

Hemingway to Midpoint 500kV Count
Hemingway500-Boardman500 Count
Hatwai 500/230 kV Xfmr w-RAS Count
Ontario230-Caldwell230kV Count
Table Mtn-Tesla 500 kV Count
BOISEBCH230-BROWNLEE230C3-MS Count
Hemingway500-SummerLake500 Count
Dry Creek-Lolo 230 kV Count
Roundup230-LaGrande230 Count
Dworshak-Hatwai 500 kV Line w/RAS Gen Dropping Count
Grizzly-Capt Jack 500 kV Count
OXBOW230-BROWNLEE230C2 Count
HELLSCYN230-BROWNLEE230C1 Count
Walla Walla-Dry Creek 230 kV Count
Coulee-Hanford 500 kV Count
Hatwai-N. Lewiston 230 kV Count
Oxbow230-Imnaha230-Lolo230 Count
Hatwai-Lolo 230 kV Count
N. Lewiston-Dry Creek 230 kV Count
McNary230-Roundup230 Count
Lower Granite-Hatwai 500 kV Count
HellsCyn230-Hurricane230-WalaWala230 Count
Capt Jack-Olinda 500 kV Count
BROWNLEE230-ONTARIO230C1-MS Count
Table Mtn-Vaca Dixon 500 kV Count
WOCS: N-1: John Day - Marion #1 500kV Count
WOCS: N-1: Buckley - Marion #1 500kV Count
WOCS: N-1: Big Eddy - Ostrander #1 500kV Count
WOCS: N-1: Wautoma - Ostrander #1 500kV (modify for WOMGIP) Count
WOCS: N-1: Big Eddy - McLoughlin 230kV Count
PDCI Bi-pole w/RAS Count

Contingency Name	Category	Element	Change				Area Name		Nom kV
			Percent	Base Val	Val	Limit	Percent	Assoc.	
Hemingway to Midpoint 500kV	Branch MVA	CENTR G1 (47740) -> CENTR P1 (47741) CKT 1 at CENTR G1	0.01	730.318	730.241	728	100.31	NORTHWE	500
Hemingway to Midpoint 500kV	Branch Amp	FREWHI11 (47296) -> FREEWATR (40445) CKT 1 at FREWHI11	0.68	331.489	333.736	329.68	101.23	NORTHWE	69
Hemingway to Midpoint 500kV	Branch MVA	HARDIN (62080) -> HARDIN (62051) CKT 1 at HARDIN	3.17	101.211	104.386	100	104.39	MONTANA-	230
Hemingway to Midpoint 500kV	Branch MVA	PIT 5 U2 (31806) -> PIT 5 JT (30210) CKT 1 at PIT 5 U2	0.78	82.334	82.969	81	102.43	PG AND E-F	230
Hemingway to Midpoint 500kV	Branch MVA	PIT 7 U2 (31778) -> PIT 7 (30220) CKT 1 at PIT 7 U2	0	61.089	61.089	58	105.33	PG AND E-F	230
Hemingway to Midpoint 500kV	Branch MVA	PIT 7 U1 (31776) -> PIT 7 (30220) CKT 1 at PIT 7 U1	1.26	59.77	60.503	58	104.32	PG AND E-F	230
Hemingway to Midpoint 500kV	Branch MVA	BLLTA 1M (30501) -> BELLTA T (33804) CKT 1 at BELLTA T	0	40	40	40	100	PG AND E-F	230
Hemingway to Midpoint 500kV	Branch MVA	SOUTH G (31826) -> SOUTH (31596) CKT 1 at SOUTH G	2.53	7.402	7.592	7.5	101.23	PG AND E-F	60
Hemingway to Midpoint 500kV Count									
_16 L_Hemingway500-Boardman500	Branch Amp	HELLSCYN (60150) -> BROWNLEE (60095) CKT 1 at HELLSCYN	20.39	1054.12	1298.759	1199.9	108.24	IDAHO-IDA	230
_16 L_Hemingway500-Boardman500	Branch Amp	LOLO (48197) -> IMNAHA (60278) CKT 1 at LOLO	26.16	759.882	1000.587	919.99	108.76	NORTHWE	230
_16 L_Hemingway500-Boardman500	Branch MVA	CENTR G1 (47740) -> CENTR P1 (47741) CKT 1 at CENTR G1	0	730.318	730.309	728	100.32	NORTHWE	500
_16 L_Hemingway500-Boardman500	Branch Amp	FREWHI11 (47296) -> FREEWATR (40445) CKT 1 at FREWHI11	2.22	331.489	338.799	329.68	102.77	NORTHWE	69
_16 L_Hemingway500-Boardman500	Branch MVA	HARDIN (62080) -> HARDIN (62051) CKT 1 at HARDIN	3.24	101.211	104.447	100	104.45	MONTANA-	230
_16 L_Hemingway500-Boardman500	Branch MVA	SPRINGCR (37581) -> SPRINGCR (37641) CKT 1 at SPRINGCR	1.52	193.423	196.388	195	100.71	PG AND E-F	230
_16 L_Hemingway500-Boardman500	Branch MVA	HYATT 3 (38835) -> HYATT2 (38621) CKT 1 at HYATT 3	0.77	126.123	127.103	127	100.08	PG AND E-F	230
_16 L_Hemingway500-Boardman500	Branch MVA	HYATT 5 (38845) -> HYATT3 (38622) CKT 1 at HYATT 5	0.81	126.043	127.077	127	100.06	PG AND E-F	230
_16 L_Hemingway500-Boardman500	Branch MVA	JBLACK2 (31770) -> BLACK (30205) CKT 1 at JBLACK2	1.48	84.795	86.065	86	100.08	PG AND E-F	230
_16 L_Hemingway500-Boardman500	Branch MVA	PIT 5 U2 (31806) -> PIT 5 JT (30210) CKT 1 at PIT 5 U2	1.92	82.334	83.891	81	103.57	PG AND E-F	230
_16 L_Hemingway500-Boardman500	Branch MVA	PIT 7 U1 (31776) -> PIT 7 (30220) CKT 1 at PIT 7 U1	2.67	59.77	61.318	58	105.72	PG AND E-F	230
