	100%	1,022,154	100%	1,022,154
	WAO		MICROWAVE COMMUNICATION EQUIPMENT	MICROWAVE SYSTEM	122,476	100%	122,476	100%	122,476
	WAO		MICROWAVE COMMUNICATION EQUIPMENT	BATTERY	733,679	100%	733,679	100%	733,679
	WAO		MICROWAVE COMMUNICATION EQUIPMENT	BATTERY CHARGER	35,292	100%	35,292	100%	35,292
	WAO		MICROWAVE COMMUNICATION EQUIPMENT		13,959	100%	13,959	100%	13,959
	WAO		TELEPHONE COMMUNICATION EQUIPMENT	PLANT COMM SYSTEM	53,112	100%	53,112	100%	53,112
	WAO		FIBER OPTIC EQUIPMENT	FIBER OPTICS EQUIPMENT	184,307	100%	184,307	100%	184,307
	WAO		FIBER OPTIC EQUIPMENT	ADD DROP MULTIPLEXER	97,180	100%	97,180	100%	97,180
	WAO		FIBER OPTIC EQUIPMENT	CABLE TYPE OPGW	28,885	100%	28,885	100%	28,885
	WAO		FIBER OPTIC EQUIPMENT	CHANNEL BANK EQUIPMENT	41,066	100%	41,066	100%	41,066
	WAO		BUILDINGS	SERVICE BUILDINGS	1,320,913	100%	1,320,913	100%	1,320,913
	WAO		IDC	IDC	454,813	100%	454,813	100%	454,813
	WAO		PLANT COMM SYSTEM	PLANT COMM SYSTEM	40,642	100%	40,642	100%	40,642
	WAO		IDC	IDC	577	100%	577	100%	577
			TOTAL		6,006,058		6,006,058		6,006,058
	WTO		AIR CONDITIONER	AIR CONDITIONER	146,013	65.3%	95,347	82%	119,731
	WTO		IDC	IDC	10,941	65.3%	7,145	82%	8,972
	WTO		ROOFING	ROOFING	676,147	65.3%	441,524	82%	554,441
	WTO		GATE	GATE	67,521	65.3%	44,091	82%	55,367
	WTO		FENCES	FENCES	573,532	65.3%	374,516	82%	470,296
			TOTAL		1,474,154		962,623		1,208,807
	WTO		FIBER OPTICS EQUIPMENT	PLANT COMM SYSTEM	54,317	100%	54,317	100%	54,317
	WTO		IDC	IDC	20,639	100%	20,639	100%	20,639
			TOTAL		74,956		74,956		74,956
	WTO F		ALCATEL 5620 FIBER TERMINAL EQUIP (PART 2 OF 2)	TERMINATION EQUIPMENT	134,174	100%	134,174	100%	134,174
	WTO F		ADD DROP MULTIPLEXER (PART 2 OF 2)	ADD DROP MULTIPLEXER	59,005	100%	59,005	100%	59,005
	WTO F		POWER SYSTEM DISPATCH CONSOLES	SCADA	119,667	100%	119,667	100%	119,667
	WTO F		MICROWAVE ALARM SYSTEM MASTER STATION	DATA STATION	19,292	100%	19,292	100%	19,292
	WTO F		FIBER OPTIC EQUIPMENT	FIBER OPTICS EQUIPMENT	53,165	100%	53,165	100%	53,165
	WTO F		FIBER OPTIC EQUIPMENT	ADD DROP MULTIPLEXER	307,465	100%	307,465	100%	307,465
	WTO F		FIBER OPTIC EQUIPMENT	TERMINATION EQUIPMENT	12,820	100%	12,820	100%	12,820
	WTO F		FIBER OPTIC EQUIPMENT	CHANNEL BANK EQUIPMENT	415,983	100%	415,983	100%	415,983
	WTO F		IDC	IDC	150,136	100%	150,136	100%	150,136
	WTO F		IDC	IDC	2,533	100%	2,533	100%	2,533
	WTO F		TELEPHONE COMMUNICATION EQUIPMENT	TELEPHONE SYSTEM	31,658	100%	31,658	100%	31,658
	WTO F		MICROWAVE COMMUNICATION EQUIPMENT	MICROWAVE SYSTEM	85,009	100%	85,009	100%	85,009
	WTO F		FIBER OPTICS EQUIPMENT	ADD DROP MULTIPLEXER	108,685	100%	108,685	100%	108,685
	WTO F		FIBER OPTICS EQUIPMENT	CHANNEL BANK EQUIPMENT	1,934	100%	1,934	100%	1,934
	WTO F		FIBER OPTICS EQUIPMENT	FIBER OPTICS EQUIPMENT	38,123	100%	38,123	100%	38,123
	WTO F		IDC	IDC	23,486	100%	23,486	100%	23,486
	WTO F		MULTIPLEXER EXPANDED CAPABILITY ASSET 166934 - PROJECT WTO 0025C (PART 2)	ADD DROP MULTIPLEXER	25,032	100%	25,032	100%	25,032
	WTO F		IDC - ASSET 166934 MULTIPLEXER EXPANSION (PART 2)	IDC	514	100%	514	100%	514

