Western Area Power Administration (WAPA)

Upper Great Plains Region (WAPA-UGP)

Transmission and Ancillary Services Rate Calculation

Effective January 1, 2024

WAPA-UGP 2024 Rate Estimate Calculation

(Rate Order No. WAPA-188)

WAPA-UGP

Transmission and Ancillary Services List of Workpapers and Schedules

Worksheet Tab Label	Worksheet Tab Description
Summary-ATRR	Worksheet "Summary-ATRR" -- Calculation of ATRRs
WS1-RateBase	Worksheet 1 -- Calculation of Rate Base
WS2-AllocFactor	Worksheet 2 -- Allocation Factors
WS3-RevCredits	Worksheet 3 -- Revenue Credit Detail
WS4-CostData	Worksheet 4 -- Cost Support Data
WS5-BPUz	Worksheet 5 -- SPP Base Plan Upgrades (BPU) - Zonal
WS6-BPUr	Worksheet 6 -- SPP Base Plan Upgrades (BPU) - Regional
WS7-BPUFac	Worksheet 7 -- SPP Base Plan Upgrades (BPU) - Facilities
WS8-TranFac	Worksheet 8 -- Transmission Facilities
WS9-AI-Incl	Worksheet 9 -- WAPA-UGP Facilities Included per SPP Tariff Attachment AI
WS10-AI-Excl	Worksheet 10 -- WAPA-UGP Facilities Excluded per SPP Tariff Attachment AI
WS11-FacChanges	Worksheet 11 -- Facility Changes Detail
WS12-SSCD	Worksheet 12 -- Scheduling, System Control and Dispatch Service (SSCD) ARR
WS13-SSCDFac	Worksheet 13 -- Scheduling, System Control and Dispatch Service (SSCD) Facilities
WS14-Reg	Worksheet 14 -- Regulation and Frequency Response ARR
WS15-Res	Worksheet 15 -- Reserves ARR

WAPA-UGP 2024 Rate Estimate Calculation
Summary-ATRR - Calculation of ATRRs (Sched 9, Sched 11)
12 Months Ending 09/30/2024 ESTIMATE

(Back to Worksheet Links)

Line No.	(1)	REFERENCE (2)	COMPANY TOTAL $ (3)	ALLOCATOR (4)	ALLOCATION % (5)	TRANSMISSION ALLOCATED AMOUNT $ (6)
1	Gross Zonal Revenue Requirement-Sch 9	WS1-RateBase C5L1				159,291,524
2	REVENUE CREDITS					
3	Firm Point-to-Point Revenue Credit	WS3-RevCredits C5L4	(6,300,000)	NA	100%	(6,300,000)
4	Non-Firm Point-to-Point Revenue Credit	WS3-RevCredits C5L9	(3,850,000)	NA	100%	(3,850,000)
5	Revenue from Existing Transmission Agreements	WS3-RevCredits C5L12	(1,250,000)	NA	100%	(1,250,000)
6	Scheduling, System Control, and Dispatch Service Credit	WS12-SSCD C2L11	(11,804,150)	NA	100%	(11,804,150)
7	Account No. 454	WS3-RevCredits C5L15	(4,240)	TP	100%	(4,240)
8	Z2 Nonfirm Point-to-Point Revenue Credit		5,500	NA	100%	5,500
9	TOTAL REVENUE CREDITS	Subtotal L3:L8	(23,202,890)			(23,202,890)
10	TRUE-UP ADJUSTMENT (from TRUEUP Sheet)	Summary-TrueUp L12	(2,291,811)			(2,291,811)
11	**Net Revenue Requirement**	**Total L1-L9+L10**				**133,796,823**
12						

Line No.	(1)	TOTAL PROJECT ATRR $ (2)	PTP REVENUE CREDIT $ (3)	TRUE-UP ADJ $ (4)	ALLOCATED AMOUNT $ /2 (5)
13	**SPP Upgrades - Gross Revenue Requirement-Sch 11***	**2,054,300**	**(72,500)**	**(94,066)**	**1,887,734**
14	Zonal less True-Up (from TRUEUP Sheet)			(71,795)	1,409,864
15	Regional less True-Up (from TRUEUP Sheet)			(22,271)	477,870
16	Breakout by Facility:				
17	Lewis-Richland 115 kV Ckt 1, 72052 /1	5,216	(219)	(510)	4,487
18	Roberts County 115 kV Substation, 71926	332,498	(10,983)	(43,917)	277,598
19	Roberts County 115/69 kV Transformer, 71927	510,737	(21,464)	(49,632)	439,641
20	Williston Substation 115kV Terminal Upgrades, 61856 /1	41	(2)	(7)	32
21	Moorhead Reactor, 143159 3/	185,336	(6,122)	-	179,214
22	Bismarck 12.47 kV Reactor, 143157	261,760	(8,647)	-	253,113
23	Oahe 230 kV Terminal Upgrades, 122734	169,319	(5,593)	-	163,726
24	Sully Buttes-Whitlock 230 kV Line Clearance Increase, 143613	100,521	(3,320)	-	97,200
25	Whitlock-Glenham 230 kV Clearance Increase, 143614	488,871	(16,149)	-	472,722
26	Net Revenue Requirement				**1,887,734**

27 1/ The Region-Wide Revenue Requirement Amount for this project or reservation is 0%, pursuant to the provisions of Tariff Attachment J because the investment is less than $100,000.
28 The remainder of the Revenue Requirement is the Zonal Revenue Requirement Amount.
29 2/ The ATRR per project is allocated by SPP to Zonal and/or Regional in accordance with the SPP Tariff.
30 3/ WAPA's portion of the Moorhead Reactor upgrade was limited to items listed in WS7-BPUFac

Summary of incremental changes; Minor updates to increase transparency

Date (1)	Worksheet (2)	Reference Cell(s) (3)	Change From (4)	Change To (5)	Description (6)
9/1/2023	Summary-ATRR	L17			Formula updated to display amounts SPP uses in ATRR
9/1/2023	Summary-ATRR	C5L17-END			Formula updated to display amounts SPP uses in ATRR
9/1/2023	Summary-ATRR	C4L17-END			Formula updated to display amounts SPP uses in ATRR
9/1/2023	Summary-ATRR	C5L17-END			Formula updated to display total
9/1/2023	Summary-ATRR	C4L17-END			Formula updated to display total
9/1/2023	WS5-BPUz	L14			Updated footnote to reflect true-up allocation
9/1/2023	WS5-BPUz	C14			Updated true-up allocation with addition of new projects
9/1/2023	WS6-BPUr	L13			Updated footnote to reflect true-up allocation
9/1/2023	WS6-BPUr	C14			Updated true-up allocation with addition of new projects
9/1/2023	Summary-ATRR	L9			Removed line for Schedule 11 Point-to-Point Revenue Credit (not receiving credits to estimate)
9/1/2023	WS3--RevCredits	L13-14			Removed lines for Schedule 11 Point-to-Point Revenue Credit (not receiving credits to estimate)

WAPA-UGP 2024 Rate Estimate Calculation
Worksheet 1 - Schedule 9 Revenue Requirement - Non-Levelized
Utilizing Financial Statement Results of Operations (ROOs)
12 Months Ending 09/30/2024 ESTIMATE

Line No.	(1)	REFERENCE (2)	COMPANY TOTAL (3)	ALLOCATOR	(4)	TRANSMISSION ALLOCATED AMOUNT (5)
1	GROSS REVENUE REQUIREMENT	(L69)	159,291,524			159,291,524
2	REVENUE CREDITS	Estimate	(23,202,890)			(23,202,890)
3	PRIOR PERIOD TRUE-UP (Over-collection)		(2,291,811)			(2,291,811)
4	NET REVENUE REQUIREMENT	(L1 + L2 + L3)	133,796,823			133,796,823
	RATE BASE:					(Col 3 times Col 4)
	GROSS PLANT IN SERVICE	(Note A)				
5	Production	WS4-CostData L4 C2+C3+C4	1,272,004,993	NA		
6	Transmission	WS4-CostData L3 C2+C3+C4	1,607,999,967	TP	1.00000	1,607,999,967
7	Distribution	WS4-CostData C2 L2-L3-L4	77,352,668	NA		
8	General & Intangible	Bal Sheet - Other Assets - SGL 175002	-	W/S	1.00000	0
9	Common		-	CE	0.00000	0
10	TOTAL GROSS PLANT	(sum L5 : 9)	2,957,357,628	GP=	54.373%	1,607,999,967
	ACCUMULATED DEPRECIATION					
11	Production	WS4-CostData L15 C2+C3+C4	670,731,333	NA		
12	Transmission	WS4-CostData L14 C2+C3+C4	842,730,043	TP	1.00000	842,730,043
13	Distribution	WS4-CostData C2 L13-L14-L15	40,523,641	NA		
14	General & Intangible	Bal Sheet - Other Assets - SGL 175902	0	W/S	1.00000	0
15	Common		0	CE	0.00000	0
16	TOTAL ACCUM. DEPRECIATION	(sum L11 : 15)	1,553,985,017			842,730,043
	NET PLANT IN SERVICE					
17	Production	(L5 - L11)	601,273,660			
18	Transmission	(L6 - L12)	765,269,924			765,269,924
19	Distribution	(L7 - L13)	36,829,027			
20	General & Intangible	(L8 - L14)	0			0
21	Common	(L9 - L15)	0			0
22	TOTAL NET PLANT	(sum L17 : 21)	1,403,372,611	NP=	54.531%	765,269,924
	ADJUSTMENTS TO RATE BASE	(Note B)				
23	Account No. 281	(enter negative)	0		0.00000	0
24	Account No. 282	(enter negative)	0	NP	0.54531	0
25	Account No. 283	(enter negative)	0	NP	0.54531	0
26	Account No. 190		0	NP	0.54531	0
27	Account No. 255	(enter negative)	0	NP	0.54531	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	26,285,646			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	0.54373	0
33	TOTAL WORKING CAPITAL	(sum L30 : 32)	26,285,646			0
34	RATE BASE	(sum L22, 28, 29, 33)	1,429,658,256			765,269,924
	O&M					
	Transmission	ROOs Schedule 11 (Note E)				
35	Western-UGP	WS4-CostData L104 C2	86,728,627	PTP/UGP	0.94184	81,684,878
36	Western-RMR	WS4-CostData L104 C3	46,417,099	PTP/RMR	0.00842	390,740
37	COE	WS4-CostData L104 C4	51,502,422	PTP/COE	0.06631	3,415,043
38	Less Account 565	(Note E)		NA	1.00000	0
	A&G	ROOs Schedule 11 (Note F)				
39	Western-UGP	WS4-CostData L78 C2	12,304,169	PTP/UGP	0.94184	11,588,614
40	Western-RMR	WS4-CostData L78 C3	13,332,847	PTP/RMR	0.00842	112,236
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)	210,285,165			97,191,512
	DEPRECIATION EXPENSE					
47	Transmission	ROOs Schedule 4				
48	Western-UGP	WS4-CostData L37 C2	32,409,950	PTP/UGP	0.94184	30,525,132
49	Western-RMR	WS4-CostData L37 C3	18,423,416	PTP/RMR	0.00842	155,089
50	COE	WS4-CostData L37 C4	18,396,075	PTP/COE	0.06631	1,219,814
51	General		0	W/S	1.00000	0
52	Common		0	CE	0.00000	0
53	TOTAL DEPRECIATION	(sum L47 : 52)	69,229,441			31,900,035
	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	0.54373	0
57	Gross Receipts		0		0.00000	0
58	Other		0	GP	0.54373	0
59	Payments in lieu of taxes		0	GP	0.54373	0
60	TOTAL OTHER TAXES	(sum L54 : 59)	0			0
	INCOME TAXES	(Note I)		NA		
61	T=1 - {[(1 - SIT) * (1 - FIT)] / (1 - SIT * FIT * p)} =		0.00%			
62	CIT=(T/1-T) * (1-(WCLTD/R)) =		0.00%			
	where WCLTD= (line 100) and R= (line 102) and FIT, SIT & p are as given in footnote I.					
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	0.54531	0
67	Total Income Taxes	(L65 + L66)	0			0
68	RETURN [Rate Base * Rate of Return]	(L34 * L102)	56,418,846	NA		30,199,977
69	REV. REQUIREMENT	(sum L46, 53 ,60, 67, 68)	335,933,451			159,291,524

SUPPORTING CALCULATIONS AND NOTES

			$					
	TRANSMISSION PLANT INCLUDED IN UMZ RATES							
70	Total transmission plant	(L6, C3)					1,607,999,967	
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)					1,607,999,967	
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		11,588,614	1.00	11,588,614			
83	Distribution		0	0.00	0		W&S Allocator	
84	Other		0	0.00	0		($ / Allocation)	
85	Total	(sum L81 to L84)	11,588,614		11,588,614	=	1.00000	
	PERCENTAGE OF TOTAL PLANT ALLOCATOR PTP	(Note M)						
			$					
86	Transmission Plant in Service Western-UGP		1,511,459,499					
87	Total Plant in Service Western-UGP		1,604,786,714					
88	UGP Percentage of Transmission Plant to Total Plant	(L86 / L87)			PTP/UGP	=	0.94184	
89	Transmission Plant in Service Western-RMR		7,340,383					
90	Total Plant in Service Western-RMR		871,983,915					
91	RMR Percentage of Transmission Plant to Total Plant	(L89 / L90)			PTP/RMR	=	0.00842	
92	Transmission Plant in Service COE		89,200,085					
93	Total Plant in Service COE		1,345,230,531					
94	COE Percentage of Transmission Plant to Total Plant	(L92 / L93)			PTP/COE	=	0.06631	
	COMMON PLANT ALLOCATOR (CE)	(Note N)						CE
			$		% Electric		Labor Ratio =	0.00000
95	Electric		0		(L95 / L98)		(L85)	
96	Gas		0		0.00000	*	1.00000	
97	Water		0					
98	Total	(sum L95 : L97)	0					
	RETURN (R)		$					
99	Long Term Interest ROOs Schedule 5		$35,790,864					
					Cost			=WCLTD
			$	%	(Note O)		Weighted	
		HFD Sch's 21RX & 21X Col 8						
100	Long Term Debt	L23,25,26,29,30	906,943,469	100%	0.0395		0.0395	=R
101	Proprietary Capital		0	0%	0.1238		0.0000	
102	Total (sum L31-32)	(sum L100 : 101)	906,943,469	100%			0.0395	
103					Proprietary Capital Cost Rate =		12.38%	
104						TIER =	1.00	
	REVENUE CREDITS							
							Load	
	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)					4,240	
109	ACCOUNT 456 (OTHER ELECTRIC REVENUES)						0	
110	a. Transmission charges for all transmission transactions						0	
111	b. Transmission charges for all transmission transactions included in Divisor on page 1						0	
112	Total of (a)-(b)						0	

Note Letter	
	General Note: References to Results of Operations in this revenue requirement template indicate the Financial Statement Results of Operations (ROOs) Schedule where data is located. To the extent the references to ROOs data are missing, the entity will include a "Notes" section to provide this data.
A	Combines plant data for both the Western-Upper Great Plains Region (Western-UGP) and Western-Rocky Mountain Region (Western-RMR).
B	Does not apply to Western. For others, the balances in Accounts 190, 281, 282 and 283, as adjusted by any contra accounts identified as regulatory assets amounts in or liabilities related to FASB 106 or 109. Balance of Account 255 is reduced by prior flow throughs and excluded if the utility chose to utilize amortization of tax credits against taxable income as discussed in Note K. Account 281 is not allocated.
C	Transmission related only.
D	Cash Working Capital assigned to transmission is one-eighth of O&M allocated to transmission at line 46 column 5. Prepayments are the electric related prepayments booked to Account No. 165 and reported in the Other Assets Section of the Balance Sheet.
E	For O&M Expense, Calculated from ROOs Schedule 11 as Total O&M less Purchase Power, Transmission Service Provided by Others (FERC 565), O&M Expense Fort Peck Powerhouse, Prior Year Adjustments, A&G Expense from ROOs Schedule 11, plus CME and Warehouse Interest from ROOs Schedule 5. Depreciation Expense from ROOs Schedule 4.
F	Totals of ROOs Schedule 11A Object Classes 1411, 1412, 1415, 1416, 1421, 1422, 1425, 1426, 1431, 1432, 1441, 1442.
G	Line 42 - EPRI Annual Membership Dues, all Regulatory Commission Expenses, and non-safety related advertising. Line 43 - Regulatory Commission Expenses directly related to transmission service, ISO filings, or transmission siting.
H	Includes only FICA, unemployment, highway, property, gross receipts, and other assessments charged in the current year. Taxes related to income are excluded. Gross receipts taxes are not included in transmission revenue requirement in the Rate Formula Template, since they are recovered elsewhere.
I	Western is not subject to Federal or State Income Tax. Inputs Required: FIT = 0.00% SIT= 0.00% (State Income Tax Rate or Composite SIT) p = 0.00% (percent of federal income tax deductible for state purposes)
J	Removes dollar amount of transmission expenses included in the OATT ancillary services rates, including Acct No. 561. Western does not include transmission expenses in ancillary service rates.
K	Removes transmission plant determined by Commission order to be state-jurisdictional according to the seven-factor test (until RUS 12 balances are adjusted to reflect application of seven-factor test).
L	Removes dollar amount of transmission plant included in the development of OATT ancillary services rates and generation step-up facilities, which are deemed to 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 facilites and GSUs) which are not recovered under this Revenue Requirement Template.

WAPA-UGP 2024 Rate Estimate Calculation
Worksheet 2 - Allocation Factor, Determination of Pick-Sloan Missouri Basin Program--Eastern Division Annual Costs
12 Months Ending 09/30/2024 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	$85,490,662	$95,240,949	$48,087,379	$272,503	$830,251	WS4-Cost Data (O&M Expenses Worksheet)
3	Transmission of Electricity by Others	$0	$0	$0	$0	$0	
4	Total O&M Expense	$85,490,662	$95,240,949	$48,087,379	$272,503	$830,251	L2 + L3
5	Net Plant Investment	$765,269,924	$782,690,231	$593,667,884	$2,400,720	$7,314,410	WS4-Cost-Data (Net Plant Investment Worksheet)
6	O&M as % of Net Plant Investment	11.171%	12.168%	8.100%	11.351%	11.351%	L4/L5
7	**B. A&G Expense**						
8	A&G Expense	$11,700,850	$122,480	$0	$38,660	$117,788	WS4-CostData (A&G Expenses Worksheet)
9	Net Plant Investment	$765,269,924	$782,690,231	$593,667,884	$2,400,720	$7,314,410	L5
10	A&G as % of Net Plant Investment	1.529%	0.016%	0.000%	1.610%	1.610%	L8/L9
11	**C. Depreciation Expense**						
12	Depreciation Expense	$31,900,035	$23,867,612	$17,176,261	$101,833	$310,260	WS4-CostData (Depreciation Expense Worksheet)
13	Net Plant Investment	$765,269,924	$782,690,231	$593,667,884	$2,400,720	$7,314,410	L5
14	Depreciation as a % of Net Plant Investment	4.168%	3.049%	2.893%	4.242%	4.242%	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	3.942%	3.640%	3.640%	3.942%	3.942%	WS4-CostData (Cost of Capital Worksheet)
21	**G. Fixed Charge Rate**						
22	Operation and Maintenance Expense	11.171%	12.168%	8.100%	11.351%	11.351%	L6
23	A&G Expense	1.529%	0.016%	0.000%	1.610%	1.610%	L10
24	Depreciation Expense	4.168%	3.049%	2.893%	4.242%	4.242%	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	3.942%	3.640%	3.640%	3.942%	3.942%	L20
28	Total	20.811%	18.873%	14.633%	21.145%	21.145%	
29	**H. Revenue Requirement**						
30	Fixed Charge Rate	20.811%	18.873%	14.633%	21.145%	21.145%	L28
31	Net Plant Investment	$765,269,924	$782,690,231	$593,667,884	$2,400,720	$7,314,410	L5
32	Annual Western-UGPR Cost	$159,261,221	$147,717,298	$86,870,369	$507,641	$1,546,659	L30 * L31

WAPA-UGP 2024 Rate Estimate Calculation
Worksheet 3 - Revenue Credit Calculation
12 Months Ending 09/30/2024 ESTIMATE

Line No.	ACCOUNT	MONTH (1)	REFERENCE (2)	COMPANY TOTAL $ (3)	ALLOCATOR	ALLOCATION % (4)	TRANSMISSION ALLOCATED AMOUNT $ (5)
1	Z2 Sch 7/8/11		Z2	5,500	NA	100%	5,500
2	Z2 Sch 7/8/11	Adjustments	Z2	-		100%	0
3	Subtotal			5,500			5,500
4	Schedule 7		FIRM PTP	(6,300,000)	TP	100%	(6,300,000)
5	Schedule 7	Adjustments	FIRM PTP	-	TP	100%	0
6	Subtotal			(6,300,000)			(6,300,000)
7	Schedule 8		NONFIRM PTP	(3,850,000)	TP	100%	(3,850,000)
8	Schedule 8	Adjustments	NONFIRM PTP	-	TP	100%	0
9	Subtotal			(3,850,000)			(3,850,000)
10	Sch 7/8/11		MISO SEAMS	(1,250,000)	TP	100%	(1,250,000)
11	Sch 7/8/11	Adjustments	MISO SEAMS	-	TP	100%	0
12	Subtotal			(1,250,000)			(1,250,000)
13	45420		RENT FROM ELECTRIC PROPERTY	(4,240)	TP	100%	(4,240)
14	45420	Adjustments	RENT FROM ELECTRIC PROPERTY	-	TP	100%	0
15	Subtotal			(4,240)			(4,240)
16	Sch 11		BPU-ZONAL PTP	(65,000)	NA	100%	(65,000)
17	Sch 11	Adjustments	BPU-ZONAL PTP	-	NA	100%	0
18	Subtotal			(65,000)			(65,000)
19	Sch 11		BPU-REGIONAL PTP	(7,500)	NA	100%	(7,500)
20	Sch 11	Adjustments	BPU-REGIONAL PTP	-	NA	100%	0
21	Subtotal			(7,500)			(7,500)
22	NOTES:	Includes twelve months of revenue credits from January-December or February-January depending on when WAPA began receiving revenue credits from SPP.					
23		Revenue credit sheet may be updated or adjusted as necessary to include all revenue credits received.					
24		Z2 Schedule 7/8/11					
25		Schedule 7 - Firm PTP Transmission revenues					
26		Schedule 8 - Non-Firm PTP Transmission revenues					
27		Schedule 7/8/11 - MISO's SPP PTP transmission service revenues					
28		45420 - Other Rental revenues					
29		Schedule 11 Base Plan Upgrade, Zonal and Regional revenues					

WAPA-UGP 2024 Rate Estimate Calculation
Worksheet 4 - Cost Support Data
12 Months Ending 09/30/2024 ESTIMATE

(Back to Worksheet Links)

