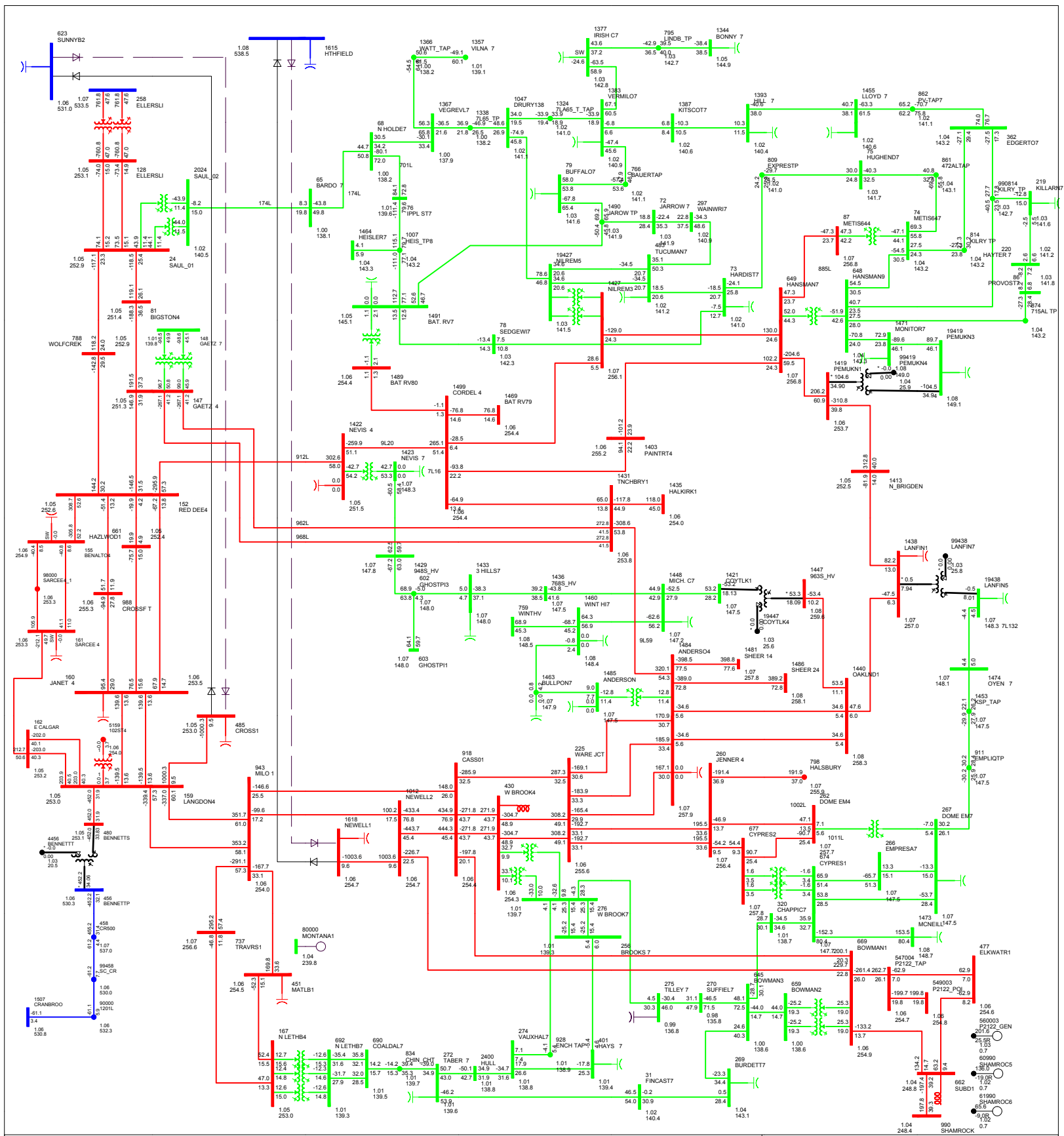


Attachment B: Power Flow SLDs –  
Assessment of Transmission Development  
Options

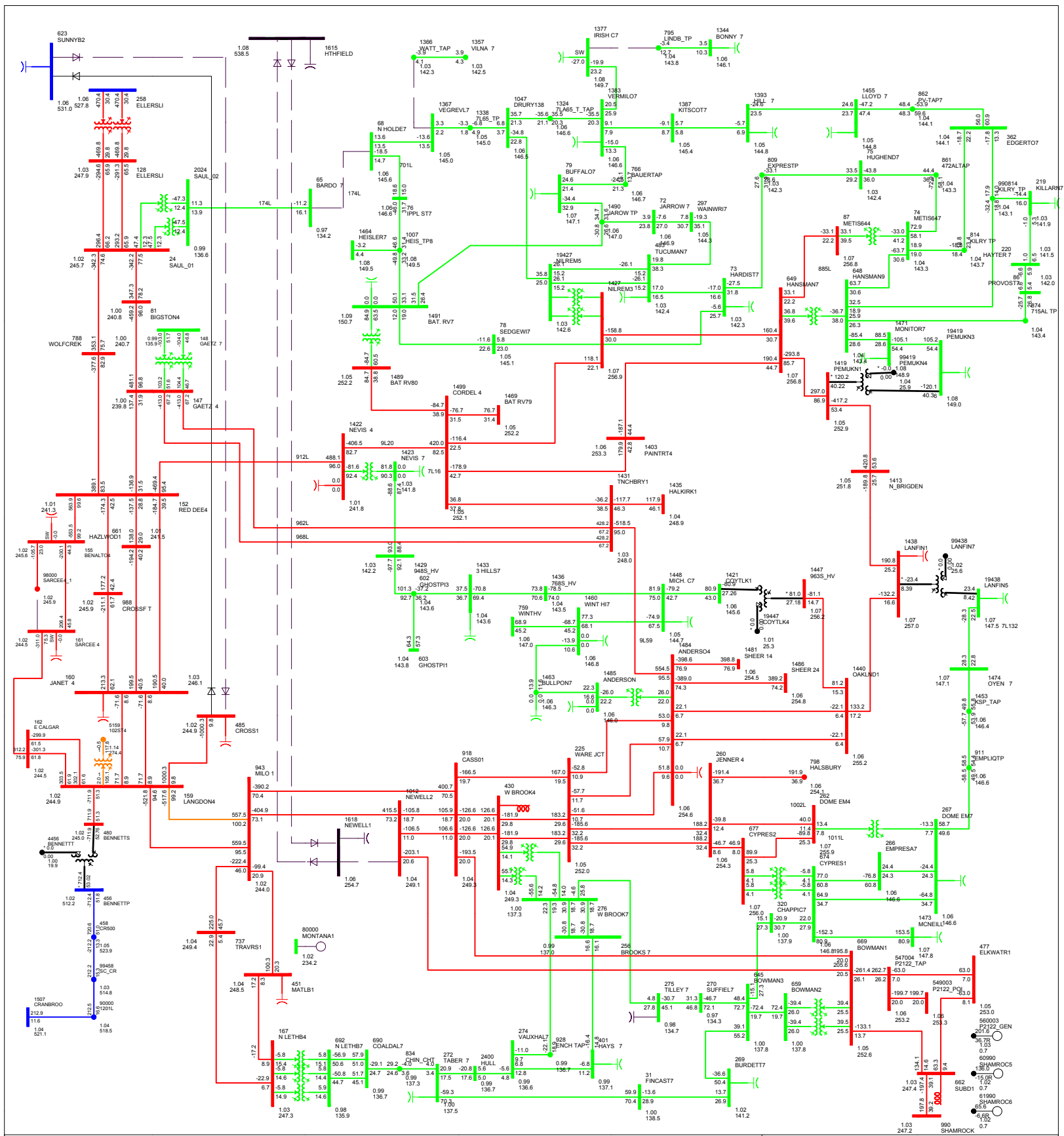
## Attachment B Summary

No.	Capability Category	Scenario	Option	Case	Contingency	Figure No.
1	B	2	Option 1	H5	Base	Fig. B-1
2	B	2	Option 1	H5	EATL	Fig. B-2
3	B	2	Option 1	H5	966L	Fig. B-3
4	B	2	Option 2	H5	Base	Fig. B-4
5	B	2	Option 2	H5	EATL	Fig. B-5
6	B	2	Option 3	H5	Base	Fig. B-6
7	B	2	Option 3	H5	EATL	Fig. B-7
8	B	2	Option 3	H5	7L233	Fig. B-8
9	B	2	Option 4	H2	Base	Fig. B-9
10	B	2	Option 4	H2	CETO500kV	Fig. B-10
11	B	2	Option 4	H5	Base	Fig. B-11
12	B	2	Option 4	H5	EATL	Fig. B-12
13	B	2	Option 4	H8	Base	Fig. B-13
14	B	2	Option 4	H8	7L205	Fig. B-14
15	B	2	Option 5	H2	Base	Fig. B-15
16	B	2	Option 5	H2	935L	Fig. B-16
17	B	2	Option 5	H2	1035L	Fig. B-17
18	B	2	Option 6	H1	Base	Fig. B-18
19	B	2	Option 6	H1	EATL	Fig. B-19
20	B	2	Option 6	H2	Base	Fig. B-20
21	B	2	Option 6	H2	EATL	Fig. B-21
22	B	2	Option 6	H5	EATL	Fig. B-22
23	B	2	Option 6	H5	966L	Fig. B-23
24	B	2	Option 6	H5	WATL	Fig. B-24
25	B	2	Option 6	H8	Base	Fig. B-25
26	B	2	Option 6	H8	7L205	Fig. B-26
27	B	2	Option 1 Hanna	H2	Base	Fig. B-27
28	B	2	Option 1 Hanna	H2	912L	Fig. B-28
29	B	2	Option 1 Hanna	H2	766S901T	Fig. B-29
30	B	2	Option 1 Hanna	H5	Base	Fig. B-30
31	B	2	Option 1 Hanna	H5	EATL	Fig. B-31
32	B	2	Option 6 Hanna	H5	Base	Fig. B-32
33	B	2	Option 6 Hanna	H5	962L/9L62	Fig. B-33
34	C3	2	Option 1 C3	H5	Base	Fig. B-34
35	C3	2	Option 1 C3	H5	EATL	Fig. B-35
36	C3	2	Option 1 C3	H5	966L	Fig. B-36
37	C3	2	Option 3 C3	H5	Base	Fig. B-37
38	C3	2	Option 3 C3	H5	EATL	Fig. B-38
39	C3	2	Option 3 C3	H5	7L233	Fig. B-39
40	C3	2	Option 3 C3	H5	Base	Fig. B-40
41	C3	2	Option 3 C3	H5	EATL	Fig. B-41
42	C3	2	Option 4 C3	H5	Base	Fig. B-42
43	C3	2	Option 4 C3	H5	EATL	Fig. B-43



**P7001 Central East Transfer Out Transmission Development**  
 New Generation in Study Area and SW Sub-region  
 South East: 506.3 MW Central East: 437.3 MW South West: 986.4 MW  
 FIG. B-1 VPR2023- CASE H6; GEN SON  
 PROJECT: CPC (CARR CRP), CETO STAGE1&2  
 CAP. CETO ALT. REF.  
 FILE: MW05-2020-1459  
 Contingency: Base, Trip Action: None

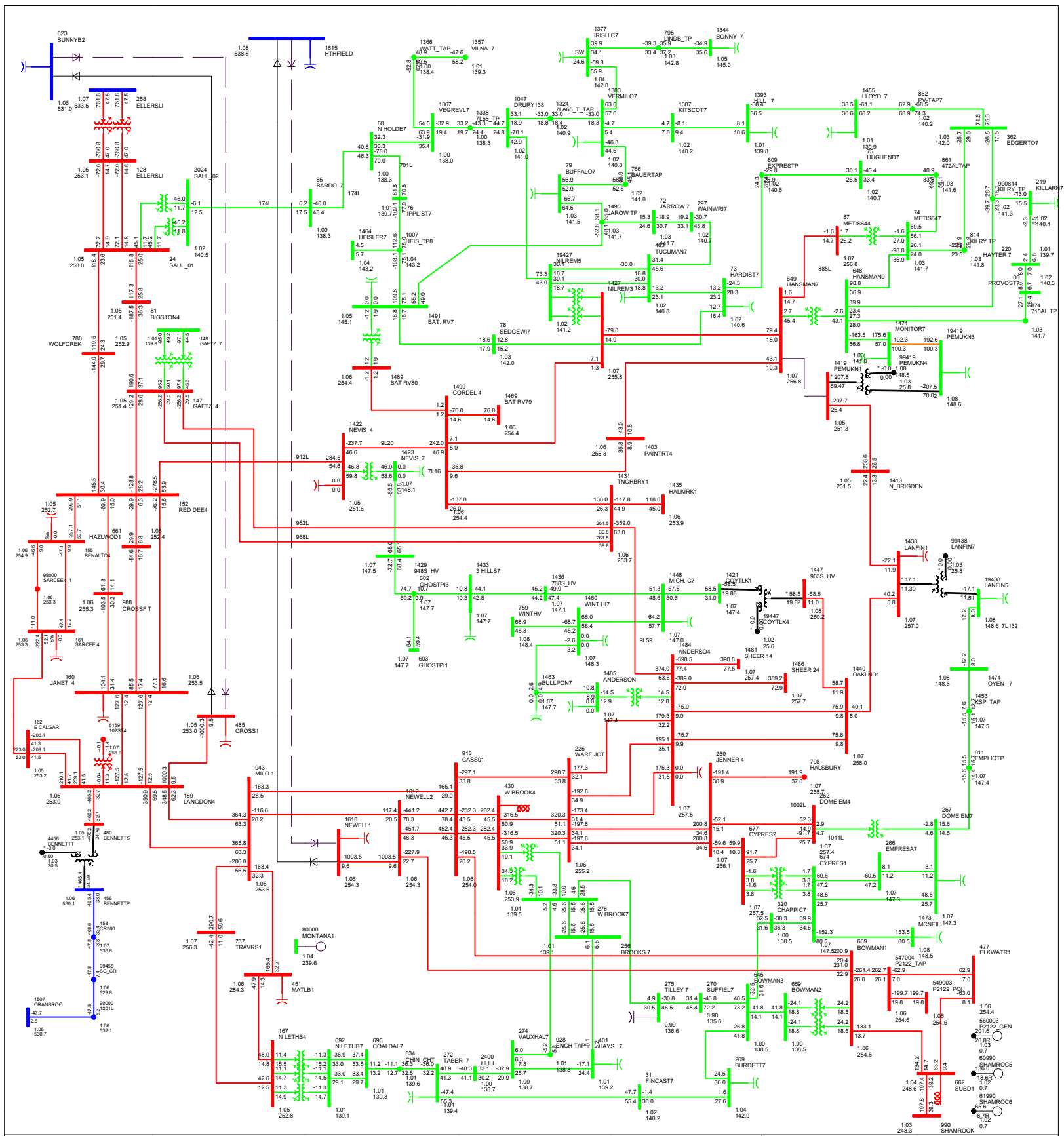
Branch Loading: >=100.0%  
 kV: <=25.00 <=69.00 <=138.00 <=240.00 <=500.00  
 Bus - Voltage (kV/pu) Branch - MW/Loading  
 Equipment - MW/Loading



**P7001 Central East Transfer Out Transmission Development**

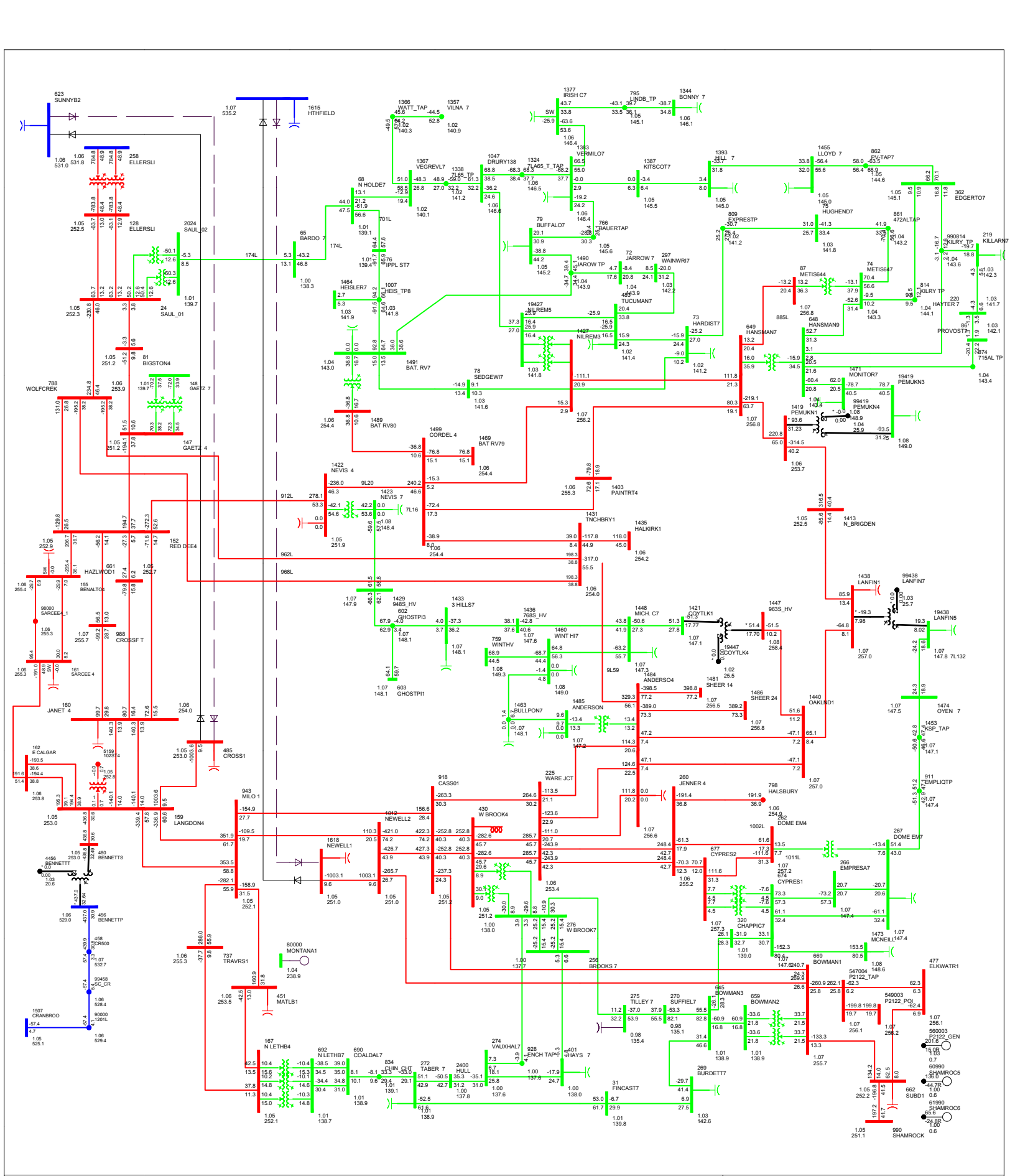
New Generation in Study Area and SW Sub-region  
 South East: 506.3 MW Central East: 437.3 MW South West: 986.4 MW  
 FIG. 9-2 - VR2020S - CASE 140 - GEN SENS  
 PROJECT: CPCC (C&G&R) OPTI. SETO STAGE1&2  
 CAP. CETO ALT. PREP  
 FILE: MWK-02-2020\_1409  
 Contingency: E&TL; Trip Action: 174L overload trip, 7L92 overload trip, L274 BC 138kV TL, 916L, overload, Sarcee bus split, 7L53 overload trip