WTO F	IDC	IDC	18,650	100%	18,650	100%	18,650
WTO F	ADD DROP MULTIPLEXER (PART 1 OF 2)	TERMINATION EQUIPMENT	2,850	100%	2,850	100%	2,850
WTO F	ALCATEL 5620 FIBER TERMINAL EQUIP (PART 1 OF 2)	TERMINATION EQUIPMENT	6,625	100%	6,625	100%	6,625
WTO F	VHF RADIO COMPARATOR	FIXED RADIO COMM EQUIPMENT	98,003	100%	98,003	100%	98,003
WTO F	IDC	IDC	3,248	100%	3,248	100%	3,248
WTO F	MICROWAVE COMMUNICATION EQUIPMENT	MICROWAVE SYSTEM	226,333	100%	226,333	100%	226,333
WTO F	IDC	IDC	13,471	100%	13,471	100%	13,471
WTO F	TELEPHONE SYSTEM - 40 CHANNEL RECORDER & CRASH KIT	TELEPHONE SYSTEM	70,115	100%	70,115	100%	70,115
WTO F	INTEREST DURING CONSTRUCTION	IDC	1,421	100%	1,421	100%	1,421
WTO F	VOICE RECORDER SYSTEM	TELEPHONE SYSTEM	61,005	100%	61,005	100%	61,005
WTO F	SCADA SYSTEM HISTORIAN SOFTWARE	SCADA	202,050	100%	202,050	100%	202,050
WTO F	IDC	IDC	6,761	100%	6,761	100%	6,761
WTO F	SCADA	UNINTERRUPTABLE POWER SUPPLY	121,027	100%	121,027	100%	121,027
WTO F	IDC	IDC	2,484	100%	2,484	100%	2,484
WTO F	AUX PWR SYS - BACKUP GENERATOR	AUXILIARY POWER SYSTEM	454,504	100%	454,504	100%	454,504
WTO F	IDC	IDC	12,877	100%	12,877	100%	12,877
WTO F	(5) DIGITAL VOICE RECORDERS - WTO F	SCADA	20,217	100%	20,217	100%	20,217
WTO F	IDC	IDC	1,979	100%	1,979	100%	1,979
WTO F	BATTERY BANK FOR UPS	BATTERY	36,320	100%	36,320	100%	36,320
WTO F	IDC	IDC	631	100%	631	100%	631
WTO F	DIGITAL TRANS & REC EQUIP	SCADA	23,847	100%	23,847	100%	23,847
WTO F	FREQUENCY CONTROL ADDITIONS	LOAD AND FREQUENCY CONTROL EQL	57,731	100%	57,731	100%	57,731
WTO F	TELEPHONE COMMUNICATION EQUIPMENT	PLANT COMM SYSTEM	144,190	100%	144,190	100%	144,190
WTO F	PLANT COMM SYSTEM	PLANT COMM SYSTEM	167,020	100%	167,020	100%	167,020
WTO F	IDC	IDC	2,373	100%	2,373	100%	2,373
WTO F	ADD DROP MULTIPLEXER	ADD DROP MULTIPLEXER	267,249	100%	267,249	100%	267,249
WTO F	IDC	IDC	16,354	100%	16,354	100%	16,354
WTO F	TELEPHONE SYSTEM	TELEPHONE SYSTEM	559,892	100%	559,892	100%	559,892
WTO F	IDC	IDC	33,280	100%	33,280	100%	33,280
WTO F	SCADA	SCADA	1,215,754	100%	1,215,754	100%	1,215,754
WTO F	IDC	IDC	15,473	100%	15,473	100%	15,473
	TOTAL		5,452,412		5,452,412		5,452,412
WTO F	WATERTOWN OPERATIONS BUILDING	CONTROL BUILDING	636,802	65.3%	415,832	82%	522,178
WTO F	IDC	IDC	3,422	65.3%	2,235	82%	2,806
WTO F	RESURFACE PARKING LOT AT WATERTOWN OPS OFFICE	OFFICE BUILDING	152,204	65.3%	99,389	82%	124,807
WTO F	WALLS	WALLS	276,284	65.3%	180,413	82%	226,553
WTO F	IDC	IDC	2,835	65.3%	1,851	82%	2,325
WTO F	MICROWAVE COMMUNICATION EQUIPMENT	SYNC UNIT	20,893	65.3%	13,643	82%	17,133
WTO F	MICROWAVE COMMUNICATION EQUIPMENT	REMOTE STATION	20,482	65.3%	13,375	82%	16,795
WTO F	IDC	IDC	405,078	65.3%	264,516	82%	332,164
WTO F	VEHICLE/STORAGE BUILDING	GARAGE	651,816	65.3%	425,636	82%	534,489
WTO F	IDC	IDC	39,508	65.3%	25,799	82%	32,397
WTO F	SIDEWALKS	SIDEWALKS	153,428	65.3%	100,188	82%	125,811
WTO F	IDC	IDC	2,052	65.3%	1,340	82%	1,682
WTO F	TELEPHONE COMMUNICATION EQUIPMENT	TELEPHONE SYSTEM	146,115	65.3%	95,413	82%	119,814
WTO F	IDC - REPLACEMENTS	IDC	1,845	65.3%	1,205	82%	1,513
WTO F	IDC - ADDITIONS	IDC	3,845	65.3%	2,511	82%	3,153
WTO F	PSOO-WATER SYSTEM	METER EQUIPMENT	219,050	65.3%	143,040	82%	179,621
WTO F	IDC	IDC	285,734	65.3%	186,585	82%	234,302
WTO F	PWR SYS OPERATIONS OFFICE BUILDING (PART 1 OF 2)	STORAGE BUILDING	1,929,776	65.3%	1,260,144	82%	1,582,417
WTO F	WATERTOWN OPS BLDG EXPANSION (PSOO)	STORAGE BUILDING	303,096	65.3%	197,922	82%	248,539
WTO F	WATERTOWN OPS BLDG EXPANSION	STORAGE BUILDING	1,362,395	65.3%	889,644	82%	1,117,164
	TOTAL		6,616,659		4,320,679		5,425,661