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	1,604,786,714	1/	871,983,915	2/	1,345,230,531	3/	565,922,078	12/	4,387,923,238
3	PS-ED Transmission Plant-in-Service	1,511,459,499	4/	7,340,383	5/	89,200,085	6/	0		1,607,999,967
4	PS-ED Generation Plant-in-Service	15,974,547	7/	0		1,256,030,446	L2-L3	565,922,078	L2-L3	1,837,927,071
5	PS-ED SSCD Plant-in-Service	17,251,263	8/							17,251,263
6	BPU-Regional Plant-in-Service	5,042,275								5,042,275
7	BPU-Zonal Plant-in-Service	15,362,587								15,362,587
8	Generation Plant to Total Plant	0.00995	L4/L2	0.00000	L4/L2	0.93369	L4/L2	1.00000	L4/L2	
9	Transmission Plant to Total Plant	0.94184	L3/L2	0.00842	L3/L2	0.06631	L3/L2	0.00000	L3/L2	
10	SSCD Plant to Total Plant	0.01075	L5/L2							
11	BPU-Regional Plant to Total Plant	0.00314	L6/L2							
12	BPU-Zonal Plant to Total Plant	0.00957	L7/L2							
13	PS Accumulated Depreciation	840,718,255	9/	459,121,572	10/	709,401,865	11/	384,505,507	12/	2,393,747,199
14	PS-ED Trans. Accumulated Depreciation	791,825,843	L13*L9	3,864,897	L13*L9	47,039,303	L13*L9	0	L13*L9	842,730,043
15	PS-ED Gen. Accumulated Depreciation	8,368,771	L13*L8	0		662,362,562	L13-L14	384,505,507	L13*L8	1,055,236,840
16	PS-ED SSCD Accumulated Depreciation	9,037,620	L13*L10							9,037,620
17	BPU-Regional Accumulated Depreciation	2,641,555	L13*L11							2,641,555
18	BPU-Zonal Accumulated Depreciation	8,048,177	L13*L12							8,048,177
19	PS-ED Net Transmission Plant	719,633,656	L3-L14	3,475,486	L3-L14	42,160,782	L3-L14	0	L3-L14	765,269,924
20	PS-ED Net Generation Plant	7,605,775	L4-L15	0	L4-L15	593,667,884	L4-L15	181,416,571	L4-L15	782,690,231
21	PS-ED Net SSCD Plant	8,213,644	L5-L16							8,213,644
22	Regional Net Plant	2,400,720	L6-L17							2,400,720
23	Base Plan Upgrade Net Plant	7,314,410	L7-L18							7,314,410
24	1/ WS8-TransFac, C5L515									
25	2/ RMCSR - Pick-Sloan Missouri River Basin Results of Operations (ROOs), Schedule 1									
26	3/ Corps of Engineers (COE) Financial Statements, Electric and Power Multi-Purpose Plant in Service									
27	4/ WS8-TransFac, C9L515									
28	5/ WS8-TransFac, C9L506									
29	6/ WS8-TransFac, C9L513									
30	7/ WS8-TransFac, C7L515									
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									

WAPA-UGP 2024 Rate Estimate Calculation

Line No.	(1)	WESTERN-UGP (2)		WESTERN-RMR (3)		COE (4)		BOR (5)		TOTAL (6)
36	**Depreciation Worksheet**									
37	PS Depreciation Expense	32,409,950	1/	18,423,416	2/	18,396,075	3/	6,368,733	4/	75,598,174
38	PS-ED Transmission Depreciation 5/	30,525,132	L37*L9	155,089	L37*L9	1,219,814	L37*L9	0	L37*L9	31,900,035
39	PS-ED Generation Depreciation 6/	322,619	L37*L8	0	L37*L8	17,176,261	L37*L8	6,368,733	L37*L8	23,867,612
40	PS-ED SSCD Depreciation 7/	348,403	L37*L10							348,403
41	BPU-Regional Depreciation	101,833	L37*L11							101,833
42	BPU-Zonal Depreciation	310,260	L37*L12							310,260
43	1/ FY UGPCSR - Pick-Sloan Missouri River Basin and UGPCSR - Ft. Peck Power System Results of Operations, Schedule 4									
44	2/ FY RMCSR - Pick-Sloan Missouri River Basin Results of Operations, Schedule 4									
45	3/ FY Corps of Engineers Statement of Revenues and Expenses									
46	4/ Combined Financial Statements, Detail by Agency									
47	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									
48	plant-in-service, calculated on L9 of the Net Plant Investment Worksheet									
49	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,									
50	calculated on L8 of the Net Plant Investment Worksheet. COE generation depreciation is COE total depreciation less transmission depreciation									
51	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 L10 of the Net Plant									
52	Investment Worksheet									

WAPA-UGP 2024 Rate Estimate Calculation

Line No.	(1)	WESTERN-UGP (2)		WESTERN-RMR (3)		COE (4)		BOR (5)		TOTAL (6)	
53	**Cost of Capital Worksheet**										
54	**Long Term Debt:**										
55	FY Balances	909,534,006	1/	383,865,578	1/	709,902,522	1/	229,003,928	1/	2,232,306,034	
56	**Interest Expenses:**										
57	FY Interest	36,333,083	13/	8,760,323	13/	22,576,411	2/	10,646,248	2/	78,316,065	
58	Average Interest Rate	3.995%	L57/L55	2.282%	L57/L55	3.180%	L57/L55	4.649%	L57/L55		
59	Transmission Plant Factor	0.9407	3/	0.0045	4/	0.0548	5/	0.0000	6/		
60	Weighted Trans. Composite Rate									3.942%	7/
61	Generation Plant Factor	0.0087	8/	0.0000	9/	0.6834	10/	0.3079	11/		
62	Weighted Gen. Composite Rate									3.640%	12/
63	1/ FY Historical Financial Data in Support of the Power Repayment Study for the P-SMBP, Schedules 21X and 21RX										
64	2/ Interest from Combined Financial Statements, Detail By Agency/Col M L53										
65	3/ C2L3+C2L6+C2L7, Net Plant Investment Worksheet/C6L3+C6L6+C6L7, Net Plant Investment Worksheet										
66	4/ C3L3, Net Plant Investment Worksheet/C6L3+C6L6+C6L7, Net Plant Investment Worksheet										
67	5/ C4L3, Net Plant Investment Worksheet/C6L3+C6L6+C6L7, Net Plant Investment Worksheet										
68	6/ C5L3, Net Plant Investment Worksheet/C6L3+C6L6+C6L7, Net Plant Investment Worksheet										
69	7/ (C2L58*C2L59)+(C3L58*C3L59)+(C4L58*C4L59)+(C5L58*C5L59)										
70	8/ C2L4, Net Plant Investment Worksheet/C6L4, Net Plant Investment Worksheet										
71	9/ C3L4, Net Plant Investment Worksheet/C6L4, Net Plant Investment Worksheet										
72	10/ C4L4, Net Plant Investment Worksheet/C6L4, Net Plant Investment Worksheet										
73	11/ C5L4, Net Plant Investment Worksheet/C6L4, Net Plant Investment Worksheet										
74	12/ (C2L58*C2L61)+(C3L58*C3L61)+(C4L58*C4L61)+(C5L58*C5L61)										
75	13/ FY UGPCSR - Pick-Sloan Missouri River Basin and UGPCSR - Ft. Peck Power System Results of Operations, Schedule 5										

WAPA-UGP 2024 Rate Estimate Calculation						
		WESTERN-UGP	WESTERN-RMR	COE	BOR	TOTAL
Line No.	(1)	(2)	(3)	(4)	(5)	(6)
76	**A&G Expenses Worksheet**					
77		**WESTERN-UGP 1/**	**WESTERN-RMR 2/**	**COE 3/**	**BOR 3/**	**Total**
78	**PS Total Est. A&G**	12,304,169	13,332,847	0	0	25,637,016
79	**PS-ED Est. Transmission A&G 4/**	11,588,614	112,236	0	0	11,700,850
80	**PS-ED Generation A&G 5/**	122,480	0	0	0	122,480
81	**PS-ED SSCD A&G 6/**	132,268	0	0	0	132,268
82	**BPU-Regional A&G**	38,660	0	0	0	38,660
83	**BPU-Zonal A&G**	117,788	0	0	0	117,788
84	1/ Western-UGP A&G Est. Expenses are from the FY UGPCSR - Pick-Sloan Missouri River Basin and UGPCSR - Ft. Peck Power System Budget					
85	2/ Western RMR A&G Expenses are from the FY RMCSR - Pick-Sloan Missouri River Basin Budget					
86	3/ A&G Expenses for COE and BOR are unavailable. All COE and BOR A&G expenses are included in O&M Expenses					
87	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 L9 of the Net Plant					
88	Investment Worksheet					
89	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 L8 of the Net Plant					
90	Investment Worksheet					
91	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 L10 of the Net Plant Investment Worksheet					

WAPA-UGP 2024 Rate Estimate Calculation

Line No.	(1)	WESTERN-UGP (2)	WESTERN-RMR (3)	COE (4)	BOR (5)	TOTAL (6)
92	**O&M Expenses Worksheet**					
93		**WESTERN-UGP 1/**	**WESTERN-RMR 2/**	**COE 3/**	**BOR 4/**	
94	**Total Electric Operating Expense**	90,825,509	45,485,837	51,502,422	46,290,246	234,104,014
95	**Less:**					
96	**Other Power Supply Expenses**					
97	**A&G Expenses**	12,304,169				12,304,169
98	**Prior Year Adjustments**					
99	**Annual Reserve Sharing Group Cost**	38,360				38,360
100	**Plus:**					
101	**Moveable Property Interest**	8,245,648				8,245,648
102	**Warehouse Stores Interest**					
103	**Scheduling, System Control & Dispatch**	10,999,667				10,999,667
104	**PS Total O&M**	86,728,627	46,417,099	51,502,422	46,290,246	230,007,132
105	**PS-ED Transmission O&M 5/**	81,684,878	390,740	3,415,043	0	85,490,662
106	**PS-ED Generation O&M 6/**	863,324	0	48,087,379	46,290,246	95,240,949
107	**BPU-Regional O&M**	272,503				272,503
108	**BPU-Zonal O&M**	830,251				830,251
109	1/ All Western-UGP O&M Expenses are from the FY UGPCSR - Pick-Sloan Missouri River Basin and UGPCSR - Ft. Peck Power System Budget					
110	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					
111	Stores Interest, which are from Schedule 5					
112	3/ Total Corps O&M Expenses are from the FY Corps of Engineers Financial Statements					
113	4/ Total BOR O&M Expenses are from the Combined Financial Statements					
114	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 L9 of the					
115	Net Plant Investment Worksheet					
116	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 L8 of the					
117	Net Plant Investment Worksheet					

WAPA-UGP 2024 Rate Estimate Calculation (Back to Worksheet Links)
Worksheet 5 - Zonal SPP Upgrade Calculations
12 Months Ending 09/30/2024 ESTIMATE

Line No.	Project Name and #	Type	Project Gross Plant (Zonal Allocation) $	Allocation Factor %	Project Accumulated Depreciation	Allocation for Transmission O&M $	Allocation for General Plant Depreciation $	Allocation for A&G $	Cost of Capital	Project Net Plant $	Cost of Capital $	Project ATRR $	Revenue Credit Allocation $ /1	True-Up Calculation $ /2	Net ATRR $
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1	Lewis-Richland 115 kV Ckt 1, 72052	TL	51,813	0.337%	$ 27,144	2,800	1,046	397	3.942%	24,669	973	5,216	(219)	(510)	4,487
2	Roberts County 115 kV Substation, 71926	SUB	2,212,759	14.404%	$ 1,159,224	119,586	44,688	16,966	3.942%	1,053,535	41,534	222,774	(9,362)	(21,646)	191,765
3	Roberts County 115/69 kV Transformer, 71927	SUB	5,073,024	33.022%	$ 2,657,664	274,165	102,454	38,896	3.942%	2,415,360	95,222	510,737	(21,464)	(49,632)	439,641
4	Williston Substation 115 kV Terminal Upgrades, 61856	SUB	403	0.003%	$ 211	22	8	3	3.942%	192	8	41	(2)	(7)	32
5	Moorhead Reactor, 143159	TL	1,233,403	8.029%	$ 646,157	66,658	24,910	9,457	3.942%	587,246	23,151	124,175	(5,219)		118,957
6	Bismarck 12.47 kV Reactor, 143157	SUB	1,742,000	11.339%	$ 912,602	94,144	35,181	13,356	3.942%	829,398	32,698	175,379	(7,371)		168,009
7	Oahe 230 kV Terminal Upgrades, 122734	TL	1,126,811	7.335%	$ 590,315	60,897	22,757	8,639	3.942%	536,495	21,151	113,444	(4,768)		108,676
8	Sully Buttes-Whitlock 230 kV Line Clearance Increase, 143613	TL	668,961	4.354%	$ 350,456	36,153	13,510	5,129	3.942%	318,504	12,557	67,349	(2,830)		64,519
9	Whitlock-Glenham 230 kV Clearance Increase, 143614	TL	3,253,413	21.178%	$ 1,704,403	175,827	65,705	24,944	3.942%	1,549,010	61,068	327,544	(13,765)		313,778
10															
11															
12	**Total**		**15,362,587**	**100%**	**$ 8,048,177**	**830,251**	**310,260**	**117,788**		**7,314,410**	**288,360**	**1,546,659**	**(65,000)**	**(71,795)**	**1,409,864**
13	1/ Revenue Credit Allocation Total from WS3-Rev Credit C5L18 and allocated based on the ratio of Zonal project plant-in-service to total Zonal plant-in-service, calculated in column 4 of this worksheet														
14	2/ True-up Total from Summary-ATRR C4L14 and allocated based on the ratio of Zonal project plant-in-service to total Zonal plant-in-service, calculated in column 4 of the True-up Worksheet WS5-BPUz														

WAPA-UGP 2024 Rate Estimate Calculation (Back to Worksheet Links)

Worksheet 6 - Base Plan Upgrades-Regional

12 Months Ending 09/30/2024 ESTIMATE

Line No.	Project Name and #	Type	Project Gross Plant (Regional Allocation) $	Allocation Factor %	Project Accumulated Depreciation $	Allocation for Transmission O&M $	Allocation for General Plant Depreciation $	Allocation for A&G $	Cost of Capital	Project Net Plant $	Cost of Capital $	Project ATRR $	Revenue Credit Allocation $ /1	True-up Calculation $ /2	Net ATRR $
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1	Roberts County 115 kV Substation, 71926	SUB	1,089,866	21.61%	570,961	58,900	22,011	8,356	3.94%	518,905	20,457	109,724	(1,621)	(22,271)	85,832
2	Moorhead Reactor, 143159	TL	607,497	12.05%	318,257	32,831	12,269	4,658	3.94%	289,240	11,403	61,161	(904)		60,257
3	Bismarck 12.47 kV Reactor, 143157	SUB	858,000	17.02%	449,490	46,370	17,328	6,578	3.94%	408,510	16,105	86,381	(1,276)		85,105
4	Oahe 230 kV Terminal Upgrades, 122734	TL	554,996	11.01%	290,752	29,994	11,209	4,255	3.94%	264,244	10,417	55,875	(826)		55,050
5	Sully Buttes-Whitlock 230 kV Line Clearance Increase, 14361:	TL	329,488	6.53%	172,613	17,807	6,654	2,526	3.94%	156,875	6,185	33,172	(490)		32,682
6	Whitlock-Glenham 230 kV Clearance Increase, 143614	TL	1,602,427	31.78%	839,482	86,601	32,362	12,286	3.94%	762,945	30,078	161,328	(2,383)		158,944
7															
8															
9															
10															
11	**Total**		**5,042,275**	**100%**	**2,641,555**	**272,503**	**101,833**	**38,660**		**2,400,720**	**94,645**	**507,641**	**(7,500)**	**(22,271)**	**477,870**
12	1/ Revenue Credit Allocation Total from WS3-Rev Credit C5L21 and allocated based on the ratio of Regional project plant-in-service to total Regional plant-in-service, calculated in column 4 of this worksheet														
13	2/ True-up Total from Summary-ATRR C4L15 and allocated based on the ratio of Regional project plant-in-service to total Regional plant-in-service, calculated in column 4 of the True-up worksheet WS6-BPUr														

WAPA-UGP 2024 Rate Estimate Calculation (Back to Worksheet Links)
Worksheet 8 - Transmission Facilities
12 Months Ending 09/30/2024 ESTIMATE

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Line No.		**FID**	**DESCRIPTION**	**PRIOR YEAR FACILITY TOTALS ($)**	**EST ADD/REPL/RETIRE ($)**	**ESTIMATED FACILITY TOTAL ($)**	**ATTACHMENT AI ADJUSTMENTS ($)**	**GENERATION ADJUSTMENTS ($)**	**BASE UPGRADE ADUSTMENTS ($)**	**FY2024 EST SPP TOTALS ($)**
1	TL	AUR BR	AURORA- BROOKINGS 115-KV T/L	343,710		343,710	-	-		343,710
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	6,362,300		6,362,300	-	-		6,362,300
6	TL	BS JT 1	BISMARCK-JAMESTOWN NO. 1	9,317,120	2,815,879	12,132,999	-	-		12,132,999
7	TL	BS JT 2	BISMARCK-JAMESTOWN NO. 2	4,229,572		4,229,572	-	-		4,229,572
8	TL	BS MDR	BISMARCK-MEDORA	12,795,412		12,795,412	-	-		12,795,412
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	3,135,515	1,352,934	4,488,449	-	-		4,488,449
13	TL	CA JT	CARRINGTON-JAMESTOWN	1,259,668		1,259,668	-	-		1,259,668
14	TL	WC BU	CHARLIE CREEK - WATFORD CITY	13,451,446		13,451,446	-	-		13,451,446
15	TL	CCR BEF	CHARLIE CREEK-BELFIELD	14,513,308		14,513,308	-	-		14,513,308
16	TL	CR DC	CIRLCE-DAWSON COUNTY	5,768,275		5,768,275	-	-		5,768,275
17	TL	CONSH2	CONRAD-SHELBY #2	6,735,890		6,735,890	-	-		6,735,890
18	TL	CS MY	CRESTON-MARYVILLE	1,366,481		1,366,481	-	-		1,366,481
19	TL	DC MC	DAWSON COUNTY - MILES CITY	2,605,678		2,605,678	-	-		2,605,678
20	TL	DC GL	DAWSON-GLENDIVE	553,800		553,800	-	-		553,800
21	TL	DC MDR	DAWSON-MEDORA	3,464,064		3,464,064	-	-		3,464,064
22	TL	DC OF	DAWSON-O'FALLON CREEK	918,676		918,676	-	-		918,676
23	TL	DC WN	DAWSON-WILLISTON 2/	1,258,900		1,258,900	-	-	(51,813)	1,207,087
24	TL	DN CS	DENISON-CRESTON	20,977,731		20,977,731	-	-		20,977,731
25	TL	DL CA	DEVILS LAKE-CARRINGTON	9,154,519		9,154,519	-	-		9,154,519
26	TL	DL LA	DEVILS LAKE-LAKOTA	1,872,142		1,872,142	-	-		1,872,142
27	TL	ED FO	EDGELEY-FORMAN	1,981,753	1,805,279	3,787,032	-	-		3,787,032
28	TL	ED GR	EDGELEY-GROTON	771,572		771,572	-	-		771,572
29	TL	ELCMA	ELK CREEK-NEWELL-MAURINE 115-kV T/L	34,388		34,388	-	-		34,388
30	TL	FA GK	FARGO-GRAND FORKS	2,369,098		2,369,098	-	-		2,369,098
31	TL	FA MO	FARGO-MORRIS 2/	8,661,076	1,840,900	10,501,976	-	-	(1,840,900)	8,661,076
32	TL	FO RCO	FORMAN-ROBERTS COUNTY	183,485		183,485	-	-		183,485
33	TL	FO SU D	FORMAN-SUMMIT (BISMARCK)	922,098		922,098	-	-		922,098
34	TL	FO SU C	FORMAN-SUMMIT (HURON)	4,465,037		4,465,037	-	-		4,465,037
35	TL	FP DC 1	FORT PECK-DAWSON 1	200,790		200,790	-	-		200,790
36	TL	FP DC 2	FORT PECK-DAWSON 2	8,301,710		8,301,710	-	-		8,301,710
37	TL	FP HV	FORT PECK-HAVRE	28,806,330		28,806,330	-	-		28,806,330
38	TL	FP WH	FORT PECK-WHATELY	157,876		157,876	-	-		157,876
39	TL	FP WN	FORT PECK-WILLISTON	17,813,196		17,813,196	-	-		17,813,196
40	TL	FP WP 2	FORT PECK-WOLF POINT #2	7,554,492		7,554,492	-	-		7,554,492
41	TL	FR FT D	FORT RANDALL-FORT THOMPSON 1&2	7,782,247		7,782,247	-	-		7,782,247
42	TL	FR GP	FORT RANDALL-GAVIN'S POINT	2,319,939		2,319,939	-	-		2,319,939
43	TL	FR GY	FORT RANDALL-GREGORY	777,327		777,327	-	-		777,327

44	TL	FR MV	FORT RANDALL-MT VERNON	2,269,522		2,269,522	-	-		2,269,522
45	TL	FR ON	FORT RANDALL-O'NEILL	937,082	3,053,668	3,990,750	-	-		3,990,750
46	TL	FR SC D	FORT RANDALL-SIOUX CITY 1&2	11,919,659		11,919,659	-	-		11,919,659
47	TL	FT GI	FORT THOMPSON-GRAND ISLAND	17,840,941		17,840,941	-	-		17,840,941
48	TL	FT HU D	FORT THOMPSON-HURON 230-KV 1&2	7,747,203		7,747,203	-	-		7,747,203
49	TL	FT SF D	FORT THOMPSON-SIOUX FALLS 1&2	10,455,917		10,455,917	-	-		10,455,917
50	TL	GA BS D	GARRISON-BISMARCK 230KV 1&2	10,713,977		10,713,977	-	-		10,713,977
51	TL	GA JT	GARRISON-JAMESTOWN	5,062,688		5,062,688	-	-		5,062,688
52	TL	GA ML	GARRISON-MALLARD	1,948,079		1,948,079	-	-		1,948,079
53	TL	GA WJ	GARRISON-WM. J. NEAL	1,521,174		1,521,174	-	-		1,521,174
54	TL	GP BN	GAVINS POINT-BELDEN	455,727		455,727	-	-		455,727
55	TL	GP SF	GAVINS POINT-SIOUX FALLS	3,361,449		3,361,449	-	-		3,361,449
56	TL	GF MO	GRANITE FALLS- MORRIS	3,279,089		3,279,089	-	-		3,279,089
57	TL	GF MNV	GRANITE FALLS-MINNESOTA VALLEY	156,778		156,778	-	-		156,778
58	TL	GTFCON	GREAT FALLS-CONRAD	12,744,945		12,744,945	-	-		12,744,945
59	TL	GY MS	GREGORY-MISSION	10,110,752		10,110,752	-	-		10,110,752
60	TL	GR HU	GROTON-HURON	1,270,645		1,270,645	-	-		1,270,645
61	TL	GR SU	GROTON-SUMMIT	3,255,847		3,255,847	-	-		3,255,847
62	TL	HV RB	HAVRE-RAINBOW	8,681,332		8,681,332	-	-		8,681,332
63	TL	HV SH2	HAVRE-SHELBY#2	5,561,905		5,561,905	-	-		5,561,905
64	TL	HE DV	HESKETT-DEVAUL	6,016,436		6,016,436	-	-		6,016,436
65	TL	HETNU	HETTINGER-NEW UNDERWOOD	11,263,708		11,263,708	-	-		11,263,708
66	TL	HU MV	HURON-MT VERNON	617,623		617,623	-	-		617,623
67	TL	HU WT D	HURON-WATERTOWN 230KV 1&3	6,319,622		6,319,622	-	-		6,319,622
68	TL	JT ED	JAMESTOWN-EDGELEY	1,189,520		1,189,520	-	-		1,189,520
69	TL	JT FA 1	JAMESTOWN-FARGO NO. 1	4,941,649		4,941,649	-	-		4,941,649
70	TL	JT FA 2	JAMESTOWN-FARGO NO. 2	3,155,850		3,155,850	-	-		3,155,850
71	TL	JT GK	JAMESTOWN-GRAND FORKS	28,856,299		28,856,299	-	-		28,856,299
72	TL	JT VC	UTICA JCT-SIOUX FALLS	1,055,414		1,055,414	-	-		1,055,414
73	TL	KD CCR	KILLDEER-CHARLIE CREEK	-	4,978,524	4,978,524	-	-		4,978,524
74	TL	LAHCF	LAKE HELENA SWITCHYARD - CANYON FERRY 10(	619,324		619,324	-	-		619,324
75	TL	LE DL	LEEDS-DEVILS LAKE	8,987,642		8,987,642	-	-		8,987,642
76	TL	LE RL	LEEDS-ROLLA	6,257,786		6,257,786	-	-		6,257,786
77	TL	ML RG	MALLARD-RUGBY	1,089,083		1,089,083	-	-		1,089,083
78	TL	MR MS	MARTIN-MISSION	1,816,904		1,816,904	-	-		1,816,904
79	TL	MR PL	MARTIN-PHILIP	2,349,423		2,349,423	-	-		2,349,423
80	TL	MA RC	MAURINE-RAPID CITY	6,346,265		6,346,265	-	-		6,346,265
81	TL	MC BK	MILES CITY-BAKER	11,220,164		11,220,164	-	-		11,220,164
82	TL	MC CU	MILES CITY-CUSTER	3,750,704		3,750,704	-	-		3,750,704
83	TL	NU PL	NEW UNDERWOOD-PHILIP	3,215,519		3,215,519	-	-		3,215,519
84	TL	NU RC 1	NEW UNDERWOOD-RAPID CITY NO. 1	1,132,486		1,132,486	-	-		1,132,486
85	TL	NU RC 2	NEW UNDERWOOD-RAPID CITY NO. 2	309,991		309,991	-	-		309,991
86	TL	NU SG C	NEW UNDERWOOD-STEGALL (HURON)	2,651,860		2,651,860	-	-		2,651,860
87	TL	OA FT N	OAHE-FORT THOMPSON 230KV 1&2	3,973,416		3,973,416	-	-		3,973,416
88	TL	OA FT S	OAHE-FORT THOMPSON 230KV 3&4	5,563,296		5,563,296	-	-		5,563,296
89	TL	OA GH	OAHE-GLENHAM 2/	5,949,648	7,536,096	13,485,744	-	-	(7,536,096)	5,949,648
90	TL	OA MA	OAHE-MAURINE	1,967,901		1,967,901	-	-		1,967,901
91	TL	OA NU	OAHE-NEW UNDERWOOD	6,683,770		6,683,770	-	-		6,683,770
92	TL	OA PI	OAHE-PIERRE	388,816		388,816	-	-		388,816
93	TL	OF MC	O'FALLON CREEK-MILES CITY	2,488,318		2,488,318	-	-		2,488,318
94	TL	ORD GSO	ORDWAY-GROTON SOUTH	2,038,920		2,038,920	-	-		2,038,920