Branch Loading: >=100.0%  
 kV: <=25.00V <=69.00 <=138.00 <=240.00 <=500.00 Bus - Voltage (kV/pu)  
 Branch - MW/Loading  
 Equipment - MW/Loading



**P7001 Central East Transfer Out Transmission Development**  
 New Generation in Study Area and SW Sub-region  
 South East: 506.3 MW Central East: 437.3 MW South West: 986.4 MW  
 FIG. B-3 W-2020-05 CASE 146 GEN SON  
 PROJECT: CPEC (C&G&R OPT) CETO STAGE1&2  
 CAP: CETO ALT\_PREF  
 FILE: MW05-2020-1500  
 Contingency: 96%, Trip Action: None

Branch Loading: **>=100.0%**  
 kV: <=25.00V <=69.00V <=138.00V <=240.00V <=500.00V  
 Bus - Voltage (kV/pu)  
 Branch - MW/Loading  
 Equipment - MW/Loading



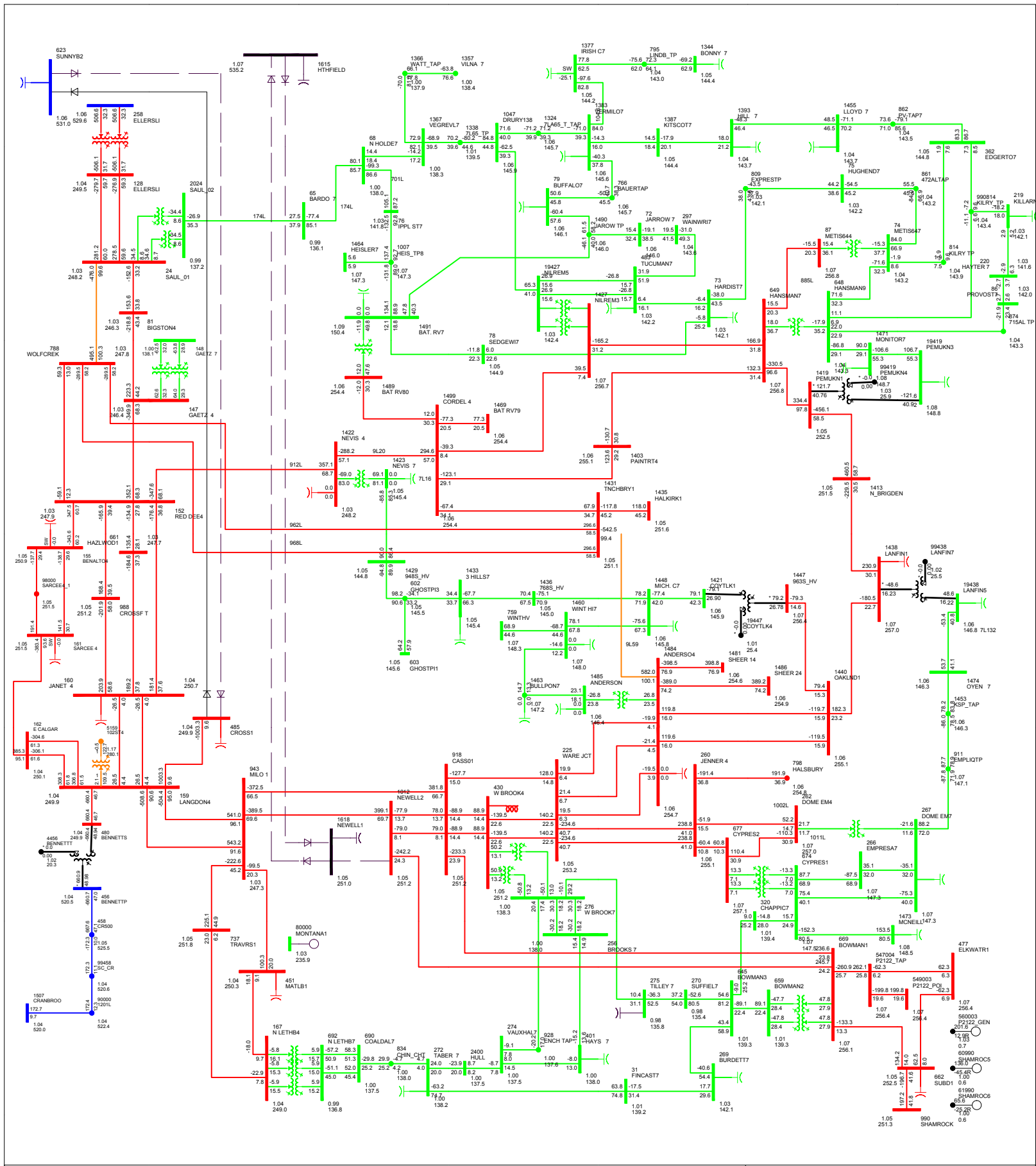
**P7001 Central East Transfer Out Transmission Development**

New Generation in Study Area and SW Sub-region  
 South East: 582.0 MW Central East: 198.9 MW South West: 936.5 MW

FIG. B-4 YR2023-5 CASE H5 GEN SCN 2  
 PROJECT: CRPC CR-CRR OPTL CETO OPTION 2  
 CAP-CETO ALT. IWC  
 THU MAR 05 2020 15:00  
 Contingency: Basic Trip Action: None

Branch Loading: >=100.0%  
 kv: <=25,000 <=69,000 <=138,000 <=240,000 <=500,000

Bus - Voltage (kV/pu)  
 Branch - MW>Loading  
 Equipment - MW>Loading



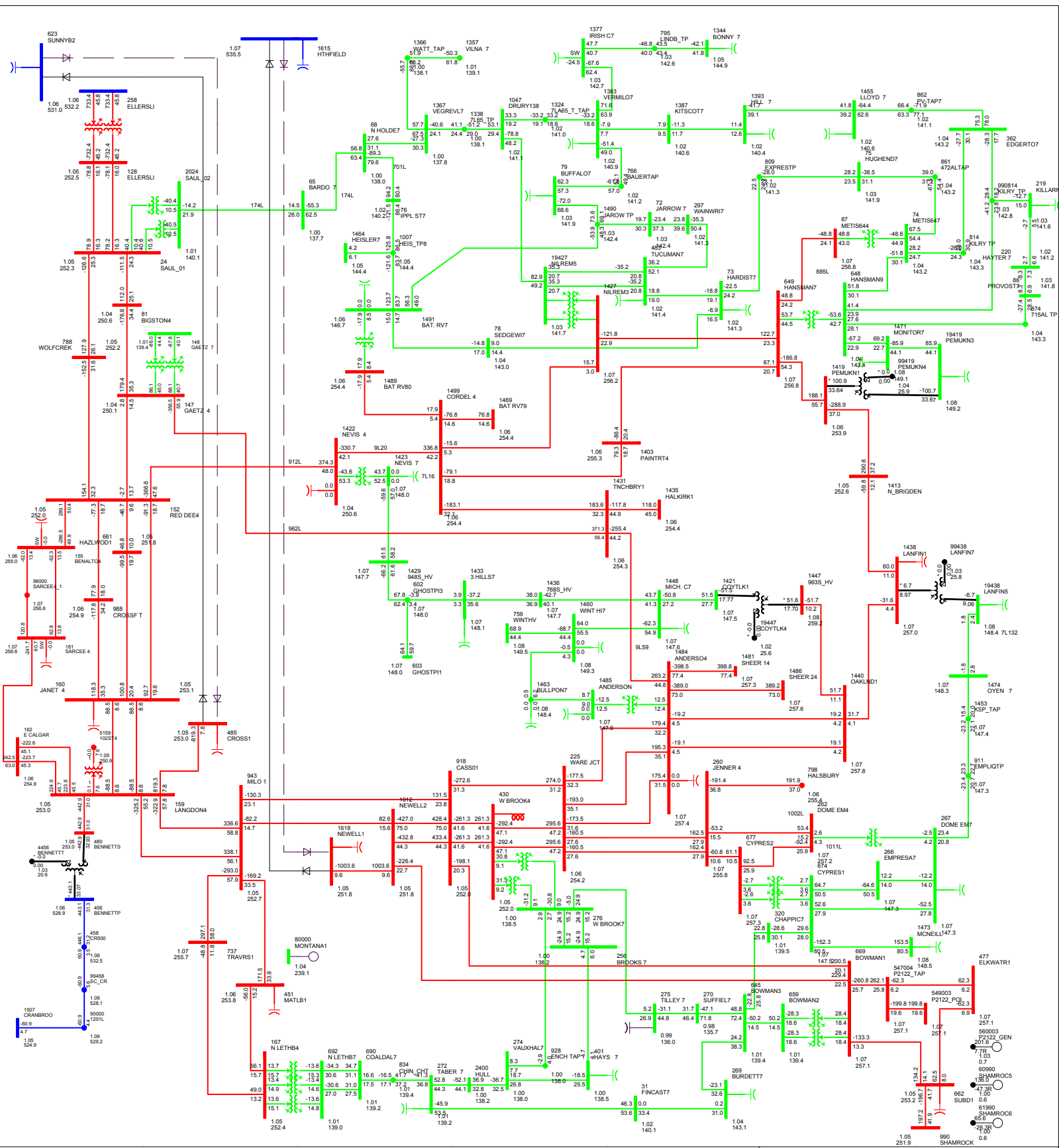
**P7001 Central East Transfer Out Transmission Development**

New Generation in Study Area and SW Sub-region  
 South East: 582.0 MW Central East: 198.9 MW South West: 936.5 MW  
 FIG. B-5 YR2023; CASE H5; GEN SCN 2  
 PROJECT: CRPC (CR-CRR OPT), CETO OPTION 2  
 CAP. CETO. ALT. TWC  
 THU MAR 05 2020 15:00  
 Contingency: S&T1, Trip Action: L274 BC 138W Tie

Branch Loading: >=100.0%  
 kv: <=25,000 <=69,000 <=138,000 <=240,000 <=500,000

Bus - Voltage (kV/pu)  
 Branch - MW/Loading  
 Equipment - MW/Loading

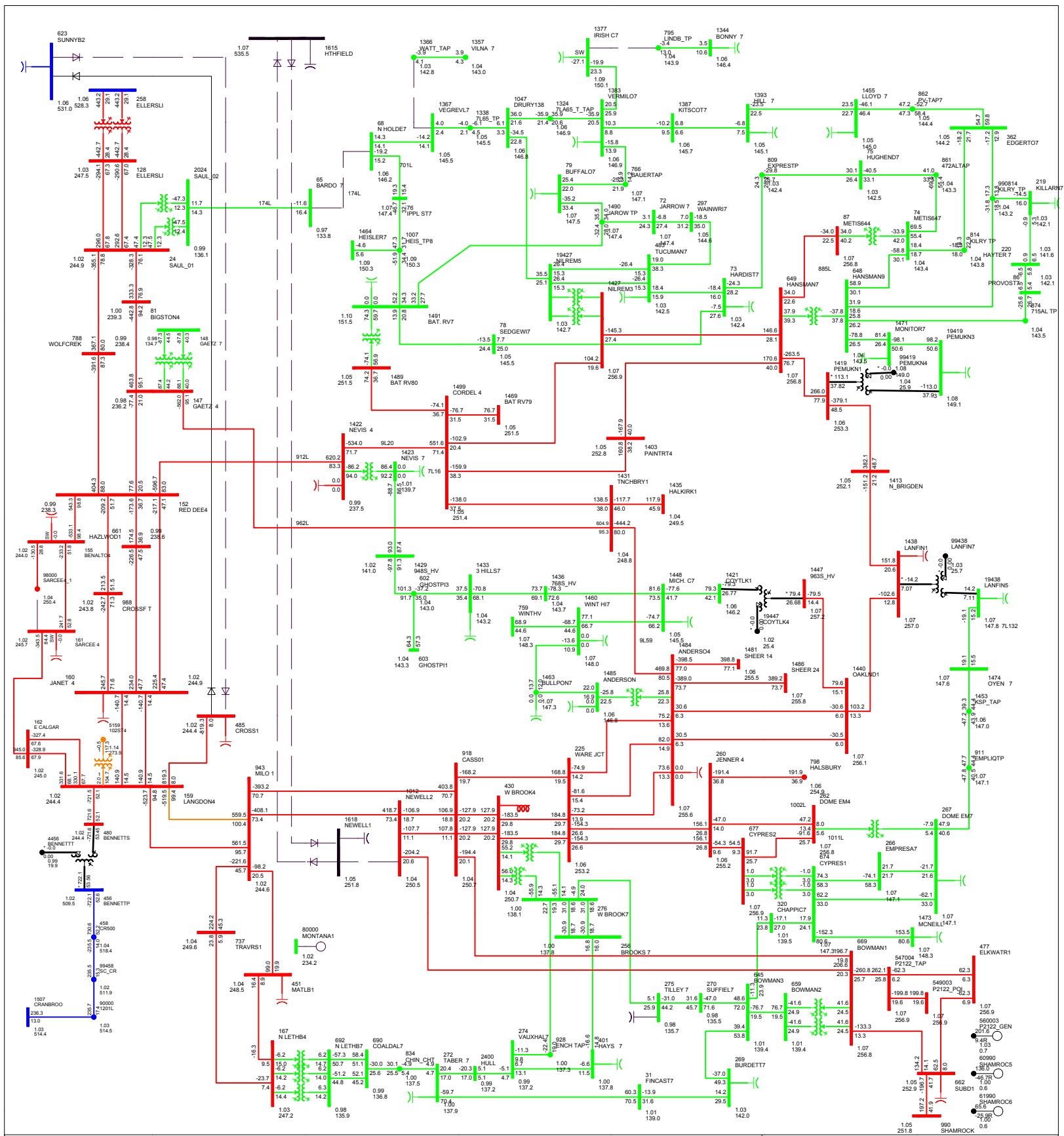




**P7001 Central East Transfer Out Transmission Development**  
 New Generation in Study Area and SW Sub-region  
 South East: 384.2 MW Central East: 433.1 MW South West: 982.9 MW  
 FIG. B-6 VPR2023- CASE H6; GEN-SON  
 PROJECT: P203 (G-GRK-DFP) CETO OPTION 3  
 CAP. CETO ALT #12  
 IRL MW 05/2020 15:00  
 Contingency: Base, Trip Action: None