WAPA-UGP 2021 Rate Estimate Calculation

Worksheet 14 - Rate for Regulation and Frequency Response

12 Months Ending 09/30/2021 ESTIMATE

Line No.	DESCRIPTION (1)	REGULATION and FREQUENCY RESPONSE (2)	REFERENCE (3)
1	Western Regulation Revenue Requirement	\$336,755	L19 C2
2	Under Collection - 2019 Regulation Revenue Rqmt	\$110,939	Prior year true-up
3	Total Regulation Revenue Rqmt with True-up	447,694	L1 + L2
Regulation and Frequency Response (Western's Costs)			
4	Fixed Charge Rate	13.974%	WS2-AllocFactor C5 L30
5	Corps Generation Net Plant Costs (\$)	\$ 581,186,456	WS2-AllocFactor C5 L31
6	Annual Corps Generation Cost (\$)	\$ 81,214,816	L1*L2
7	Plant Capacity (kW)	2,137,000	(1)
8	Cost/kW (\$/kW)	\$ 38.00	L3/L4
9	Capacity Used for Regulation (kW)	8,861	(2)
10	Regulation Revenue Requirement (\$) - Capacity	\$336,755	L8*L9
18	Regulation Revenue Requirement (\$) - Purchases	\$0	(3)
19	Total Regulation Revenue Requirement (\$)	\$336,755	
(1)	WAPA Annual Report plant capacity		
(2)	WAUW capacity used for regulation (WAUW-Regulation-Requirements.pdf)		
(3)	Cost of purchases required to regulate for Intermittent Resources		

WAPA-UGP 2021 Rate Estimate Calculation

Worksheet 15 - Rate for Reserves

12 Months Ending 09/30/2021 ESTIMATE

Line No.	DESCRIPTION (1)	RESERVES (2)	REFERENCE (3)
1	Fixed Charge Rate	13.974%	WS2-AllocFactor C5 L30
2	Corps Generation Net Plant Costs (\$)	\$ 581,186,456	WS2-AllocFactor C5 L31
3	Annual Corps Generation Cost (\$)	\$ 81,214,816	L1*L2
4	Plant Capacity (kW)	2,137,000	(1)
5	Cost/kW (\$/kW-Yr)	\$ 38.00	L3/L4
6	Monthly Charge (\$/kW-mo)	\$ 3.17	L5/12 months
7	Western's Maximum Load in WAUW Control Area (kW)	159,000	(2)
8	Maximum Generation in WAUW Control Area (kW)	92,000	(3)
9	Capacity used for Reserves (kW) -- 3% Load + 3% Gen	7,530	L7*3% + L8*3% (4)
10	Annual Reserves Revenue Requirement	\$ 286,171	L9*L5
11	Under Collection - 2019 WAUW Reserves Revenue Rqmt	\$ 135,769	Prior year true-up
12	Annual Reserve Sharing Group Cost	\$ 65,525	(5)
13	Total Regulation Reserves Rqmt with True-up	\$ 487,465	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		