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	RCOSU	ROBERTS COUNTY-SUMMIT	757,812		757,812	-	-		757,812
99	TL	RG LE	RUGBY-LEEDS	2,235,655		2,235,655	-	-		2,235,655
100	TL	SH SH2	SHELBY-SHELBY #2	576,090		576,090	(576,090)	-		(0)
101	TL	SC DN	SIOUX CITY-DENISON	15,738,204		15,738,204	-	-		15,738,204
102	TL	SC SP	SIOUX CITY-SPENCER	1,938,353		1,938,353	-	-		1,938,353
103	TL	SC SF	SIOUX FALLS- SIOUX CITY	3,217,192		3,217,192	-	-		3,217,192
104	TL	SF VFO	SIOUX FALLS-VIRGIL FODNESS 230KV T-LINE	277,897		277,897	-	-		277,897
105	TL	SU WT	SUMMIT-WATERTOWN	6,743,203		6,743,203	-	-		6,743,203
106	TL	TT TI	TIBER TAP-TIBER	1,084,858		1,084,858	-	-		1,084,858
107	TL	UJ SF	UTICA JCT-SIOUX FALLS	3,485,236		3,485,236	-	-		3,485,236
108	TL	VC FO	VALLEY CITY-FORMAN	2,418,957		2,418,957	-	-		2,418,957
109	TL	VR GTF	VERONA GREAT FALLS 161-kV LINE	5,110,115	5,616,043	10,726,158	-	-		10,726,158
110	TL	UJ VFO	VIRGIL FODNESS-UTICA JUNCTION-FT RANDALL/	312,931		312,931	-	-		312,931
111	TL	WDDBEF	WARD DELIVERY-BELFIELD 230KV T-LINE	120,026		120,026				120,026
112	TL	WT GF D	WATERTOWN-GRANITE FALLS 1&2	7,488,154		7,488,154	-	-		7,488,154
113	TL	WT SC	WATERTOWN-SIOUX CITY	26,924,889		26,924,889	-	-		26,924,889
114	TL	WC BU	WATFORD CITY-BEULAH	349,954		349,954	-	-		349,954
115	TL	WN WC	WILLISTON-WATFORD CITY	17,627,868		17,627,868	-	-		17,627,868
116	TL	WP CR	WOLF POINT-CIRCLE	11,035,514		11,035,514	-	-		11,035,514
117	TL	WJ RG	WM. J. NEAL-RUGBY	4,629,316		4,629,316	-	-		4,629,316
118	TL	YT CU	YELLOWTAIL-CUSTER	4,270,497		4,270,497	-	-		4,270,497
119	**TL Total**		**TRANSMISSION LINES**	**611,018,038**	**28,999,323**	**640,017,361**	**(576,090)**	**-**		**630,012,462**
120	SUB	AN	ANITA	6,259		6,259	-	-		6,259
121	SUB	AVS	ANTELOPE VALLEY	12,377		12,377				12,377
122	SUB	APD	APPELDORN SUBSTATION	5,795,384		5,795,384	-	-		5,795,384
123	SUB	AR	ARMOUR SUBSTATION	2,318,295		2,318,295	(800,024)	-		1,518,271
124	SUB	AHS	ASH SUBSTATION	63,325		63,325	-	-		63,325
125	SUB	AB	ASSINNIBOINE	35,005		35,005	(35,005)	-		(0)
126	SUB	AUR	AURORA SUBSTATION	2,931,082		2,931,082	(124,344)	-		2,806,738
127	SUB	BK	BAKER	279,691		279,691	-	-		279,691
128	SUB	BN	BELDEN SUBSTATION	298,522		298,522	-	-		298,522
129	SUB	BEF	BELFIELD SUBSTATION	13,926,843		13,926,843	(109,224)	-		13,817,619
130	SUB	BE	BERESFORD SUBSTATION	4,733,510		4,733,510	(231,321)	-		4,502,189
131	SUB	BB	BISBEE SUBSTATION	495,306		495,306	(441,104)	-		54,202
132	SUB	BS	BISMARK SUBSTATION 2/	18,573,658	2,600,000	21,173,658	(200,648)		(2,600,000)	18,373,010
133	SUB	BI	BISON	37,821		37,821	-	-		37,821
134	SUB	BOL	BOLE SUB	3,077,348		3,077,348	(630,455)	-		2,446,893
135	SUB	BO	BONESTEEL SUBSTATION	3,496,396		3,496,396	(1,310,501)	-		2,185,895
136	SUB	BR	BROOKINGS SUBSTATION	14,164,196		14,164,196	-	-		14,164,196
137	SUB	CB	CAMPBELL COUNTY SWITCHING STATION /1	4,765,826		4,765,826	-	-		4,765,826
138	SUB	CF	CANYON FERRY	83,039		83,039	-	-		83,039
139	SUB	CRP	CARPENTER SUBSTATION	2,841,163		2,841,163	-	-		2,841,163
140	SUB	CA	CARRINGTON SUBSTATION	3,879,364		3,879,364	(1,007,873)	-		2,871,491
141	SUB	CCR	CHARLIE CREEK	1,401,477		1,401,477	-	-		1,401,477
142	SUB	CR	CIRCLE SUBSTATION	8,543,590		8,543,590	(2,065,347)	-		6,478,242
143	SUB	CON	CONRAD SUB	5,362,775		5,362,775	(151,625)	-		5,211,149
144	SUB	CS	CRESTON SUBSTATION	8,521,707		8,521,707	-	-		8,521,707
145	SUB	CRO	CROSSOVER SUB	13,977,734		13,977,734	-	-		13,977,734

146	SUB	CQE	CULBERTSON EAST SWITCHING STATION	2,390,851		2,390,851	-	-	2,390,851
147	SUB	CU	CUSTER SUBSTATION	4,865,007		4,865,007	(346,142)	-	4,518,865
148	SUB	CT	CUSTER TRAIL SUBSTATION	1,567,242		1,567,242	(1,567,242)	-	0
149	SUB	DC	DAWSON COUNTY SUBSTATION	10,803,793		10,803,793	(2,305)	-	10,801,488
150	SUB	DNT	DENBIGH TAP	848,872		848,872	(109,673)		739,199
151	SUB	DN	DENISON SUBSTATION	16,272,743		16,272,743	(183,385)	-	16,089,358
152	SUB	DV	DEVAUL SUBSTATION	1,657,438		1,657,438	(1,657,438)	-	0
153	SUB	DL	DEVILS LAKE SUBSTATION	14,635,855		14,635,855	(97,895)	-	14,537,960
154	SUB	DK	DICKINSON	101,980		101,980	-	-	101,980
155	SUB	EJ	E. J. MANNING	49,112		49,112	-	-	49,112
156	SUB	EA	EAGLE	88,696		88,696	-	-	88,696
157	SUB	EB	EAGLE BUTTE SUBSTATION	2,149,404		2,149,404	(1,211,250)	-	938,154
158	SUB	ED	EDGELEY SUBSTATION	6,811,986		6,811,986	(1,197,122)	-	5,614,864
159	SUB	ELC	ELK CREEK SUBSTATION	2,101,779		2,101,779	(17,147)	-	2,084,632
160	SUB	EL	ELLENDALE SUBSTATION	579		579	(579)	-	0
161	SUB	ELI	ELLIOTT SWITCHING STATION	3,507,129		3,507,129	(41,652)	-	3,465,477
162	SUB	END	ENDERLIN TAP STATION	749,768		749,768	(494,847)	-	254,921
163	SUB	EXI	EXIRA SWITCHING STATION	5,508,482		5,508,482	(164,229)	-	5,344,253
164	SUB	FVW	FAIRVIEW WEST SWITCHING STATION	4,296,873		4,296,873	-	-	4,296,873
165	SUB	FH	FAITH SUBSTATION	1,235,034		1,235,034	(586,377)	-	648,658
166	SUB	FA	FARGO SUBSTATION	27,447,906		27,447,906	-	-	27,447,906
167	SUB	FL	FLANDREAU SUBSTATION	4,485,548		4,485,548	(40,435)	-	4,445,113
168	SUB	FO	FORMAN SUBSTATION	7,486,471		7,486,471	(1,303,371)	-	6,183,099
169	SUB	FR	FORT RANDALL	253,710		253,710	-	-	253,710
170	SUB	FT2	FORT THOMPSON #2	13,833,713		13,833,713	-	-	13,833,713
171	SUB	FT	FORT THOMPSON SUBSTATION	17,456,296	1,671,352	19,127,648	(163,144)	-	18,964,504
172	SUB	GL	GLENDIVE SUBSTATION	1,725,310		1,725,310	-	-	1,725,310
173	SUB	GK	GRAND FORKS SUBSTATION	14,306,727		14,306,727	-	-	14,306,727
174	SUB	GI	GRAND ISLAND SUBSTATION	19,014,782		19,014,782	-	-	19,014,782
175	SUB	GRP	GRAND PRAIRIE SUBSTATION /1	269,023		269,023	-	-	269,023
176	SUB	GF	GRANITE FALLS SUBSTATION	23,973,749		23,973,749	(1,922,930)	-	22,050,819
177	SUB	GTF	GREAT FALLS SUB	8,470,404		8,470,404	-	-	8,470,404
178	SUB	GY	GREGORY SUBSTATION	1,517,925	6,216,663	7,734,588	(43,752)	-	7,690,836
179	SUB	GR	GROTON SUBSTATION	6,180,011		6,180,011	(326,877)	-	5,853,134
180	SUB	GSO	GROTON SOUTH SUBSTATION	8,552,324		8,552,324	-	-	8,552,324
181	SUB	HA	HARLEM	98,534		98,534	-	-	98,534
182	SUB	HV	HAVRE SUBSTATION	12,268,218		12,268,218	(62,475)	-	12,205,743
183	SUB	HBN	HEBRON SUBSTATION	6,872,238		6,872,238	(59,777)	-	6,812,460
184	SUB	HET	HETTINGER	10,832		10,832	-	-	10,832
185	SUB	HLK	HILKEN SUSTATION	3,937,936		3,937,936	(143,716)	-	3,794,220
186	SUB	HU	HURON SUBSTATION	12,929,080		12,929,080	(786,536)	-	12,142,544
187	SUB	JT	JAMESTOWN SUBSTATION	25,958,919		25,958,919	(3,366,859)	-	22,592,060
188	SUB	KD	KILLDEER SUBSTATION	7,092,854		7,092,854	(1,181,101)	-	5,911,753
189	SUB	LA	LAKOTA SUBSTATION	3,972,264		3,972,264	(1,591,198)	-	2,381,066
190	SUB	LE	LEEDS SUBSTATION	4,045,847		4,045,847	(158,722)	-	3,887,125
191	SUB	LET	LETCHER SUBSTATION	11,108,748		11,108,748	-	-	11,108,748
192	SUB	ML	MALLARD	29,969		29,969	-	-	29,969
193	SUB	MT	MALTA	340,848		340,848	-	-	340,848
194	SUB	MDN	MANDAN SUBSTATION	19,476		19,476	-	-	19,476
195	SUB	MR	MARTIN SUBSTATION	6,503,752		6,503,752	(836,290)	-	5,667,462
196	SUB	MA	MAURINE SUBSTATION	7,612,599	2,127,113	9,739,712	(343,742)	-	9,395,970

197	SUB	MD	MIDLAND SUBSTATION	1,329,826		1,329,826	(154,097)	-		1,175,729
198	SUB	MC2	MILES CITY SUB #2	7,904,071		7,904,071	-	-		7,904,071
199	SUB	MC3	MILES CITY SUB #3	1,895,702		1,895,702	-	-		1,895,702
200	SUB	MC	MILES CITY SUBSTATION	1,202,099		1,202,099	-	-		1,202,099
201	SUB	MGV	MINGUSVILLE	5,351,152		5,351,152	-	-		5,351,152
202	SUB	MS	MISSION SUBSTATION	3,531,441		3,531,441	(586,992)	-		2,944,449
203	SUB	MO	MORRIS SUBSTATION	7,937,660		7,937,660	(1,095,435)	-		6,842,225
204	SUB	MV	MT VERNON SUBSTATION	5,418,696		5,418,696	(195,318)	-		5,223,378
205	SUB	NA	NASHUA SUB	72,368		72,368	(72,368)	-		(0)
206	SUB	NEL	NELSON SUBSTATION	1,944,817		1,944,817	(33,744)	-		1,911,073
207	SUB	NU	NEW UNDERWOOD SUBSTATION	18,362,017		18,362,017	-	-		18,362,017
208	SUB	NL	NEWELL SUBSTATION	4,160,418		4,160,418	(287,497)	-		3,872,921
209	SUB	NBD	NORTH BEND SUBSTATION	-		-				0
210	SUB	OF	O'FALLON CREEK SUBSTATION	3,770,311		3,770,311	(71,356)	-		3,698,955
211	SUB	ON	O'NEILL SUB (NPP)	180,660		180,660	-	-		180,660
212	SUB	PET	PENN TAP	890,607		890,607	(108,485)	-		782,122
213	SUB	PL	PHILIP SUBSTATION	2,034,592		2,034,592	(209,290)	-		1,825,302
214	SUB	PI	PIERRE SUBSTATION	4,220,541		4,220,541	(699,890)	-		3,520,651
215	SUB	PLL	PLEASANT LAKE TAP	992,415		992,415	(160,601)	-		831,814
216	SUB	RB	RAINBOW SUBSTATION	250,629		250,629	(250,629)	-		(0)
217	SUB	RC	RAPID CITY SUBSTATION	5,739,051		5,739,051	(630,015)	-		5,109,036
218	SUB	RH	RICHLAND SUBSTATION	1,733,528		1,733,528	(1,733,528)	-		(0)
219	SUB	RCO	ROBERTS COUNTY SUBSTATION 2/	8,375,651		8,375,651	-	-	(8,375,651)	(0)
220	SUB	RL	ROLLA SUBSTATION	623,513		623,513	-	-		623,513
221	SUB	RY	RUDYARD SUBSTATION	3,439,427		3,439,427	(1,380,449)	-		2,058,978
222	SUB	RG	RUGBY SUBSTATION	8,746,430		8,746,430	(1,538,024)	-		7,208,406
223	SUB	SA	SAVAGE SUB	74,403		74,403	-	-		74,403
224	SUB	SH	SHELBY SUBSTATION	4,043,804		4,043,804	(4,043,804)	-		(0)
225	SUB	SH2	SHELBY SUBSTATION #2	5,664,918		5,664,918	(169,696)	-		5,495,222
226	SUB	SL	SHIRLEY TAP	22,102		22,102	-	-		22,102
227	SUB	SC2	SIOUX CITY #2	12,976,455	4,737,319	17,713,774	-	-		17,713,774
228	SUB	SC	SIOUX CITY SUBSTATION	15,965,765		15,965,765	-	-		15,965,765
229	SUB	SF	SIOUX FALLS SUBSTATION	14,869,650		14,869,650	(516,513)	-		14,353,137
230	SUB	SP	SPENCER	8,022,741		8,022,741	(254,683)	-		7,768,058
231	SUB	SNY	STANLEY	49,735		49,735	-	-		49,735
232	SUB	SB	SULLY BUTTES	93,606		93,606	-	-		93,606
233	SUB	SUH	SULPHUR	21,126		21,126	-	-		21,126
234	SUB	SU	SUMMIT SUBSTATION	3,393,721		3,393,721	(334,513)	-		3,059,208
235	SUB	TR	TERRY TAP	638,489		638,489	(103,121)	-		535,368
236	SUB	TT	TIBER TAP	166,306		166,306	-	-		166,306
237	SUB	TN	TOWNER SUBSTATION	5,243,015		5,243,015	-	-		5,243,015
238	SUB	TY	TYNDALL SUBSTATION	937,621		937,621	(125,594)	-		812,027
239	SUB	UJ	UTICA JCT.	12,816,177		12,816,177	-	-		12,816,177
240	SUB	VH	V. T. HANLON	12,228,700		12,228,700	-	-		12,228,700
241	SUB	VC	VALLEY CITY SUBSTATION	6,935,918		6,935,918	(176,541)	-		6,759,377
242	SUB	VR	VERONA	50,121		50,121	-	-		50,121
243	SUB	VE	VETAL TAP	232,375		232,375	-	-		232,375
244	SUB	VFO	VIRGIL FODNESS SUBSTATION	3,220,641		3,220,641	-	-		3,220,641
245	SUB	WL	WALL SUBSTATION	1,645,871		1,645,871	(654,299)	-		991,572
246	SUB	WDD	WARD SUBSTATION	3,453,847		3,453,847	(45,362)	-		3,408,485
247	SUB	WB	WASHBURN SUBSTATION	2,244,715		2,244,715	(942,415)	-		1,302,300

248	SUB	WT2	WATERTOWN #2	3,223,563		3,223,563	-	-		3,223,563
249	SUB	WTS	WATERTOWN STATIC VAR SYSTEM	11,778,775		11,778,775	-	-		11,778,775
250	SUB	WT	WATERTOWN SUBSTATION	18,723,157		18,723,157	-	-		18,723,157
251	SUB	WC	WATFORD CITY SUB	7,600,294		7,600,294	(108,365)	-		7,491,929
252	SUB	WSG	WESSINGTON SPRINGS SUBSTATION	5,141,440		5,141,440	(181,849)	-		4,959,591
253	SUB	WH2	WHATELY (NORTHERN)	40,860		40,860	-	-		40,860
254	SUB	WH	WHATELY SUBSTATION	109,910		109,910	(54,083)	-		55,827
255	SUB	WHT	WHITE 345/115 SUB	11,088,274		11,088,274	-	-		11,088,274
256	SUB	WV	WICKSVILLE SUBSTATION	849,186		849,186	(250,593)	-		598,593
257	SUB	WN2	WILLISTON 2 SUBSTATION	15,594,604		15,594,604	-	-		15,594,604
258	SUB	WN	WILLISTON SUBSTATION 2/	8,198,987		8,198,987	(97,320)	-	(403)	8,101,264
259	SUB	WI	WINNER SUBSTATION	3,289,729		3,289,729	(243,117)	-		3,046,613
260	SUB	WJ	WM. J. NEAL	183,222		183,222	-	-		183,222
261	SUB	WP	WOLF POINT SUBSTATION	7,289,287		7,289,287	(1,346,899)	-		5,942,388
262	SUB	WO	WOONSOCKET SUBSTATION	2,775,992		2,775,992	(1,579,680)	-		1,196,312
263	SUB	YJ	YANKTON JCT.	76,396		76,396	-	-		76,396
264	SUB	YA	YANKTON SUBSTATION	2,935		2,935	-	-		2,935
265	**SUB Total**		**SUBSTATIONS**	**768,126,381**	**17,352,447**	**785,478,828**	**(47,551,846)**	**-**	**(10,976,054)**	**726,950,928**
266	O&M	ARC	ARMOUR O&M SER. CEN.	3,488,667		3,488,667	-	-		3,488,667
267	O&M	BSM	BISMARCK O&M SER. CEN.	9,888,331	3,503,000	13,391,331	-	-		13,391,331
268	O&M	DCF	DAWSON SER. CEN.	6,853,289		6,853,289	-	-		6,853,289
269	O&M	DLM	DEVILS LAKE O&M SER. CEN.	3,852,064		3,852,064	-	-		3,852,064
270	O&M	FAO	FARGO LINE MAINTENANCE FACILITY	2,203,121		2,203,121	-	-		2,203,121
271	O&M	FAM	FARGO O&M SER. CEN.	584,445		584,445	-	-		584,445
272	O&M	FPM	FORT PECK SER. CEN.	8,407,259		8,407,259	-	-		8,407,259
273	O&M	FTM	FORT THOMPSON O&M S. C.	2,209,623		2,209,623	-	-		2,209,623
274	O&M	HVM	HAVRE SERVICE CENTER	493,999		493,999	-	-		493,999
275	O&M	HUM	HURON O&M SER. CEN.	3,084,644		3,084,644	-	-		3,084,644
276	O&M	JTM	JAMESTOWN O&M SER. CEN.	3,874,657		3,874,657	-	-		3,874,657
277	O&M	MCM	MILES CITY MTCE FAC.	1,025,254		1,025,254	-	-		1,025,254
278	O&M	NUM	NEW UNDERWOOD SER. CEN.	96,884		96,884	-	-		96,884
279	O&M	PLM	PHILIP O&M SER. CENT.	1,699,741		1,699,741	-	-		1,699,741
280	O&M	PIM	PIERRE O&M SER. CEN.	1,051,383		1,051,383	-	-		1,051,383
281	O&M	RCM	RAPID CITY GARAGE & STOR.	2,221,967		2,221,967	-	-		2,221,967
282	O&M	RCN	RAPID CITY NORTH O&M SER. CEN.	1,285,819		1,285,819	-	-		1,285,819
283	O&M	SCM	SIOUX CITY O&M SER. CEN.	7,115,527		7,115,527	-	-		7,115,527
284	O&M	SFC	SIOUX FALLS O&M SER. CEN.	239,920	4,248,000	4,487,920	-	-		4,487,920
285	O&M	WTM	WATERTOWN MAINT. CEN.	7,452,151		7,452,151	-	-		7,452,151
286	**O&M Total**		**O&M SERVICE & MAINT. CENTERS**	**67,128,745**	**7,751,000**	**74,879,745**	**-**	**-**		**74,879,745**
287	OPS	WAO	WATERTOWN ALTERNATE OPERATIONS CENTER	6,174,391		6,174,391	-	-	-	6,174,391
288	OPS	WTO	WATERTOWN OPERATIONS CENT	1,785,958		1,785,958	-	(287,460)	-	1,498,498
289	OPS	WTO F	WATERTOWN OPER CTR (BFPS)	11,977,195	2,661,454	14,638,649	-	(1,285,587)	-	13,353,062
290	**OPS Total**		**OPERATION CENTERS**	**19,937,544**	**2,661,454**	**22,598,998**	**-**	**(1,573,047)**	**-**	**21,025,951**
291	MOB	MOBW2	MOB 115KV SWITCH TRAILER	69,741		69,741	-	-		69,741
292	MOB	MOBT2	MOB TRANSF 115KV 10MVA	218,493		218,493	-	-		218,493
293	MOB	MOBT12	MOB TRANSF 115KV 25MVA	814,665		814,665	-	-		814,665
294	MOB	MOBT4	MOB TRANSF 115KV 40MVA	526,201		526,201	-	-		526,201
295	MOB	MOBT6	MOB TRANSF 230KV 1-33MVA	170,278		170,278	-	-		170,278
296	MOB	MOBB2	MOBILE BY PASS KIT (BISMARCK)	35,071		35,071	-	-		35,071
297	MOB	MOBB1	MOBILE BY PASS KIT (HURON)	163,695		163,695	-	-		163,695
298	MOB	MOBC4	MOBILE CAPACITOR BANK	19,075		19,075	-	-		19,075