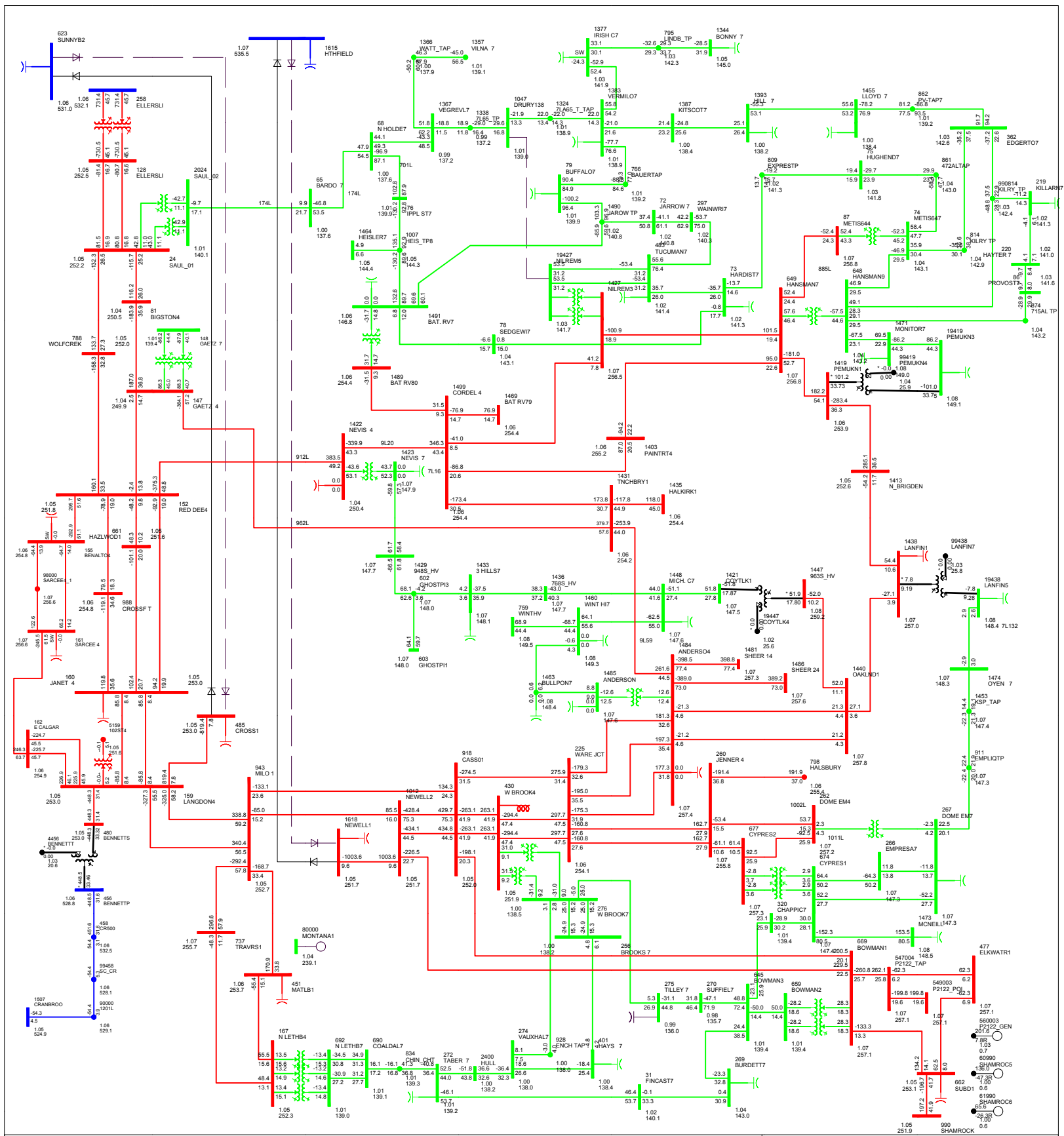
Branch Loading: >=100.0% >=90.0% >=80.0% <=70.0% <=60.0%  
 kV: <=250.0 <=90.0 <=138.0 <=240.0 <=500.000  
 Bus - Voltage (kV/pu)  
 Branch - MW/Loading  
 Equipment - MW/Loading





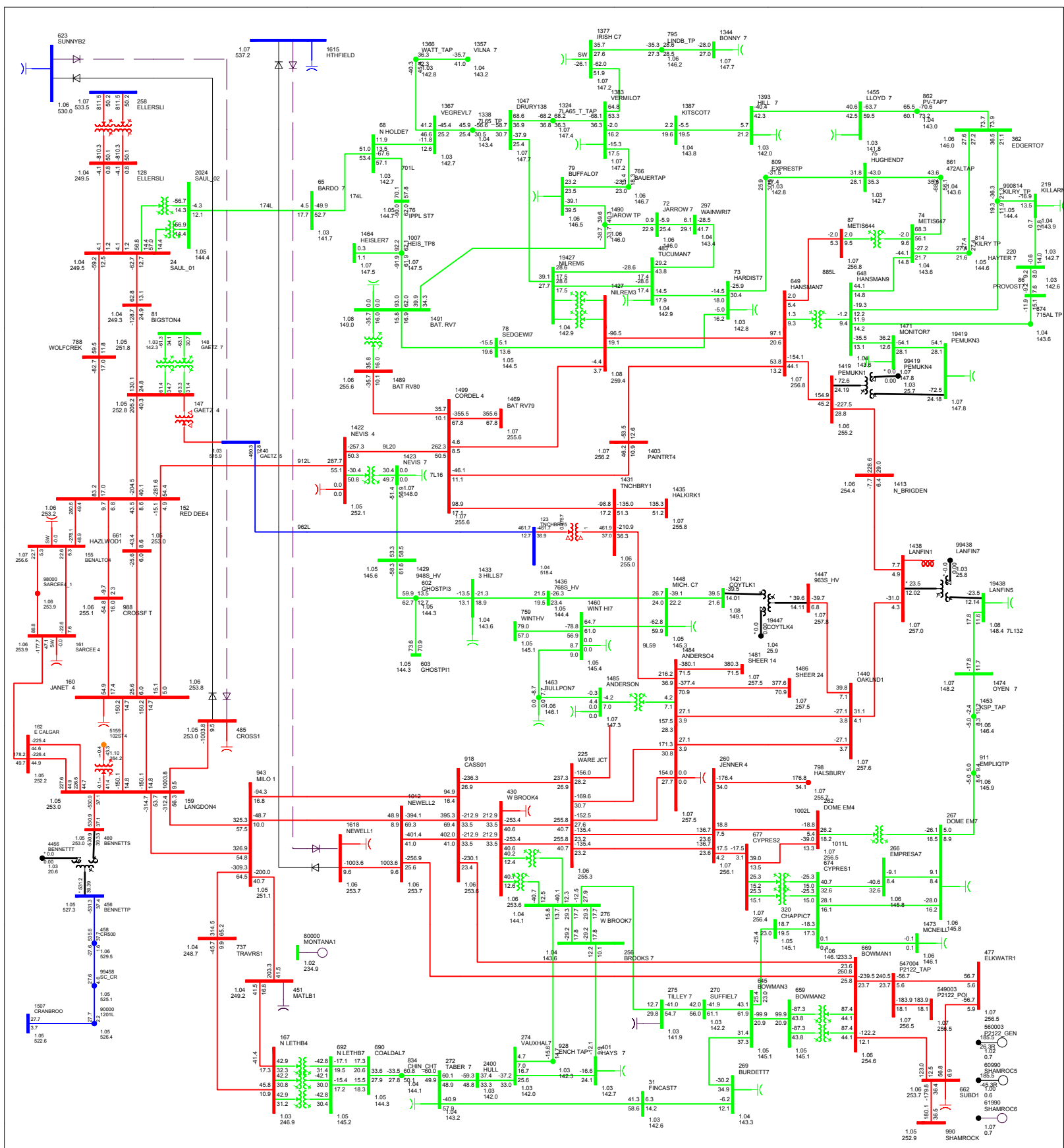
**P7001 Central East Transfer Out Transmission Development**  
 New Generation in Study Area and SW Sub-region  
 South East: 384.2 MW Central East: 433.1 MW South West: 982.9 MW  
 FIG. 9-7 WPR2025-CASE H6; GEN SENS  
 PROJECT: CPEC (C&G)R-DPLT\_CETO\_OPTION 3  
 CAP: CETO\_ALT 912  
 FILE: MWK-0200-1500  
 Contingency: EATL; Trip Action: 174L overload trip, 7L53 overload trip, 7L92 overload trip, L274 BC 138V Tie, 916L, overload, Sarcee bus split

Branch Loading: >=100.0%  
 kV: <=250.0 <=99.00 <=138.00 <=240.00 <=500.00 Bus - Voltage (kV/pu)  
 Branch - MW/Loading  
 Equipment - MW/Loading



**P7001 Central East Transfer Out Transmission Development**  
 New Generation in Study Area and SW Sub-region  
 South East: 384.2 MW Central East: 433.1 MW South West: 982.9 MW  
 FIG. 9-6 VR2020S\_CASE\_H6\_GEN\_SON\_V  
 PROJECT: P2020-CR-CR-CR-OPT1\_CETD\_OPTION\_3  
 CAP\_CETO\_ALT\_512  
 FILE: MW05-2020\_1502  
 Contingency: 7L253; Trip Action: None

Branch Loading: >=100.0% >=90.0% >=80.0% <=70.0% <=60.0%  
 Bus - Voltage (kV/pu) Branch - MW/Loading  
 Equipment - MW/Loading



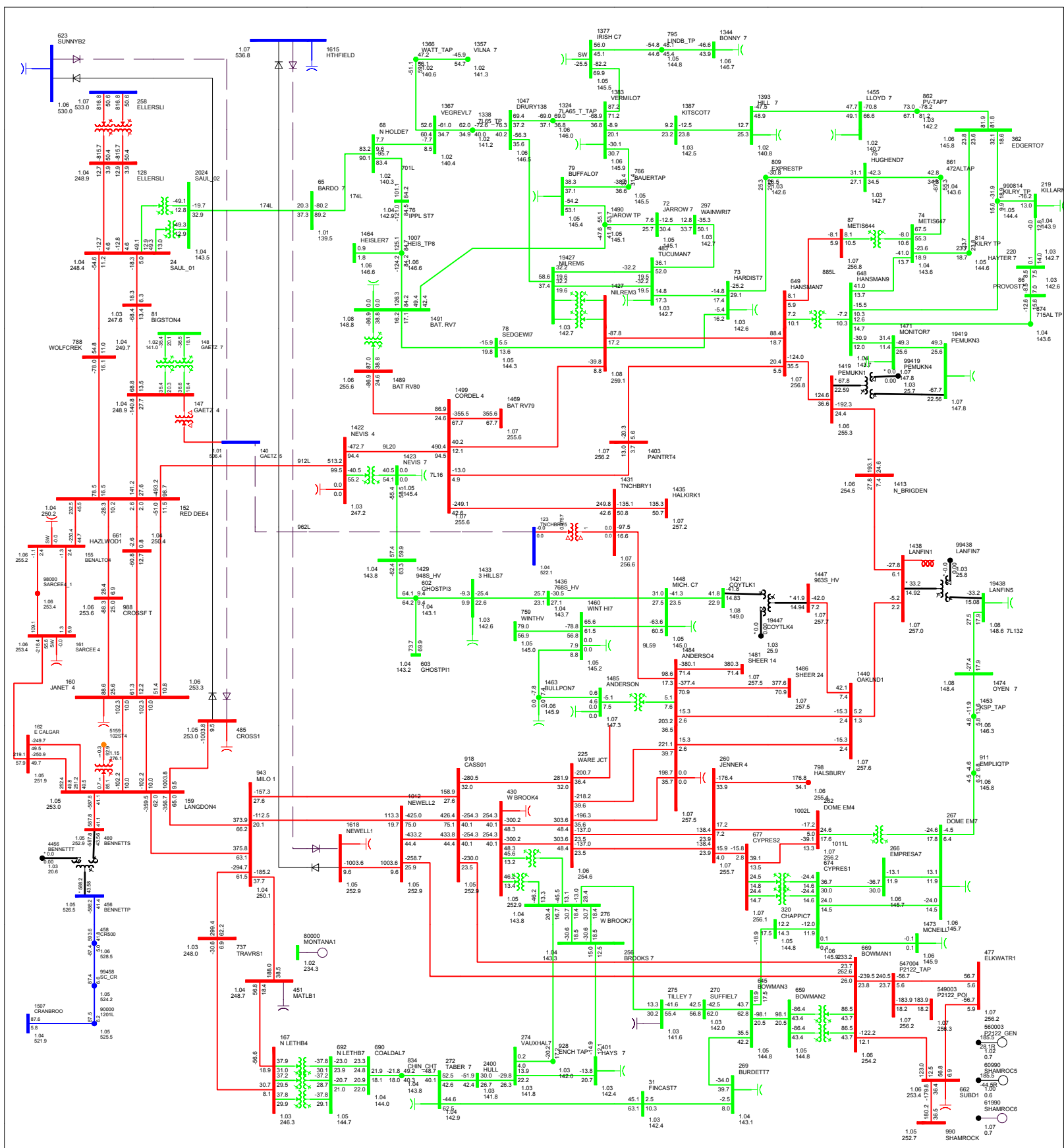
**P7001 Central East Transfer Out Transmission Development**

New Generation in Study Area and SW Sub-region  
 South East: 550.0 MW Central East: 254.1 MW South West: 995.2 MW

FIG. B-9 VR2023SP-CASE HD\_GENCON2  
 PROJECT: CRPC (CR-CRR OPT), CETO OPTION 4  
 CAP-CETO AL1-500  
 THU, MAR 05 2020 15:00  
 Contingency: Base, Trip Action: L274 BC 138kV 1

Branch Loading: >=100.0%  
 kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000

Bus - Voltage (kV)  
 Branch - MW/Loading  
 Equipment - MW/Loading

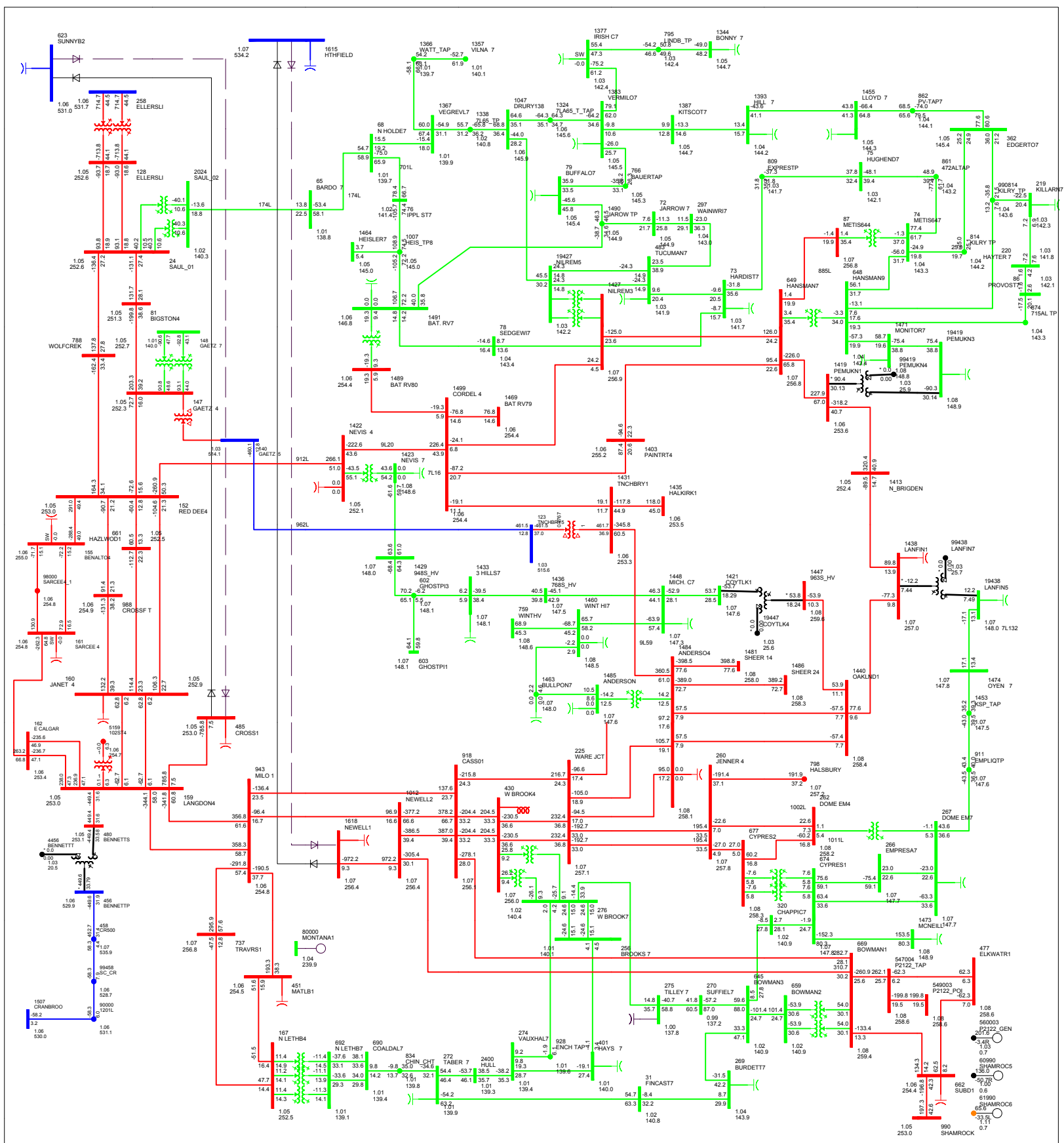


**P7001 Central East Transfer Out Transmission Development**

New Generation in Study Area and SW Sub-region  
 South East: 550.0 MW Central East: 254.1 MW South West: 995.2 MW  
 FIG. B-10-1R-2023P3 CASE: HZ\_GEN SON 2  
 PROJECT: CRPC (CR-CRR OPT), CETO OPTION 4  
 CAP-CETO A 300  
 THU, MAR 05 2020, 15:02  
 Contingency: CETO500MW, Trip Action: L274-BC 138KV Tie