_16 L_Hemingway500-Boardman500	Branch MVA	PIT 7 U2 (31778) -> PIT 7 (30220) CKT 1 at PIT 7 U2	0	61.089	61.089	58	105.33	PG AND E-F	230
_16 L_Hemingway500-Boardman500	Branch MVA	BLLTA 1M (30501) -> BELLTA T (33804) CKT 1 at BELLTA T	0	40	40	40	100	PG AND E-F	230
_16 L_Hemingway500-Boardman500	Branch MVA	SOUTH G (31826) -> SOUTH (31596) CKT 1 at SOUTH G	5.5	7.402	7.814	7.5	104.19	PG AND E-F	60
_16 L_Hemingway500-Boardman500 Count									
Hatwai 500/230 kV Xfmr w-RAS	Branch MVA	CENTR G1 (47740) -> CENTR P1 (47741) CKT 1 at CENTR G1	0	730.318	730.317	728	100.32	NORTHWE	500
Hatwai 500/230 kV Xfmr w-RAS	Branch Amp	FREWHI11 (47296) -> FREEWATR (40445) CKT 1 at FREWHI11	1.23	331.489	335.557	329.68	101.78	NORTHWE	69
Hatwai 500/230 kV Xfmr w-RAS	Branch MVA	BELL S2 (40088) -> BELL BPA (40087) CKT 1 at BELL BPA	6.07	236.855	251.966	249	101.19	NORTHWE	230
Hatwai 500/230 kV Xfmr w-RAS	Branch MVA	HARDIN (62080) -> HARDIN (62051) CKT 1 at HARDIN	0.48	101.211	101.69	100	101.69	MONTANA-	230
Hatwai 500/230 kV Xfmr w-RAS	Branch MVA	PIT 5 U2 (31806) -> PIT 5 JT (30210) CKT 1 at PIT 5 U2	0.14	82.334	82.449	81	101.79	PG AND E-F	230
Hatwai 500/230 kV Xfmr w-RAS	Branch MVA	PIT 7 U2 (31778) -> PIT 7 (30220) CKT 1 at PIT 7 U2	0	61.089	61.089	58	105.33	PG AND E-F	230
Hatwai 500/230 kV Xfmr w-RAS	Branch MVA	PIT 7 U1 (31776) -> PIT 7 (30220) CKT 1 at PIT 7 U1	0.23	59.77	59.905	58	103.28	PG AND E-F	230
Hatwai 500/230 kV Xfmr w-RAS	Branch MVA	BLLTA 1M (30501) -> BELLTA T (33804) CKT 1 at BELLTA T	0	40	40	40	100	PG AND E-F	230
Hatwai 500/230 kV Xfmr w-RAS Count									
_14 L_Ontario230-Caldwell230kV	Branch MVA	CENTR G1 (47740) -> CENTR P1 (47741) CKT 1 at CENTR G1	0	730.318	730.318	728	100.32	NORTHWE	500
_14 L_Ontario230-Caldwell230kV	Branch Amp	FREWHI11 (47296) -> FREEWATR (40445) CKT 1 at FREWHI11	0.15	331.489	330.981	329.68	100.4	NORTHWE	69
_14 L_Ontario230-Caldwell230kV	Branch MVA	HARDIN (62080) -> HARDIN (62051) CKT 1 at HARDIN	0.08	101.211	101.295	100	101.3	MONTANA-	230
_14 L_Ontario230-Caldwell230kV	Branch MVA	WALLULA (45331) -> WALLULA (45329) CKT 2 at WALLULA	0.03	60.05	60.065	60	100.11	NORTHWE	230
_14 L_Ontario230-Caldwell230kV	Branch MVA	PIT 5 U2 (31806) -> PIT 5 JT (30210) CKT 1 at PIT 5 U2	0.05	82.334	82.377	81	101.7	PG AND E-F	230
_14 L_Ontario230-Caldwell230kV	Branch MVA	PIT 7 U2 (31778) -> PIT 7 (30220) CKT 1 at PIT 7 U2	0	61.089	61.089	58	105.33	PG AND E-F	230
_14 L_Ontario230-Caldwell230kV	Branch MVA	PIT 7 U1 (31776) -> PIT 7 (30220) CKT 1 at PIT 7 U1	0.09	59.77	59.82	58	103.14	PG AND E-F	230
_14 L_Ontario230-Caldwell230kV Count									
Table Mtn-Tesla 500 kV	Branch MVA	CENTR G1 (47740) -> CENTR P1 (47741) CKT 1 at CENTR G1	0	730.318	730.321	728	100.32	NORTHWE	500
Table Mtn-Tesla 500 kV	Branch Amp	FREWHI11 (47296) -> FREEWATR (40445) CKT 1 at FREWHI11	0.05	331.489	331.658	329.68	100.6	NORTHWE	69
Table Mtn-Tesla 500 kV	Branch MVA	HARDIN (62080) -> HARDIN (62051) CKT 1 at HARDIN	0.33	101.211	101.546	100	101.55	MONTANA-	230
Table Mtn-Tesla 500 kV	Branch MVA	WALLULA (45331) -> WALLULA (45329) CKT 2 at WALLULA	0.01	60.05	60.044	60	100.07	NORTHWE	230
Table Mtn-Tesla 500 kV	Branch Amp	TABVAC11 (30031) -> TABVAC12 (30032) CKT 1 at TABVAC11	34.63	1716.707	2574.914	2477.9	103.92	PG AND E-F	500
Table Mtn-Tesla 500 kV	Branch MVA	SPRINGCR (37581) -> SPRINGCR (37641) CKT 1 at SPRINGCR	1.03	193.423	195.44	195	100.23	PG AND E-F	230
Table Mtn-Tesla 500 kV	Branch MVA	PIT 5 U2 (31806) -> PIT 5 JT (30210) CKT 1 at PIT 5 U2	0.35	82.334	82.618	81	102	PG AND E-F	230
Table Mtn-Tesla 500 kV	Branch MVA	PIT 7 U2 (31778) -> PIT 7 (30220) CKT 1 at PIT 7 U2	0	61.089	61.089	58	105.33	PG AND E-F	230
Table Mtn-Tesla 500 kV	Branch MVA	PIT 7 U1 (31776) -> PIT 7 (30220) CKT 1 at PIT 7 U1	0.57	59.77	60.101	58	103.62	PG AND E-F	230