299	MOB	MOBS6	MOBILE SUB 110KV	127,144		127,144	-	-	127,144
300	MOB	MOBS9	MOBILE SUB 115KV 20MVA	404,166		404,166	-	-	404,166
301	MOB	MOBS10	MOBILE SUB 115/41.8KV 20MVA	1,474,766		1,474,766	(1,474,766)		0
302	MOB	MOBS7	MOBILE SUB 41.8 KV	192,498		192,498	(192,498)	-	0
303	MOB	MOBS5	MOBILE SUB 69KV	71,118		71,118	-	-	71,118
304	MOB	MOBR2	MOB SH.REACTOR	179,328		179,328	-	-	179,328
305	**MOB Total**		**MOBILE EQUIPMENT**	**4,466,239**	**-**	**4,466,239**	**(1,667,264)**	**-**	**2,798,975**
306	GEN	BG FT L	BIG BEND-FORT THOMPSON (LOW VOLTAGE)	81,944		81,944	-	(81,944)	0
307	GEN	FP	FORT PECK POWERPLANT (COE)	64,611		64,611	-	(64,611)	0
308	GEN	FT BG 1	FORT THOMPSON-BIG BEND NO. 1	922,164		922,164	-	-	922,164
309	GEN	FT BG 2	FORT THOMPSON-BIG BEND NO. 2	690,735		690,735	-	-	690,735
310	**GEN Total**		**TRANSMISSION-RELATED GEN. FACILITIES**	**1,759,454**	**-**	**1,759,454**	**-**	**(146,555)**	**1,612,899**
311	COM	ATC	ATLANTIC COMMUNICATION SITE	58,086		58,086	-	(18,558)	39,527
312	COM	BK2	BAKER RELAY	278,673		278,673	-	(89,036)	189,637
313	COM	BTY	BANTRY	409,860		409,860	-	(130,950)	278,909
314	COM	BAE	BARRETT	99,835		99,835	-	(31,897)	67,937
315	COM	BMW	BATTLE MT. MICROWAVE	352,404		352,404	-	(112,593)	239,811
316	COM	BPR	BELLE PRAIRIE	257,179		257,179	-	(82,169)	175,010
317	COM	BET	BENEDICT	227,040		227,040	-	(72,539)	154,501
318	COM	BU	BEULAH	10,679		10,679	-	(3,412)	7,267
319	COM	BG	BIG BEND	113,362		113,362	-	(36,219)	77,143
320	COM	BJR	BIJOU REPEATER	517,974		517,974	-	(165,493)	352,482
321	COM	BAO	BILLINGS AREA OFFICE	175,877		175,877		(56,193)	119,684
322	COM	BDO	BISMARCK DIS. OFFICE	44,789		44,789		(14,310)	30,479
323	COM	BSR	BISMARCK REPEATER	426,667		426,667	-	(136,320)	290,347
324	COM	BIR	BISON REPEATER	232,618		232,618	-	(74,321)	158,296
325	COM	BON	BOLE NORTH REPEATER	149,228		149,228	-	(47,678)	101,550
326	COM	BRI	BRINSMADE	279,566		279,566	-	(89,321)	190,245
327	COM	BSL	BRISTOL	19,704		19,704	-	(6,296)	13,409
328	COM	BRV	BRUNSVILLE REPEATER	92,595		92,595	-	(29,584)	63,011
329	COM	BFF	BUFFALO	107,342		107,342	-	(34,296)	73,046
330	COM	CAH	CAHOON	280,480		280,480	-	(89,613)	190,867
331	COM	CAZ	CARRINGTON REPEATER	703,661		703,661	-	(224,820)	478,841
332	COM	CHK	CHARTER OAK REPEATER	37,034		37,034	-	(11,832)	25,201
333	COM	CHI F	CHINOOK (BEFP)	284,048		284,048	-	(90,753)	193,295
334	COM	CHR	CHINOOK REPEATER	17,797		17,797	-	(5,686)	12,111
335	COM	CKR	CLARK MW REPEATER	771,076		771,076	-	(246,359)	524,717
336	COM	CLV	CLEVELAND REPEATER, N.D.	66,872		66,872	-	(21,366)	45,507
337	COM	CMR	COLEMAN REPEATER	105,281		105,281	-	(33,637)	71,644
338	COM	CME	COLOME REPEATER	301,355		301,355	-	(96,283)	205,072
339	COM	CBR	CONRAD BUTTE REPEATER	809,166		809,166	-	(258,529)	550,638
340	COM	CNN	COTTON	1,399		1,399	-	(447)	952
341	COM	CSR	CRESTON REPEATER	64,775		64,775	-	(20,696)	44,079
342	COM	CLR	CROW LAKE REPEATER	251,029		251,029	-	(80,204)	170,825
343	COM	CBT	CROWN BUTTE	52,565		52,565	-	(16,795)	35,770
344	COM	CRR	CULBERTSON RADIO RELAY SITE	1,926		1,926	-	(615)	1,311
345	COM	CQR	CULBERSTON REPEATER	31,102		31,102		(9,937)	21,165
346	COM	CUL	CUSTER LOOKOUT	208,941		208,941	-	(66,757)	142,184
347	COM	DAL	DALTON (WES)	63,660		63,660	-	(20,339)	43,321
348	COM	DLC	DEVILS LAKE FIBER REGEN	347,320		347,320	-	(110,969)	236,351
349	COM	DLZ	DEVILS LAKE REPEATER	658,544		658,544	-	(210,405)	448,139

350	COM	DOD	DODSON REPEATER	874,144	874,144	-	(279,289)	594,855
351	COM	DO	DOGDEN BUTTE	399,032	399,032	-	(127,491)	271,541
352	COM	DRS	DRISCOLL	79,113	79,113	-	(25,277)	53,837
353	COM	DU	DUPREE REPEATER	1,821	1,821	-	(582)	1,239
354	COM	DUT	DUTTON REPEATER (BEFP)	147,653	147,653	-	(47,175)	100,478
355	COM	ERB	EAST RAINY BUTTE	209,857	209,857	-	(67,049)	142,808
356	COM	ECK	ECKELSON	240,324	240,324	-	(76,783)	163,540
357	COM	EKR	ELKTON	211,379	211,379	-	(67,536)	143,844
358	COM	ELZ	ELLENDALE REPEATER	814,135	814,135	-	(260,116)	554,019
359	COM	EWA	ELLSWORTH AIR BASE	219,052	219,052	-	(69,987)	149,065
360	COM	ERH	ERHARD	99,569	99,569	-	(31,812)	67,757
361	COM	EX	EXIRA REPEATER	2,527	2,527	-	(807)	1,720
362	COM	FB	F. L. BLAIR	101,254	101,254	-	(32,351)	68,904
363	COM	FAP	FAIRPOINT REPEATER	206,550	206,550	-	(65,993)	140,557
364	COM	FNR	FALLON REPEATER	211,743	211,743	-	(67,652)	144,091
365	COM	FAC	FARGO MICROWAVE	128,931	128,931		(41,194)	87,738
366	COM	FCS	FERGUS FALLS COMMUNICATIONS SITE	542,231	542,231	-	(173,243)	368,988
367	COM	FLW	FLOWING WELLS	68,763	68,763	-	(21,970)	46,793
368	COM	FBS	FORBES COMMUNICATION SITE	70,575	70,575	-	(22,549)	48,026
369	COM	FTH	FORSYTH	227,269	227,269		(72,613)	154,657
370	COM	FP1	FORT PECK RELAY (WES)	97,512	97,512	-	(31,155)	66,357
371	COM	FPC	FORT PECK COMMUNICATIONS BUILDING	423,028	423,028	-	(135,158)	287,871
372	COM	FPR	FORT PECK REPEATER	105,589	105,589	-	(33,736)	71,853
373	COM	FPI	FORT PIERRE POLE YARD	785,698	785,698		(251,031)	534,668
374	COM	FTR	FORT THOMPSON REPEATER	99,223	99,223	-	(31,702)	67,521
375	COM	FTP	FORT THOMPSON REPEATER (EAST RIVER)	301,614	301,614	-	(96,366)	205,248
376	COM	FCR	FOX CREEK MICROWAVE	423,094	423,094	-	(135,179)	287,915
377	COM	FRY	FRYBURG SUB & MICROWAVE	61,204	61,204	-	(19,555)	41,649
378	COM	GA	GARRISON	331,415	331,415	-	(105,887)	225,528
379	COM	GAD	GARRISON DAM	26,390	26,390		(8,432)	17,959
380	COM	GRR	GARY REPEATER	80,799	80,799	-	(25,815)	54,983
381	COM	GP	GAVIN'S POINT	148,752	148,752	-	(47,526)	101,226
382	COM	GPR	GAVINS POINT REPEATER	325,520	325,520	-	(104,004)	221,516
383	COM	GET	GETTYSBURG REPEATER	378,095	378,095	-	(120,801)	257,294
384	COM	GH	GLENHAM	391,618	391,618	-	(125,122)	266,496
385	COM	GKM	GRAND FORKS MINNKOTA (MPC)	23,847	23,847	-	(7,619)	16,228
386	COM	GWN	GWINNER COMMUNICATIONS SITE	736,184	736,184		(235,211)	500,974
387	COM	HSB	HAILSTONE BUTTE	189,434	189,434	-	(60,524)	128,910
388	COM	HOY	HALLOWAY REPEATER	109,706	109,706	-	(35,051)	74,655
389	COM	HRT	HARLEM REPEATER	882,588	882,588	-	(281,987)	600,601
390	COM	HTH	HATHAWAY	174,404	174,404	-	(55,722)	118,682
391	COM	HMW	HERMOSA MICROWAVE	302,701	302,701	-	(96,713)	205,988
392	COM	HMR	HIGHMORE REPEATER	157,601	157,601	-	(50,354)	107,248
393	COM	HIW	HIGHWOOD	22,896	22,896	-	(7,315)	15,581
394	COM	HI	HINSDALE	201,837	201,837	-	(64,487)	137,350
395	COM	HIR	HINSDALE REPEATER	85,068	85,068	-	(27,179)	57,889
396	COM	HOE	HOPEWELL REPEATER	189,111	189,111	-	(60,421)	128,690
397	COM	HNT	HUNTER MICROWAVE	229,259	229,259	-	(73,248)	156,011
398	COM	HUD	HURON DISTRICT OFFICE	800,964	800,964	-	(255,908)	545,056
399	COM	HYS	HYSHAM	238,655	238,655	-	(76,250)	162,405
400	COM	JTR	JAMESTOWN REPEATER	46,981	46,981	-	(15,011)	31,971

401	COM	JCK	JONES CREEK	267,395	267,395	-	(85,433)	181,962
402	COM	KCK	KELLY CREEK	371,812	371,812	-	(118,794)	253,018
403	COM	KDZ	KILLDEER REPEATER	543,500	543,500	-	(173,648)	369,852
404	COM	KNE	KNEE HILL MW	896,566	896,566	-	(286,453)	610,113
405	COM	LAC	LAC QUI PARLE	759,357	759,357	-	(242,615)	516,743
406	COM	LKR	LAKE ANDES REPEATER	735,971	735,971	-	(235,143)	500,828
407	COM	LEF	LEFOR	210,945	210,945	-	(67,397)	143,548
408	COM	LI	LINDSAY RIDGE	64,370	64,370	-	(20,566)	43,804
409	COM	LCS	LINTON COMMUNICATIONS SITE	317,736	317,736	-	(101,517)	216,219
410	COM	LMO	LITTLE MISSOURI SUBSTATION	54,516	54,516	-	(17,418)	37,098
411	COM	MRP	MALTA REPEATER	794,469	794,469	-	(253,833)	540,636
412	COM	MNM	MANDAN MICROWAVE SITE	69,988	69,988	-	(22,361)	47,627
413	COM	MPR	MAPLE RIVER	172,792	172,792	-	(55,207)	117,585
414	COM	MRR	MARTIN REPEATER	308,682	308,682	-	(98,624)	210,058
415	COM	MAV	MAYVILLE	215,450	215,450	-	(68,836)	146,613
416	COM	MLR	MIDLAND REPEATER	550,238	550,238	-	(175,801)	374,437
417	COM	MOX	MOE REPEATER	15,012	15,012	-	(4,796)	10,215
418	COM	MH	MOORHEAD	125,057	125,057	-	(39,956)	85,101
419	COM	MSR	MORRIS REPEATER & MICROWAVE	161,994	161,994	-	(51,757)	110,237
420	COM	NWC	NEWCASTLE REPEATER	216,330	216,330	-	(69,117)	147,213
421	COM	OA	OAHE	669,569	669,569	-	(213,927)	455,641
422	COM	OK	O'KREEK REPEATER	395,868	395,868	-	(126,480)	269,388
423	COM	OR	ORCHARD REPEATER	587,442	587,442	-	(187,688)	399,754
424	COM	OTO	OTO MICROWAVE	16,445	16,445	-	(5,254)	11,191
425	COM	OTW	OTTUMWA ROAD REPEATER SITE	7,685	7,685	-	(2,455)	5,229
426	COM	PGE	PAGE N.D.	1,646	1,646	-	(526)	1,120
427	COM	PAH	PAHOJA SUB	126,805	126,805	-	(40,514)	86,291
428	COM	PEK	PEAK	92,751	92,751	-	(29,634)	63,117
429	COM	PLJ	PHILIP JCT. REPEATER	421,394	421,394	-	(134,635)	286,759
430	COM	PKT	PICKERT MINNKOTA (MPC)	17,849	17,849		(5,703)	12,147
431	COM	PIR	PINE RIDGE	315,256	315,256	-	(100,724)	214,532
432	COM	PO	POPLAR (MDU)	433,502	433,502	-	(138,504)	294,998
433	COM	PRR	PRIMGHAR REPEATER	37,178	37,178	-	(11,878)	25,299
434	COM	PUR	PUKWANNA REPEATER	4,772	4,772	-	(1,525)	3,247
435	COM	RCR	RAPID CITY REPEATER	419,355	419,355	-	(133,984)	285,371
436	COM	RE	RICHARDSON COULEE	161,748	161,748	-	(51,679)	110,070
437	COM	RER	RICHARDSON COULEE REPEATER	166,315	166,315	-	(53,138)	113,177
438	COM	RHM	RICHLAND MW REPEATER (BEPS)	235,573	235,573	-	(75,266)	160,307
439	COM	RRR	ROCKY RIDGE REPEATER	201,973	201,973	-	(64,530)	137,443
440	COM	ROG	ROLLAG	83,270	83,270	-	(26,605)	56,665
441	COM	RGZ	RUGBY REPEATER	822,053	822,053	-	(262,646)	559,407
442	COM	RI	RUTLAND	1,122,799	1,122,799	-	(358,734)	764,064
443	COM	RP	ROUNDUP	11,533	11,533		(3,685)	7,848
444	COM	SAO	SACO	1,237	1,237	-	(395)	842
445	COM	SNB	SENTINEL BUTTE	92,148	92,148	-	(29,441)	62,707
446	COM	SRE	SHEEP COULEE REPEATER	861,856	861,856	-	(275,363)	586,493
447	COM	SCQ	SIOUX CITY REPEATER	443,199	443,199	-	(141,602)	301,597
448	COM	SFR	SIOUX FALLS REPEATER	329,860	329,860	-	(105,390)	224,469
449	COM	SI	SIOUX PASS	1,366	1,366	-	(436)	930
450	COM	SNA	SNAKE BUTTE REPEATER	541,759	541,759	-	(173,092)	368,667
451	COM	SPN	SPALDING REPEATER	534,311	534,311	-	(170,712)	363,599

452	COM	SM	SPIRIT MOUND	295,982		295,982	-	(94,566)	201,416
453	COM	STR	STRASBERG	1,853		1,853	-	(592)	1,261
454	COM	SMR	SUMMIT REPEATER	50,053		50,053	-	(15,992)	34,061
455	COM	TCS	TAPPEN COMMUNICATIONS SITE	510,520		510,520	-	(163,111)	347,409
456	COM	TA	TAPPEN REPEATER	461,151		461,151	-	(147,338)	313,813
457	COM	TEN	TENNANT COMMUNICATIONS SITE	8,782		8,782	-	(2,806)	5,976
458	COM	TOR	TORONTO REPEATER	106,096		106,096	-	(33,898)	72,198
459	COM	TFR	TRIPP REPEATER	216,887		216,887	-	(69,295)	147,592
460	COM	TU	TURKEY RIDGE REPEATER	628,990		628,990	-	(200,962)	428,028
461	COM	TYE	TYLER REPEATER	1,168,081		1,168,081	-	(373,202)	794,879
462	COM	VIC	VICTOR (EREC)	228,059		228,059	-	(72,865)	155,194
463	COM	VIA	VIDA	102,031		102,031	-	(32,599)	69,432
464	COM	WLR	WALL REPEATER	579,363		579,363	-	(185,107)	394,257
465	COM	WTR	WATERTOWN REPEATER	729,389		729,389	-	(233,040)	496,349
466	COM	WS	WAYSIDE	37,023		37,023	-	(11,829)	25,194
467	COM	WSR	WESSINGTON SPGS. REPEATER	703,268		703,268	-	(224,694)	478,574
468	COM	WEF	WESTFIELD	25,198		25,198	-	(8,051)	17,147
469	COM	WSW	WHITE SWAN	91,987		91,987	-	(29,390)	62,597
470	COM	WK	WHITLOCK	21,500		21,500		(6,869)	14,631
471	COM	WK C	WHITLOCK (BCPS)	117,922		117,922	-	(37,676)	80,246
472	COM	WRP	WILLISTON REPEATER	36,499		36,499		(11,662)	24,838
473	COM	WOB	WOLBACH REPEATER	28,280		28,280	-	(9,035)	19,244
474	COM	YT P	YELLOWTAIL SWITCHYARD (BEPS)	318,585		318,585	-	(101,788)	216,797
475	**COM Total**		**COMMUNICATION FACILITIES**	**44,616,414**	-	**44,616,414**	-	**(14,254,944)**	**30,361,470**
476	MCCS	MC4	MILES CITY CONVERTER STATION - BEPS	19,890,752		19,890,752	-	-	19,890,752
477	MCCS	MC4	MILES CITY CONVERTER STATION - BEFP	3,771,807		3,771,807	-	-	3,771,807
478	**MCCS Total**		**MILES CITY CONVERTER STATION**	**23,662,558**	-	**23,662,558**	-	-	**23,662,558**
479	DIST	BFTBP	BUFORD TRENTON TAP - BUFORD TRENTON P.P.	650,001		650,001	(650,001)	-	(0)
480	DIST	BP	BUFORD TRENTON PUMP SUB	184,827		184,827	(184,827)	-	0
481	DIST	FN	FALLON PUMPING PLANT SUBS	223,594		223,594	(223,594)	-	0
482	DIST	FE	FALLON RELIFT PUMPING PLA	171,257		171,257	(171,257)	-	(0)
483	DIST	FN GG	FALLON-GLENDIVE PUMP #4	25,506		25,506	(25,506)	-	(0)
484	DIST	FP WP	FORT PECK-WOLF POINT	545,880		545,880	(391,368)	-	154,512
485	DIST	FG	FRAZER PUMP SUB	253,597		253,597	(253,597)	-	0
486	DIST	GA SK	GARRISON-SNAKE CREEK	1,079,092		1,079,092	(1,079,092)	-	(0)
487	DIST	GG	GLENDIVE P.P. #1 SUB.	425,706		425,706	(425,706)	-	0
488	DIST	IN	INTAKE SUBSTATION	108,040		108,040	(108,040)	-	0
489	DIST	IN INP	INTAKE-INTAKE PUMP	6,494		6,494	(6,494)	-	0
490	DIST	SV	SAVAGE PUMPING PLANT SUBS	102,283		102,283	(102,283)	-	(0)
491	DIST	SY	SHIRLEY PUMP SUBSTATION	1,237,730		1,237,730	(1,237,730)	-	0
492	DIST	SK	SNAKE CREEK PUMP SUBSTATION	920,941		920,941	(920,941)	-	0
493	DIST	TE	TERRY PUMPING PLANT SWITCH	474,404		474,404	(474,404)	-	(0)
494	DIST	TI	TIBER DAM SUBSTATION	681,602		681,602	(681,602)	-	(0)
495	DIST	VA	WIOTA SUBSTATION	216,163		216,163	(216,163)	-	(0)
496	**DIST Total**		**DISTRIBUTION FACILITIES**	**7,307,117**	-	**7,307,117**	**(7,152,605)**	-	**154,512**
497	RMR	NU SG	NEW UNDERWOOD-STEGALL	287,835.39		287,835	-	-	287,835
498	RMR	SG	STEGALL SUBSTATION	12,414,412.95		12,414,413	(12,111,804)	-	302,609
499	RMR	SG	STEGALL SUBSTATION	220,814.25		220,814	(220,814)		0
500	RMR	SG WY	STEGALL-WAYSIDE	2,978,205.36		2,978,205	-	-	2,978,205
501	RMR	WY	WAYSIDE	237,295.95		237,296	-		237,296
502	RMR	YT PY	YELLOWTAIL SWITCHYARD-YELLOWTAIL (PPL)	121,494.90		121,495	(91,121)		30,374

503	RMR	PY	YELLOWTAIL (PPL)	692,334.71		692,335	(519,251)			173,084
504	RMR	YT P	YELLOWTAIL SWITCHYARD	13,290,835.72		13,290,836	(9,968,127)			3,322,709
505	RMR	YT	YELLOWTAIL SWITCHYARD (YT)	33,085.00		33,085	(24,814)			8,271
506	**RMR Total**		**ROCKY MOUNTAIN REGION FACILITIES**	**30,276,314**	**-**	**30,276,314**	**(22,935,931)**	**-**		**7,340,383**
507	COE		BIG BEND	2,370,873		2,370,873	(1,772,523)			598,349
508	COE		FORT PECK	16,421,523		16,421,523	(11,212,794)			5,208,728
509	COE		FORT RANDALL	25,829,317		25,829,317	(6,265,802)			19,563,515
510	COE		GARRISON	55,665,574		55,665,574	(14,103,135)			41,562,439
511	COE		GAVINS POINT	9,392,149		9,392,149	(7,097,567)			2,294,582
512	COE		OAHE	21,797,122		21,797,122	(1,824,651)			19,972,471
513	**COE Total**		**CORPS OF ENGINEERS FACILITIES**	**131,476,558**	**-**	**131,476,558**	**(42,276,473)**	**-**		**89,200,085**
514	**Grand Total**		**TOTAL FACILITIES**	**1,709,775,362**	**56,764,224**	**1,766,539,586**	**(122,160,209)**	**(15,974,547)**	**(20,404,863)**	**1,607,999,967**
515			SUBTOTAL WESTERN-UGP ONLY	1,548,022,490	56,764,224	1,604,786,714	(56,947,805)	15,974,547	20,404,863	1,511,459,499
516	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)									
517	2/ Plant balance does not include facilities included in Zonal and Regional Worksheet, WS7-BPUFac									
518			DISTRIBUTION FACILITIES				99,224,278			1,604,228,234