Branch Loading: >=100.0%  
 kV: <=25.00 <=69.00 <=138.00 <=240.00 <=500.00

Bus - Voltage (kV)  
 Branch - MW/Loading  
 Equipment - MW/Loading



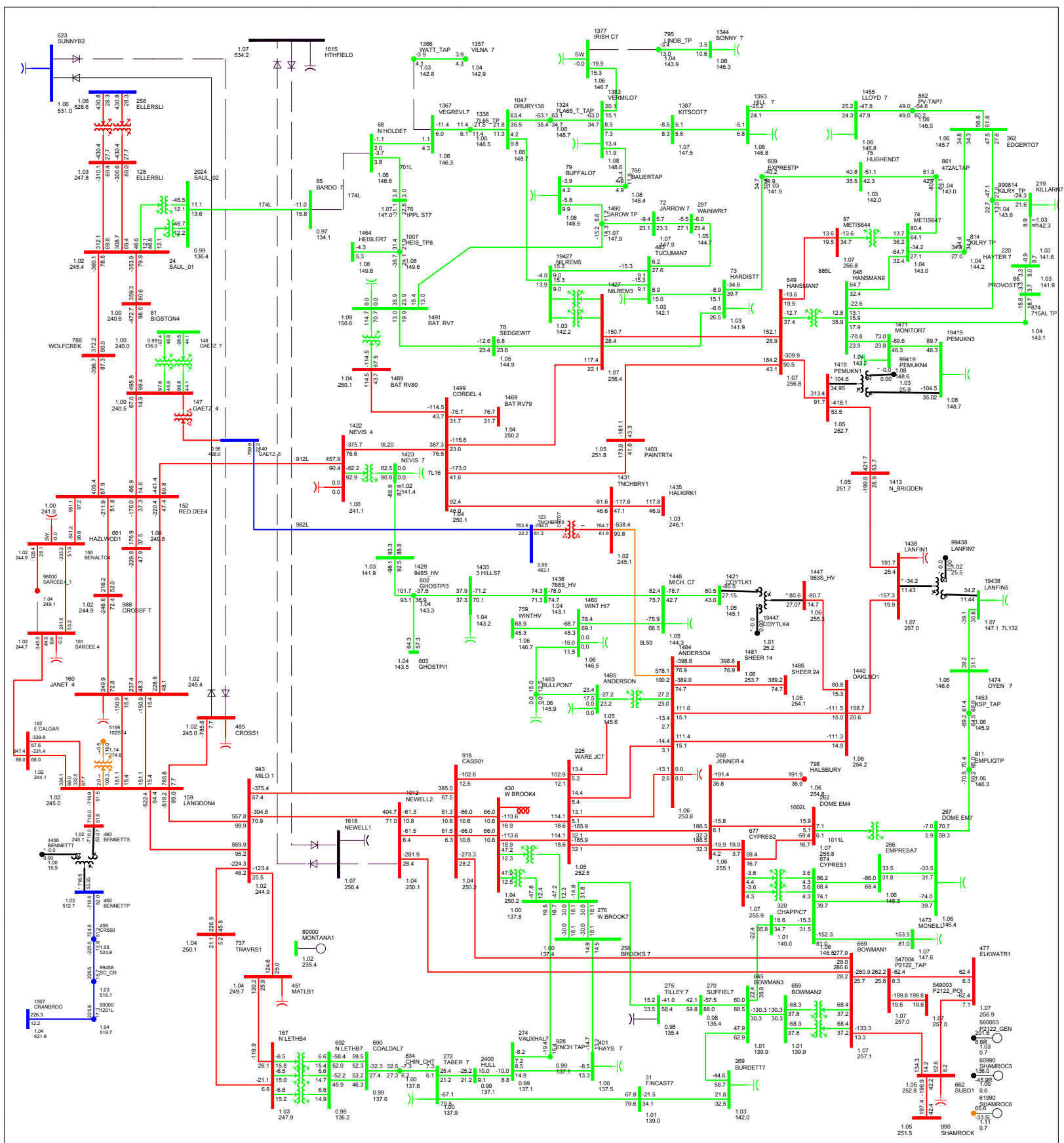
**P7001 Central East Transfer Out Transmission Development**

New Generation in Study Area and SW Sub-region  
 South East: 550.1 MW Central East: 254.1 MW South West: 995.2 MW

FIG. 11-R-2023S-CASE HS GEN SCEN 2  
 PROJECT: CRPC (CR-CRR OPT), CETO OPTION 4  
 CAP-CETO AL1 500  
 THU, MAR 05 2020 15:02  
 Contingency: Base, Trip Action: None

Branch Loading: >=100.0%  
 kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000

Bus - Voltage (kV)  
 Branch - MW/Loading  
 Equipment - MW/Loading

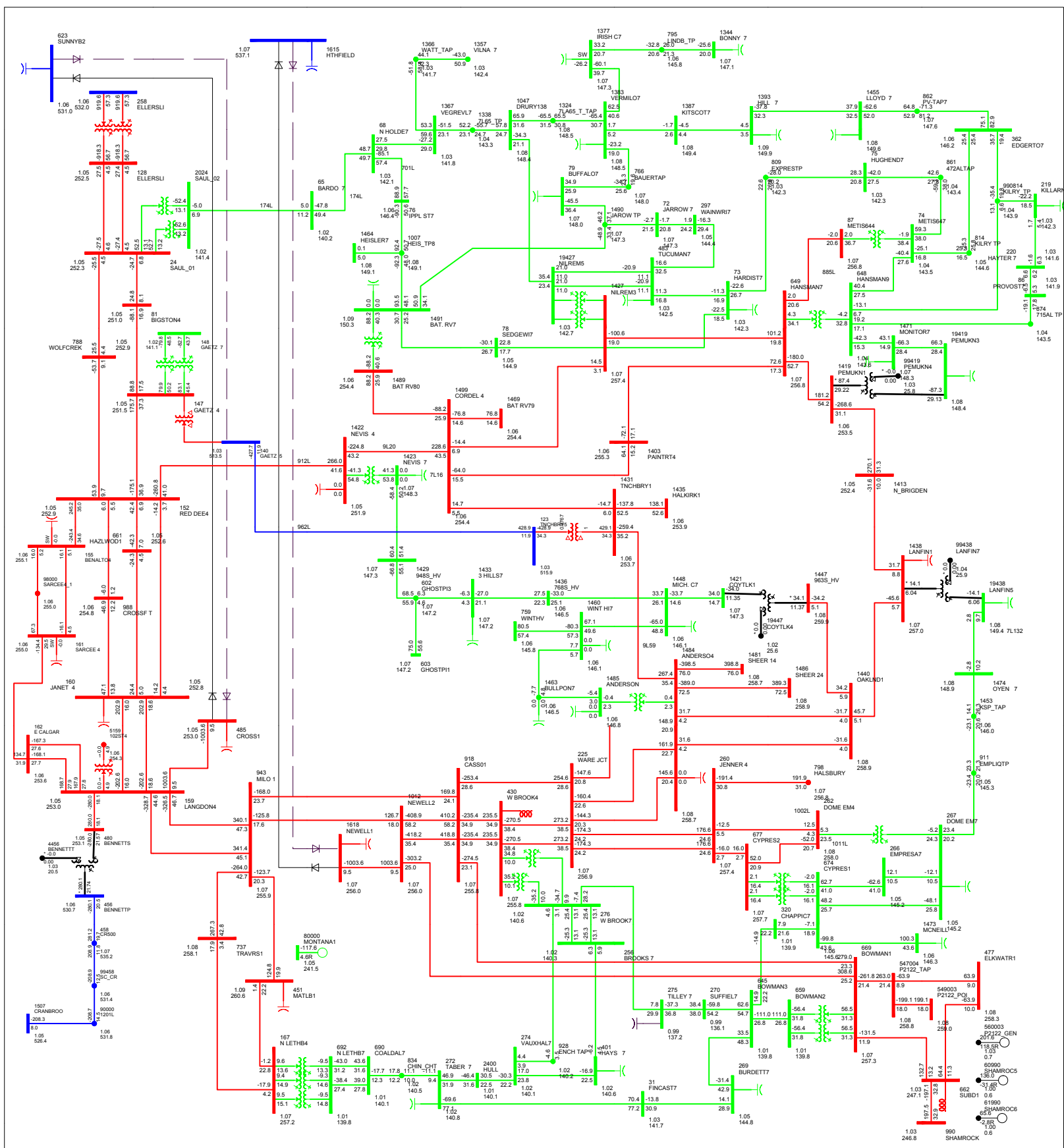


**P7001 Central East Transfer Out Transmission Development**

New Generation in Study Area and SW Sub-region  
 South East: 550.0 MW Central East: 254.1 MW South West: 995.2 MW  
 FIG. B-12-1R-2023S CASE: HS GEN SEN 2  
 PROJECT: CRPC (CR-CRR OPT), CETO OPTION 4  
 CAP-CETO A1 300  
 THU MAR 05 2020 15:01  
 Contingency: EATL, Trip Action: 174L: overload trip, 7L53: overload trip, 7L52: overload trip, L274 BC 138V Tie, 910L: overload Sarcee bus split

Branch Loading: >=100.0%  
 kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000  
 Bus - Voltage (kV)  
 Branch - MW/Loading  
 Equipment - MW/Loading



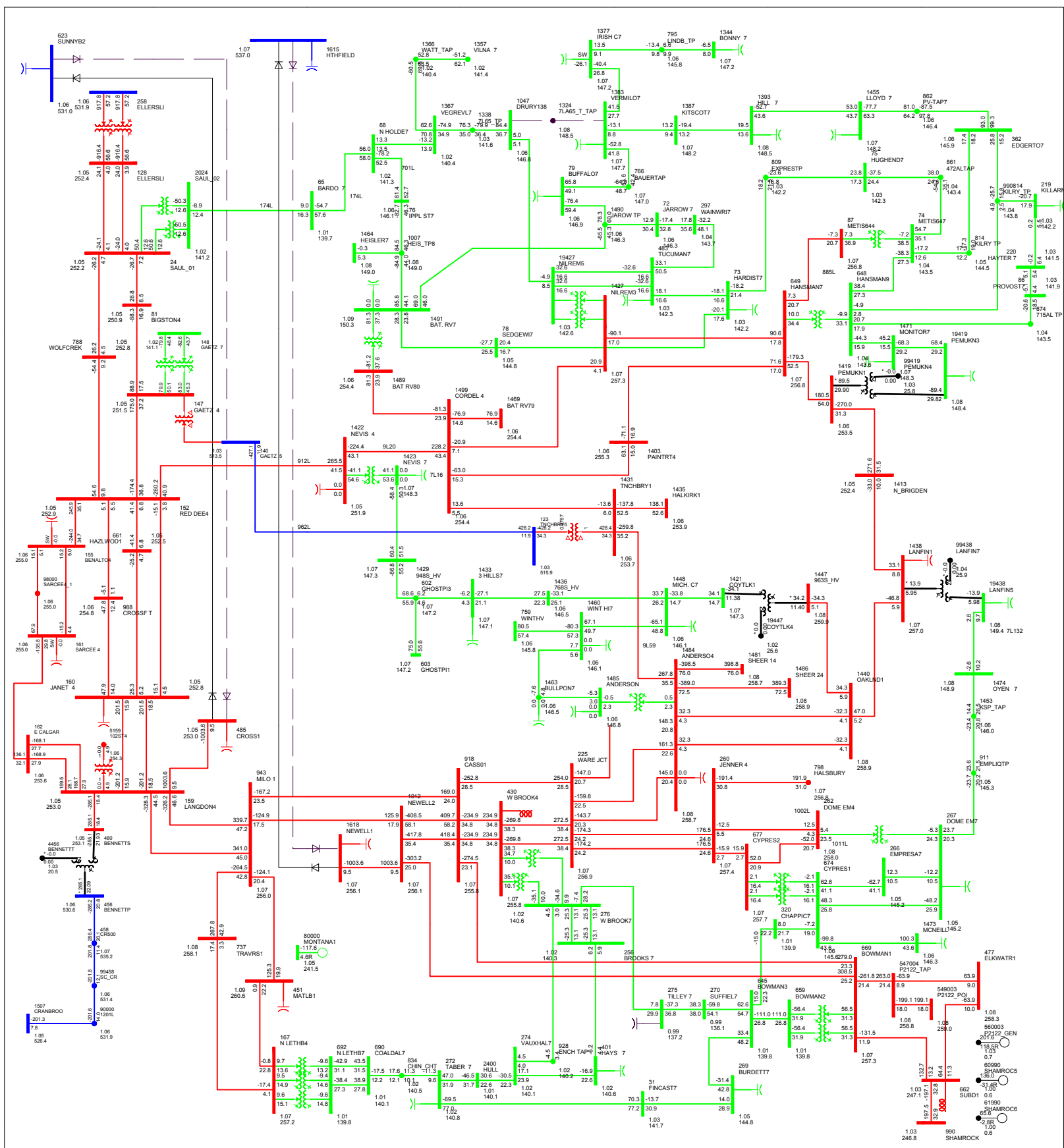


**P7001 Central East Transfer Out Transmission Development**

New Generation in Study Area and SW Sub-region  
 South East: 550.0 MW Central East: 254.1 MW South West: 995.2 MW  
 FIG. B-13-IR-2023HV CASE: HB-GENSON 2  
 PROJECT: CRPC (CR-CRR OPT), CETO OPTION 4  
 CAP-CETO AL 300  
 THU, MAR 05 2020 15:01  
 Contingency: Base, Trip Action: None

Branch Loading: >=100.0%  
 kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000  
 Bus - Voltage (kV)  
 Branch - MW/Loading  
 Equipment - MW/Loading



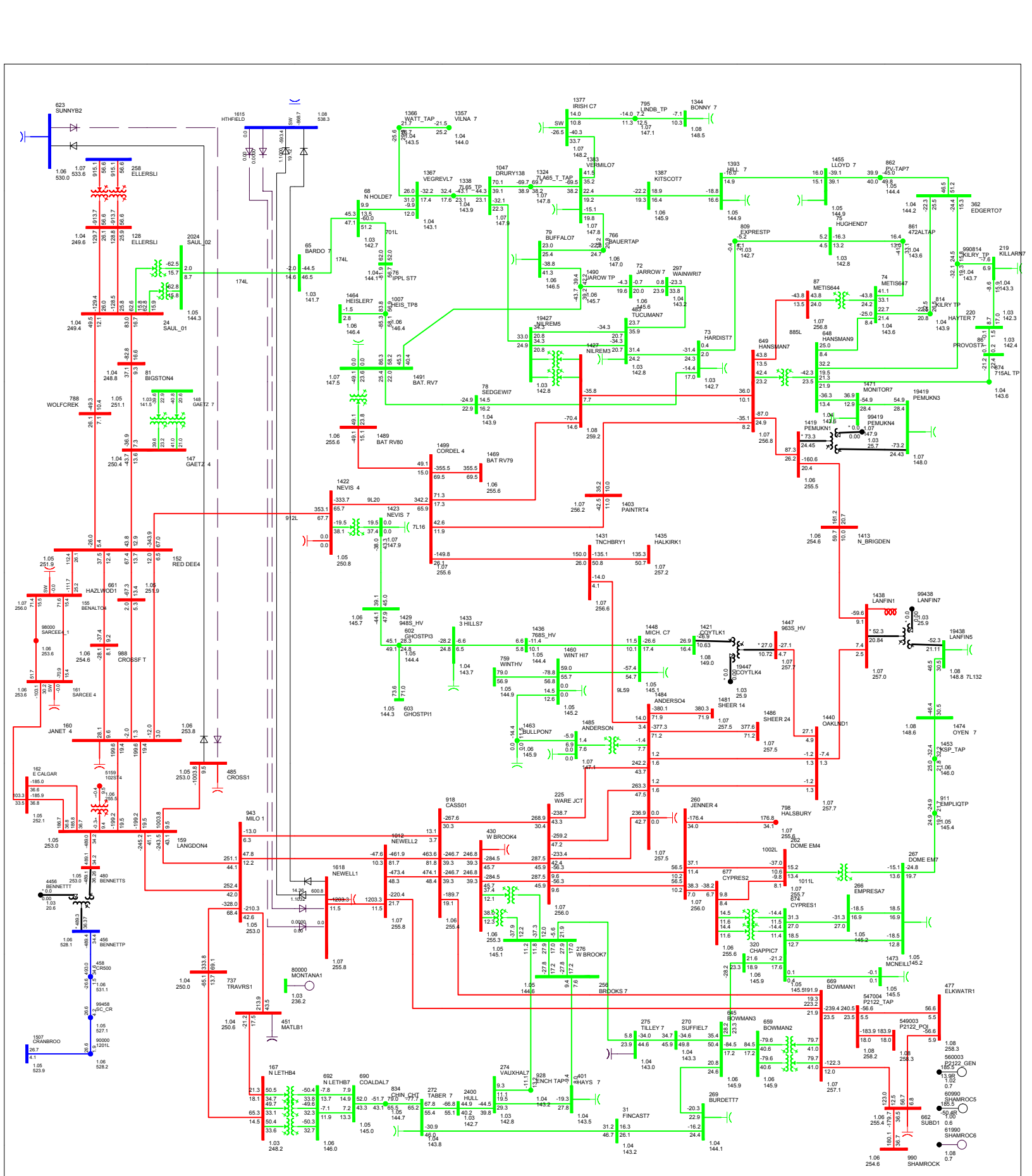


**P7001 Central East Transfer Out Transmission Development**

New Generation in Study Area and SW Sub-region  
 South East: 550.0 MW Central East: 254.1 MW South West: 995.2 MW  
 FIG. B-14-R-2023H1 CASE: HB-GENCON 2  
 PROJECT: CRPC (CR-CRR OPT), CETO OPTION 4  
 CAP-CETO A1-50  
 THU, MAR 05 2020 15:01  
 Contingency: FL205, Trip Action: None

Branch Loading: >=100.0%  
 kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000