Table Mtn-Tesla 500 kV	Branch MVA	BLLLTA 1M (30501) -> BELLTA T (33804) CKT 1 at BELLTA T	0	40	40	40	100 PG AND E-F	230
Table Mtn-Tesla 500 kV	Branch MVA	SOUTH G (31826) -> SOUTH (31596) CKT 1 at SOUTH G	2.88	7.402	7.618	7.5	101.58 PG AND E-F	60
Table Mtn-Tesla 500 kV Count								
9 L_BOISEBCH230-BROWNLEE230C3-MS	Branch MVA	CENTR G1 (47740) -> CENTR P1 (47741) CKT 1 at CENTR G1	0	730.318	730.317	728	100.32 NORTHWE	500
9 L_BOISEBCH230-BROWNLEE230C3-MS	Branch Amp	FREWHI11 (47296) -> FREEWATR (40445) CKT 1 at FREWHI11	0.12	331.489	331.087	329.68	100.43 NORTHWE	69
9 L_BOISEBCH230-BROWNLEE230C3-MS	Branch MVA	HARDIN (62080) -> HARDIN (62051) CKT 1 at HARDIN	0.13	101.211	101.343	100	101.34 MONTANA-	230
9 L_BOISEBCH230-BROWNLEE230C3-MS	Branch MVA	WALLULA (45331) -> WALLULA (45329) CKT 2 at WALLULA	0.02	60.05	60.061	60	100.1 NORTHWE	230
9 L_BOISEBCH230-BROWNLEE230C3-MS	Branch MVA	PIT 7 U2 (31778) -> PIT 7 (30220) CKT 1 at PIT 7 U2	0	61.089	61.089	58	105.33 PG AND E-F	230
9 L_BOISEBCH230-BROWNLEE230C3-MS	Branch MVA	PIT 7 U1 (31776) -> PIT 7 (30220) CKT 1 at PIT 7 U1	0.11	59.77	59.836	58	103.17 PG AND E-F	230
9 L_BOISEBCH230-BROWNLEE230C3-MS	Branch MVA	PIT 5 U2 (31806) -> PIT 5 JT (30210) CKT 1 at PIT 5 U2	0.07	82.334	82.39	81	101.72 PG AND E-F	230
9 L_BOISEBCH230-BROWNLEE230C3-MS Count								
4 L_Hemingway500-SummerLake500	Branch MVA	CENTR G1 (47740) -> CENTR P1 (47741) CKT 1 at CENTR G1	0.02	730.318	730.169	728	100.3 NORTHWE	500
4 L_Hemingway500-SummerLake500	Branch Amp	FREWHI11 (47296) -> FREEWATR (40445) CKT 1 at FREWHI11	0.13	331.489	331.916	329.68	100.68 NORTHWE	69
4 L_Hemingway500-SummerLake500	Branch MVA	HARDIN (62080) -> HARDIN (62051) CKT 1 at HARDIN	0.19	101.211	101.4	100	101.4 MONTANA-	230
4 L_Hemingway500-SummerLake500	Branch MVA	WALLULA (45331) -> WALLULA (45329) CKT 2 at WALLULA	0.02	60.05	60.036	60	100.06 NORTHWE	230
4 L_Hemingway500-SummerLake500	Branch MVA	PIT 5 U2 (31806) -> PIT 5 JT (30210) CKT 1 at PIT 5 U2	0.13	82.334	82.438	81	101.77 PG AND E-F	230
4 L_Hemingway500-SummerLake500	Branch MVA	PIT 7 U2 (31778) -> PIT 7 (30220) CKT 1 at PIT 7 U2	0	61.089	61.089	58	105.33 PG AND E-F	230
4 L_Hemingway500-SummerLake500	Branch MVA	PIT 7 U1 (31776) -> PIT 7 (30220) CKT 1 at PIT 7 U1	0.21	59.77	59.892	58	103.26 PG AND E-F	230
4 L_Hemingway500-SummerLake500	Branch MVA	BLLLTA 1M (30501) -> BELLTA T (33804) CKT 1 at BELLTA T	0	40	40	40	100 PG AND E-F	230
4 L_Hemingway500-SummerLake500 Count								
Dry Creek-Lolo 230 kV	Branch MVA	CENTR G1 (47740) -> CENTR P1 (47741) CKT 1 at CENTR G1	0	730.318	730.318	728	100.32 NORTHWE	500
Dry Creek-Lolo 230 kV	Branch Amp	FREWHI11 (47296) -> FREEWATR (40445) CKT 1 at FREWHI11	0.01	331.489	331.458	329.68	100.54 NORTHWE	69
Dry Creek-Lolo 230 kV	Branch MVA	HARDIN (62080) -> HARDIN (62051) CKT 1 at HARDIN	0	101.211	101.214	100	101.21 MONTANA-	230
Dry Creek-Lolo 230 kV	Branch MVA	WALLULA (45331) -> WALLULA (45329) CKT 2 at WALLULA	0	60.05	60.051	60	100.08 NORTHWE	230
Dry Creek-Lolo 230 kV	Branch MVA	PIT 5 U2 (31806) -> PIT 5 JT (30210) CKT 1 at PIT 5 U2	0	82.334	82.335	81	101.65 PG AND E-F	230
Dry Creek-Lolo 230 kV	Branch MVA	PIT 7 U2 (31778) -> PIT 7 (30220) CKT 1 at PIT 7 U2	0	61.089	61.089	58	105.33 PG AND E-F	230
Dry Creek-Lolo 230 kV	Branch MVA	PIT 7 U1 (31776) -> PIT 7 (30220) CKT 1 at PIT 7 U1	0	59.77	59.771	58	103.05 PG AND E-F	230
Dry Creek-Lolo 230 kV Count								
Roundup230-LaGrande230	Branch MVA	CENTR G1 (47740) -> CENTR P1 (47741) CKT 1 at CENTR G1	0	730.318	730.317	728	100.32 NORTHWE	500
Roundup230-LaGrande230	Branch Amp	FREWHI11 (47296) -> FREEWATR (40445) CKT 1 at FREWHI11	0.52	331.489	333.206	329.68	101.07 NORTHWE	69
Roundup230-LaGrande230	Branch MVA	HARDIN (62080) -> HARDIN (62051) CKT 1 at HARDIN	0.37	101.211	101.585	100	101.58 MONTANA-	230
Roundup230-LaGrande230	Branch MVA	PIT 5 U2 (31806) -> PIT 5 JT (30210) CKT 1 at PIT 5 U2	0.19	82.334	82.484	81	101.83 PG AND E-F	230
Roundup230-LaGrande230	Branch MVA	PIT 7 U2 (31778) -> PIT 7 (30220) CKT 1 at PIT 7 U2	0	61.089	61.089	58	105.33 PG AND E-F	230
Roundup230-LaGrande230	Branch MVA	PIT 7 U1 (31776) -> PIT 7 (30220) CKT 1 at PIT 7 U1	0.3	59.77	59.946	58	103.36 PG AND E-F	230
Roundup230-LaGrande230	Branch MVA	BLLLTA 1M (30501) -> BELLTA T (33804) CKT 1 at BELLTA T	0	40	40	40	100 PG AND E-F	230
Roundup230-LaGrande230 Count								
Dworshak-Hatwai 500 kV Line w/RAS Gen Dropping	Branch MVA	CENTR G1 (47740) -> CENTR P1 (47741) CKT 1 at CENTR G1	0	730.318	730.311	728	100.32 NORTHWE	500
Dworshak-Hatwai 500 kV Line w/RAS Gen Dropping	Branch Amp	FREWHI11 (47296) -> FREEWATR (40445) CKT 1 at FREWHI11	0.17	331.489	332.065	329.68	100.72 NORTHWE	69
Dworshak-Hatwai 500 kV Line w/RAS Gen Dropping	Branch MVA	BELL S2 (40088) -> BELL BPA (40087) CKT 1 at BELL BPA	5.48	236.855	250.492	249	100.6 NORTHWE	230
Dworshak-Hatwai 500 kV Line w/RAS Gen Dropping	Branch MVA	HARDIN (62080) -> HARDIN (62051) CKT 1 at HARDIN	2.2	101.211	103.412	100	103.41 MONTANA-	230
Dworshak-Hatwai 500 kV Line w/RAS Gen Dropping	Branch MVA	WALLULA (45331) -> WALLULA (45329) CKT 2 at WALLULA	0.03	60.05	60.031	60	100.05 NORTHWE	230
Dworshak-Hatwai 500 kV Line w/RAS Gen Dropping	Branch MVA	PIT 5 U2 (31806) -> PIT 5 JT (30210) CKT 1 at PIT 5 U2	0.07	82.334	82.275	81	101.57 PG AND E-F	230
Dworshak-Hatwai 500 kV Line w/RAS Gen Dropping	Branch MVA	PIT 7 U2 (31778) -> PIT 7 (30220) CKT 1 at PIT 7 U2	0.13	61.089	61.015	58	105.2 PG AND E-F	230
Dworshak-Hatwai 500 kV Line w/RAS Gen Dropping	Branch MVA	PIT 7 U1 (31776) -> PIT 7 (30220) CKT 1 at PIT 7 U1	0.12	59.77	59.699	58	102.93 PG AND E-F	230
Dworshak-Hatwai 500 kV Line w/RAS Gen Dropping Count								
Grizzly-Capt Jack 500 kV	Branch MVA	CENTR G1 (47740) -> CENTR P1 (47741) CKT 1 at CENTR G1	0	730.318	730.311	728	100.32 NORTHWE	500
Grizzly-Capt Jack 500 kV	Branch Amp	FREWHI11 (47296) -> FREEWATR (40445) CKT 1 at FREWHI11	0.41	331.489	332.855	329.68	100.96 NORTHWE	69
Grizzly-Capt Jack 500 kV	Branch MVA	HARDIN (62080) -> HARDIN (62051) CKT 1 at HARDIN	0.82	101.211	102.031	100	102.03 MONTANA-	230
Grizzly-Capt Jack 500 kV	Branch MVA	SPRINGCR (37581) -> SPRINGCR (37641) CKT 1 at SPRINGCR	1.05	193.423	195.48	195	100.25 PG AND E-F	230
Grizzly-Capt Jack 500 kV	Branch MVA	PIT 5 U2 (31806) -> PIT 5 JT (30210) CKT 1 at PIT 5 U2	1.49	82.334	83.537	81	103.13 PG AND E-F	230
Grizzly-Capt Jack 500 kV	Branch MVA	PIT 7 U1 (31776) -> PIT 7 (30220) CKT 1 at PIT 7 U1	2.36	59.77	61.14	58	105.41 PG AND E-F	230
Grizzly-Capt Jack 500 kV	Branch MVA	PIT 7 U2 (31778) -> PIT 7 (30220) CKT 1 at PIT 7 U2	0	61.089	61.089	58	105.33 PG AND E-F	230
Grizzly-Capt Jack 500 kV	Branch MVA	SOUTH G (31826) -> SOUTH (31596) CKT 1 at SOUTH G	3.87	7.402	7.693	7.5	102.57 PG AND E-F	60