WAPA-UGP 2024 Rate Estima (Back to Worksheet Links)
Worksheet 7 - SPP Base Plan Upgrades-Facilities
12 Months Ending 09/30/2024 ESTIMATE

Line No.	FID	(1) 2024 SPP ESTIMATE SUMMARY DESCRIPTION	(2) PRIOR YEAR FACILITY TOTALS ($)	(3) FY2023-24 ESTIMATE ADD/REPL/RETIRE ($)	(4) BASE PLAN UPGRADES-REGIONAL	(5) BASE PLAN UPGRADES-ZONAL	(6) FY2024 EST SPP TOTALS ($)
1	LC-RH	LEWIS - RICHLAND 115 kV Ckt 1, 72052 (SPP set Regional/Zonal Allocation to 33%/67%)	51,813	-	0	51,813	51,813
2	RCO	ROBERTS COUNTY 115 kV SUBSTATION, 71926 (SPP set Regional/Zonal Allocation to 33%/67%)	3,302,626	-	1,089,866	2,212,759	3,302,626
3	RCO	ROBERTS COUNTY 115/69 kV TRANSFORMER, 71927 (SPP set Regional/Zonal Allocation to 0%/100%)	5,073,024	-	0	5,073,024	5,073,024
4	WN	WILLISTON SUBSTATION 115 kV TERMINAL UPGRADES, 61856	403	-	0	403	403
5	FA-MO	MOORHEAD REACTOR, 143159	-	1,840,900	607,497	1,233,403	1,840,900
6	BS	BISMARCK 12.47 kV REACTOR, 143157	-	2,600,000	858,000	1,742,000	2,600,000
7	OA-GH	OAHE 230 kV TERMINAL UPGRADES, 122734	-	1,681,807	554,996	1,126,811	1,681,807
8	OA-GH	SULLY BUTTES-WHITLOCK 230 kV LINE CLEARANCE INCREASE, 143613	-	998,449	329,488	668,961	998,449
9	OA-GH	WHITLOCK-GLENHAM 230 kV CLEARANCE INCREASE, 143614	-	4,855,841	1,602,427	3,253,413	4,855,841
10		TOTAL	8,427,866	11,976,996	5,042,275	15,362,587	20,404,862
11							

2024 SPP ESTIMATE DETAIL:

7	FID	DESCRIPTION	FID COST DETAIL ($)	REG %	REG TOTAL ($)	ZONAL %	ZONAL TOTAL ($)
8	LC-RH	CONDUCTOR	51,813	0%	0	100%	51,813
9		**LEWIS - RICHLAND 115 kV Ckt 1, 72052 - SUBTOTAL (SPP directed Regional/Zonal Split of 33%/67%)**	51,813		0		51,813
10	RCO	STEEL STRUCTURE	181,965	33%	60,049	67%	121,917
11	RCO	STEEL STRUCTURE	131,277	33%	43,321	67%	87,956
12	RCO	STEEL STRUCTURE	265,373	33%	87,573	67%	177,800
13	RCO	DISCONNECT SWITCH	73,712	33%	24,325	67%	49,387
14	RCO	DISCONNECT SWITCH	141,931	33%	46,837	67%	95,094
15	RCO	DISCONNECT SWITCH	179,996	33%	59,399	67%	120,597
16	RCO	CCVT	39,217	33%	12,942	67%	26,276
17	RCO	CCVT	89,701	33%	29,601	67%	60,100
18	RCO	CIRCUIT BREAKER	22,459	33%	7,412	67%	15,048
19	RCO	CIRCUIT BREAKER	410,893	33%	135,595	67%	275,298
20	RCO	STEEL STRUCTURE	304,124	33%	100,361	67%	203,763
21	RCO	STATION SERVICE, LAND, CONTROL BUILDING	1,461,976	33%	482,452	67%	979,524
22		**ROBERTS COUNTY 115 kV SUBSTATION, 71926 - SUBTOTAL**	3,302,626		1,089,866		2,212,759
23	RCO	POWER TRANSFORMER	20,893	0%	0	100%	20,893
24	RCO	POWER TRANSFORMER	461,395	0%	0	100%	461,395
25	RCO	POWER TRANSFORMER	481,329	0%	0	100%	481,329
26	RCO	DISCONNECT SWITCH	158,422	0%	0	100%	158,422
27	RCO	DISCONNECT SWITCH	61,693	0%	0	100%	61,693
28	RCO	DISCONNECT SWITCH	161,498	0%	0	100%	161,498
29	RCO	CCVT	13,072	0%	0	100%	13,072
30	RCO	CCVT	28,805	0%	0	100%	28,805
31	RCO	VOLTAGE TRANSFORMER	13,891	0%	0	100%	13,891
32	RCO	VOLTAGE TRANSFORMER	32,368	0%	0	100%	32,368
33	RCO	VOLTAGE TRANSFORMER	14,101	0%	0	100%	14,101
34	RCO	INSTRUMENT TRANSFORMER	13,037	0%	0	100%	13,037
35	RCO	INSTRUMENT TRANSFORMER	35,655	0%	0	100%	35,655
36	RCO	CIRCUIT BREAKER	25,490	0%	0	100%	25,490
37	RCO	CIRCUIT BREAKER	397,859	0%	0	100%	397,859
38	RCO	STEEL STRUCTURE	229,083	0%	0	100%	229,083
39	RCO	POWER TRANSFORMER	138,325	0%	0	100%	138,325
40	RCO	STEEL STRUCTURE	423,875	0%	0	100%	423,875
41	RCO	ARRESTER	13,145	0%	0	100%	13,145
42	RCO	OIL STORAGE TANK	103,408	0%	0	100%	103,408

43	RCO	STATION SERVICE, LAND, CONTROL BUILDING	2,245,681	0%	0	100%	2,245,681
44		**ROBERTS COUNTY 115/69 kV TRANSFORMER, 71927 - SUBTOTAL**	5,073,024		0		5,073,024
45	WN	RELAY SETTINGS	403	0%	0	100%	403
46		**WILLISTON SUBSTATION 115 kV TERMINAL UPGRADES, 61856 - SUBTOTAL**	403		0		403
47	FA-MO	DEAD-END STRUCTURES (2)	808,450	33%	266,789	67.00%	541,662
48	FA-MO	DEAD-END TURNING STEEL STRUCTURES (2)	1,008,450	33%	332,789	67.00%	675,662
49	FA-MO	RELAY, METER, RTU	24,000	33%	7,920	67.00%	16,080
50		**MOORHEAD REACTOR, 143159 - SUBTOTAL (SPP directed Regional/Zonal Split of 33%/67%)**	1,840,900		607,497		1,233,403
51	BS	REACTORS (2)	1,722,238	33%	568,339	67.00%	1,153,899
52	BS	DISCONNECT SWITCHES (2)	122,756	33%	40,509	67.00%	82,247
53	BS	CIRCUIT BREAKERS (2)	287,886	33%	95,002	67.00%	192,884
54	BS	BUS SYSTEM	467,120	33%	154,150	67.00%	312,970
55		**BISMARCK 12.47 kV REACTOR, 143157 - SUBTOTAL (SPP directed Regional/Zonal Split of 33%/67%)**	2,600,000		858,000		1,742,000
56	OA-GH	SPAN RECONDUCTOR	223,624	33%	73,796	67.00%	149,828
57	OA-GH	WOOD STRUCTURES (3)	210,300	33%	69,399	67.00%	140,901
58	OA-GH	STEEL STRUCTURES (2)	1,247,883	33%	411,801	67.00%	836,082
59		**OAHE 230 kV TERMINAL UPGRADES, 122734 - SUBTOTAL (SPP directed Regional/Zonal Split of 33%/67%)**	1,681,807		554,996		1,126,811
60	OA-GH	STEEL STRUCTURES (3)	998,449	33%	329,488	67.00%	668,961
61		**SULLY BUTTES-WHITLOCK 230 Kv LINE CLEARANCE INCREASE, 143613 - SUBTOTAL (SPP directed Regional/Zona**	998,449		329,488		668,961
62	OA-GH	STEEL STRUCTURES (14)	4,855,841	33%	1,602,427	67.00%	3,253,413
63		**WHITLOCK-GLENHAM 230 Kv CLEARANCE INCREASE, 143614 - SUBTOTAL (SPP directed Regional/Zonal Split of**	4,855,841		1,602,427		3,253,413
64		**TOTAL SPP UPGRADES**	20,404,862		5,042,275		15,362,587

WAPA-UGP 2024 Rate Estimate Calculation (Back to Worksheet Links)
Worksheet 9 - WAPA-UGP Facilities Included per SPP Tariff Attachment AI*
12 Months Ending 09/30/2024 ESTIMATE

				Attachment AI Criteria							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Line No.	FID	Facility	Specific Plant Included	1	1(b)	2	3	4	5	6	Further Description
		Substations									
1	APD	Appeldorn	230-kV breakers 482, 586, 682 and assoc. switches and switch 487	x							
2			station service KW4A, KW30A and switches	x							
3	AR	Armour	115-kV switches 16x, 26x, 76x	x							
4			12.47-kV switches 172x, KW1A	x							maintenance building SS
5			station service KZ1A, KX2A and switches	x							
6			115/69 kV transformer KY1A		x						Three East River members are served through KY1A (Charles Mix, Douglas and Southeastern)
7			69 kV breaker 1052 and assoc switches		x						Two East River members are served through 1052 (Douglas and Southeastern)
8	AHT	Ash Tap	115-kV switches 1161, 1261, 1361	x							
9	AUR	Aurora	115-kV breakers 266, 464, 562, 662 and assoc. switches	x							
10			capacitor PY4A	x							
11			station service KY2A and KW2A	x							
12	BN	Belden (NPPD)	115-kV breaker 1106 and assoc. switches	x							
13	BEF	Belfield	230-kV breakers 1282, 1382, 1582 and assoc. switches	x							
14			345/230-kV transformer KU1A	x							
15			345-kV breakers 292, 396, 492 and assoc. switches	x							
16			station service KW1B and assoc. switches	x							
17			reactor KW2A, 13.8 breaker 3224 and assoc. switches	x							
18	BEF	Beresford	115-kV breakers 262, 362, 462, 566, 764, 864 and assoc. switches	x							
19			capacitors PY7A, PY8A	x							
20			station service KZ1A and switch 1451	x							
21			115/69kV transformer KY1A		x						Two East River members are served through KY1A (Clay-Union and Southeastern)
22			69kV breaker 1652 and assoc. switches		x						Two East River members are served through 1652 (Clay-Union and Southeastern)
23	BB	Bisbee	69-kV switches 247, 347	x							
24	BS	Bismarck	230-kV breakers 182, 282, 382, 482, 582, 682, 782, 882, 986, 9182, 9282 and assoc. switches	x							
25			230/115-kV transformers KV3A, KV8A	x							
26			115-kV breakers 3062, 3162, 3362, 3562 and assoc. switches	x							
27			station service KW4A, KW4E, KW4F and assoc. switches	x							
28			12.47-kV breaker 1422, switches 142x, 152x, 1221, 1829	x							maintenance buildings ss
			12.47-kV reactors, breakers, switches	x							
29	BOL	Bole	230-kV switches 182, 282, 481, 482	x							
30			station service KW21A, switch 2123	x							
31			230/69-kV transformer KV1A	x							
32			69-kV switches 1351, 1355	x							
33			69-kV breaker 1152 and assoc. switches		x						Sun River Electric Cooperative and NorthWestern MT
34	BO	Bonesteel	115-kV breakers 664, 764 and assoc. switches	x							
35			capacitors PY6A, PY7A	x							
36			115-kV switches 46x, 26x	x							
37			station service KW1A, switch 1521	x							
38	BR	Brookings	115-kV breakers 952, 1162, 1266, 1462, 1466, 1562,1662,1666, 1762, 1766 and assoc. switches	x							
39			capacitors PY21A and PY20A, breakers 2164, 2064	x							
40			station service KW1A, KW21A and assoc. switches	x							
41			115/69kV transformer KY1A		x						One East River member and two municipal customers served through KY1A (Sioux Valley Energy, City of White, and City of Volga)
42			69 kV breaker 952, 1052 and assoc. switches		x						One East River member and two municipal customers served through 1052 (Sioux Valley Energy, City of White, and City of Volga)
43	CBC	Campbell County	230-kV breakers 182, 282, 382 and assoc. switches	x							
44	CD	Cando Tap	69-kV switches 1751, 1753	x							
45	CF	Canyon Ferry	100-kV breakers 162, 262, 266, 362, 366 and assoc. switches	x							
46	CRP	Carpenter	230-kV breakers 182, 382, 486 and assoc. switches	x	x						Two East River members (Coddington Clark and Kingsbury)
47			station service KW1A, KW3A and assoc. switches	x							
48	CA	Carrington	115-kV breakers 262, 362 and assoc. switches, switch 161	x							
49			capacitor PX3A	x							
50			station service KW9A and assoc. switches	x							
51	CCR	Charlie Creek	345-kV breakers 4096, 4192 and assoc switches	x							
52	CR	Circle	115-kV breakers 1462, 1562, 1666, 1764, 1864 and assoc. switches	x							
53			capacitors PY17A, PY18A	x							
54			reactor KY17A	x							
55			station service KX9A, switches 94x	x							
56	CON	Conrad	230-kV breakers 182, 382, 482 and assoc. switches	x							
57			230/115-kV transformer KV1A	x							
58			reactor KW31A, breaker 3124, switch 3123	x							
59			115-kV breaker 1162, 1362, 1452, and assoc. switches / switches 1263, 1265	x							
60			station service KW30A, switch 3023	x							
61	CS	Creston	161 kV breakers 162, 262, 362, 466, 562, 662, 762, 964, 8161, 8262 and assoc. switches	x							
62			161/69-kV transformer KY3A	x							
63			capacitors PZ21A and PY9A	x							
64			69-kV breakers 2252, 2352, 2456 and assoc. switches	x							
65			station service KW3A, KW6A, Breakers 323, 623 and assoc. switches	x							
66	CRO	Crossover	230-kV breakers 582, 586, 786, 882 and assoc. switches			x					to NWMT
67			230-kV switches 981, 983, 985, 987, 989, 990	x							
68			phase shifter KV8A	x							
69	CQE	Culbertson East	115-kV switches 16x, 26x, 36x	x	x						two customers (Oreg Generation and Basin Generation)
70	CU	Custer	230-kV breakers 182, 382, 482 and assoc. switches	x							
71			station service KW2A and assoc. switches	x							
72			reactor KW1B and assoc. switches	x							
73			230/69/12.47-kV transformer KV1A	x							
74			reactor KZ2A, 69-kV breaker 2152 and assoc. switches	x							
75	DC	Dawson County	115-kV breakers 162, 262, 362, 462, 662, 762, 862 and assoc. switches	x							
76			230-kV breakers 2282, 2382, 2482, 2582, 2682 and assoc switches	x							
77			230/115-kV transformer KU5A	x							
78			capacitors PY7A, PY8A	x							
79			reactor KY8A	x							
80			station service KZ2B, KW2B and assoc. switches	x							
81			reactors KZ1A, KZ2A, KZ3A, breakers 3122, 3222, 3322 and assoc. switches	x							
82	DN	Denison	161-kV breakers 1362, 1566, 1662 and assoc. switches / switches 1461, 1465	x							
83			230-kV breakers 186, 282, 382, 386 and assoc. switches	x							
84			230/161-kV transformer KV1A	x							
85			reactor KW30A and assoc. switches	x							
86			230/69-kV transformers KV2A and KV3A	x							
87			69-kV breakers 2156, 2254, 2352, 2452, 2552, 2652, 2754, 2952, 5152 and assoc. switches	x							
88			capacitors PZ27A, PZ22A	x							
89			reactors KZ27A, KZ22A	x							

90			station service KW30B, KW20C and assoc. switches	x							
91	DL	Devils Lake	115-kV breakers 1162, 1262, 1362, 1462, 1564, 1664, 1762, 1882 and assoc. switches	x							
92			50 percent of 115/41.8-kV transformer KY14A	x							capacitors and maintenance building
93			41.8-kV breaker 244 and assoc. switches	x							Cap bank breaker
94			capacitors PX2A, PX15A, PY16A and assoc. switches	x							
95			station service KX3A and KW4A and assoc. switches	x							
96			transformers KX3B, KW4B and assoc. switches	x							warehouse and maintenance buildings
97	EB	Eagle Butte	115-kV breakers 162, 362 and assoc. switches / switch 763	x							
98			Station Service KW1A	x							
99	ED	Edgeley	115-kV breakers 462, 562, 662, 762 and assoc. switches	x							
100			115/69-kV transformer KY6A	x							
101			69-kV breaker 1352 and assoc. switches	x							
102			capacitor KW31A, breaker 3124 and assoc. switches	x							
103	ELC	Elk Creek	115-kV breakers 1162, 1262, 1462 and assoc switches	x							
104			station service KY22A, switches 2261, 2221	x							
105	ELI	Elliot	115-kV breakers 262, 362, 462 and assoc switches	x							
106	END	Enderlin Tap	115-kV switches 176x, 196x	x							
107	EXI	Exira	161-kV breakers 162, 166, 262, 362, 366, 462, 562, 662 and assoc. switches	x							
108			station service KHA	x							
109	FVW	Fairview West	115-kV breakers 162, 262, 362, 462 and assoc. switches	x							
110			transformer KY20A for station service, switches 2011, 2061	x							
111	FH	Faith	115-kV switches 16x and 26x	x							
112	FA	Fargo	230-kV breakers 182, 282, 382, 582, 682, 782, 882, 9182 and assoc. switches	x							
113			115-kV breakers 1162, 1262, 1362, 1462, 1662, 1862, 1962, 2362, 2462, 2764, 2864, 2964 and asscoc switches	x							
114			115-kV switch 5461	x							
115			capacitors PY14A, PY14B, PY14C	x							
116			230/115-kV transformers KV1A, KV2A	x							
117			115/69-kV transformers KY3A and KY3B			x					to Minnkota
118			69-kV breakers 3552, 3652 and assoc switches			x					to Minnkota
119			69-kV switches 315x, 335x, 345x			x					to Minnkota
120			station service KY4A, KSB, KSA, switches 5447, 552x	x							
121			13.2-kV breakers 4122, 4322, 4622, 4722, 4822 and assoc. switches	x							
122			reactors KW6A, KW7A, KW8A	x							
123			SVC and associated equipment	x							
124	FL	Flandreau	115-kV breakers 1162, 1262, 1362, 1662 and assoc. switches	x							
125			capacitor PY3A	x							
126			station service KZ1A, KW1C switches 302x, 205x, 401x	x							
127			115/69-kV transformer KY1A		x						One East River member, two municipal customers and Basin generation served through KY1A (Sioux Valley Energy, City of Colman, and City of Madison)
128			69-kV breakers 2152, 2252 and assoc. switches		x						One East River member, two municipal customers and Basin generation served through 2152 and 2252 (Sioux Valley Energy, City of Colman, and City of Madison)
129	FO	Forman	115-kV breakers 1162, 1362, 1462, 1562, 1764 and assoc switches	x							
130			capacitor PY7A	x							
131			station service KW9A, switches 92x	x							
132			115/69-kV transformer KY1A, switches 126x	x							
133			69-kV breakers 152, 252, 452 and assoc. switches	x							
134			69-kV switches 353, 355	x							
135	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							
136			230-kV switches 181, 281, 381, 2583, 2683	x							
137			230/69-kV transformers KV1B, KV1A	x							
138			13.8-kV switches 121, 221, 253, 153, 6323, 6321, 6022, 3121, 3221	x							
139			station service KW1A, KW1B and assoc switches	x							
140			69-kV breakers 4352	x							
141	FT2	Fort Thompson 2	345-kV breakers 3392, 3396 and assoc. switches	x							
142			reactor KU4A, switch 3991	x							
143			345/230-kV transformers KU1A, KU1B and 345-kV switches 2391, 2491	x							
144			reactors KW2A, KW2B, breakers 6422, 6822 and assoc. switches	x							
145			capacitor PW2A	x							
146			reactor KW3A, breaker 6522 and assoc. switches	x							
147			capacitor PW3A	x							
148			station service KW1D, KW1C, switches 662x, 6611, 6311, 632x	x							
149	GL	Glendive	115-kV switch 362	x							
150			115/57-kV transformer KY1A		x						2 customers - MDU and Lower Yellowstone
151			57-kV breaker 342 and assoc. switches		x						2 customers - MDU and Lower Yellowstone
152	GK	Grand Forks	230-kV breakers 286, 382, 486 and associated switches / switches 183 and 580	x							
153			230/115-kV transformer KV1A	x							
154			reactor KW43A, breaker 4324 and assoc. switches	x							
155			station service KW41A, KW42A and associated switches	x							
156			115-kV breakers 1462, 1562, 1662, 1862, 1962 and assoc. switches	x							
157			115/69-kV transformer KY2B, switch 3261 and 3259	x							
158			69-kV breakers 2252, 2352, 2452, 2552 and assoc. switches / switches 2151, 2153			x					2452 to MPC, 2552 to NSP
159			capacitors PZ3A, PZ3B, switches 335x, 345x	x							
160	GI	Grand Island	345-kV breakers 1092, 1192, 1196, 1292, 1596, 1592, 1692, 1796 and assoc. switches	x							
161			reactor KU4A, switch 1098	x							
162			reactors KW1B, KW1A, breakers 5122, 5022 and assoc. switches	x							
163			345/230-kV transformers KU1A, KU1B and switch 293	x							
164			reactors KW2A, breakers 6022 and assoc. switches	x							
165			station service KHA, KHB and assoc switches	x							
166	GRP	Grande Prairie	345-kV breakers 196, 292, 396, 298, 198 and assoc. switches	x							
167			reactors KU1A and KU2A	x							
168	GF	Granite Falls	230-kV breakers 184, 282, 382, 486, 582, 682, 782, 882, 1082, 1184, 9182 and assoc. switches	x							
169			capacitors PV1A, PV11A	x							
170			reactors KV1A, KV11A	x							
171			230/115-kV transformers KV3A, KV8A	x							
172			reactors KW3A, KW54A, KW55A, KW56A, KW57A	x							
173			13.8-kV breakers 5424, 5524, 5624, 5724 with assoc. switches and switches 5121, 5123	x							
174			115-kV breakers 2062, 2262, 2366, 2762, 2862, 3162, 8162 and assoc. switches	x							
175			115-kV switches 246x, 296x	x							
176			capacitors PY25A, PY26A, breakers 2564, 2664 and assoc. switches	x							
177			reactors KY25A, KY26A	x							
178			station service KW50A, KW51A and assoc switches	x							
179	GTF	Great Falls	230-kV breakers 230/99, 230/100, 230/22, 230/23 and assoc. switches			x					in NWMT Great Falls Sub
180			230/161-kV transformer KV1A	x							
181			161-kV breaker 162 and assoc switchers	x							
182			station service KW1A and switch 221	x							
183	GY	Gregory	115-kV breakers 1162, 1166, 1366, 1566 and assoc. switches	x							