Bus - Voltage (kVps)  
 Branch - MW/Loading  
 Equipment - MW/Loading



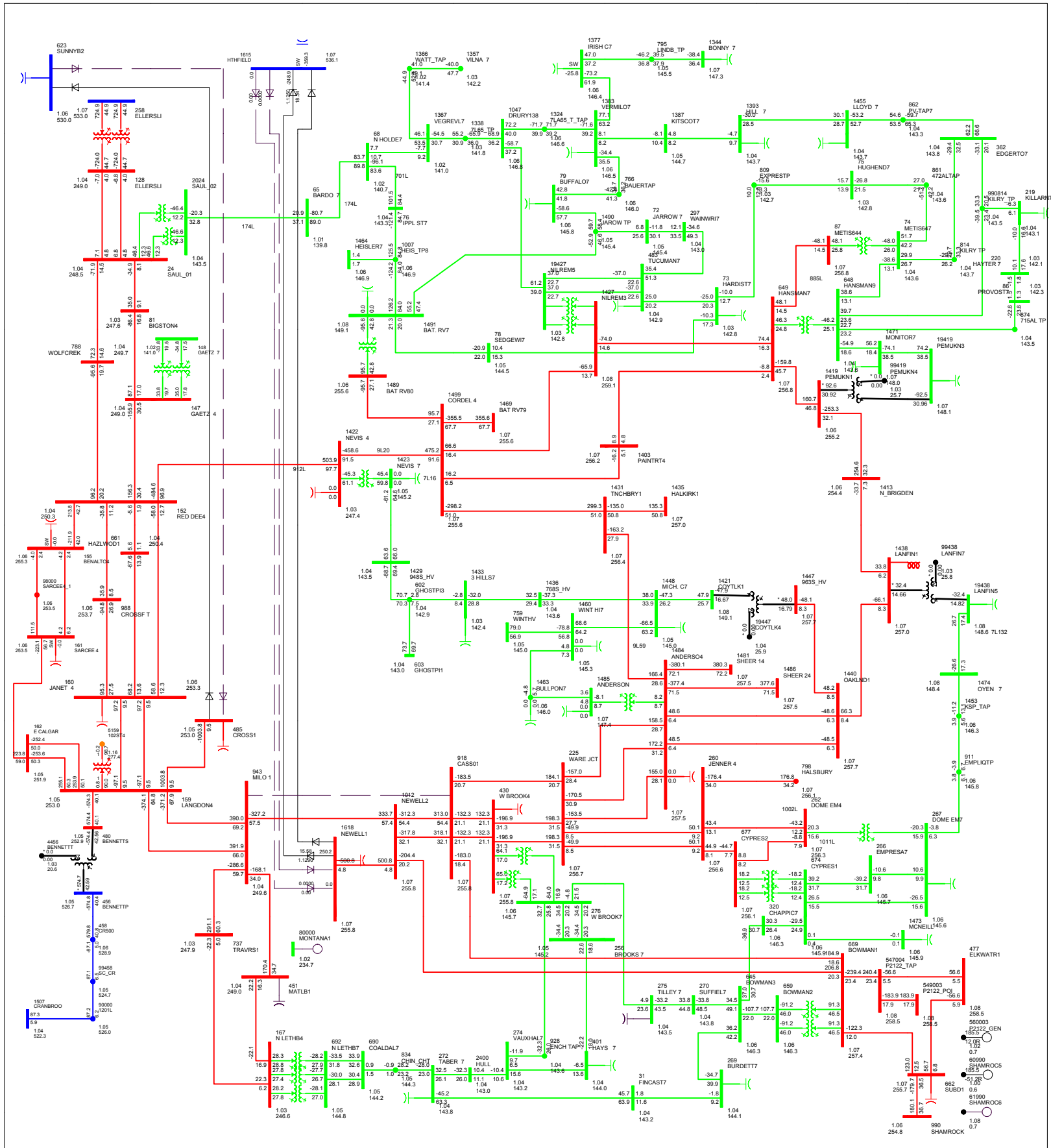
**P7001 Central East Transfer Out Transmission Development**

New Generation in Study Area and SW Sub-region  
 South East: 260.0 MW Central East: 91.0 MW South West: 94.0 MW

FIG. B-15\_VR-2023SP\_CASE\_H2\_GEN\_SON\_2  
 PROJECT: CRPC (CR-CR) (DPT) CETO\_ALT\_EATL  
 CAP. CETO\_ALT\_EATL  
 (H) MAR 05 2020 15:01  
 Contingency: Base. Trip Action: L274 BC 138V Tie

Branch Loading:  $\geq 100.00\%$   
 KV:  $\leq 25.000$   $\leq 69.000$   $\leq 138.000$   $\leq 240.000$   $\leq 500.000$

Bus - Voltage (kV)  
 Branch - MW/Loading  
 Equipment - MW/Loading



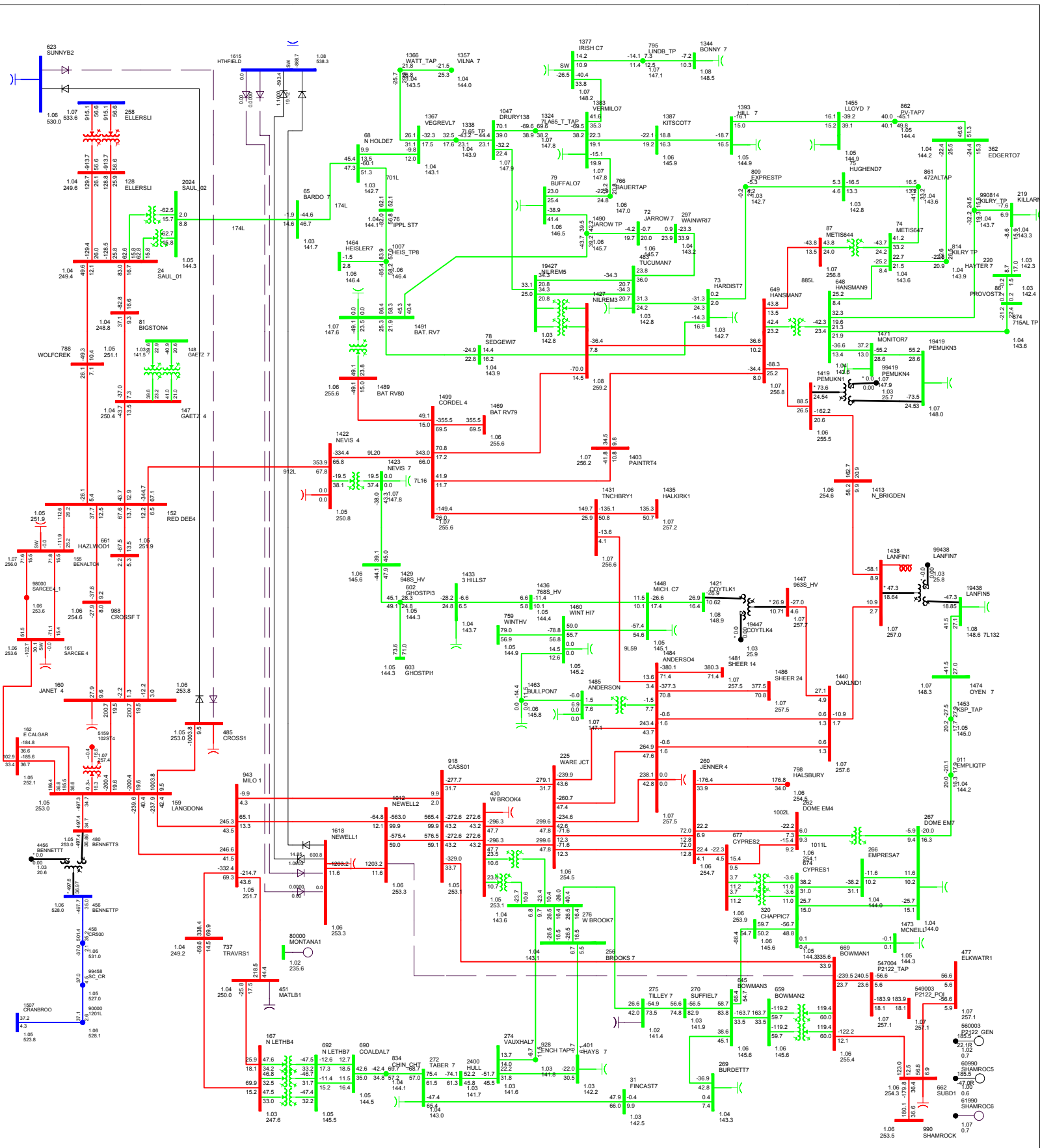
**P7001 Central East Transfer Out Transmission Development**

New Generation in Study Area and SW Sub-region  
 South East: 260.0 MW Central East: 91.0 MW South West: 940.4 MW

FIG. B-16\_VR-2023SP\_CASE\_H2\_OPN\_SCN 2  
 PROJECT: CRPC-CR-CR (DP1) CETO OPTION 5  
 CAP. CETO ALT. EATL  
 (H) MAP 05-2020-1501  
 Contingency: 933L; Trip Action: L274 BC 138kV Tie

Branch Loading: **>=100.0%**  
 KV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000

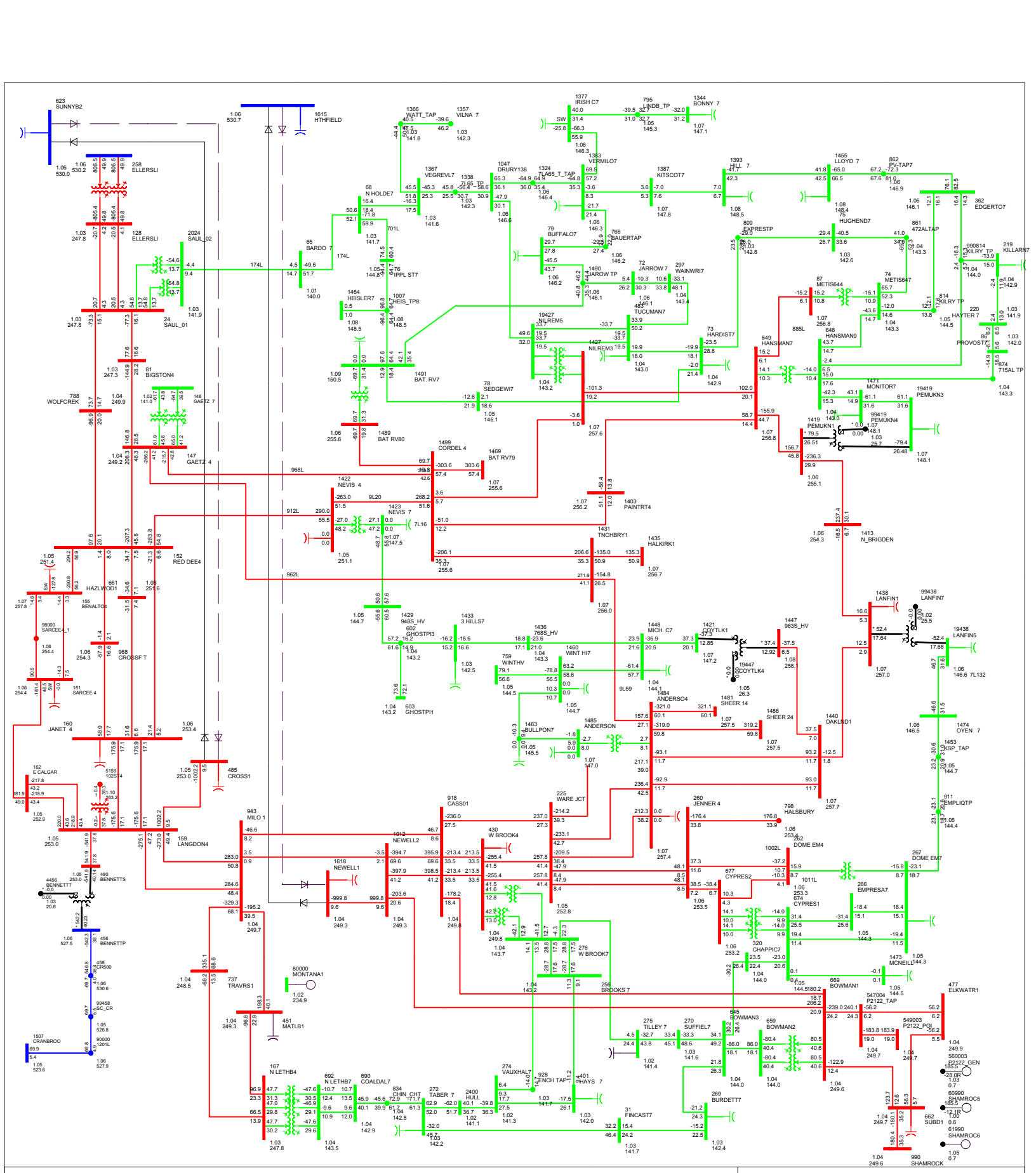
Bus - Voltage (kV)  
 Branch - MW/Loading  
 Equipment - MW/Loading



**P7001 Central East Transfer Out Transmission Development**

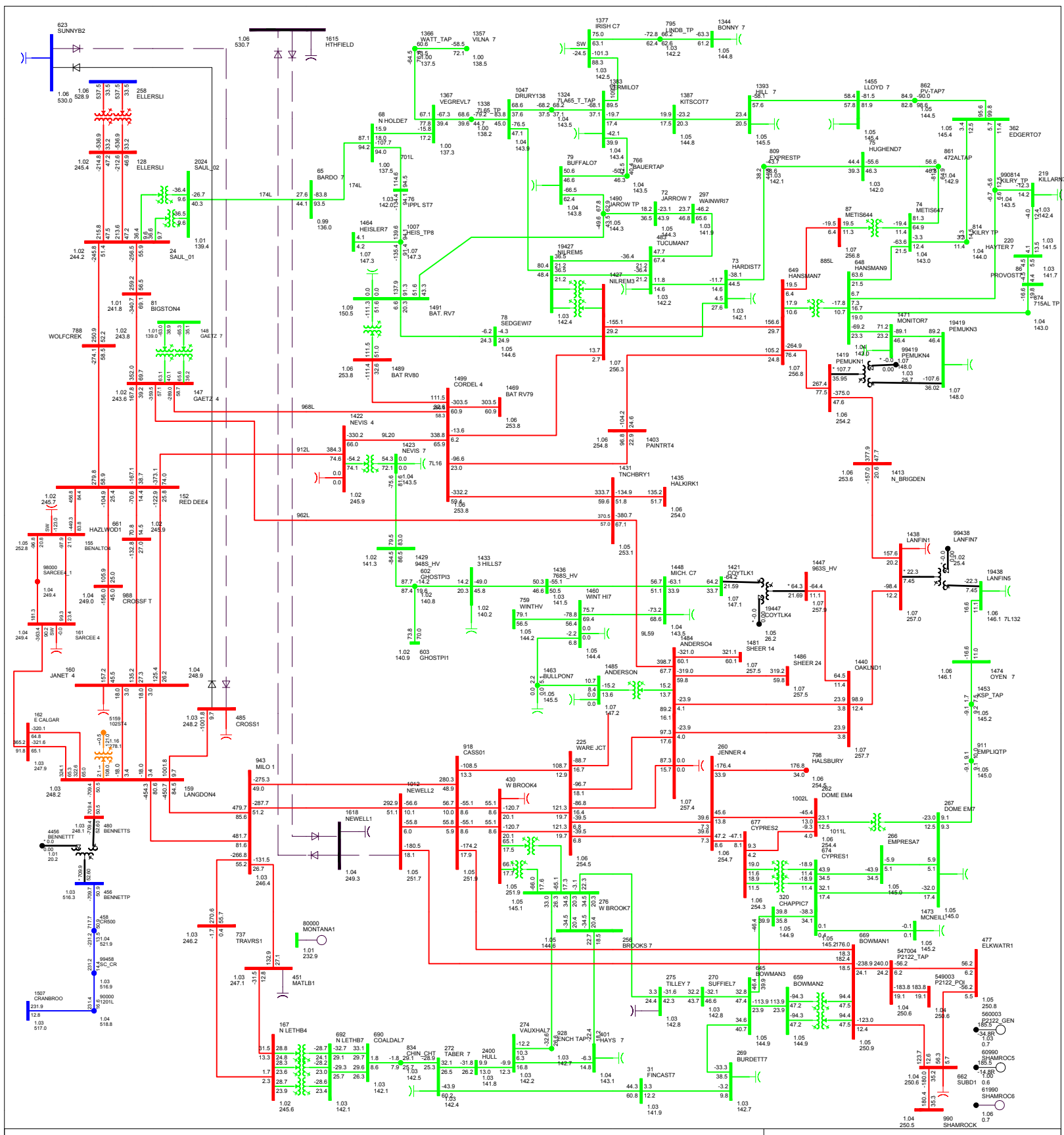
New Generation in Study Area and SW Sub-region  
 South East: 260.0 MW Central East: 91.0 MW South West: 940.4 MW  
 FIG. B-17 YR-2023SP CASE: H2 GEN SEN 2  
 PROJECT: CRPC (CR-CR) (DPT) CETO OPTION 5  
 CAP: CETO ALT. EATL  
 (H4) MAR 05 2020 15:00  
 Contingency: 103SL; Trip Action: L274 BC 138kV Tie

Branch Loading:  $\geq 100.0\%$   
 kV:  $\leq 25.000$   $\leq 69.000$   $\leq 138.000$   $\leq 240.000$   $\leq 500.000$   
 Bus - Voltage (kV/au)  
 Branch - MW/Loading  
 Equipment - MW/Loading



**P7001 Central East Transfer Out Transmission Development**  
 New Generation in Study Area and SW Sub-region  
 South East: 411.6 MW Central East; 513.1 MW South West; 986.2 MW  
 FIG. 18-19-2020-03-01 CASE-WY-GEN-SON-2  
 PROJECT: CRPC (CR-CRR-GPT), CETO OPTION 6  
 CAP: CETO\_ALT\_C01G  
 DATE: MAR 09 2020 15:01  
 Contingency: Base, Trip Action: L274 BC 138kV Tie

Branch Loading: >=100.0%  
 kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000  
 Bus - Voltage (kVpu)  
 Branch - MW/Loading  
 Equipment - MW/Loading