Grizzly-Capt Jack 500 kV Count

_15 L_OXBOW230-BROWNLEE230C2	Branch MVA	CENTR G1 (47740) -> CENTR P1 (47741) CKT 1 at CENTR G1	0	730.318	730.318	728	100.32	NORTHWE	8
_15 L_OXBOW230-BROWNLEE230C2	Branch Amp	FREWHI11 (47296) -> FREEWATR (40445) CKT 1 at FREWHI11	0.02	331.489	331.54	329.68	100.57	NORTHWE	500
_15 L_OXBOW230-BROWNLEE230C2	Branch MVA	HARDIN (62080) -> HARDIN (62051) CKT 1 at HARDIN	0.03	101.211	101.245	100	101.24	MONTANA-	69
_15 L_OXBOW230-BROWNLEE230C2	Branch MVA	WALLULA (45331) -> WALLULA (45329) CKT 2 at WALLULA	0	60.05	60.048	60	100.08	NORTHWE	230
_15 L_OXBOW230-BROWNLEE230C2	Branch MVA	PIT 5 U2 (31806) -> PIT 5 JT (30210) CKT 1 at PIT 5 U2	0.01	82.334	82.342	81	101.66	PG AND E-F	230
_15 L_OXBOW230-BROWNLEE230C2	Branch MVA	PIT 7 U2 (31778) -> PIT 7 (30220) CKT 1 at PIT 7 U2	0	61.089	61.089	58	105.33	PG AND E-F	230
_15 L_OXBOW230-BROWNLEE230C2	Branch MVA	PIT 7 U1 (31776) -> PIT 7 (30220) CKT 1 at PIT 7 U1	0.02	59.77	59.78	58	103.07	PG AND E-F	230

_15 L_OXBOW230-BROWNLEE230C2 Count

1a L_HELLSCYN230-BROWNLEE230C1	Branch Amp	LOLO (48197) -> IMNAHA (60278) CKT 1 at LOLO	24.87	759.882	988.707	919.99	107.47	NORTHWE	7
1a L_HELLSCYN230-BROWNLEE230C1	Branch MVA	CENTR G1 (47740) -> CENTR P1 (47741) CKT 1 at CENTR G1	0	730.318	730.314	728	100.32	NORTHWE	230
1a L_HELLSCYN230-BROWNLEE230C1	Branch Amp	FREWHI11 (47296) -> FREEWATR (40445) CKT 1 at FREWHI11	0.89	331.489	334.42	329.68	101.44	NORTHWE	500
1a L_HELLSCYN230-BROWNLEE230C1	Branch MVA	HARDIN (62080) -> HARDIN (62051) CKT 1 at HARDIN	0.88	101.211	102.093	100	102.09	MONTANA-	69
1a L_HELLSCYN230-BROWNLEE230C1	Branch MVA	PIT 5 U2 (31806) -> PIT 5 JT (30210) CKT 1 at PIT 5 U2	0.41	82.334	82.668	81	102.06	PG AND E-F	230
1a L_HELLSCYN230-BROWNLEE230C1	Branch MVA	PIT 7 U2 (31778) -> PIT 7 (30220) CKT 1 at PIT 7 U2	0	61.089	61.089	58	105.33	PG AND E-F	230
1a L_HELLSCYN230-BROWNLEE230C1	Branch MVA	PIT 7 U1 (31776) -> PIT 7 (30220) CKT 1 at PIT 7 U1	0.67	59.77	60.159	58	103.72	PG AND E-F	230
1a L_HELLSCYN230-BROWNLEE230C1	Branch MVA	BLLTA 1M (30501) -> BELLTA T (33804) CKT 1 at BELLTA T	0	40	40	40	100	PG AND E-F	230

1a L_HELLSCYN230-BROWNLEE230C1 Count

Walla Walla-Dry Creek 230 kV	Branch MVA	CENTR G1 (47740) -> CENTR P1 (47741) CKT 1 at CENTR G1	0	730.318	730.317	728	100.32	NORTHWE	8
Walla Walla-Dry Creek 230 kV	Branch Amp	FREWHI11 (47296) -> FREEWATR (40445) CKT 1 at FREWHI11	1.01	331.489	334.828	329.68	101.56	NORTHWE	500
Walla Walla-Dry Creek 230 kV	Branch MVA	HARDIN (62080) -> HARDIN (62051) CKT 1 at HARDIN	0.1	101.211	101.314	100	101.31	MONTANA-	69
Walla Walla-Dry Creek 230 kV	Branch MVA	PIT 5 U2 (31806) -> PIT 5 JT (30210) CKT 1 at PIT 5 U2	0.01	82.334	82.343	81	101.66	PG AND E-F	230
Walla Walla-Dry Creek 230 kV	Branch MVA	PIT 7 U2 (31778) -> PIT 7 (30220) CKT 1 at PIT 7 U2	0	61.089	61.089	58	105.33	PG AND E-F	230
Walla Walla-Dry Creek 230 kV	Branch MVA	PIT 7 U1 (31776) -> PIT 7 (30220) CKT 1 at PIT 7 U1	0.02	59.77	59.781	58	103.07	PG AND E-F	230
Walla Walla-Dry Creek 230 kV	Branch MVA	BELLTA T (33804) -> BLLTA 1M (30501) CKT 1 at BELLTA T	0	40	40	40	100	PG AND E-F	230