184			station service KY13A1 and switch 1323								
185	GR	Groton	115-kV breakers 162 ,262, 462, 562, 862, 966 and assoc. switches	x							
186			115/69-kV transformer KY1A		x						Two East River members served through KY1A (Lake Region, Northern)
187			station service KZ1A and KW2A	x							
188			115/69-kV transformer KY2A	x							NWPS line is networked and included
189			69-kV breakers 1152 and 1352 and assoc. switches	x							East River 2 customers
190	GSO	Groton South	115-kV breakers 1162, 1262, 1266, 1362, 1462, 1466, 1562, 1662, 1666, 2062, 2066 and assoc. switches	x							
191			station service KW4A	x							
192	HV	Havre	161-kV breakers 162, 262, 362 and assoc. switches	x							
193			115-kV breaker 1362, 1462, 1562, 1662 and assoc. switches		x						Hill County Coop and Tiber LLC
194			161/115-kV transformer KZ1A	x							
195			12.47-kv breaker 522 and assoc switches	x							
196			reactor KW1A	x							
197			station service KW1E, KW2A, switches 921, 221, 223	x							
198	HBN	Hebron	230-kV breakers 586, 682, 882, 986 and assoc switches	x							
199	HLK	Hilken	230-kV breakers 186, 386, 482 and assoc. switches	x							
200	HU	Huron	230-kV breakers 582, 586, 682, 782, 786, 882 and assoc. switches, switches 181, 281	x							
201			230/115-kV transformers KV1A, KV1B	x							
202			reactors KW1A, KW3A, breakers 132, 332 and assoc. switches	x							
203			station service KW1C, KW1D and assoc. switches	x							
204			115-kV breakers 1062, 1162, 1362, 1962 and assoc. switches, switches 126x, 1761	x							
205	JT	Jamestown	230-kV breakers 3182, 3282, 3382, 3482, 3582, 3682, 3782, 3882, 3982, 9182 and assoc switches	x							
206			115-kV breakers 162, 262, 362, 462, 562, 762, 1864, 1964, 2064 and assoc switches	x							not 662 - to OTP N.O.
207			capacitors PY20A, PY19A	x							
208			reactors KY20A, KY19A, KY7A	x							
209			230/115-kV transformers KU3A, KU6A	x							
210			reactor KW21A, breaker 2122 and assoc. switches	x							
211			station service KWA, KWB switches 222x, 232x	x							
212			station service KW4B, wiches 242x, 252x 302x	x							
213			reactor KW26A, breaker 2622 and assoc. switches	x							
214	KD	Killdeer	115-kV breakers 162, 166, 366, 462 and assoc. switches	x							
215			Capacitor PY2A, 115-kV breaker 264 and assoc. switches	x							
216			station service KY1A, switch 3163, KX3A and assoc. switches	x							
217	LA	Lakota	115-kV breaker 162 and assoc switches	x							
218			station service KW1A, switches 825, 921	x							
219	LE	Leeds	115-kV breakers 262, 362, 462, 562 and assoc. switches	x							
220			capacitor PZ4A, breaker 744 and assoc. switches	x							
221			115/69-kV transformer KY1A, switches 161, 162	x							
222			69-kV breakers 444, 544 and assoc switches / switch 143	x							
223			station service KW3B and switch 1021	x							
224	LET	Letcher	230-kV breakers 382, 582, 686 and assoc. switches	x							NWPS line to Mitchell is Networked
225			230/115-kV transformer KV3A	x							
226			115-kV breakers 1266, 1362, 1562 and assoc. switches	x							
227			station service KW3B and assoc switches	x							
228	MR	Martin	115-kV breakers 2262, 2466, 2362, 2562 and assoc. switches	x							
229			station service KW18A and switches 1821, 1823	x							
230	MA	Maurine	230-kV breakers 182, 282, 582 and assoc. switches	x							
231			230/115-kV transformer KV1A	x							
232			115-kV breakers 1362, 1462, 1562, 1662, 1964, 2064 and assoc switches	x							
233			capacitors PY19A, PY20A	x							
234			reactors KY19A, KY20A	x							
235			reactor KW32A, breaker 3224 and assoc switches	x							
236			station service KW30A, KW31A and assoc switches	x							
237	MD	Midland	115-kV switches 16x and 26x / switch 361	x							
238			station service KW20A, switches 2031, 2011, 3011	x							
239	MC	Miles City	57-kV breaker 152 and assoc. switches		x	x					2 customers (MDU, Kinsey Irrigation)
240	MC2	Miles City 2	230-kV breakers 382, 386, 482, 582 and assoc. switches and switch 783	x							
241			230/115-kV transformer KV1A	x							
242			115-kV breakers 1262, 1362, 1462, 1662 and assoc. switches, switches 1161 and 1165	x							
243			reactor KW7A, breaker 724 and assoc switches	x							
244			capacitor KPY5A, breaker 1562 and assoc. switches								
245			station service K2, K1 and assoc switches	x							
246			13.8-kV SS to Miles City DC Converter Station	x							
247	MC3	Miles City 3	All Facilities and Equipment	x							
248	MGV	Mingusville	230-kV breakers 182, 282, 382 and assoc. switches, and line disconnects	x							
249			station service transformer KV10A and station service equipment	x							
250	MS	Mission	115-kV breakers 162, 262, 462 and assoc. switches, switches 863, 865	x							
251			reactors KY30A, KY31A, KY7A	x							
252			capacitors PY30A, PY31A	x							
253			115-kV breakers 764, 3064, 3164 and assoc. switches	x							
254			station service KX2A, KX1A and switches 243x, 253x	x							
255	MO	Morris	230-kV breakers 182, 382, 482, 582 and assoc switches	x							
256			230/115-kV transformer KV1A	x							
257			115-kV breakers 1162, 1462, 1562, 1762 and assoc switches	x							
258			station service KW1B and switches 512x	x							
259	MV	Mount Vernon	115-kV breakers 162, 262, 662 and assoc switches	x							
260			station service KW10A and assoc switches	x							
261			115/69 kV transformer KY1A		x						One East River member and one municipal customer served through KY1A and East River 1952 (Central and City of Plankinton)
262	NEL	Nelson Tap	115-kV switches 176x, 196x	x							
263	NU	New Underwood	230-kV breakers 282, 382, 384, 484, 582, 682, 782, 882, 986, 9182, 9282 and assoc switches	x							
264			reactor KV3A, KV4A	x							
265			230/115-kV transformers KV2A, KV1A	x							
266			115-kV breakers 1262, 1362, 1462, 1562, 1662, 1866, 8162, 8262 and assoc switches	x							
267			13.8-kV breaker 4522, 4022, 4122, 4222 and assoc switches	x							
268			reactor KW45A, KW40A, KW41A, KW42A	x							
269			station service KW1A, KW1B and assoc switches	x							
270	NL	Newell	115-kV breakers 1162, 1362 and assoc switches and switch 1262	x							
271			115/69-kV transformer KY1A		x						2 customers: Butte Electric and West River
272			Station Service KW1A and assoc equipment	x							
273	NBD	North Bend	230-kV breakers 182, 682, 782, 886 and assoc switches	x							ring bus, generator and customer
274	OF	O'Fallon Creek	115-kV breakers 162, 262, 362 and assoc switches	x							
275			115/69-kV transformer KY1A		x						2 customers: Buffalo Rapids Irrigation and Tongue River Electric
276			69kV breaker 452 and assoc switches		x						2 customers: Buffalo Rapids Irrigation and Tongue River Electric
277			Station Service KW1B	x							
278	PY	Pace Yellowtail	230-kV breakers IH278, IH296 and assoc switches	x							
279	PL	Philip	115-kV breakers 1462, 1562, 1762, 1862 and assoc switches	x							
280			station service KW32A, KW31A and assoc switches	x							

281	PI	Pierre	115-kV breakers 162, 362, 662, 862 and assoc switches	x							
282			115-kV switches 563, 565, 761	x							
283			station service KW1A, KW2A, KW1B, switches 271x, 281x, 302x	x							
284			Station Service KW1D, KW1E, KW1F and assoc switches	x							
285	RC	Rapid City	115-kV breakers 162, 262, 362, 462, 562, 664, 766, 862, 2164 and assoc switches	x							
286			reactors KY10A, KY21A	x							
287			capacitors PY6A, PY21A	x							
288			station service KW20A, KW43A KW42A, switches 202x, 422x, 432x, 431x	x							
289	RCO	Roberts County	115-kV breakers 2162, 2262, 2362 and assoc. switches	x							
290			69-kV breakers 5152, 5252, 5456, 5652 and assoc. switches	x							
291			station service KY21A	x							
292	RL	Rolla	115-kV breaker 1162 and assoc switches	x							
293	RY	Rudyard	115-kV switches 260, 261, 160, 161	x							
294			station service KW1A, switches 521, 523	x							
295	RG	Rugby	115-kV breakers 1262, 1362, 1462, 1566, 1662, 1762, 1864, 1966 and assoc switches	x							
296			capacitor PY8A	x							
297			reactor KY2A	x							
298			Station Service KX2A, KW1A and assoc. switches and equipment	x							
299	SH2	Shelby 2	115-kV breakers 1062, 1362, 1462 and assoc. switches, switches 1263, 1265	x							
300			230/115-kV transformer KV3A	x							
301			reactor KW3A, breaker 3124 and assoc switches	x							
302			station service KW2A and assoc. switches	x							
303			230-kV breakers 482, switches 481, 383, 281, 183	x							
304	SC	Sioux City	230-kV breakers 182, 282, 382, 482, 582, 682, 9182 and assoc switches, switch 7283	x							
305			230/161-kV transformers KV1A and KV5A	x							
306			161-kV breakers 1062, 1162, 1262, 1362, 1562, 1662, 8162	x							
307			reactors KW53A, KW54A, breakers 5324, 5424 and assoc switches	x							
308			station service KW1B, KW1C, switches 502x, 512x, 522x	x							
309			69-kV breakers 2156, 2352, 2852, 2952, 3052, 3152 and assoc switches	x	x						to NIPCO (looped) and MEC
310	SC2	Sioux City 2	345-kV breakers 8498, 8592, 8692, 8696 and assoc switches	x							
311			reactor KU6A	x							
312			345/230-kV transformers KU1A, KU1B, switches 8091, 8081	x							
313			230-kV breakers 7382, 7482 and assoc switches	x							
314			reactors KW10A, KW10B, breakers 5522, 5622 and assoc switches	x							
315			station service K1, K2 and assoc switches	x							
316	SF	Sioux Falls	230-kV breakers 2182, 2282, 2382, 2482, 2582, 2682, 2782, 9182 and assoc switches	x							
317			230/115-kV transformers KV3A, KV5A	x							
318			reactors KW31A, KW51A	x							
319			breakers 3124, 5124 and assoc switches	x							
320			station service KW33A, KW53A, KZ1A, switches 33xx, 53xx, 1851	x							
321			115-kV breakers 162, 262, 362, 462, 562, 662, 762, 966, 7162 and assoc switches	x							
322	SP	Spencer	161-kV breakers 162,462,562, 662 and assoc switches	x							
323			Reactor PY6A	x							
324			161/69-kV transformer KY1A	x							
325			69-kV breakers 1142, 1242, 1342, 1442, 1542 and assoc switches	x	x						to NIPCO and Wisdom Sub
326			station service KW10A and assoc switches	x							
327	SG	Stegall	230 kV main and transfer bus, breaker 382 and assoc switches	x							
328			Reactor KV3A, breaker 384 and assoc. switches	x							
329	SUH	Sulpher	115-kV breakers 162, 362, 462, and assoc switches	x							
330			station service KY31A1 and switch 3161	x							
331	SU	Summit	115-kV breakers 262, 362, 462, 562, 762, and assoc switches , switch 163	x							
332			station service KZ1A, switch 1351	x							
333			115/69 kV transformer KY1A		x						Four East River members served through KY1A (Whetstone, Lake Region, Traverse, and Codington-Clark)
334			69 kV breaker 1152 and assoc. switches		x						Three East River members served through 1152 (Whetstone, Lake Region, and Traverse)
335	TI	Tiber	115-kV switches 1260, 1261		x						2 customers (generator and Marias)
336	TN	Towner	115-kV breakers 2166, 2262, 2362, 2366 and assoc switches	x							
337			station service KY1A1	x							
338	TY	Tyndall	115-kV switches 16x, 26x, 361	x							
339			Station Service KZ1A and switches 351 and 751	x							
340	UJ	Utica Junction	230-kV breakers 282, 286, 382, 482, 486, 582, 682, 686 and assoc switches	x							
341			230/115-kV transformer KV3A	x							
342			115-kV breakers 1266, 1362, 1562, 1762 and assoc switches	x							
343			station service KW3A and assoc switches	x							
344	VC	Valley City	115-kV 162, 262, 362, 462, 562 and assoc switches	x							
345			115/69-kV transformer KY1A		x	x					2 customers (Minnkota Power and City of Valley City)
346			station service KW2A and switch 321	x							
347	VFO	Virgil Fodness	230-kV breakers 382, 386, 482, 486 and assoc switches	x							
348			230-kV switches 185 and 283	x							
349	VH	VT Hanlon	230-kV breakers 382, 482, 582, 682, 686 and assoc switches	x							
350			Reactor KW70A and breaker 7024	x							
351			69-kV breaker 5053 and assoc switch	x							
352			station service KW60A, KW24A, breaker 7423 and assoc switches	x							
353	WL	Wall	115-kV switches 16x, 26x, 36x, 461	x							
354			station service KW1B, switch 821	x							
355		Wanblee Tap	115-kV interrupters 162 and 262 and assoc. switches	x							Zero costs, customer funded
356	WDD	Ward	230-kV breakers 182, 282, 286 and assoc switches	x							
357			new 230-kV breaker in ring bus	x							Zero costs, customer funded
358	WB	Washburn	230-kV switches 18x, 28x	x							
359			station service KX3A, KW9A and assoc switches	x							
360	WT	Watertown	230-kV breakers 182, 282, 382, 482, 582, 682, 882, 984, 1082, 1182, 9182 and assoc switches	x							
361			reactor KV9A	x							
362			capacitor PV9A	x							
363			230/115-kV transformers KV2A, KV8A	x							
364			115-kV breakers 862, 1162, 1262, 1362, 1562, 1762, 1862, 1962, 8162 and assoc switches	x	x						1762 - two customers MRES and NorthWestern Energy
365			station service KY3A, KHA, KHB, K1, K2 and assoc switches	x							
366			reactor KW1A, breaker 3122 and assoc switches	x							
367			13.2-kV switches 372x, 362x, 82x	x							
368			115/69 kV transformer KY3A		x						Two East River members are served through KY3A (Codington-Clark and H-D)
369			69 kV breaker 2752 and assoc switches		x						Two East River members served through 2752 (Codington-Clark and H-D)
370	WT2	Watertown 2	345-kV breakers 7296, 7292, 7398 and assoc switches	x							
371			reactor KU3A	x							
372	WTS	Watertown Static Var	All Facilities and Equipment	x							
373	WC	Watford City	230-kV breakers 682, 782, 882, 982 and assoc switches	x							
374			230-kV switches 282, 283, 182, 183	x							
375			station service KW1B, switches 121, 123	x							
376			reactor KY16A, switches 166x	x							

377			capacitor PY16A	x							
378			115-kV breakers 1262, 1362 and assoc switches	x							
379			reactor KY17A, switches 176x	x							
380			capacitor PY17A	x							
381	WSG	Wessington Springs	230-kV breakers 586, 682, 786, 882 and assoc switches	x							
382			Station Service	x							
383	WH	Whately	69 kV switches 151, 351	x							
384	WHT	White	345-kV breakers 292, 296, 392, 396, 492, 496, 592, 596 and assoc switches	x							
385			115-kV breakers 2262, 2362, 2462 and assoc switches	x							
386			345/115-kV transformer KU1A, switches 2163, 2165	x							
387			station service KWA, KWB switches 312x, 3311, 3511	x							
388			reactor KW32A, breaker 3224 and assoc switches	x							
389			Neutral blocking device	x							
390	WV	Wicksville	115-kV breakers 162, 262, and assoc switches / switch 361	x							
391	WN	Williston	115-kV breakers 1162, 1262, 1362, 1462, 1562, 1662, 1762, 1866 and assoc switches	x							
392			115/57-kV transformers KY4B, switches 2465, 2469			x					to MDU
393			57-kV breakers 3152, 3252, 3352, 3452 and assoc switches			x					to MDU
394	WN2	Williston 2	230-kV breakers 182, 286, 382, 482, 486, 582, 686 and assoc switches	x							
395			115-kV breakers 2162, 2266, 2362, 2466, 2562, 2662, 2666 and assoc switches	x							
396			Reactors KW1C and KW2C, breakers 1224 and 2224 and switches 1223 and 2223	x							
397			station service KW1B, KW2B and assoc switches	x							
398	WI	Winner	115-kV breakers 162, 362, 462, 1062 and assoc switches / switches 661, 761	x							
399			reactor KY10A	x							
400			capacitor PY10A, PY11A, switches 1160, 1161	x							
401	WP	Wolf Point	115-kV breakers 1362, 1562, 1662, 1762, 1862 and assoc switches/switches 1963, 1965	x							
402			station service KW1A	x							
403	WO	Woonsocket	115-kV breakers 162, 262 and assoc switches/ switches 361 and 861	x							
404			station service KX1A, KW1B and assoc switches	x							
405											
406		**Transmission Lines**									
407		AURORA- BROOKINGS 115-KV T/L		x							
408		AURORA-FLANDREAU 115-KV T/L		x							
409		BAKER-HETTINGER		x							
410		BEULAH-GARRISON		x							
411		BISMARCK-GLENHAM		x							
412		BISMARCK-JAMESTOWN NO. 1		x							
413		BISMARCK-JAMESTOWN NO. 2		x							
414		BISMARCK-MEDORA		x							
415		BROOKINGS-SIOUX FALLS		x							
416		BROOKINGS-WATERTOWN NO. 1		x							
417		BROOKINGS-WATERTOWN NO. 2		x							
418		BROOKINGS-WHITE 115/230KV		x							
419		CANYON FERRY - LAKE HELENA		x							
420		CARRINGTON-JAMESTOWN		x							
421		CHARLIE CREEK - WATFORD CITY		x							
422		CHARLIE CREEK-BELFIELD		x							
423		CHARLIE CREEK - BEULAH		x							
424		CONRAD-SHELBY #2	230-kV	x							
425		CRESTON-MARYVILLE		x							
426		DAWSON COUNTY - MILES CITY		x							
427		DAWSON-GLENDIVE		x							
428		DAWSON-MEDORA		x							
429		DAWSON-O'FALLON CREEK		x							
430		DAWSON-WILLISTON		x							
431		DENISON-CRESTON		x							
432		DEVILS LAKE-CARRINGTON		x							
433		DEVILS LAKE-LAKOTA		x							
434		EDGELEY-FORMAN		x							
435		EDGELEY-GROTON		x							
436		ELK CREEK-NEWELL-MAURINE 115-kV T/L		x							
437		FARGO-GRAND FORKS		x							
438		FARGO-MORRIS		x							
439		FORMAN-SUMMIT (BISMARCK)		x							
440		FORMAN-SUMMIT (HURON)		x							
441		FORT PECK-DAWSON #1		x							
442		FORT PECK-DAWSON #2		x							
443		FORT PECK-HAVRE	161-kV	x							
444		FORT PECK-WHATELY	69-kV	x							
445		FORT PECK-WILLISTON		x							
446		FORT PECK-WOLF POINT #2		x							
447		FORT RANDALL-FORT THOMPSON 1&2		x							
448		FORT RANDALL-GAVIN'S POINT		x							
449		FORT RANDALL-GREGORY		x							
450		FORT RANDALL-MT VERNON		x							
451		FORT RANDALL-O'NEILL		x							
452		FORT RANDALL-SIOUX CITY 1&2		x							
453		FORT THOMPSON-GRAND ISLAND		x							
454		FORT THOMPSON-HURON 230-KV 1&2		x							
455		FORT THOMPSON-SIOUX FALLS 1&2		x							
456		GARRISON-BISMARCK 230KV 1&2		x							
457		GARRISON-JAMESTOWN		x							
458		GARRISON-MALLARD		x							
459		GARRISON-WM. J. NEAL		x							
460		GAVINS POINT-BELDEN		x							
461		GAVINS POINT-SIOUX FALLS		x							
462		GRANITE FALLS- MORRIS		x							

463		GRANITE FALLS-MINNESOTA VALLEY		x							
464		GREAT FALLS-CONRAD	230-kV	x							
465		GREGORY-MISSION		x							
466		GROTON-HURON		x							
467		GROTON-SUMMIT		x							
468		HAVRE-VERONA	161-kV	x							
469		HAVRE-SHELBY#2	115-kV	x							
470		HESKETT-DEVAUL		x							
471		HETTINGER-NEW UNDERWOOD		x							
472		HURON-MT VERNON		x							
473		HURON-WATERTOWN 230KV 1&3		x							
474		JAMESTOWN-EDGELEY		x							
475		JAMESTOWN-FARGO NO. 1		x							
476		JAMESTOWN-FARGO NO. 2		x							
477		JAMESTOWN-GRAND FORKS		x							
478		JAMESTOWN-VALLEY CITY		x							
479		LEEDS-DEVILS LAKE		x							
480		LEEDS-ROLLA		x							
481		MALLARD-RUGBY		x							
482		MARTIN-MISSION		x							
483		MARTIN-PHILIP		x							
484		MAURINE-RAPID CITY		x							
485		MILES CITY-BAKER		x							
486		MILES CITY-CUSTER	230-kV	x							
487		NEW UNDERWOOD-PHILIP		x							
488		NEW UNDERWOOD-RAPID CITY NO. 1		x							
489		NEW UNDERWOOD-RAPID CITY NO. 2		x							
490		NEW UNDERWOOD-STEGALL (HURON)		x							
491		OAHE-FORT THOMPSON 230KV 1&2		x							
492		OAHE-FORT THOMPSON 230KV 3&4		x							
493		OAHE-GLENHAM		x							
494		OAHE-MAURINE		x							
495		OAHE-NEW UNDERWOOD		x							
496		OAHE-PIERRE		x							
497		O'FALLON CREEK-MILES CITY		x							
498		PIERRE-PHILIP		x							
499		RAPID CITY-DRY CREEK		x							
500		RAPID CITY-ELK CREEK 115-kV T/L		x							
501		RUGBY-LEEDS		x							
502		SIOUX CITY-DENISON		x							
503		SIOUX CITY-SPENCER		x							
504		SIOUX FALLS- SIOUX CITY		x							
505		SIOUX FALLS-VIRGIL FODNESS 230KV T-LINE		x							
506		SUMMIT-WATERTOWN		x							
507		TIBER TAP-TIBER	115-kV	x	x						
508		UTICA JCT-SIOUX FALLS		x							
509		VALLEY CITY-FORMAN		x							
510		VERONA GREAT FALLS	161-kV	x							
511		VIRGIL FODNESS-UTICA JUNCTION-FT RANDALL/RASMUS		x							
512		WATERTOWN-GRANITE FALLS 1&2		x							
513		WATERTOWN-SIOUX CITY		x							
514		WATFORD CITY-BEULAH		x							
515		WILLISTON-WATFORD CITY		x							
516		WOLF POINT-CIRCLE		x							
517		WM. J. NEAL-RUGBY		x							
518		YELLOWTAIL-CUSTER	230-kV	x							
519		YELLOWTAIL-YELLOWTAIL (PACE)	230-kV, 110 MW Capacity Rights on RMR Line	x							
520											
521		**Taps**									
522	CCR	Charlie Creek	345-kV breakers 4096, 4192 and assoc switches	x							
523	DNT	Denbigh Tap	115kV breakers 1362, 1562 and assoc switches	x							
524	ON	O'Neill	115-kV inerrupters and switches	x							
525	PET	Penn Tap	115-kV switches 176x, 196x	x							
526	PLL	Pleasant Lake Tap	115-kV switches 56x, 66x	x							
527	SL	Shirley Tap	115-kV switches 561, 560	x							
528	TR	Terry Tap	115-kV switches 160, 161, 260, 261, 361	x							
529	TT	Tiber Tap	115-kV switches 163, 260, 261, 360, 361	x	x						2 customers from Tiber (Bureau of Reclamation and Tiber LLC)
530	VE	Vetal Tap	115-kV switches 16x, 26x, 36x	x							
531											
532		**O&M Service & Maintenance Centers**									
533		ARMOUR O&M SER. CEN.					x				
534		BISMARCK O&M SER. CEN.					x				
535		DAWSON SER. CEN.					x				
536		DEVILS LAKE O&M SER. CEN.					x				
537		FARGO LINE MAINTENANCE FACILITY					x				
538		FARGO O&M SER. CEN.					x				
539		FORT PECK SER. CEN.					x				
540		FORT THOMPSON O&M S. C.					x				
541		HAVRE SERVICE CENTER					x				
542		HURON O&M SER. CEN.					x				
543		JAMESTOWN O&M SER. CEN.					x				
544		MILES CITY MTCE FAC.					x				
545		MILES CITY MTCE FAC.					x				
546		NEW UNDERWOOD SER. CEN.					x				
547		PHILIP O&M SER. CENT.					x				
548		PIERRE O&M SER. CEN.					x				
549		RAPID CITY GARAGE & STOR.					x				
550		SIOUX CITY O&M SER. CEN.					x				
551		SIOUX FALLS O&M SER. CEN.					x				
552		WATERTOWN MAINT. CEN.					x				