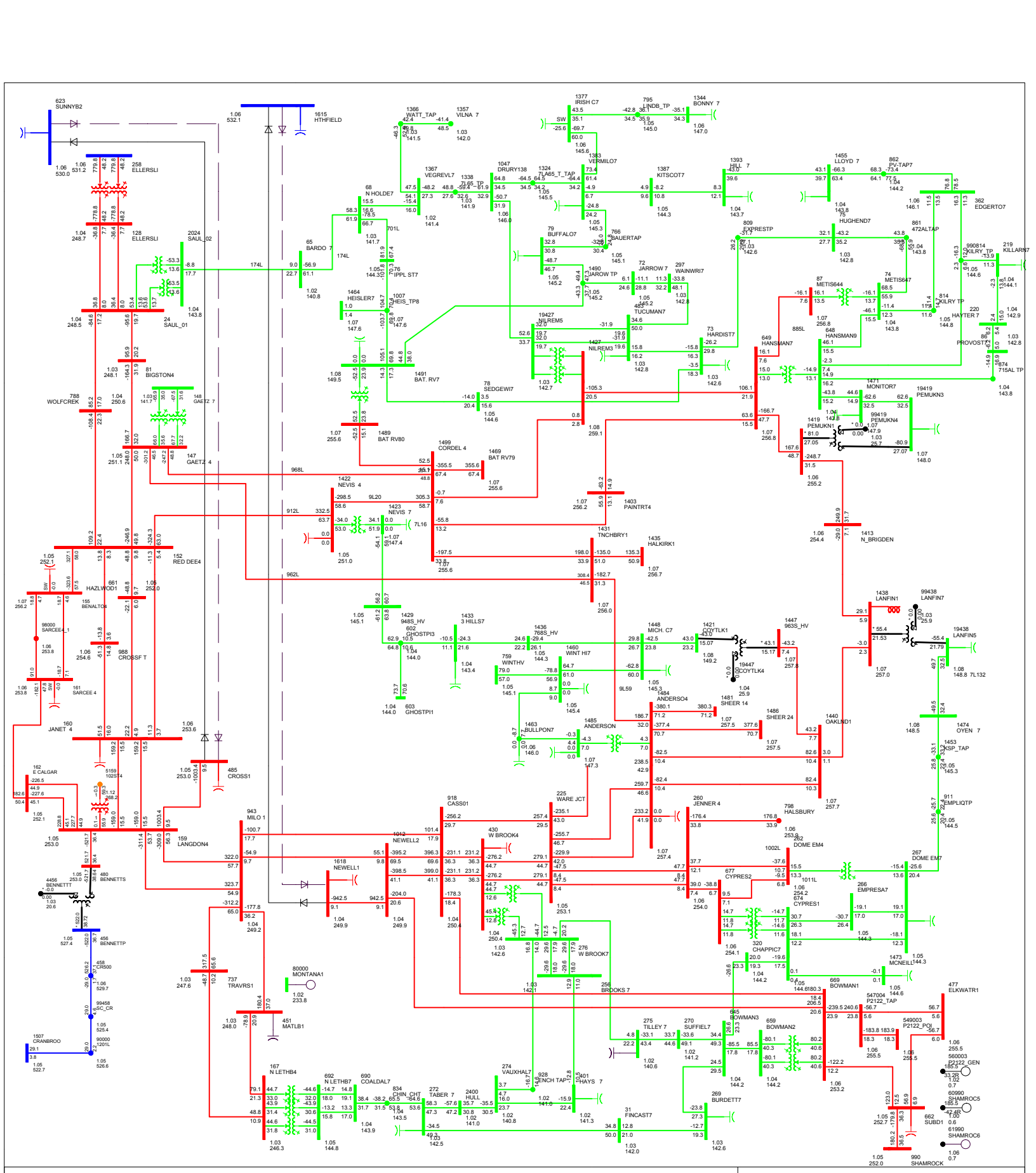
**P7001 Central East Transfer Out Transmission Development**

New Generation in Study Area and SW Sub-region  
 South East: 411.6 MW Central East: 513.1 MW South West: 986.2 MW  
 FIG. B-19 HV-2020/2021 CASE-WY GEN SON 2  
 PROJECT: CRPC (CR-CR-DPT), CETO OPTION 6  
 CAD: CETO\_ALT\_C6T6  
 TRU: MAR 09 2020 15:01  
 Contingency: EATL; Trip Action: L274 BC 1388V T

Branch Loading: >=100.0%  
 kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000

Bus - Voltage (kV) Bus - MW/Loading  
 Equipment - MW/Loading





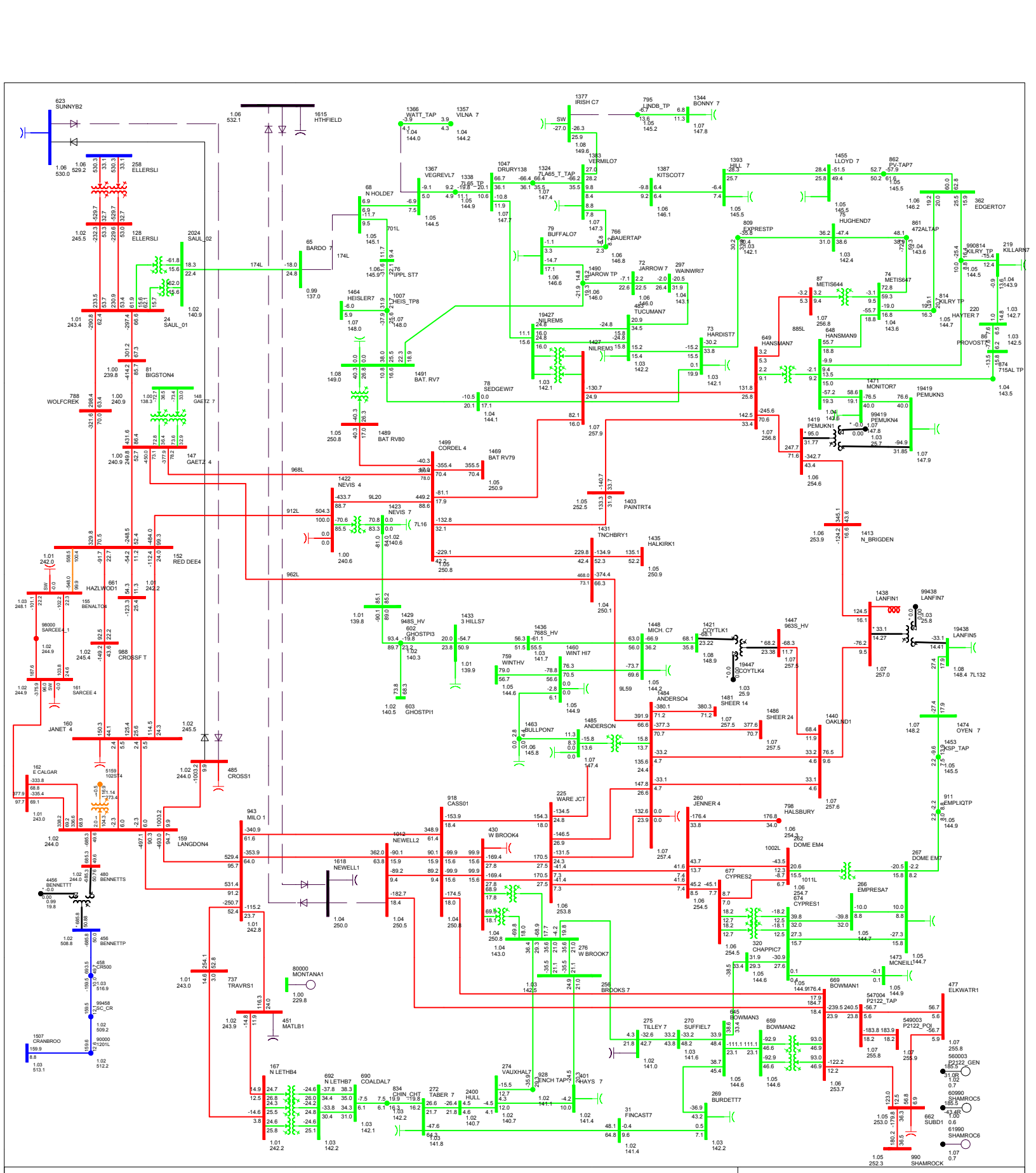
**P7001 Central East Transfer Out Transmission Development**

New Generation in Study Area and SW Sub-region  
 South East: 411.6 MW Central East: 513.1 MW South West: 986.2 MW  
 FIG. B-20: HV-20202SP: CASE: HV: GEN: SO-2  
 PROJECT: CRPC (CR-CRR-DPT), CETO OPTION 6  
 CAP: CETO\_ALT\_0210  
 REV: MAR-09-2020-1501  
 Contingency: Base: Trip Action: L274 BC 138kV Tie

Branch Loading:  $\geq 100.0\%$   
 kV:  $<25,000$   $<69,000$   $<138,000$   $<240,000$   $<500,000$

Bus - Voltage (kV) Bus - MW/Loading  
 Equipment - MW/Loading

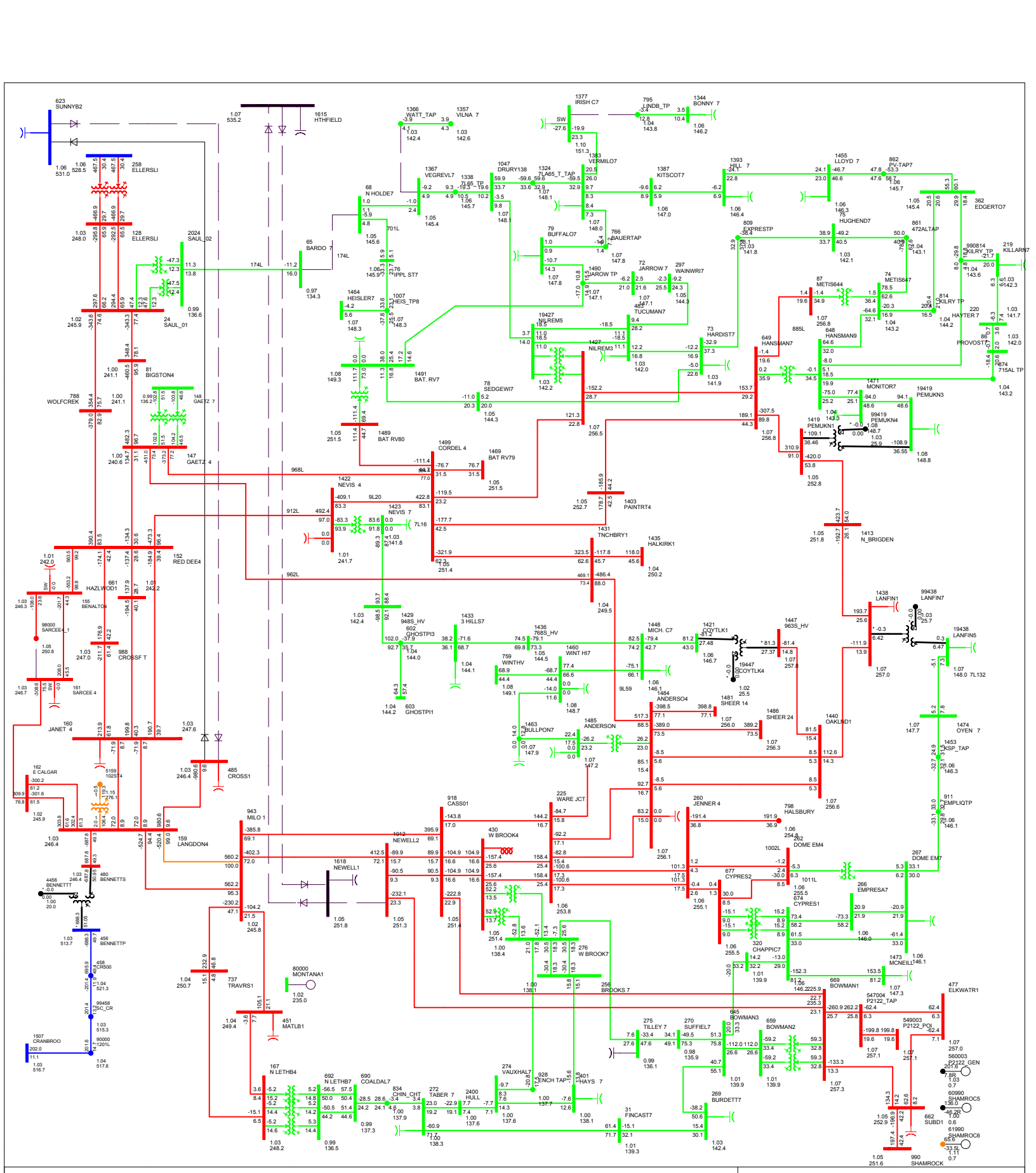




**P7001 Central East Transfer Out Transmission Development**

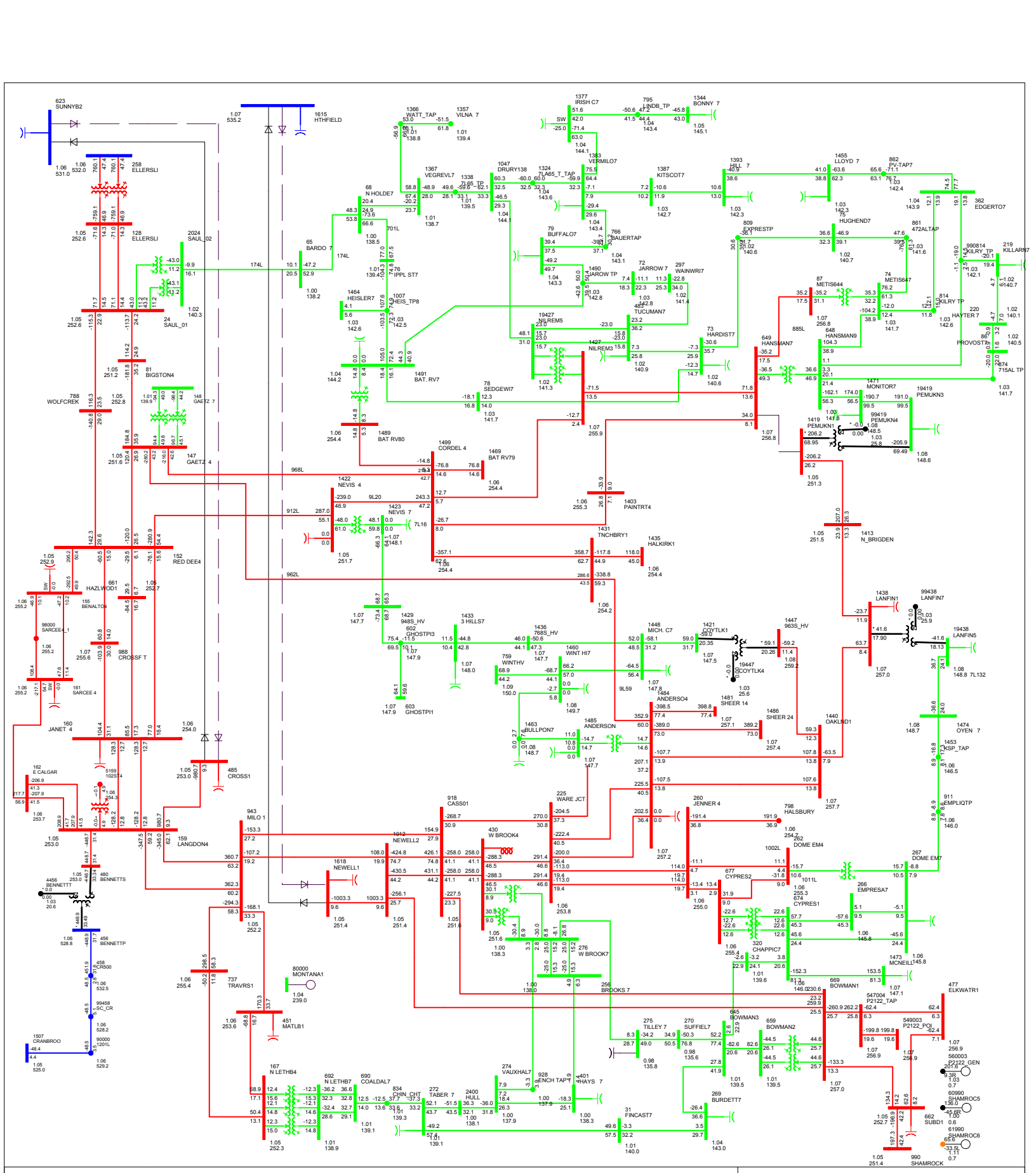
New Generation in Study Area and SW Sub-region  
 South East: 411.6 MW Central East; 513.1 MW South West; 986.2 MW  
 FIG: 9-21 HV-202025P CASE: HV GEN SON 2  
 PROJECT: CRPC (CR-CRR-DPT) CETO OPTION 6  
 CAP: CETO ALT CETO  
 TRM: MAR 09 2020 15:02  
 Contingency: EATL; Trip Action: 174L overload trip, L274 BC 138V TP, L753 overload trip

Branch Loading: >=100.0%  
 kV: <=25.00 <=69.00 <=138.00 <=240.00 <=500.00  
 Bus - Voltage (kVpu)  
 Branch - MW/Loading  
 Equipment - MW/Loading



**P7001 Central East Transfer Out Transmission Development**  
 New Generation in Study Area and SW Sub-region  
 South East: 411.6 MW Central East: 513.1 MW South West: 986.2 MW  
 FIG. 9-22: NR-20205; CASE: HQ\_GEN SON 2  
 PROJECT: CRPC (CR-CRR-CP1), GETO OPTION 6  
 CAP: GETO\_ALT\_0210  
 TRM: MAR 09 2020 14:59  
 Contingency: EATL; Trip Action: 174L: overhead trip, 7L53: overhead trip, L274 BC 138V: Tr, 916: overload, Sarcee bus split

Branch Loading:  $\geq 100.0\%$   
 kV:  $<25,000$   $<69,000$   $<138,000$   $<240,000$   $<500,000$   
 Bus - Voltage (kVpu)  
 Branch - MW/Loading  
 Equipment - MW/Loading