Walla Walla-Dry Creek 230 kV Count

Coulee-Hanford 500 kV	Branch MVA	CENTR G1 (47740) -> CENTR P1 (47741) CKT 1 at CENTR G1	0	730.318	730.298	728	100.32	NORTHWE	7
Coulee-Hanford 500 kV	Branch Amp	FREWHI11 (47296) -> FREEWATR (40445) CKT 1 at FREWHI11	0.57	331.489	333.36	329.68	101.12	NORTHWE	500
Coulee-Hanford 500 kV	Branch MVA	HARDIN (62080) -> HARDIN (62051) CKT 1 at HARDIN	0.76	101.211	101.971	100	101.97	MONTANA-	69
Coulee-Hanford 500 kV	Branch MVA	WALLULA (45331) -> WALLULA (45329) CKT 2 at WALLULA	0.08	60.05	60	60	100	NORTHWE	230
Coulee-Hanford 500 kV	Branch MVA	PIT 5 U2 (31806) -> PIT 5 JT (30210) CKT 1 at PIT 5 U2	0.01	82.334	82.328	81	101.64	PG AND E-F	230
Coulee-Hanford 500 kV	Branch MVA	PIT 7 U2 (31778) -> PIT 7 (30220) CKT 1 at PIT 7 U2	0.01	61.089	61.081	58	105.31	PG AND E-F	230
Coulee-Hanford 500 kV	Branch MVA	PIT 7 U1 (31776) -> PIT 7 (30220) CKT 1 at PIT 7 U1	0.01	59.77	59.763	58	103.04	PG AND E-F	230

Coulee-Hanford 500 kV Count

Hatwai-N. Lewiston 230 kV	Branch MVA	CENTR G1 (47740) -> CENTR P1 (47741) CKT 1 at CENTR G1	0	730.318	730.318	728	100.32	NORTHWE	7
Hatwai-N. Lewiston 230 kV	Branch Amp	FREWHI11 (47296) -> FREEWATR (40445) CKT 1 at FREWHI11	0.11	331.489	331.844	329.68	100.66	NORTHWE	500
Hatwai-N. Lewiston 230 kV	Branch MVA	HARDIN (62080) -> HARDIN (62051) CKT 1 at HARDIN	0.04	101.211	101.254	100	101.25	MONTANA-	69
Hatwai-N. Lewiston 230 kV	Branch MVA	WALLULA (45331) -> WALLULA (45329) CKT 2 at WALLULA	0.02	60.05	60.038	60	100.06	NORTHWE	230
Hatwai-N. Lewiston 230 kV	Branch MVA	PIT 5 U2 (31806) -> PIT 5 JT (30210) CKT 1 at PIT 5 U2	0.01	82.334	82.34	81	101.65	PG AND E-F	230
Hatwai-N. Lewiston 230 kV	Branch MVA	PIT 7 U2 (31778) -> PIT 7 (30220) CKT 1 at PIT 7 U2	0	61.089	61.089	58	105.33	PG AND E-F	230
Hatwai-N. Lewiston 230 kV	Branch MVA	PIT 7 U1 (31776) -> PIT 7 (30220) CKT 1 at PIT 7 U1	0.01	59.77	59.777	58	103.06	PG AND E-F	230

Hatwai-N. Lewiston 230 kV Count

2 L_oxbow230-immaha230-lolo230	Branch Amp	HELLSCYN (60150) -> BROWNLEE (60095) CKT 1 at HELLSCYN	12.89	1054.12	1208.841	1199.9	100.75	IDAHO-IDA	7
2 L_oxbow230-immaha230-lolo230	Branch MVA	CENTR G1 (47740) -> CENTR P1 (47741) CKT 1 at CENTR G1	0	730.318	730.314	728	100.32	NORTHWE	230
2 L_oxbow230-immaha230-lolo230	Branch Amp	FREWHI11 (47296) -> FREEWATR (40445) CKT 1 at FREWHI11	0.58	331.489	333.391	329.68	101.13	NORTHWE	500
2 L_oxbow230-immaha230-lolo230	Branch MVA	HARDIN (62080) -> HARDIN (62051) CKT 1 at HARDIN	0.67	101.211	101.884	100	101.88	MONTANA-	69
2 L_oxbow230-immaha230-lolo230	Branch MVA	PIT 5 U2 (31806) -> PIT 5 JT (30210) CKT 1 at PIT 5 U2	0.23	82.334	82.521	81	101.88	PG AND E-F	230
2 L_oxbow230-immaha230-lolo230	Branch MVA	PIT 7 U2 (31778) -> PIT 7 (30220) CKT 1 at PIT 7 U2	0	61.089	61.089	58	105.33	PG AND E-F	230
2 L_oxbow230-immaha230-lolo230	Branch MVA	PIT 7 U1 (31776) -> PIT 7 (30220) CKT 1 at PIT 7 U1	0.38	59.77	59.989	58	103.43	PG AND E-F	230
2 L_oxbow230-immaha230-lolo230	Branch MVA	BLLTA 1M (30501) -> BELLTA T (33804) CKT 1 at BELLTA T	0	40	40	40	100	PG AND E-F	230

2 L_oxbow230-immaha230-lolo230 Count

Hatwai-Lolo 230 kV	Branch MVA	CENTR G1 (47740) -> CENTR P1 (47741) CKT 1 at CENTR G1	0	730.318	730.317	728	100.32	NORTHWE	8
Hatwai-Lolo 230 kV	Branch Amp	FREWHI11 (47296) -> FREEWATR (40445) CKT 1 at FREWHI11	0.31	331.489	332.504	329.68	100.86	NORTHWE	500