553											
554		**Operation Centers**									
555		WATERTOWN ALTERNATE OPERATIONS CENTER					x				
556		WATERTOWN OPERATIONS CENT					x				
557		WATERTOWN OPER CTR (BFPS)					x				
558											
559		**Mobile Equipment**									
560		MOB 115KV SWITCH TRAILER		x							
561		MOB 115KV SWITCH TRAILER		x							
562		MOB TRANSF 111KV 15MVA		x							
563		MOB TRANSF 115KV 10MVA		x							
564		MOB TRANSF 115KV 10MVA		x							
565		MOB TRANSF 115KV 25MVA		x							
566		MOB TRANSF 115KV 40MVA		x							
567		MOB TRANSF 230KV 1-33MVA		x							
568		MOBILE BY PASS KIT (BISMARCK)		x							
569		MOBILE BY PASS KIT (HURON)		x							
570		MOBILE CAPACITOR BANK		x							
571		MOBILE SUB 110KV		x							
572		MOBILE SUB 115KV 20MVA		x							
573		MOBILE SUB 41.8 KV		x							
574		MOBILE SUB 69KV		x							
575		MOB SH.REACTOR		x							
576											
577		**Transmission-Related Generation Facilities**									
578		FORT THOMPSON-BIG BEND NO. 1		x							
579		FORT THOMPSON-BIG BEND NO. 2		x							
580											
581		**Communication Facilities**									
582		ANITA	SCADA				x				
583	AB	ASSINNIBOINE	meters for NWMT NITS from Havre				x				
584		BAKER	microwave, RTU				x				
585		ATLANTIC COMMUNICATION SITE					x				
586		BAKER RELAY					x				
587		BANTRY					x				
588		BARRETT					x				
589		BATTLE MT. MICROWAVE					x				
590		BELLE PRAIRIE					x				
591		BENEDICT					x				
592		BEULAH					x				
593		BIG BEND					x				
594		BIJOU REPEATER					x				
595		BISMARCK REPEATER					x				
596	BI	Bison	microwave alarm system				x				
597		BISON REPEATER					x				
598		BOLE NORTH REPEATER					x				
599		BRINSMADE					x				
600		BRISTOL					x				
601		BRUNSVILLE REPEATER					x				
602		BUFFALO					x				
603		CAHOON					x				
604		CARRINGTON REPEATER					x				
605		CHARTER OAK REPEATER					x				
606		CHINOOK (BEFP)					x				
607		CHINOOK REPEATER					x				
608		CLARK MW REPEATER					x				
609		CLEVELAND REPEATER, N.D.					x				
610		COLEMAN REPEATER					x				
611		COLOME REPEATER					x				
612		CONRAD BUTTE REPEATER					x				
613		COTTON	meters for Central MT (Basin NITS)				x				
614		CRESTON REPEATER					x				
615		CROW LAKE REPEATER					x				
616		CROWN BUTTE					x				
617		CULBERTSON RADIO RELAY SITE					x				
618		CUSTER LOOKOUT					x				
619		DALTON (WES)					x				
620		DEVILS LAKE FIBER REGEN					x				
621		DEVILS LAKE REPEATER					x				
622		DICKINSON	communications equipment				x				
623		DODSON REPEATER					x				
624		DOGDEN BUTTE					x				
625		DRISCOLL					x				
626		DUPREE REPEATER					x				
627		DUTTON REPEATER (BEFP)					x				
628		EAGLE	microwave, RTU, SCADA				x				
629		EAST RAINY BUTTE					x				
630		ECKELSON					x				
631		E. J. MANNING	fiber, microwave, SCADA				x				
632		ELKTON					x				
633		ELLENDALE REPEATER					x				
634		ELLSWORTH AIR BASE					x				
635		ERHARD					x				
636		EXIRA REPEATER					x				
637		F. L. BLAIR					x				
638		FAIRPOINT REPEATER					x				
639		FALLON REPEATER					x				
640		FERGUS FALLS COMMUNICATIONS SITE					x				
641		FLOWING WELLS					x				
642		FORBES COMMUNICATION SITE					x				
643		FORSYTH	radio, quarters, fence				x				
644		FORT PECK RELAY (WES)					x				
645		FORT PECK COMMUNICATIONS BUILDING					x				

646		FORT PECK REPEATER					x				
647	FR	Fort Randall	Multiplexer, Termination Equiment				x				
648		FORT THOMPSON REPEATER					x				
649		FORT THOMPSON REPEATER (EAST RIVER)					x				
650		FOX CREEK MICROWAVE					x				
651		FRYBURG SUB & MICROWAVE					x				
652		GARRISON					x				
653		GARY REPEATER					x				
654		GAVIN'S POINT					x				
655		GAVINS POINT REPEATER					x				
656		GETTYSBURG REPEATER					x				
657		GLENHAM					x				
658		GRAND FORKS MINNKOTA (MPC)					x				
659		HAILSTONE BUTTE					x				
660		HALLOWAY REPEATER					x				
661		HARLEM	microwave, RTU				x				
662		HARLEM REPEATER					x				
663		HATHAWAY					x				
664		HERMOSA MICROWAVE					x				
665		HETTINGER	RTU, PTs				x				
666		HIGHLAND REPEATER					x				
667		HIGHMORE REPEATER					x				
668		HIGHWOOD	meters NWMT NITS from Great Falls				x				
669		HINSDALE					x				
670		HINSDALE REPEATER					x				
671		HOPEWELL REPEATER					x				
672		HUNTER MICROWAVE					x				
673		HURON DISTRICT OFFICE					x				
674		HYSHAM					x				
675		JAMESTOWN REPEATER					x				
676		JONES CREEK					x				
677		KELLY CREEK					x				
678		KILLDEER REPEATER					x				
679		KNEE HILL MW					x				
680		LAC QUI PARLE					x				
681		LAKE ANDES REPEATER					x				
682		LEFOR					x				
683		LINDSAY RIDGE					x				
684		LINTON COMMUNICATIONS SITE					x				
685		LITTLE MISSOURI SUBSTATION					x				
686		LODGEPOLE REPEATER					x				
687		MALLARD	RTU, SCADA				x				
688		MALTA	microwave, RTU				x				
689		MALTA REPEATER					x				
690	MDN	Mandan	multiplexer				x				
691		MANDAN MICROWAVE SITE					x				
692		MAPLE RIVER					x				
693		MARTIN REPEATER					x				
694		MAYVILLE					x				
695		MIDLAND REPEATER					x				
696		MILES CITY SUB (BEFP)					x				
697		MOE REPEATER					x				
698		MOORHEAD					x				
699		MORRIS REPEATER & MICROWAVE					x				
700		NEWCASTLE REPEATER					x				
701		OAHE					x				
702		O'KREEK REPEATER					x				
703		ORCHARD REPEATER					x				
704		OTO MICROWAVE					x				
705		OTTUMWA ROAD REPEATER SITE					x				
706		PAGE N.D.					x				
707		PAHOJA SUB					x				
708		PEAK					x				
709		PHILIP JCT. REPEATER					x				
710		PINE RIDGE					x				
711		POPLAR (MDU)	antenna, meters for MDU				x				
712		PRIMGHAR REPEATER					x				
713		PUKWANNA REPEATER					x				
714		RAPID CITY REPEATER					x				
715		RICHARDSON COULEE					x				
716		RICHARDSON COULEE REPEATER					x				
717		RICHLAND MW REPEATER (BEPS)					x				
718		ROCKY RIDGE REPEATER					x				
719		ROLLAG					x				
720		RUGBY REPEATER					x				
721		RUTLAND					x				
722		SACO					x				
723	SA	SAVAGE	land, steel structure, meter equipment				x				
724		SENTINEL BUTTE					x				
725		SHEEP COULEE REPEATER					x				
726		SIOUX CITY REPEATER					x				
727		SIOUX FALLS REPEATER					x				
728		SIOUX PASS					x				
729		SNAKE BUTTE REPEATER					x				
730		SPALDING REPEATER					x				
731		SPIRIT MOUND					x				
732		STANLEY	meters to MDU				x				
733		STRASBERG					x				
734	SB	SULLY BUTTES	fiber termination equipment				x				
735		SUMMIT REPEATER					x				
736		TAPPEN COMMUNICATIONS SITE					x				
737		TAPPEN REPEATER					x				
738		TENNANT COMMUNICATIONS SITE					x				
739		TORONTO REPEATER					x				
740		TRIPP REPEATER					x				
741		TURKEY RIDGE REPEATER					x				
742		TYLER REPEATER					x				

743	VR	Verona	comm, miltiplex, battery				x				
744		VICTOR (EREC)					x				
745		VIDA					x				
746		V. T. HANLON	SCADA				x				
747		WALL REPEATER					x				
748		WATERTOWN REPEATER					x				
749		WAYSIDE					x				
750		WESSINGTON SPGS. REPEATER					x				
751		WESTFIELD					x				
752	WH2	Whately (Northern)	Instrument Transformer				x				
753		WHITE SWAN					x				
754		WHITLOCK (BCPS)					x				
755		WM. J. NEAL	multiplexer				x				
756		WOLBACH REPEATER					x				
757		YANKTON JCT.	multiplexer, channel bank, SCADA				x				
758		YELLOWTAIL SWITCHYARD (BEPS)					x				
759		**Miles City Converter Station**									
760		MILES CITY CONVERTER STATION - BEPS		x							
761		MILES CITY CONVERTER STATION - BEFP		x							
762		**Rocky Mountain Region Facilities**									
763		NEW UNDERWOOD-STEGALL		x							
764	SGQ	STEGALL SUBSTATION		x							
765		STEGALL-WAYSIDE		x							
766	YT	YELLOWTAIL SWITCHYARD	230-kV breakers 182, 282, 9182 and assoc switches	x							
767											
768		**Corps Switchyard Facilities**									
769	BG	Big Bend	230-kV interrupters 1083, 7089, 4083 and assoc. switches	x							
770	FP	Fort Peck	69-kV breaker 1142 and assoc. switches	x							
771			161-kV breaker 762	x							
772			115-kV breakers 772, 776, 1572, 1576, 1672, 1676 and assoc switches	x							
773			230-kV breaker 1382 and associated switches	x							
774			230/115-kV transformer	x							
775			161/115-kV transformer KV7A	x							
776	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							
777			115-kV breakers 962, 966, 1562, 1556, 1662, 1666, 1762, 1766, 1862, 1866, 1962, 1966 and assoc switches	x							
778			2 - 230/115-kV transformers	x							
779	GA	Garrison	115-kV breakers 2062, 2066, 2162, 2166, 2262, 2266, 2362, 2366, 2462, 2466, 2562, 2566, 2662, 2666, 2769 and assoc switches	x							
780			230-kV breakers 3389, 3482, 3486, 3682, 3686, 3782, 3786, 3882, 3886, 3982, 3986, 4082, 4086, 4182, 4186 and assoc switches, switches 33xx	x							
781			230/115-kV transformer	x							
782	GP	Gavins Point	115-kV breakers 462, 562, 662, 762, 862 and assoc switches	x							
783	OA	Oahe	230-kV breakers 2182, 2282, 2286, 2382, 2482, 2486, 2582, 2682, 2782, 2982, 3082 and assoc switches	x							
784			115-kV breakers 1062, 1262, 1362, 1386, 1462, 1562, 1566 and assoc switches	x							
785			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

WAPA-UGP 2024 Rate Estimate Calculation
Worksheet 10 - WAPA-UGP Facilities Excluded under SPP Tariff Attachment AI*
12 Months Ending 09/30/2024 ESTIMATE

(Back to Worksheet Links)

	(1)	(2)	(3)	(4)
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			115-kV breaker and assoc. switches	
10			12.47-kV switch 821, 823, 829	City of Beresford
11	BG	Big Bend	230-kV interrupters 1081, 2081, 2081, 4081 and assoc switches	
12	BB	Bisbee	69/12.5-kV transformer KZ1A and switch 145	
13			12.5-kV breaker 124 and assoc. switches	CPEC
14	BS	Bismarck	115-kV breaker 3462 and assoc. switches	Capitol Electric
15			12.5-kV switches 1527, 1529	USBR
16	BOL	Bole	69-kV breaker 1452 and 1252 and assoc. switches	NWMT
17	BO	Bonesteel	115-kV breaker 362 and assoc. switches	
18			115/12.47-kV transformer KY1A	
19			12.47-kV breaker 1422 and assoc. switches	Rosebud Electric
20	BR	Brookings	115-kV breakers 1262, 1362 and assoc. switches	City of Brookings
21	BFT	Buford Trenton Tap	All Not Included	
22	BP	Buford Trenton Pumping	All Not Included	
23	CA	Carrington	115-kV interrupter 162	protection for non-included transformer (transformer not owned by Western)
24			41.8-kV breakers 142, 242, 342, 442, 542, 642, 842 and assoc. switches	Otter Tail and CPE
25	CR	Circle	115-kV breaker 1162 and assoc. switches	Keystone
26			115-kV breaker 1262, 1362 and assoc. switches	McCone
27			115/34.5-kV transformer KY12A	
28			34.5-kV breaker 142 and assoc. switches	McCone
29	CON	Conrad	115-kV breaker 1062 and assoc. switches	Sun River
30	CU	Custer	69-kV breakers 2252, 2352 and assoc. switches	Yellowstone Valley and Mid-Yellowstone
31	CT	Custer Trail	All Not Included	
32	DC	Dawson County	115-kV switch 1061	protection for non-included transformer (transformer not owned by Western)
33	DNT	Denbigh Tap	Switches 1460, 1461	
34	DV	Devaul	All Not Included	
35	DL	Devils Lake	41.8-kV breaker 1442 and assoc. switches	Otter Tail normally open-emergency tie
36			12.5-kV breaker 1122 and assoc. switches	Minnkota
37	EB	Eagle Butte	115/69-kV transformer KY1A and 115-kV interrupter 762	
38			69-kV breaker 1752 and assoc. switches	Moreau Grand
39	ED	Edgeley	115/41.8-kV transformer KY2A	
40			115-kV breaker 362	
41			41.8-kV breaker 2342 and assoc. switches	Otter Tail
42			69-kV breaker 1252 and assoc. switches	
43	ELC	Elk Creek	115-kV ground switch 1160	
44	ELI	Elliot	115-kV interrupter 2063 and assoc. switches, 115-kV switch 369	
45	END	Enderlin Tap	Interrupter 1862 and assoc. switches	
46	EXI	Exira	Switches 169, 369, 569	Generator Lead
47	FH	Faith	115/12.47-kV tranformer KY1A and 115-kV interrupter 362	
48			12.47-kV breaker 1022 and assoc. switches	City of Faith
49	FN	Fallon Pumping	All Not Included	
50	FE	Fallon Relift	All Not Included	
51	FL	Flandreau	12.47-kV switches 3121, 3122, 3123, 3129, 3223	City of Flandreau
52	FO	Forman	69-kV breaker 452 and assoc. switches	
53			69/41.8-kV transformer KZ3A and 69-kV switches 353, 355	
54			115-kV breaker 1662 and assoc. switches	
55			41.8-kV breaker 2142 and assoc. switches	Otter Tail
56			41.8/12.5-kV transformer KX6A and switch 1443	
57			12.5-kV breaker 2222 and assoc. switches	Dakota Valley
58	FR	Fort Randall	115-kV breaker 962 and assoc. switches	
59	FT	Fort Thompson	69-kV breaker 4452 and assoc. switches	West Central
60	FG	Frazer Pumping	All Not Included	
61	GA	Garrison	115-kV breakers 462, 562 and assoc switches	generator leads
62	GP	Gavins Point	115-kV breakers 162, 262, 362 and assoc. switches	generator leads
63	GGT	Glendive Pumping No. 1 Tap	All Not Included	
64	GG	Glendive Pumping No. 1	All Not Included	
65	GF	Granite Falls	69-kV breakers 4352, 4452, 4552, 4652 and assoc. switches	GRE normally open and Minn. Valley
66			115/69-kV transformer KY2A	
67			115-kV breaker 2862, 3262 and assoc. switches	
68	GY	Gregory	115-kV Disconnect Switch 1523	protection for non-included transformer (transformer not owned by Western)
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	HBN	Hebron	230-kV switches 989 and 589	
72	HLK	Hilken	take-off structure to Baldwin Wind	generator lead
73	HU	Huron	115-kV switches 1261, 1265	
74			115/69-kV transformer KY1A	
75			69-kV breakers 1952, 2052 and assoc. switches	East River
76	IN	Intake	All Not Included	
77	INP	Intake Pumping	All Not Included	
78	JT	Jamestown	115/41.8-kV transformers KY1A and KY2A	
79			115-kV breaker 662 and assoc. switches	
80			41.8-kV breaker 1142 and assoc. switches	Otter Tail, Normally Open - emergency tie
81			12.47-kV breaker 1522, 1722 and assoc. switches	
82	KD	Killdeer	115/41.8-kV transformer KY4A and switch 469	
83			41.8-kV breaker 442, 642 and switches 343, 345	MDU and Upper Mo.
84	LA	Lakota	12.5-kV breaker 1022 and assoc. switches	City of Lakota
85			69-kV breaker 152 and assoc. switches	
86			115/69-kV transformer KY1A, switches 362, 363	
87	LE	Leeds	69/12.5-kV transformer KZ3A and switch 645	
88			12.5-kV breaker 624 and assoc. switches	CPEC
89	MR	Martin	115/34.5-kV tranformer KY1A and breaker 1962 and assoc. switches	
90			115 kV breaker 1962 and assoc switches	
91	MA	Maurine	115/69-kV transformer KY1A and breaker 1262 and assoc. switches	
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			115-kV breaker 1962 and assoc. switches	generator lead
105	OA	Oahe	230-kV breakers 2882, 2482, 2486, 2082, 1162 and assoc. switches	generator lead

106			115-kV breaker 1162 and assoc. switches	generator lead
107	OF	O'Fallon Creek	12.47-kV breaker 522 and assoc. switches and equipment	MDU
108	PET	Penn Tap	Switches 1860, 1861	
109	PL	Philip	115/69-kV transformer KY1A and switches 1963	
110			69-kV breaker 2152 and assoc. switches	West Central
111	PI	Pierre	115/12.47-kV transformer KY1A and 115-kV interrupter 762	
112			12.47-kV breakers 2212, 2312, 2412 and assoc. switches	City of Pierre
113	PLL	Pleasant Lake Tap	Switched 760, 761	
114	RC	Rapid City	115/12.47-kV transformer KY1A	
115	RH	Richland	All Not Included	
116	RY	Rudyard	115/69/12.5-kV transformer KY1A and interrupter 362	
117			69-kV breaker 752 and assoc. switches	Hill County
118			12.5-kV breaker 422 and assoc. switches	Hill County
119	RG	Rugby	115/41.8-kV transformer KY1A and breaker 1162 and assoc. switches	
120			41.8-kV breaker 2142 and assoc. switches	Otter Tail
121	SV	Savage Pumping	All Not Included	
122	SH2	Shelby	All Not Included	
123	SH2	Shelby 2	115-kV breaker 1162 and assoc. switches	to Shelby
124	SY	Shirley Pumping	All Not Included	
125	SF	Sioux Falls	115-kV breaker 862 and assoc. switches	East River
126			69-kV breaker 1552 and assoc. switches	East River
127	SP	Spencer	69-kV breaker 1642 and assoc. switches	City of Spencer
128	SU	Summit	41.8-kV breakers 2142, 2242 and assoc. switches	
129			115/41.8-kV transformer KY1B	
130			115-kV interupter 862 and switch 861	
131	TE	Terry Pumping	All Not Included	
132	TR	Terry Tap	115/34.5-kV transformer KY1A and switch 363	
133			34.5-kV breaker 342 and assoc. switches	Buffalo Rapids and MDU
134	TI	Tiber	115/12.5-kV transformer KY1A and breaker 1262	
135			12.5-kV breaker 122 and assoc. switches	USBR
136	TY	Tyndall	69-kV breaker 452 and assoc. switches	East River
137			115-kV interrupter 362	protection for non-included transformer (transformer not owned by Western)
138	VC	Valley City	69-kV breakers 344, 1144 and assoc. switches	City of Valley City
139	WL	Wall	115/12.47-kV transformer KY1B and interrupters 461 and 562	
140			12.47-kV breaker 622 and assoc. switches	West River
141	WNB	Wanblee	Interrupter 462 and assoc. switches	
142	WDD	Ward	230-kV Switch 889	
143	WB	Washburn	230/41.8-kV transformer KU1A and breaker 282	
144			41.8-kV breaker 342 and assoc. switches	Otter Tail - emergency tie
145			41.8 kV breaker 242 and assoc switches	MPC and CPEC Blue Flint
146	WT	Watertown	69-kV breaker and assoc. switches	
147	WC	Watford City	115-kV interrupter 162	protection for non-included transformer (transformer not owned by Western)
148	WSG	Wessington Springs	230-kV switch 989	generator outlet
149	WH	Whately	69/12.5-kV transformer KYA and switches 253, 257	
150			12.5-kV breaker 224 and assoc. switches	Norval
151	WV	Wicksville	115-kV interrupter 362	protection for non-included transformer (transformer not owned by Western)
152			24.9-kV breaker 1032 and assoc. switches	West River
153	WN	Williston	60-kV breaker 3552 and assoc. switches	MDU non-credited line
154	WN2	Williston 2	115-kV breaker 2562 and assoc. switches	
155	WI	Winner	12.47-kV breakers 2222, 2422, 2523 and assoc. switches	City of Winner and Rosebud Electric
156	VAT	Wiota	All Not Included	
157	VAT	Wiota Tap	All Not Included	
158	WP	Wolf Point	115/34.5-kV transformer KY1A and switches 1963, 1965	
159			34.5-kV breakers 2142, 2242, 2342, 2442 and assoc. switches	MDU and Norval
160			12.5-kV breakers 3222, 3322, 3422 and assoc. switches	Norval and McCone
161	WO	Woonsocket	34.5-kV breakers 442 and 542 and assoc. switches	NWPS and City of Wessington Springs
162			115/69-kV transformer KY1B and 115-kV breaker 862	
163			Mobile Transformer 115/34.5-kV	
164			115-kV interupters 362 and 862 and assoc. switches, switch M263, M261	
165		**Transmission Lines**		
166		SHELBY-SHELBY2	115-kV	
167		**Corps Switchyard Facilities**		
168		Big Bend	230-kV interrupters 1081, 2081, 3081, 4081 and assoc switches	
169		Fort Peck	230-kV interrupters 481, 581 and assoc switches	
170			115-kV switches 861, 961	
171		Fort Randall	115-kV switch 960	
172			230-kV switches 1180, 1280, 1380	
173		Garrison	230-kV breakers 182, 282, 382 and assoc switches	
174			115-kV breakers 462, 561, 1762 and assoc switches	
175			13.8-kV breaker 2722 and assoc switches	
176		Gavins Point	115-kV breakers 162, 262, 362 and assoc. switches	
177		Oahe	115-kV breaker 1162 and assoc. switches	
178			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 2024 Rate Estimate Calculation [(Back to Worksheet Links)]
Worksheet 11 - Facility Changes
12 Months Ending 09/30/2024 ESTIMATE

Line No.	(1)	(2)
1	Fargo-Moorhead	Moorhead Reactor, UID 143159, Structures, Relay, Meter, RTU.
2	Bismarck	Bismarck Reactor, UID 143157, Reactors, Breaker, Switches.
3	Oahe-Glenham	Oahe 230-kV Terminal Upgrades, UID 122734, Stuctures, Conductor.
4	Oahe-Glenham	Sully Buttes-Whitlock 230-kV Line Clearance Increase, UID 143613, Structures.
5	Oahe-Glenham	Whitlock-Glenham 230-kV Clearance Increase, UID 143614, Structures.
6	White	Take over ownership of 2462 from East River, which already was qualified for AI Inclusion.
7	Sioux City 2	Removal of Transformer KU1B / replace Transformer KU1A, remove switches 8291, 8281.
8	Gregory	The substation was rebuilt to an expandable ring bus.
9	Williston	Take over ownership of 1162 from Basin Electric, which already was qualified for AI Inclusion.
10	North Bend	Custumer funded 230-kV 4 breaker ring switching station added due to GIA and customer interconnection request.
11	Bismarck O&M Service Center	New Building.
12	Sioux Falls O&M Service Center	New Building.
13	Huron	Take over ownership of 230-kV Breaker 682 and assoc. switches, which was already qualified for AI inclusion.
14	Killdeer -Charlie Creek	Line Rebuild. Not a new line but was part of Watford City-Beulah line.