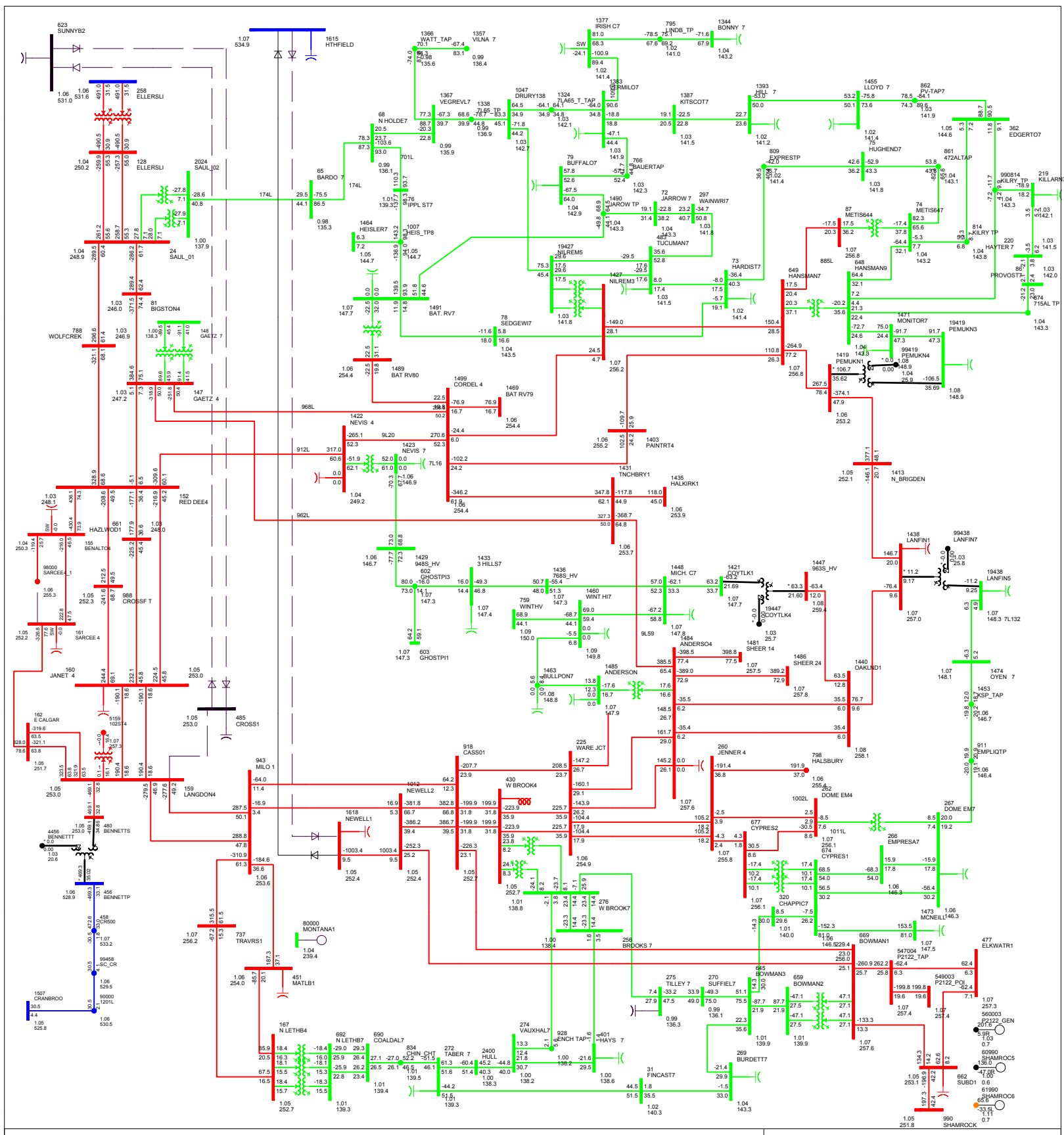


**P7001 Central East Transfer Out Transmission Development**

New Generation in Study Area and SW Sub-region  
 South East: 411.6 MW Central East: 513.1 MW South West: 986.2 MW  
 FIG. 0-23 (R-2020) CASE: HQ\_GEN SON 2  
 PROJECT: CRPC (CR-CRR-OP1), GETO OPTION 6  
 CAD: GETO\_ALT\_0210  
 TRN: MAR 09 2020 14:59  
 Contingency: 96%, Trip Action: None

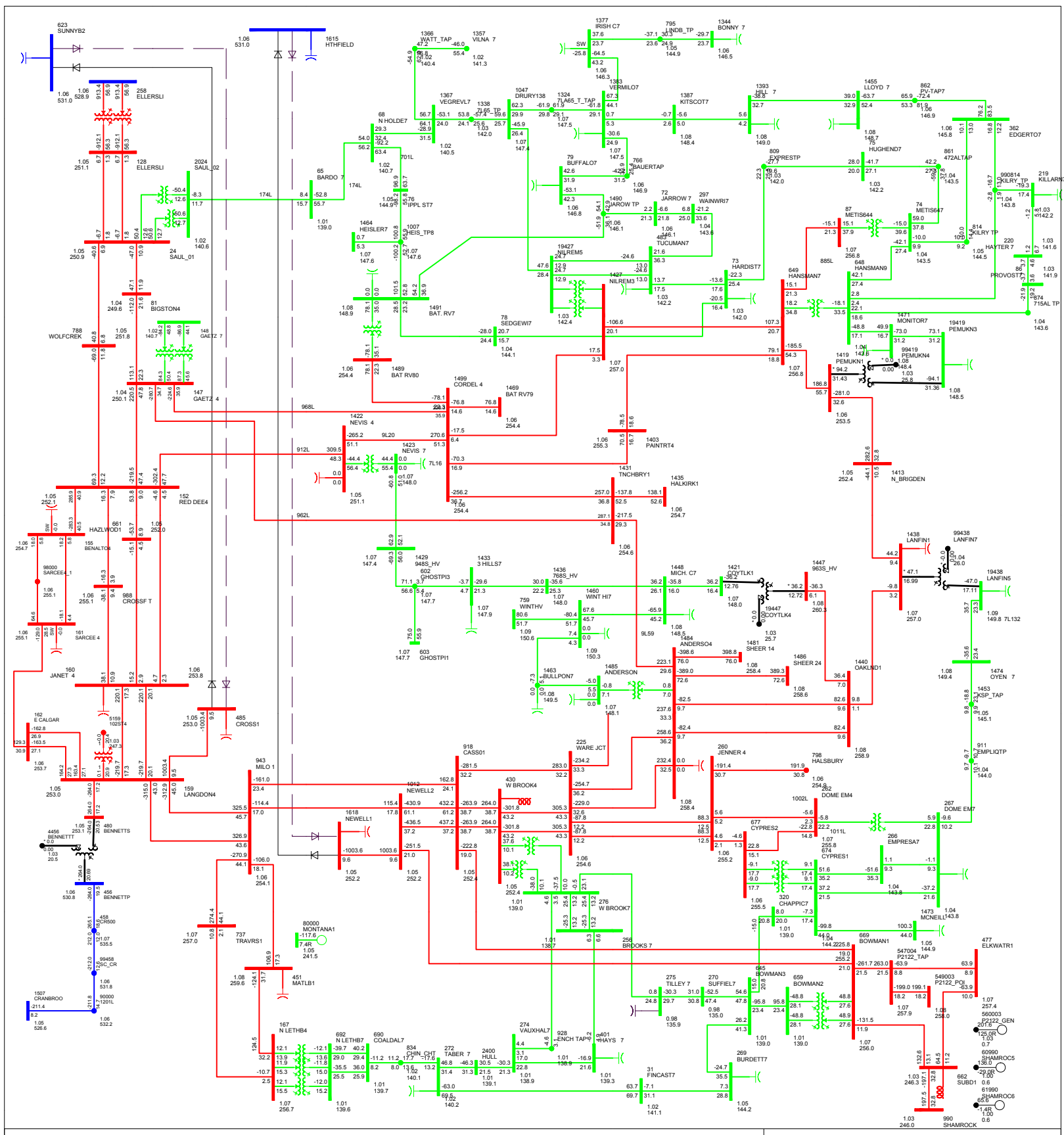
Branch Loading: >=100.0%  
 kV: <=25,000 <=69,000 <=138,000 <=240,000 <=500,000

Bus - Voltage (kVpu)  
 Branch - MW/Loading  
 Equipment - MW/Loading



**P7001 Central East Transfer Out Transmission Development**  
 New Generation in Study Area and SW Sub-region  
 South East: 411.6 MW Central East: 513.1 MW South West: 986.2 MW  
 FIG. B-24. HY-2020S. CASE: HQ GEN SON 2  
 PROJECT: CRPC (CR-CR-DPT), GETO OPTION 6  
 CAP: GETO ALT. 0210  
 DATE: MAR 09 2020 14:59  
 Contingency: WATL; Trip Action: 916L overLoad, Source bus split

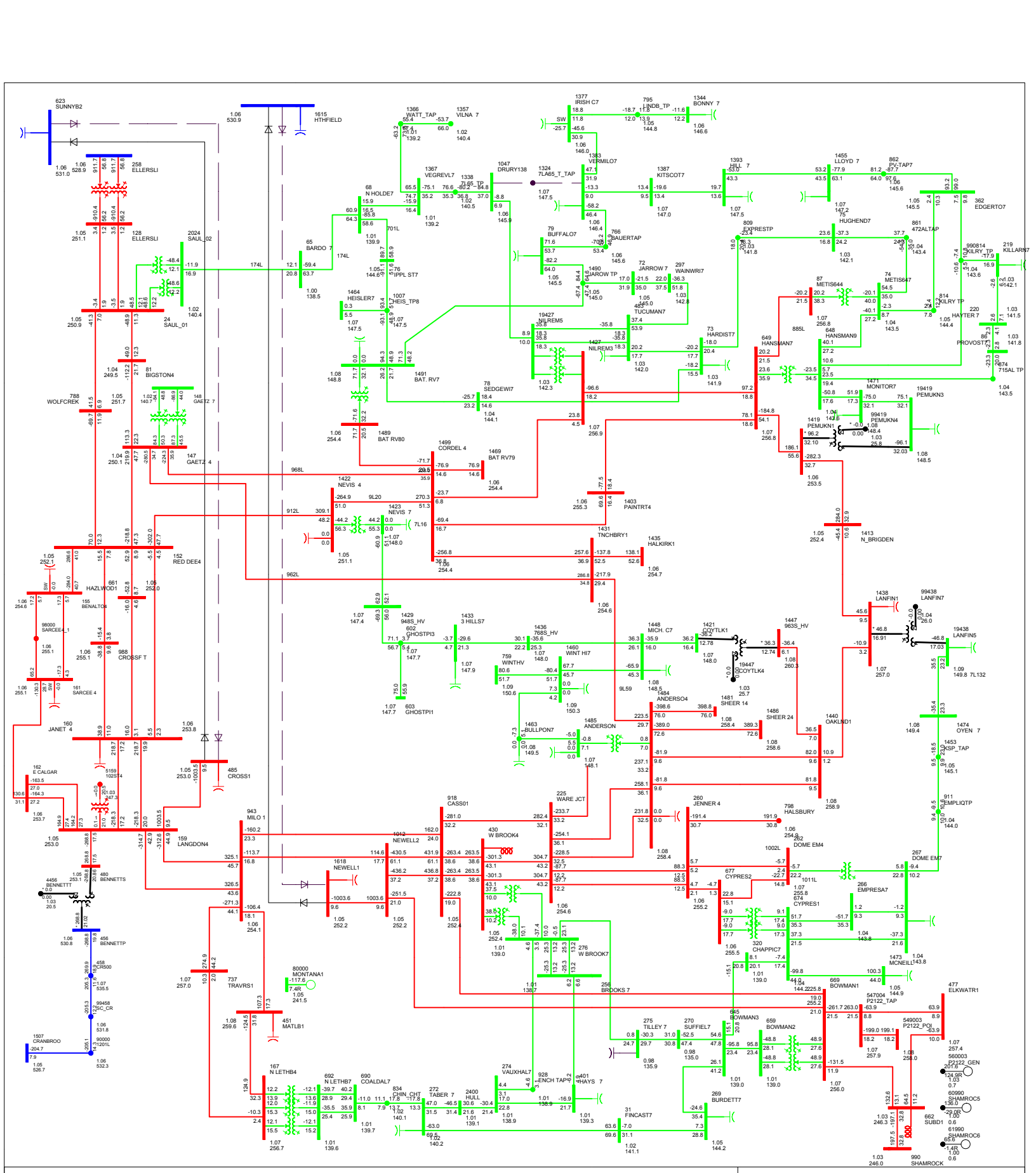
Branch Loading:  $\geq 100.0\%$   
 kV:  $<25.000$   $<69.000$   $<138.000$   $<240.000$   $<500.000$   
 Bus - Voltage (kVpu)  
 Branch - MW/Loading  
 Equipment - MW/Loading



**P7001 Central East Transfer Out Transmission Development**

New Generation in Study Area and SW Sub-region  
 South-East at 111.6 MW Central East; 513.1 MW South West; 986.2 MW  
 File: 0-25\_VR-202003\_VASE\_HB\_GEN\_SON2  
 PROJECT: CRPC (CR-CRR-DPT), GETO OPTION 6  
 CAD: GETO\_ALT\_01010  
 TRN: MAR 09 2020 14:59  
 Contingency: Base, Trip Action: None

Branch Loading: **>=100.0%**  
 kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000  
 Bus - Voltage (kVpu)  
 Branch - MW/Loading  
 Equipment - MW/Loading



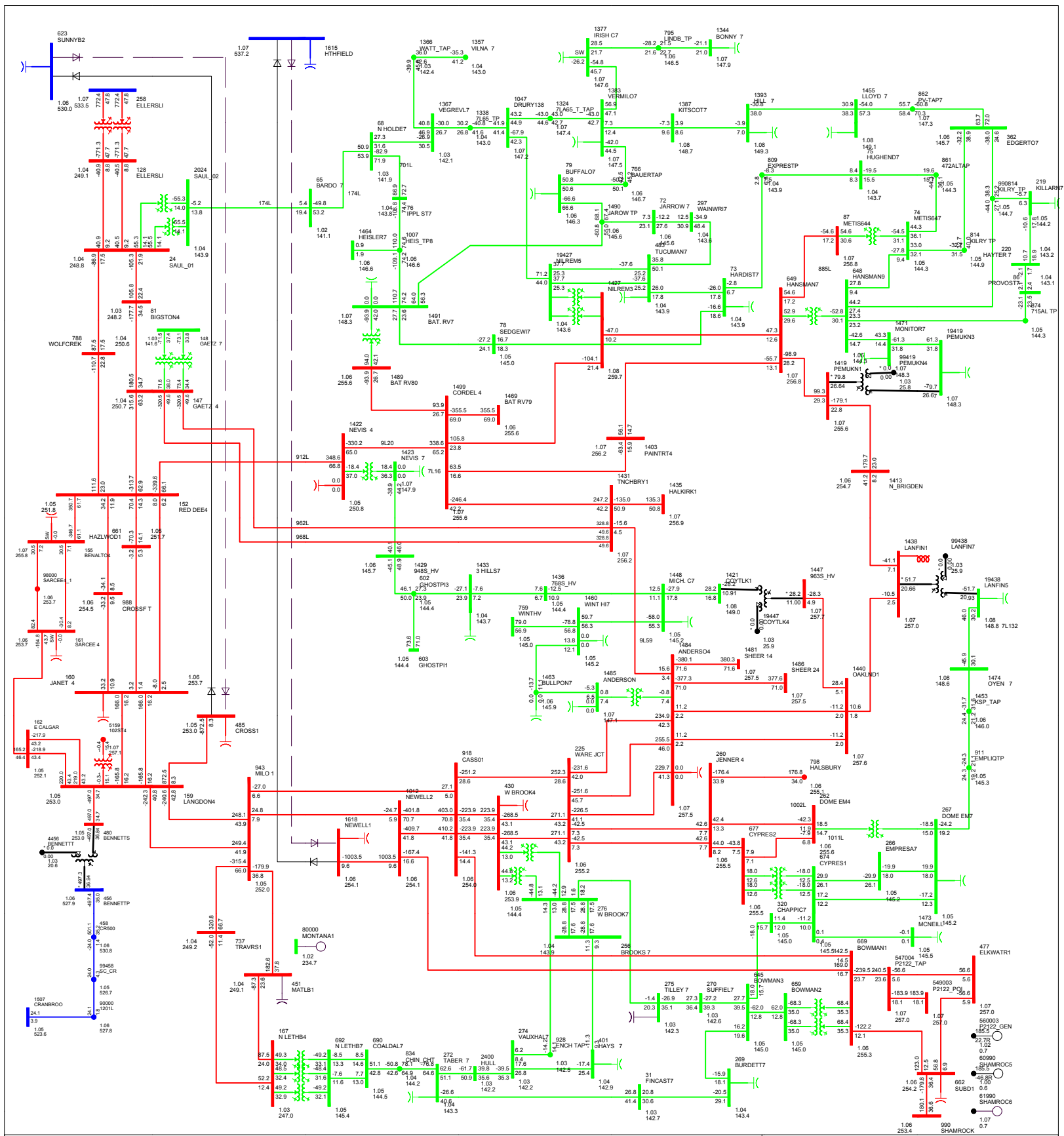
**P7001 Central East Transfer Out Transmission Development**

New Generation in Study Area and SW Sub-region  
 South East: 411.6 MW Central East: 513.1 MW South West: 986.2 MW  
 FIG. 0-36 HV-202003V CASE: HE GEN SCH 2  
 PROJECT: CRPC (CR-CRR OPT), GETO OPTION 6  
 CAP: GETO\_ALT\_0210  
 TRM: MAR 09 2020 15:00  
 Contingency: 7L25; Trip Action: None

Branch Loading: >=100.0%  
 kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000