Hatwai-Lolo 230 kV	Branch MVA	HARDIN (62080) -> HARDIN (62051) CKT 1 at HARDIN	0.13	101.211	101.345	100	101.34	MONTANA-	230
Hatwai-Lolo 230 kV	Branch MVA	WALLULA (45331) -> WALLULA (45329) CKT 2 at WALLULA	0.05	60.05	60.018	60	100.03	NORTHWE	230
Hatwai-Lolo 230 kV	Branch MVA	PIT 5 U2 (31806) -> PIT 5 JT (30210) CKT 1 at PIT 5 U2	0.03	82.334	82.36	81	101.68	PG AND E-F	230
Hatwai-Lolo 230 kV	Branch MVA	PIT 7 U2 (31778) -> PIT 7 (30220) CKT 1 at PIT 7 U2	0	61.089	61.089	58	105.33	PG AND E-F	230
Hatwai-Lolo 230 kV	Branch MVA	PIT 7 U1 (31776) -> PIT 7 (30220) CKT 1 at PIT 7 U1	0.05	59.77	59.801	58	103.1	PG AND E-F	230
Hatwai-Lolo 230 kV Count									
N. Lewiston-Dry Creek 230 kV	Branch MVA	CENTR G1 (47740) -> CENTR P1 (47741) CKT 1 at CENTR G1	0	730.318	730.318	728	100.32	NORTHWE	500
N. Lewiston-Dry Creek 230 kV	Branch Amp	FREWHI11 (47296) -> FREEWATR (40445) CKT 1 at FREWHI11	0.17	331.489	332.051	329.68	100.72	NORTHWE	69
N. Lewiston-Dry Creek 230 kV	Branch MVA	HARDIN (62080) -> HARDIN (62051) CKT 1 at HARDIN	0.03	101.211	101.242	100	101.24	MONTANA-	230
N. Lewiston-Dry Creek 230 kV	Branch MVA	WALLULA (45331) -> WALLULA (45329) CKT 2 at WALLULA	0.03	60.05	60.033	60	100.05	NORTHWE	230
N. Lewiston-Dry Creek 230 kV	Branch MVA	PIT 5 U2 (31806) -> PIT 5 JT (30210) CKT 1 at PIT 5 U2	0	82.334	82.337	81	101.65	PG AND E-F	230
N. Lewiston-Dry Creek 230 kV	Branch MVA	PIT 7 U2 (31778) -> PIT 7 (30220) CKT 1 at PIT 7 U2	0	61.089	61.089	58	105.33	PG AND E-F	230
N. Lewiston-Dry Creek 230 kV	Branch MVA	PIT 7 U1 (31776) -> PIT 7 (30220) CKT 1 at PIT 7 U1	0	59.77	59.773	58	103.06	PG AND E-F	230
N. Lewiston-Dry Creek 230 kV	Branch MVA	BLLTA 1M (30501) -> BELLTA T (33804) CKT 1 at BELLTA T	0	40	40	40	100	PG AND E-F	230
N. Lewiston-Dry Creek 230 kV Count									
7 L_McNary230-Roundup230	Branch MVA	CENTR G1 (47740) -> CENTR P1 (47741) CKT 1 at CENTR G1	0	730.318	730.316	728	100.32	NORTHWE	500
7 L_McNary230-Roundup230	Branch Amp	FREWHI11 (47296) -> FREEWATR (40445) CKT 1 at FREWHI11	0.69	331.489	333.774	329.68	101.24	NORTHWE	69
7 L_McNary230-Roundup230	Branch MVA	HARDIN (62080) -> HARDIN (62051) CKT 1 at HARDIN	0.52	101.211	101.735	100	101.73	MONTANA-	230
7 L_McNary230-Roundup230	Branch MVA	PIT 5 U2 (31806) -> PIT 5 JT (30210) CKT 1 at PIT 5 U2	0.26	82.334	82.547	81	101.91	PG AND E-F	230
7 L_McNary230-Roundup230	Branch MVA	PIT 7 U2 (31778) -> PIT 7 (30220) CKT 1 at PIT 7 U2	0	61.089	61.089	58	105.33	PG AND E-F	230
7 L_McNary230-Roundup230	Branch MVA	PIT 7 U1 (31776) -> PIT 7 (30220) CKT 1 at PIT 7 U1	0.43	59.77	60.019	58	103.48	PG AND E-F	230
7 L_McNary230-Roundup230	Branch MVA	BLLTA 1M (30501) -> BELLTA T (33804) CKT 1 at BELLTA T	0	40	40	40	100	PG AND E-F	230
7 L_McNary230-Roundup230 Count									
Lower Granite-Hatwai 500 kV	Branch MVA	CENTR G1 (47740) -> CENTR P1 (47741) CKT 1 at CENTR G1	0	730.318	730.317	728	100.32	NORTHWE	500
Lower Granite-Hatwai 500 kV	Branch Amp	FREWHI11 (47296) -> FREEWATR (40445) CKT 1 at FREWHI11	0.42	331.489	332.886	329.68	100.97	NORTHWE	69
Lower Granite-Hatwai 500 kV	Branch MVA	HARDIN (62080) -> HARDIN (62051) CKT 1 at HARDIN	0.52	101.211	101.731	100	101.73	MONTANA-	230
Lower Granite-Hatwai 500 kV	Branch MVA	WALLULA (45331) -> WALLULA (45329) CKT 2 at WALLULA	0.04	60.05	60.024	60	100.04	NORTHWE	230
Lower Granite-Hatwai 500 kV	Branch MVA	PIT 5 U2 (31806) -> PIT 5 JT (30210) CKT 1 at PIT 5 U2	0.04	82.334	82.301	81	101.61	PG AND E-F	230
Lower Granite-Hatwai 500 kV	Branch MVA	PIT 7 U2 (31778) -> PIT 7 (30220) CKT 1 at PIT 7 U2	0.07	61.089	61.047	58	105.25	PG AND E-F	230
Lower Granite-Hatwai 500 kV	Branch MVA	PIT 7 U1 (31776) -> PIT 7 (30220) CKT 1 at PIT 7 U1	0.07	59.77	59.73	58	102.98	PG AND E-F	230
Lower Granite-Hatwai 500 kV Count									
5 L_HellsCyn230-Hurricane230-WalaWala230	Branch MVA	CENTR G1 (47740) -> CENTR P1 (47741) CKT 1 at CENTR G1	0	730.318	730.318	728	100.32	NORTHWE	500
5 L_HellsCyn230-Hurricane230-WalaWala230	Branch Amp	FREWHI11 (47296) -> FREEWATR (40445) CKT 1 at FREWHI11	1.4	331.489	336.1	329.68	101.95	NORTHWE	69
5 L_HellsCyn230-Hurricane230-WalaWala230	Branch MVA	HARDIN (62080) -> HARDIN (62051) CKT 1 at HARDIN	0.35	101.211	101.566	100	101.57	MONTANA-	230
5 L_HellsCyn230-Hurricane230-WalaWala230	Branch MVA	PIT 5 U2 (31806) -> PIT 5 JT (30210) CKT 1 at PIT 5 U2	0.13	82.334	82.443	81	101.78	PG AND E-F	230
5 L_HellsCyn230-Hurricane230-WalaWala230	Branch MVA	PIT 7 U2 (31778) -> PIT 7 (30220) CKT 1 at PIT 7 U2	0	61.089	61.089	58	105.33	PG AND E-F	230
5 L_HellsCyn230-Hurricane230-WalaWala230	Branch MVA	PIT 7 U1 (31776) -> PIT 7 (30220) CKT 1 at PIT 7 U1	0.22	59.77	59.898	58	103.27	PG AND E-F	230
5 L_HellsCyn230-Hurricane230-WalaWala230	Branch MVA	BLLTA 1M (30501) -> BELLTA T (33804) CKT 1 at BELLTA T	0	40	40	40	100	PG AND E-F	230
5 L_HellsCyn230-Hurricane230-WalaWala230 Count									
Capt Jack-Olinda 500 kV	Branch Amp	MALIN (40687) -> MALROU21 (40692) CKT 2 at MALIN	39.86	1393.206	2110.609	1800	117.26	NORTHWE	500
Capt Jack-Olinda 500 kV	Branch MVA	CENTR G1 (47740) -> CENTR P1 (47741) CKT 1 at CENTR G1	0	730.318	730.316	728	100.32	NORTHWE	500
Capt Jack-Olinda 500 kV	Branch Amp	FREWHI11 (47296) -> FREEWATR (40445) CKT 1 at FREWHI11	0.22	331.489	332.215	329.68	100.77	NORTHWE	69
Capt Jack-Olinda 500 kV	Branch MVA	HARDIN (62080) -> HARDIN (62051) CKT 1 at HARDIN	0.9	101.211	102.114	100	102.11	MONTANA-	230
Capt Jack-Olinda 500 kV	Branch MVA	WALLULA (45331) -> WALLULA (45329) CKT 2 at WALLULA	0.05	60.05	60.021	60	100.04	NORTHWE	230
Capt Jack-Olinda 500 kV	Branch Amp	MALIN (40687) -> MALROU21 (40692) CKT 2 at MALIN	39.86	1393.017	2110.425	1800	117.25	NORTHWE	500
Capt Jack-Olinda 500 kV	Branch MVA	SPRINGCR (37581) -> SPRINGCR (37641) CKT 1 at SPRINGCR	1.2	193.423	195.758	195	100.39	PG AND E-F	230
Capt Jack-Olinda 500 kV	Branch MVA	HYATT 1 (38825) -> HYATT (38620) CKT 1 at HYATT 1	0.92	125.932	127.102	127	100.08	PG AND E-F	230
Capt Jack-Olinda 500 kV	Branch MVA	HYATT 5 (38845) -> HYATT3 (38622) CKT 1 at HYATT 5	0.83	126.043	127.102	127	100.08	PG AND E-F	230
Capt Jack-Olinda 500 kV	Branch MVA	HYATT 3 (38835) -> HYATT2 (38621) CKT 1 at HYATT 3	0.77	126.123	127.102	127	100.08	PG AND E-F	230
Capt Jack-Olinda 500 kV	Branch MVA	JBBLACK2 (31770) -> BLACK (30205) CKT 1 at JBBLACK2	1.64	84.795	86.207	86	100.24	PG AND E-F	230
Capt Jack-Olinda 500 kV	Branch MVA	PIT 5 U2 (31806) -> PIT 5 JT (30210) CKT 1 at PIT 5 U2	2.13	82.334	84.063	81	103.78	PG AND E-F	230
Capt Jack-Olinda 500 kV	Branch MVA	PIT 7 U1 (31776) -> PIT 7 (30220) CKT 1 at PIT 7 U1	2.67	59.77	61.318	58	105.72	PG AND E-F	230
Capt Jack-Olinda 500 kV	Branch MVA	PIT 7 U2 (31778) -> PIT 7 (30220) CKT 1 at PIT 7 U2	0	61.089	61.089	58	105.33	PG AND E-F	230