WAPA-UGP 2024 Rate Estimate Calculation

Worksheet 12 - Scheduling, System Control, and Dispatch Service

12 Months Ending 09/30/2024 ESTIMATE

(Back to Worksheet Links)

Line No.	(1) DESCRIPTION	(2) SSCD	(3) REFERENCE
1	**A. Operation and Maintenance Expense ($)**	10,999,667	WS4-CostData (O&M Expenses Worksheet)
2	**B. A&G Expense ($)**	132,268	WS4-CostData (A&G Expenses Worksheet)
3	**C. Depreciation Expense ($)**	348,403	WS4-CostData (Depreciation Expense Worksheet)
4	**D. Taxes Other than Income Taxes for Transmission ($)**	-	Not Applicable
5	**E. Allocation of General Plant ($)**	-	No General Plant identified at this time, all plant is identified as either generation or transmission related
6	**F. Cost of Capital**		
7	Weighted Transmission Composite Interest Rate	3.942%	WS4-CostData (C6 L60)
8	Net Plant Investment ($)	8,213,644	WS4-CostData (C2 L21)
9	Cost of Capital ($)	323,811	L7*L8
10	**H. Revenue Requirement**		
11	Annual Western-UGPR Cost ($)	11,804,150	L1+L2+L3+L9
12	**Estimated SSCD Revenue from non-Transmission facilities ($)**	730,107	L11*L16
13	**Prior Year True-Up ($)**	445,498	Prior year true-up
14	**Revenue Requirement for SSCD for Transmission facilities ($)**	11,519,541	L11-L12+L13
15			
16	Ratio for Line 12	6.19%	WS8-TranFac (L513 C6/C9)

WAPA-UGP 2024 Rate Estimate Calculation (Back to Worksheet Links)
Worksheet 13 - SSCD Facilities
12 Months Ending 09/30/2024 ESTIMATE

		(1)	(2)	(3)	(4)	(5)	(6)	(7)
		2024 SPP ESTIMATE SUMMARY			FY2023-24 ESTIMATE ADD/REPL/RETIRE	ATTACHMENT AI	GENERATION	FY2024 EST SPP
Line No.	FID	DESCRIPTION		FACILITY TOTALS ($)	($)	ADJUSTMENTS ($)	ADJUSTMENTS ($)	TOTALS ($)
1	WAO	WATERTOWN ALTERNATE OPERATIONS CENTER		6,174,392	-	0	0	6,174,392
2	WTO	WATERTOWN OPERATIONS CENTER		1,785,958	-	0	(283,038)	1,502,920
3	WTO F	WATERTOWN OPERATIONS CENTER (BFPS)		11,977,195	2,661,454	0	(1,265,809)	10,711,386
4			Subtotal	19,937,544	2,661,454	0	(1,548,847)	18,388,698
5		**2024 SPP ESTIMATE DETAIL:**						
6	FID	DESCRIPTION	ADDITIONAL:	FID COST DETAIL ($)	SSCD %	SSCD TOTAL ($)	TRANS %	TRANS TOTAL ($)
7	WAO	INTEREST DURING CONSTRUCTION	IDC	299	100%	299	100%	299
8	WAO	LAND & RIGHTS	LAND & LAND RIGHTS	9,790	100%	9,790	100%	9,790
9	WAO	LAND AT KCR	LAND & LAND RIGHTS	1,539	100%	1,539	100%	1,539
10	WAO	MICROWAVE TOWER	ANTENNA TOWER	295,486	100%	295,486	100%	295,486
11	WAO	INTEREST DURING CONSTRUCTION	IDC	57,816	100%	57,816	100%	57,816
12	WAO	INTEREST DURING CONSTRUCTION	PLANT NOT CLASSIFIED	5,246	100%	5,246	100%	5,246
13	WAO	ANTENNA	PLANT NOT CLASSIFIED	17,480	100%	17,480	100%	17,480
14	WAO	MICROWAVE SYSTEM	MICROWAVE SYSTEM	122,582	100%	122,582	100%	122,582
15	WAO	MICROWAVE SYSTEM	MICROWAVE SYSTEM	12,407	100%	12,407	100%	12,407
16	WAO	SCADA COMMUNICATION EQUIPMENT	SEQUENTIAL EVENT RECORDING SYST	20,217	100%	20,217	100%	20,217
17	WAO	INTEREST DURING CONSTRUCTION	IDC	2,475	100%	2,475	100%	2,475
18	WAO	PLANT COMM SYSTEM	PLANT COMM SYSTEM	43,699	100%	43,699	100%	43,699
19	WAO	LAND & RIGHTS	LAND & LAND RIGHTS	54,138	100%	54,138	100%	54,138
20	WAO	BUILDINGS	SERVICE BUILDINGS	531,049	100%	531,049	100%	531,049
21	WAO	BUILDINGS	ROOFING	90,309	100%	90,309	100%	90,309
22	WAO	OTHER STRUCTURES AND IMPROVEMENTS	OIL STORAGE TANK	54,257	100%	54,257	100%	54,257
23	WAO	OTHER STRUCTURES AND IMPROVEMENTS	HEATING	475,746	100%	475,746	100%	475,746
24	WAO	STATION EQUIPMENT	AUXILIARY POWER SYSTEM	95,962	100%	95,962	100%	95,962
25	WAO	SCADA COMMUNICATION EQUIPMENT	REMOTE TERMINAL UNIT	12,679	100%	12,679	100%	12,679
26	WAO	SCADA COMMUNICATION EQUIPMENT	SCADA	1,022,154	100%	1,022,154	100%	1,022,154
27	WAO	SCADA COMMUNICATION EQUIPMENT	UNITERRUPTABLE POWER SUPPLY	122,476	100%	122,476	100%	122,476
28	WAO	MICROWAVE COMMUNICATION EQUIPMENT	MICROWAVE SYSTEM	733,679	100%	733,679	100%	733,679
29	WAO	MICROWAVE COMMUNICATION EQUIPMENT	BATTERY	35,292	100%	35,292	100%	35,292
30	WAO	MICROWAVE COMMUNICATION EQUIPMENT	BATTERY CHARGER	13,959	100%	13,959	100%	13,959
31	WAO	MICROWAVE COMMUNICATION EQUIPMENT	MICROWAVE SYSTEM	73,162	100%	73,162	100%	73,162
32	WAO	INTEREST DURING CONSTRUCTION	IDC	924	100%	924	100%	924
33	WAO	TELEPHONE COMMUNICATION EQUIPMENT	PLANT COMM SYSTEM	53,112	100%	53,112	100%	53,112
34	WAO	FIBER OPTIC EQUIPMENT	FIBER OPTIC EQUIPMENT	184,307	100%	184,307	100%	184,307
35	WAO	SCADA COMMUNICATION EQUIPMENT	SCADA	23,258	100%	23,258	100%	23,258
36	WAO	INTEREST DURING CONSTRUCTION	IDC	294	100%	294	100%	294
37	WAO	FIBER OPTIC EQUIPMENT	CABLE TYPE OPGW	28,885	100%	28,885	100%	28,885
38	WAO	FIBER OPTIC EQUIPMENT	CHANNEL BANK EQUIPMENT	41,066	100%	41,066	100%	41,066
39	WAO	BUILDINGS	SERVICE BUILDINGS	93,750	100%	93,750	100%	93,750
40	WAO	INTEREST DURING CONSTRUCTION	IDC	2,600	100%	2,600	100%	2,600
41	WAO	BUILDINGS	SERVICE BUILDINGS	1,320,913	100%	1,320,913	100%	1,320,913
42	WAO	INTEREST DURING CONSTRUCTION	IDC	445,915	100%	445,915	100%	445,915
43	WAO	PLANT COMM SYSTEM	PLANT COMM SYSTEM	40,642	100%	40,642	100%	40,642
44	WAO	INTEREST DURING CONSTRUCTION	IDC	577	100%	577	100%	577
45	WAO	SCADA COMMUNICATION EQUIPMENT	SCADA	33,157	100%	33,157	100%	33,157
46	WAO	INTEREST DURING CONSTRUCTION	IDC	1,093	100%	1,093	100%	1,093
47		TOTAL		6,174,392		6,174,392		6,174,392
48	WTO	AIR CONDITIONER	AIR CONDITIONER	146,013	66.7%	97,391	80.8%	117,979
49	WTO	INTEREST DURING CONSTRUCTION	IDC	10,941	66.7%	7,298	80.8%	8,841
50	WTO	ROOFING	ROOFING	676,147	66.7%	450,990	80.8%	546,327
51	WTO	GATE	GATE	67,521	66.7%	45,036	80.8%	54,557
52	WTO	FENCES	FENCES	573,532	66.7%	382,546	80.8%	463,414
53		TOTAL		1,474,154		983,261		1,191,117
54	WTO	FIBER OPTICS EQUIPMENT	PLANT COMM SYSTEM	54,317	100%	54,317	100%	54,317
55	WTO	INTEREST DURING CONSTRUCTION	IDC	20,639	100%	20,639	100%	20,639
56	WTO	FIBER OPTICS EQUIPMENT	PLANT COMM SYSTEM	141,934	100%	141,934	100%	141,934

57	WTO	INTEREST DURING CONSTRUCTION	IDC	3,902	100%	3,902	100%	3,902
58	WTO	SCADA COMMUNICATION EQUIPMENT	SCADA	61,037	100%	61,037	100%	61,037
59	WTO	INTEREST DURING CONSTRUCTION	IDC	771	100%	771	100%	771
60	WTO	INTEREST DURING CONSTRUCTION	IDC	2,878	100%	2,878	100%	2,878
61	WTO	REMOTE TERMINAL UNIT	REMOTE TERMINAL UNIT	16,161	100%	16,161	100%	16,161
62	WTO	SCADA COMMUNICATION EQUIPMENT	SCADA	8,953	100%	8,953	100%	8,953
63	WTO	INTEREST DURING CONSTRUCTION	IDC	1,212	100%	1,212	100%	1,212
64		TOTAL		311,803		311,803		311,803
65	WTO F	ALCATEL 5620 FIBER TERMINAL EQUIP (PART 2 OF 2)	TERMINATION EQUIPMENT	134,174	100%	134,174	100%	134,174
66	WTO F	ADD DROP MULTIPLEXER (PART 2 OF 2)	ADD DROP MULTIPLEXER	59,005	100%	59,005	100%	59,005
67	WTO F	POWER SYSTEM DISPATCH CONSOLES	SCADA	119,667	100%	119,667	100%	119,667
68	WTO F	REMOTE TERMINAL UNIT	REMOTE TERMINAL UNIT	39,790	100%	39,790	100%	39,790
69	WTO F	INTEREST DURING CONSTRUCTION	IDC	1,601	100%	1,601	100%	1,601
70	WTO F	FIBER OPTIC EQUIPMENT	FIBER OPTICS EQUIPMENT	53,165	100%	53,165	100%	53,165
71	WTO F	FIBER OPTIC EQUIPMENT	ADD DROP MULTIPLEXER	307,465	100%	307,465	100%	307,465
72	WTO F	FIBER OPTIC EQUIPMENT	TERMINATION EQUIPMENT	12,820	100%	12,820	100%	12,820
73	WTO F	FIBER OPTIC EQUIPMENT	CHANNEL BANK EQUIPMENT	415,983	100%	415,983	100%	415,983
74	WTO F	INTEREST DURING CONSTRUCTION	IDC	146,435	100%	146,435	100%	146,435
75	WTO F	INTEREST DURING CONSTRUCTION	IDC	2,533	100%	2,533	100%	2,533
76	WTO F	TELEPHONE COMMUNICATION EQUIPMENT	TELEPHONE SYSTEM	31,658	100%	31,658	100%	31,658
77	WTO F	MICROWAVE COMMUNICATION EQUIPMENT	MICROWAVE SYSTEM	85,009	100%	85,009	100%	85,009
78	WTO F	FIBER OPTICS EQUIPMENT	ADD DROP MULTIPLEXER	108,685	100%	108,685	100%	108,685
79	WTO F	FIBER OPTICS EQUIPMENT	CHANNEL BANK EQUIPMENT	1,934	100%	1,934	100%	1,934
80	WTO F	FIBER OPTICS EQUIPMENT	FIBER OPTICS EQUIPMENT	38,123	100%	38,123	100%	38,123
81	WTO F	INTEREST DURING CONSTRUCTION	IDC	23,486	100%	23,486	100%	23,486
82	WTO F	MULTIPLEXER EXPANDED CAPABILITY ASSET 166934 - PROJECT WTO 0025C (PART 2)	ADD DROP MULTIPLEXER	25,032	100%	25,032	100%	25,032
83	WTO F	IDC - ASSET 166934 MULTIPLEXER EXPANSION (PART 2)	IDC	514	100%	514	100%	514
84	WTO F	INTEREST DURING CONSTRUCTION	IDC	18,650	100%	18,650	100%	18,650
85	WTO F	ADD DROP MULTIPLEXER (PART 1 OF 2)	TERMINATION EQUIPMENT	2,850	100%	2,850	100%	2,850
86	WTO F	ALCATEL 5620 FIBER TERMINAL EQUIP (PART 1 OF 2)	TERMINATION EQUIPMENT	6,625	100%	6,625	100%	6,625
87	WTO F	SCADA COMMUNICATION EQUIPMENT	SCADA	(8,953)	100%	(8,953)	100%	(8,953)
88	WTO F	INTEREST DURING CONSTRUCTION	IDC	(1,212)	100%	(1,212)	100%	(1,212)
89	WTO F	MICROWAVE COMMUNICATION EQUIPMENT	MICROWAVE SYSTEM	226,333	100%	226,333	100%	226,333
90	WTO F	INTEREST DURING CONSTRUCTION	IDC	13,471	100%	13,471	100%	13,471
91	WTO F	TELEPHONE SYSTEM - 40 CHANNEL RECORDER & CRASH KIT	TELEPHONE SYSTEM	70,115	100%	70,115	100%	70,115
92	WTO F	INTEREST DURING CONSTRUCTION	IDC	1,421	100%	1,421	100%	1,421
93	WTO F	VOICE RECORDER SYSTEM	TELEPHONE SYSTEM	61,005	100%	61,005	100%	61,005
94	WTO F	SCADA SYSTEM HISTORIAN SOFTWARE	SCADA	202,050	100%	202,050	100%	202,050
95	WTO F	INTEREST DURING CONSTRUCTION	IDC	6,761	100%	6,761	100%	6,761
96	WTO F	SCADA	UNITERRUPTABLE POWER SUPPLY	121,027	100%	121,027	100%	121,027
97	WTO F	INTEREST DURING CONSTRUCTION	IDC	2,484	100%	2,484	100%	2,484
98	WTO F	AUX PWR SYS - BACKUP GENERATOR	AUXILIARY POWER SYSTEM	454,504	100%	454,504	100%	454,504
99	WTO F	INTEREST DURING CONSTRUCTION	IDC	12,877	100%	12,877	100%	12,877
100	WTO F	(5) DIGITAL VOICE RECORDERS - WTO F	SCADA	20,217	100%	20,217	100%	20,217
101	WTO F	INTEREST DURING CONSTRUCTION	IDC	1,979	100%	1,979	100%	1,979
102	WTO F	BATTERY BANK FOR UPS	BATTERY	36,320	100%	36,320	100%	36,320
103	WTO F	INTEREST DURING CONSTRUCTION	IDC	631	100%	631	100%	631
104	WTO F	DIGITAL TRANS & REC EQUIP	SCADA	23,847	100%	23,847	100%	23,847
105	WTO F	FREQUENCY CONTROL ADDITIONS	LOAD AND FREQUENCY CONTROL EQ	57,731	100%	57,731	100%	57,731
106	WTO F	TELEPHONE COMMUNICATION EQUIPMENT	PLANT COMM SYSTEM	144,190	100%	144,190	100%	144,190
107	WTO F	PLANT COMM SYSTEM	PLANT COMM SYSTEM	167,020	100%	167,020	100%	167,020
108	WTO F	INTEREST DURING CONSTRUCTION	IDC	2,373	100%	2,373	100%	2,373
109	WTO F	ADD DROP MULTIPLEXER	ADD DROP MULTIPLEXER	267,249	100%	267,249	100%	267,249
110	WTO F	INTEREST DURING CONSTRUCTION	IDC	16,354	100%	16,354	100%	16,354
111	WTO F	TELEPHONE SYSTEM	TELEPHONE SYSTEM	24,732	100%	24,732	100%	24,732
112	WTO F	INTEREST DURING CONSTRUCTION	IDC	312	100%	312	100%	312
113	WTO F	TELEPHONE SYSTEM	TELEPHONE SYSTEM	559,892	100%	559,892	100%	559,892
114	WTO F	INTEREST DURING CONSTRUCTION	IDC	33,280	100%	33,280	100%	33,280
115	WTO F	SCADA	SCADA	1,215,754	100%	1,215,754	100%	1,215,754
116	WTO F	INTEREST DURING CONSTRUCTION	IDC	15,473	100%	15,473	100%	15,473
117		TOTAL		5,384,440		5,384,440		5,384,440
118	WTO F	WATERTOWN OPERATIONS BUILDING	CONTROL BUILDING	636,802	66.7%	424,747	80.8%	514,536
119	WTO F	RESURFACE PARKING LOT AT WATERTOWN OPS OFFICE	OFFICE BUILDING	152,204	66.7%	101,520	80.8%	122,981
120	WTO F	WALLS	WALLS	276,284	66.7%	184,281	80.8%	223,237
121	WTO F	INTEREST DURING CONSTRUCTION	IDC	2,835	66.7%	1,891	80.8%	2,291
122	WTO F	MICROWAVE COMMUNICATION EQUIPMENT	SYNC UNIT	20,893	66.7%	13,936	80.8%	16,882
123	WTO F	INTEREST DURING CONSTRUCTION	IDC	405,078	66.7%	270,187	80.8%	327,303

124	WTO F	VEHICLE/STORAGE BUILDING	GARAGE	651,816	66.7%	434,761	80.8%	526,667
125	WTO F	INTEREST DURING CONSTRUCTION	IDC	39,508	66.7%	26,352	80.8%	31,923
126	WTO F	SIDEWALKS	SIDEWALKS	153,428	66.7%	102,336	80.8%	123,970
127	WTO F	INTEREST DURING CONSTRUCTION	IDC	2,052	66.7%	1,368	80.8%	1,658
128	WTO F	TELEPHONE COMMUNICATION EQUIPMENT	TELEPHONE SYSTEM	146,115	66.7%	97,458	80.8%	118,061
129	WTO F	IDC - REPLACEMENTS	IDC	1,845	66.7%	1,231	80.8%	1,491
130	WTO F	IDC - ADDITIONS	IDC	3,845	66.7%	2,564	80.8%	3,106
131	WTO F	PSOO-WATER SYSTEM	METER EQUIPMENT	219,050	66.7%	146,106	80.8%	176,993
132	WTO F	INTEREST DURING CONSTRUCTION	IDC	285,734	66.7%	190,585	80.8%	230,873
133	WTO F	PWR SYS OPERATIONS OFFICE BUILDING (PART 1 OF 2)	STORAGE BUILDING	1,929,776	66.7%	1,287,161	80.8%	1,559,259
134	WTO F	WATERTOWN OPS BLDG EXPANSION (PSOO)	STORAGE BUILDING	303,096	66.7%	202,165	80.8%	244,902
135	WTO F	WATERTOWN OPS BLDG EXPANSION	STORAGE BUILDING	1,362,395	66.7%	908,717	80.8%	1,100,815
136		TOTAL		6,592,755		4,397,368		5,326,946

WAPA-UGP 2024 Rate Estimate Calculation

(Back to Worksheet Links)

Worksheet 14 - Rate for Regulation and Frequency Response

12 Months Ending 09/30/2024 ESTIMATE

Line No.	(1) DESCRIPTION	(2) REGULATION and FREQUENCY RESPONSE	(3) REFERENCE
1	Western Regulation Revenue Requirement ($)	312,402	L19 C2
2	Under Collection - 2022 Regulation Revenue Rqmt ($)	25,054	Prior year true-up
3	Total Regulation Revenue Rqmt with True-up ($)	337,456	L1 + L2
	Regulation and Frequency Response (Western's Costs)		
4	Fixed Charge Rate	14.633%	WS2-AllocFactor C5 L30
5	Corps Generation Net Plant Costs ($)	593,667,884	WS2-AllocFactor C5 L31
6	Annual Corps Generation Cost ($)	86,870,369	L1*L2
7	Plant Capacity (kW)	2,464,000	(1)
8	Cost/kW ($/kW)	35.26	L3/L4
9	Capacity Used for Regulation (kW)	8,861	(2)
10	Regulation Revenue Requirement ($) - Capacity	312,402	L8*L9
18	Regulation Revenue Requirement ($) - Purchases	-	(3)
19	Total Regulation Revenue Requirement ($)	312,402	

(1) WAPA Annual Report plant capacity

(2) WAUW capacity used for regulation

(3) Cost of purchases required to regulate for Intermittent Resources

WAPA-UGP 2024 Rate Estimate Calculation (Back to Worksheet Links)
Worksheet 15 - Rate for Reserves
12 Months Ending 09/30/2024 ESTIMATE

Line No.	(1) DESCRIPTION	(2) RESERVES	(3) REFERENCE
1	Fixed Charge Rate	14.633%	WS2-AllocFactor C5 L30
2	Corps Generation Net Plant Costs ($)	593,667,884	WS2-AllocFactor C5 L31
3	Annual Corps Generation Cost ($)	86,870,369	L1*L2
4	Plant Capacity (kW)	2,438,000	(1)
5	Cost/kW ($/kW-Yr)	35.63	L3/L4
6	Monthly Charge ($/kW-mo)	2.97	L5/12 months
7	Western's Maximum Load in WAUW Control Area (kW)	167,000	(2)
8	Maximum Generation in WAUW Control Area (kW)	93,000	(3)
9	Capacity used for Reserves (kW) -- 3% Load + 3% Gen	7,800	L7*3% + L8*3% (4)
10	Annual Reserves Revenue Requirement	277,928	L9*L5
11	Under Collection - 2022 WAUW Reserves Revenue Rqmt ($)	35,551	Prior year true-up
12	Annual Reserve Sharing Group Cost ($)	42,857	(5)
13	Total Regulation Reserves Rqmt with True-up ($)	356,336	L10+L11+L12
(1)	WAPA Annual Report plant capacity		
(2)	Control Area metering data		
(3)	WAUW maximum generation data		
(4)	Western Power Pool Reserve Sharing System		
(5)	Annual cost associated with Western-UGP's current reserve sharing group membership		