Capt Jack-Olinda 500 kV	Branch MVA	BLLTA 1M (30501) -> BELLTA T (33804) CKT 1 at BELLTA T	0	40	40	40	100	PG AND E-F	230
Capt Jack-Olinda 500 kV	Branch MVA	SOUTH G (31826) -> SOUTH (31596) CKT 1 at SOUTH G	5.52	7.402	7.816	7.5	104.21	PG AND E-F	60
Capt Jack-Olinda 500 kV Count									16
3 L_BROWNLEE230-ONTARIO230C1-MS	Branch MVA	CENTR G1 (47740) -> CENTR P1 (47741) CKT 1 at CENTR G1	0	730.318	730.317	728	100.32	NORTHWE	500
3 L_BROWNLEE230-ONTARIO230C1-MS	Branch Amp	FREWHI11 (47296) -> FREEWATR (40445) CKT 1 at FREWHI11	0.19	331.489	330.865	329.68	100.36	NORTHWE	69
3 L_BROWNLEE230-ONTARIO230C1-MS	Branch MVA	HARDIN (62080) -> HARDIN (62051) CKT 1 at HARDIN	0.2	101.211	101.414	100	101.41	MONTANA-	230
3 L_BROWNLEE230-ONTARIO230C1-MS	Branch MVA	WALLULA (45331) -> WALLULA (45329) CKT 2 at WALLULA	0.02	60.05	60.064	60	100.11	NORTHWE	230
3 L_BROWNLEE230-ONTARIO230C1-MS	Change Bus	LcWEISER (60370)	5.01	1.025	0.973	0.9	94.99	IDAHO	138
3 L_BROWNLEE230-ONTARIO230C1-MS	Branch MVA	PIT 5 U2 (31806) -> PIT 5 JT (30210) CKT 1 at PIT 5 U2	0.13	82.334	82.443	81	101.78	PG AND E-F	230
3 L_BROWNLEE230-ONTARIO230C1-MS	Branch MVA	PIT 7 U2 (31778) -> PIT 7 (30220) CKT 1 at PIT 7 U2	0	61.089	61.089	58	105.33	PG AND E-F	230
3 L_BROWNLEE230-ONTARIO230C1-MS	Branch MVA	PIT 7 U1 (31776) -> PIT 7 (30220) CKT 1 at PIT 7 U1	0.22	59.77	59.898	58	103.27	PG AND E-F	230
3 L_BROWNLEE230-ONTARIO230C1-MS	Branch MVA	BLLTA 1M (30501) -> BELLTA T (33804) CKT 1 at BELLTA T	0	40	40	40	100	PG AND E-F	230
3 L_BROWNLEE230-ONTARIO230C1-MS Count									9
Table Mtn-Vaca Dixon 500 kV	Branch MVA	CENTR G1 (47740) -> CENTR P1 (47741) CKT 1 at CENTR G1	0	730.318	730.318	728	100.32	NORTHWE	500
Table Mtn-Vaca Dixon 500 kV	Branch Amp	FREWHI11 (47296) -> FREEWATR (40445) CKT 1 at FREWHI11	0.09	331.489	331.771	329.68	100.64	NORTHWE	69
Table Mtn-Vaca Dixon 500 kV	Branch MVA	HARDIN (62080) -> HARDIN (62051) CKT 1 at HARDIN	0.49	101.211	101.705	100	101.71	MONTANA-	230
Table Mtn-Vaca Dixon 500 kV	Branch MVA	WALLULA (45331) -> WALLULA (45329) CKT 2 at WALLULA	0.02	60.05	60.039	60	100.07	NORTHWE	230
Table Mtn-Vaca Dixon 500 kV	Branch Amp	PALERMO (31482) -> HONC JT1 (31506) CKT 1 at PALERMO	7.99	449.613	488.535	486.98	100.32	PG AND E-F	115
Table Mtn-Vaca Dixon 500 kV	Branch MVA	SPRINGCR (37581) -> SPRINGCR (37641) CKT 1 at SPRINGCR	1.53	193.423	196.4	195	100.72	PG AND E-F	230
Table Mtn-Vaca Dixon 500 kV	Branch MVA	PIT 5 U2 (31806) -> PIT 5 JT (30210) CKT 1 at PIT 5 U2	0.76	82.334	82.949	81	102.41	PG AND E-F	230
Table Mtn-Vaca Dixon 500 kV	Branch MVA	PIT 7 U2 (31778) -> PIT 7 (30220) CKT 1 at PIT 7 U2	0	61.089	61.089	58	105.33	PG AND E-F	230
Table Mtn-Vaca Dixon 500 kV	Branch MVA	PIT 7 U1 (31776) -> PIT 7 (30220) CKT 1 at PIT 7 U1	1.22	59.77	60.48	58	104.28	PG AND E-F	230
Table Mtn-Vaca Dixon 500 kV	Branch MVA	BELLTA T (33804) -> BLLTA 1M (30501) CKT 1 at BELLTA T	0	40	40	40	100	PG AND E-F	230
Table Mtn-Vaca Dixon 500 kV	Branch MVA	SOUTH G (31826) -> SOUTH (31596) CKT 1 at SOUTH G	5.12	7.402	7.786	7.5	103.82	PG AND E-F	60
Table Mtn-Vaca Dixon 500 kV Count									11
WOCS: N-1: John Day - Marion #1 500kV	Branch MVA	CENTR G1 (47740) -> CENTR P1 (47741) CKT 1 at CENTR G1	0	730.318	730.31	728	100.32	NORTHWE	500
WOCS: N-1: John Day - Marion #1 500kV	Branch Amp	FREWHI11 (47296) -> FREEWATR (40445) CKT 1 at FREWHI11	0.16	331.492	332.027	329.68	100.71	NORTHWE	69
WOCS: N-1: John Day - Marion #1 500kV	Branch MVA	HARDIN (62080) -> HARDIN (62051) CKT 1 at HARDIN	0.11	101.189	101.304	100	101.3	MONTANA-	230
WOCS: N-1: John Day - Marion #1 500kV	Branch MVA	WALLULA (45331) -> WALLULA (45329) CKT 2 at WALLULA	0.04	60.05	60.025	60	100.04	NORTHWE	230
WOCS: N-1: John Day - Marion #1 500kV	Branch MVA	PIT 5 U2 (31806) -> PIT 5 JT (30210) CKT 1 at PIT 5 U2	0.28	82.334	82.565	81	101.93	PG AND E-F	230
WOCS: N-1: John Day - Marion #1 500kV	Branch MVA	PIT 7 U2 (31778) -> PIT 7 (30220) CKT 1 at PIT 7 U2	0	61.089	61.089	58	105.33	PG AND E-F	230
WOCS: N-1: John Day - Marion #1 500kV	Branch MVA	PIT 7 U1 (31776) -> PIT 7 (30220) CKT 1 at PIT 7 U1	0.46	59.77	60.04	58	103.52	PG AND E-F	230
WOCS: N-1: John Day - Marion #1 500kV	Branch MVA	BLLTA 1M (30501) -> BELLTA T (33804) CKT 1 at BELLTA T	0	40	40	40	100	PG AND E-F	230
WOCS: N-1: John Day - Marion #1 500kV Count									8
WOCS: N-1: Buckley - Marion #1 500kV	Branch MVA	CENTR G1 (47740) -> CENTR P1 (47741) CKT 1 at CENTR G1	0	730.318	730.312	728	100.32	NORTHWE	500
WOCS: N-1: Buckley - Marion #1 500kV	Branch Amp	FREWHI11 (47296) -> FREEWATR (40445) CKT 1 at FREWHI11	0.1	331.492	331.821	329.68	100.65	NORTHWE	69
WOCS: N-1: Buckley - Marion #1 500kV	Branch MVA	HARDIN (62080) -> HARDIN (62051) CKT 1 at HARDIN	0.04	101.189	101.226	100	101.23	MONTANA-	230
WOCS: N-1: Buckley - Marion #1 500kV	Branch MVA	WALLULA (45331) -> WALLULA (45329) CKT 2 at WALLULA	0.03	60.05	60.033	60	100.06	NORTHWE	230
WOCS: N-1: Buckley - Marion #1 500kV	Branch MVA	PIT 5 U2 (31806) -> PIT 5 JT (30210) CKT 1 at PIT 5 U2	0.25	82.334	82.537	81	101.9	PG AND E-F	230
WOCS: N-1: Buckley - Marion #1 500kV	Branch MVA	PIT 7 U2 (31778) -> PIT 7 (30220) CKT 1 at PIT 7 U2	0	61.089	61.089	58	105.33	PG AND E-F	230
WOCS: N-1: Buckley - Marion #1 500kV	Branch MVA	PIT 7 U1 (31776) -> PIT 7 (30220) CKT 1 at PIT 7 U1	0.41	59.77	60.008	58	103.46	PG AND E-F	230
WOCS: N-1: Buckley - Marion #1 500kV Count									7
WOCS: N-1: Big Eddy - Ostrander #1 500kV	Branch MVA	CENTR G1 (47740) -> CENTR P1 (47741) CKT 1 at CENTR G1	0	730.318	730.315	728	100.32	NORTHWE	500
WOCS: N-1: Big Eddy - Ostrander #1 500kV	Branch Amp	FREWHI11 (47296) -> FREEWATR (40445) CKT 1 at FREWHI11	0.03	331.492	331.579	329.68	100.58	NORTHWE	69
WOCS: N-1: Big Eddy - Ostrander #1 500kV	Branch MVA	HARDIN (62080) -> HARDIN (62051) CKT 1 at HARDIN	0.01	101.189	101.178	100	101.18	MONTANA-	230
WOCS: N-1: Big Eddy - Ostrander #1 500kV	Branch MVA	WALLULA (45331) -> WALLULA (45329) CKT 2 at WALLULA	0.01	60.05	60.044	60	100.07	NORTHWE	230
WOCS: N-1: Big Eddy - Ostrander #1 500kV	Branch MVA	PIT 5 U2 (31806) -> PIT 5 JT (30210) CKT 1 at PIT 5 U2	0.08	82.334	82.397	81	101.72	PG AND E-F	230
WOCS: N-1: Big Eddy - Ostrander #1 500kV	Branch MVA	PIT 7 U2 (31778) -> PIT 7 (30220) CKT 1 at PIT 7 U2	0	61.089	61.089	58	105.33	PG AND E-F	230
WOCS: N-1: Big Eddy - Ostrander #1 500kV	Branch MVA	PIT 7 U1 (31776) -> PIT 7 (30220) CKT 1 at PIT 7 U1	0.13	59.77	59.844	58	103.18	PG AND E-F	230
WOCS: N-1: Big Eddy - Ostrander #1 500kV Count									7
WOCS: N-1: Wautoma - Ostrander #1 500kV (modify	Branch MVA	CENTR G1 (47740) -> CENTR P1 (47741) CKT 1 at CENTR G1	0	730.318	730.297	728	100.32	NORTHWE	500
WOCS: N-1: Wautoma - Ostrander #1 500kV (modify	Branch Amp	FREWHI11 (47296) -> FREEWATR (40445) CKT 1 at FREWHI11	0.64	331.492	333.603	329.68	101.19	NORTHWE	69
WOCS: N-1: Wautoma - Ostrander #1 500kV (modify	Branch MVA	HARDIN (62080) -> HARDIN (62051) CKT 1 at HARDIN	0.64	101.189	101.827	100	101.83	MONTANA-	230