Bus - Voltage (kVpu)  
 Branch - MW/Loading  
 Equipment - MW/Loading

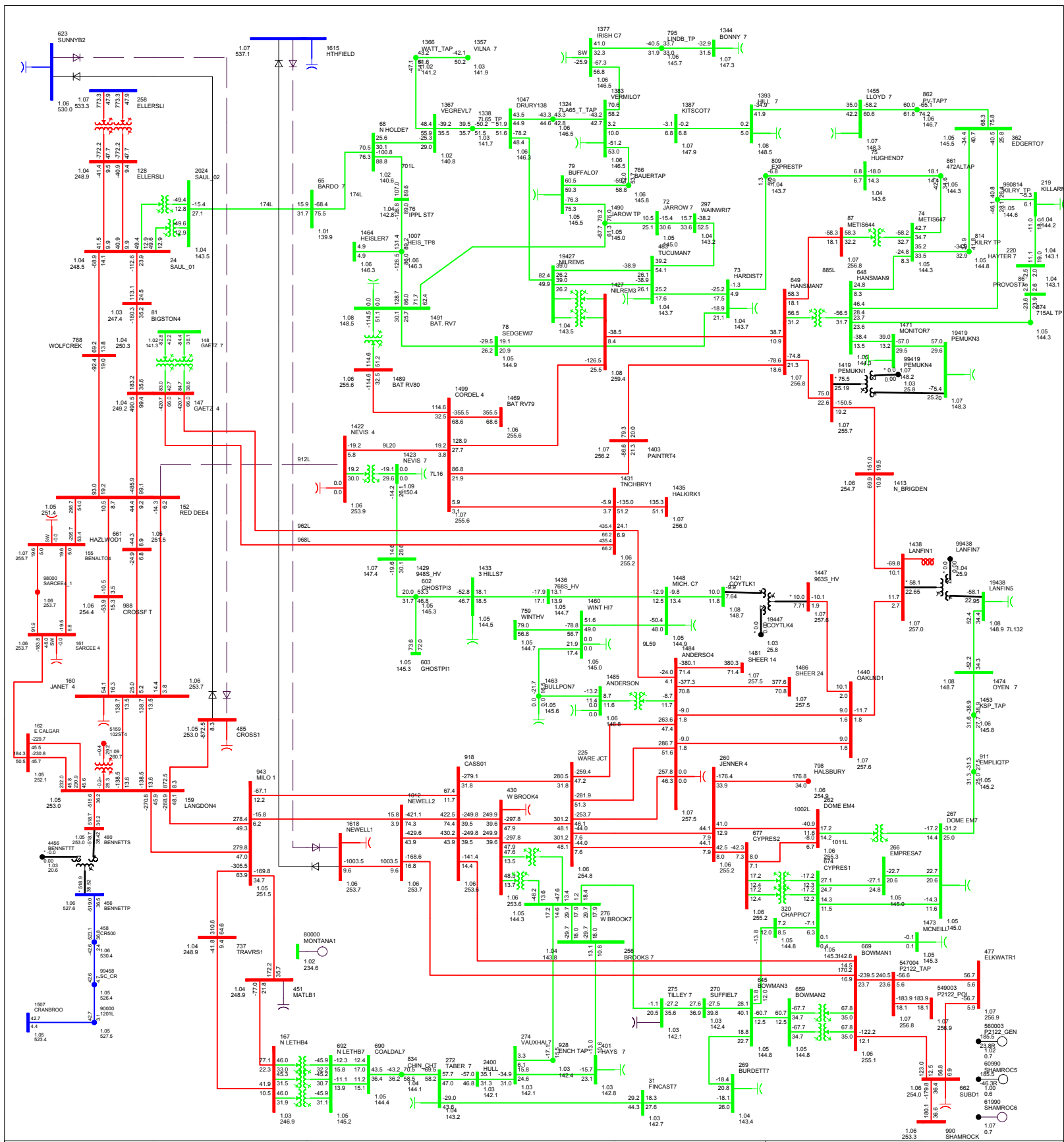




**P7001 Central East Transfer Out Transmission Development**  
 New Generation in Study Area and SW Sub-region  
 South East: 114.5 MW Central East: 780.0 MW South West: 913.4 MW  
 FIG. 9-27\_VR2023SP\_CASE\_H2\_GEN\_SCN 2  
 PROJECT: CPCC (CA-CRR OPT), CS TO STAGE1&2  
 CAP. CETO ALT. PREP  
 FILE: MW-02-2020\_1502  
 Contingency: Base, Trip Action: L274 BC 138kV Tie

Branch Loading: **>=100.0%**  
 kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000  
 Bus - Voltage (kV/pu)  
 Branch - MW/Loading  
 Equipment - MW/Loading



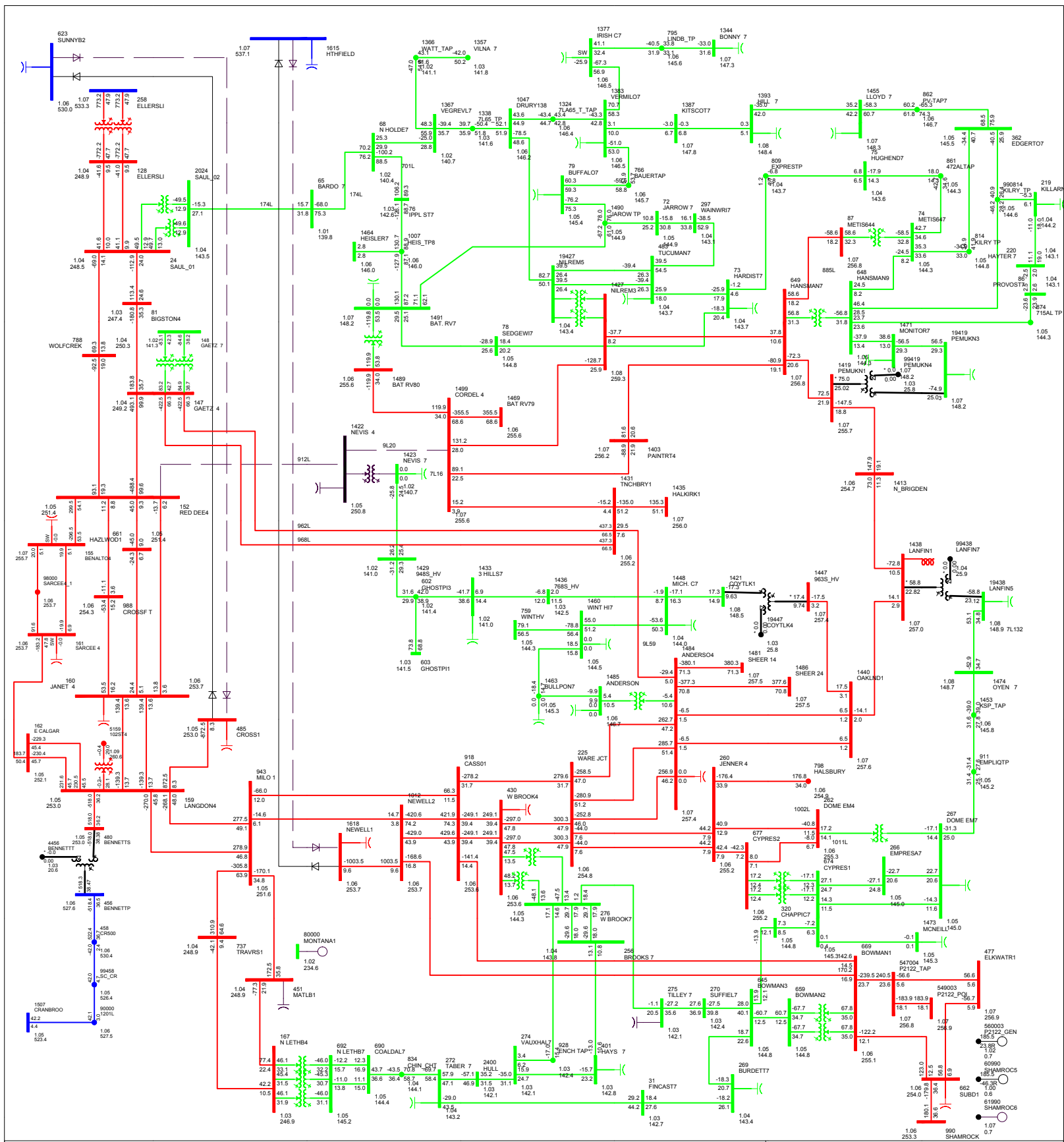


**P7001 Central East Transfer Out Transmission Development**  
 New Generation in Study Area and SW Sub-region  
 South East: 114.5 MW Central East: 780.0 MW South West: 913.4 MW

FIG. 9-28: VYR2023SP\_CASE\_H2\_GEN\_SCN 2  
 PROJECT: CPCC (CA-CR) OPTI\_CASE10\_STAGE1A2  
 CAP: CETO\_ALT\_PREF  
 FILE: MWV0200\_1502  
 Contingency: 912L, Trip Action: L274 BC 138kV Tie

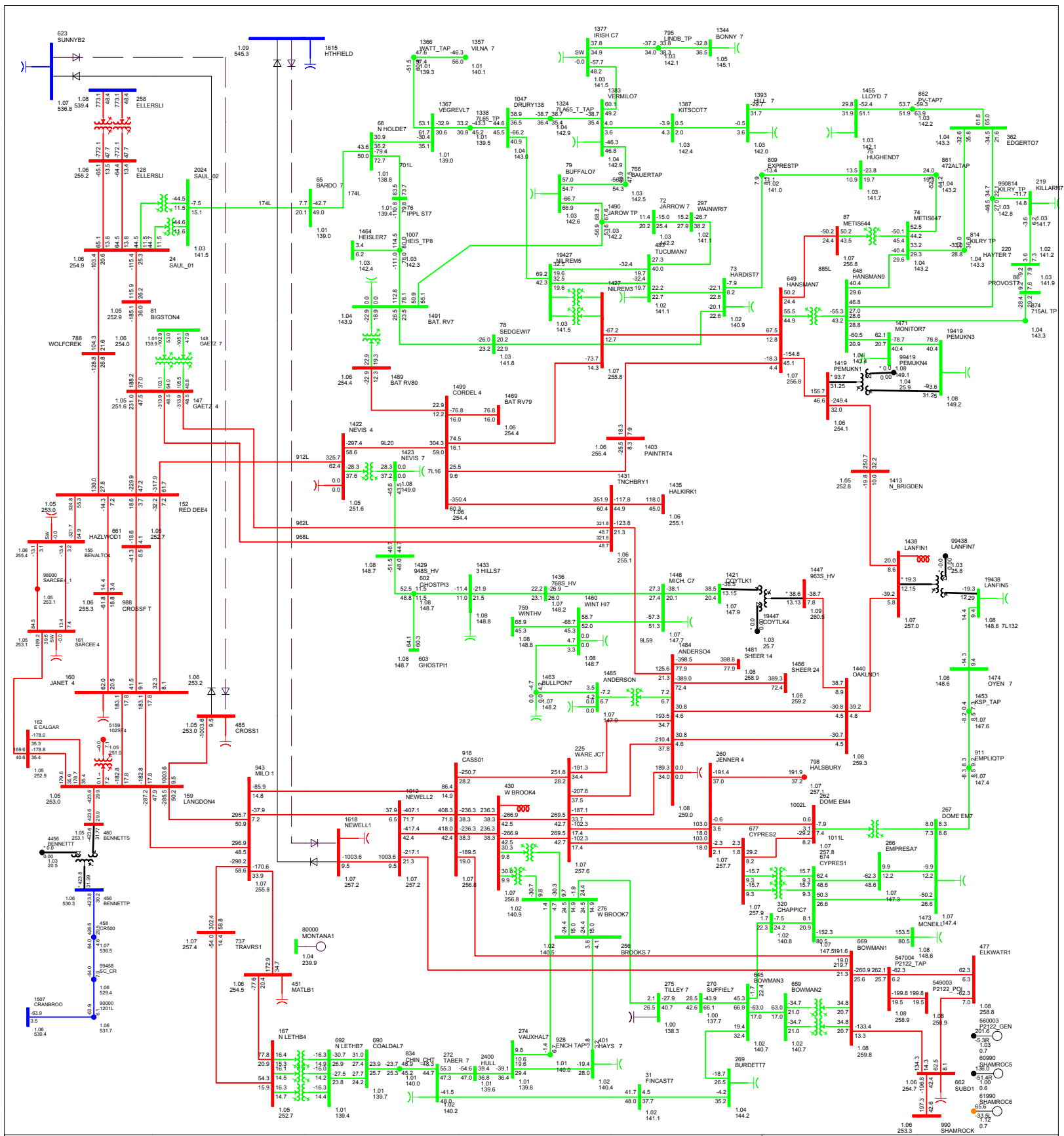
Branch Loading: >=100.0%  
 kV: <=250.0 <=9.00 <=138.00 <=240.00 <=500.00

Bus - Voltage (kV/pu)  
 Branch - MW/Loading  
 Equipment - MW/Loading



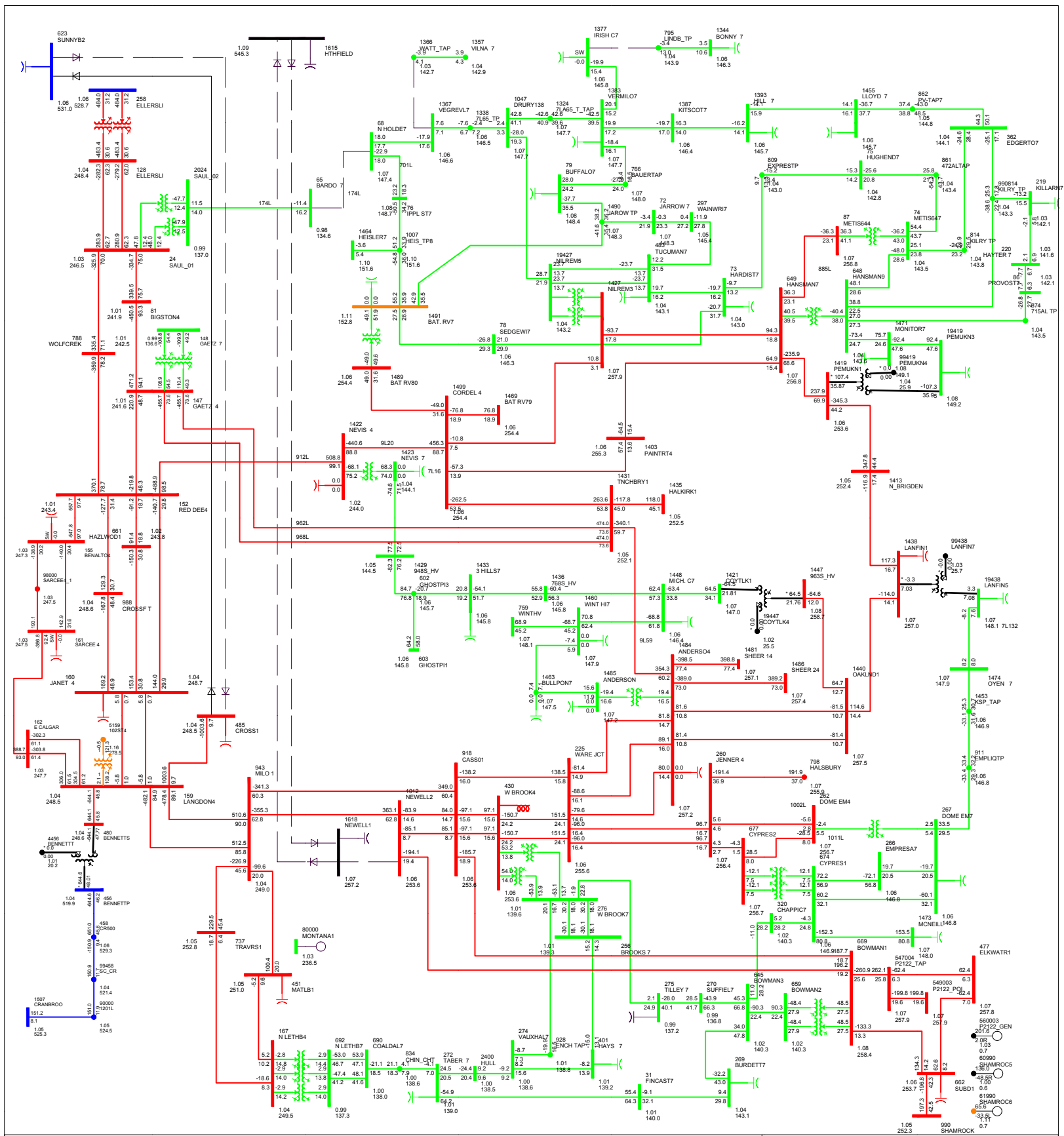
**P7001 Central East Transfer Out Transmission Development**  
 New Generation in Study Area and SW Sub-region  
 South East: 114.5 MW Central East: 780.0 MW South West: 913.4 MW  
 FIG. 9-29\_VR2023SP\_CASE\_H2\_GEN\_SCN 2  
 PROJECT: CPCC (CA-CR) (DPL) CETO STAGE1&2  
 CAP. CETO ALT. PREP  
 FILE: MW09-2020\_1502  
 Contingency: 7665901T; Trip Action: L274 BC 138kV Tie

Branch Loading: >=100.0%  
 kV: <=250.0 <=138.0 <=90.0 <=240.0 <=500.0  
 Bus - Voltage (kV/pu)  
 Branch - MW/Loading  
 Equipment - MW/Loading



**P7001 Central East Transfer Out Transmission Development**  
 New Generation in Study Area and SW Sub-region  
 South East: 114.5 MW Central East: 780.0 MW South West: 913.4 MW  
 FIG. 9-30\_YR2023S\_CASE\_HR\_GEN\_SGN2  
 PROJECT: CPCC (C/CORR/DPL) CETO STAGE1&2  
 CAP: CETO ALT\_PREF  
 FILE: MW06\_2020\_1502  
 Contingency: Base, Trip Action: None

Branch Loading: >=100.0%  
 kV: <=25.00 <=69.00 <=138.00 <=240.00 <=500.00  
 Bus - Voltage (kV/pu)  
 Branch - MW/Loading  
 Equipment - MW/Loading

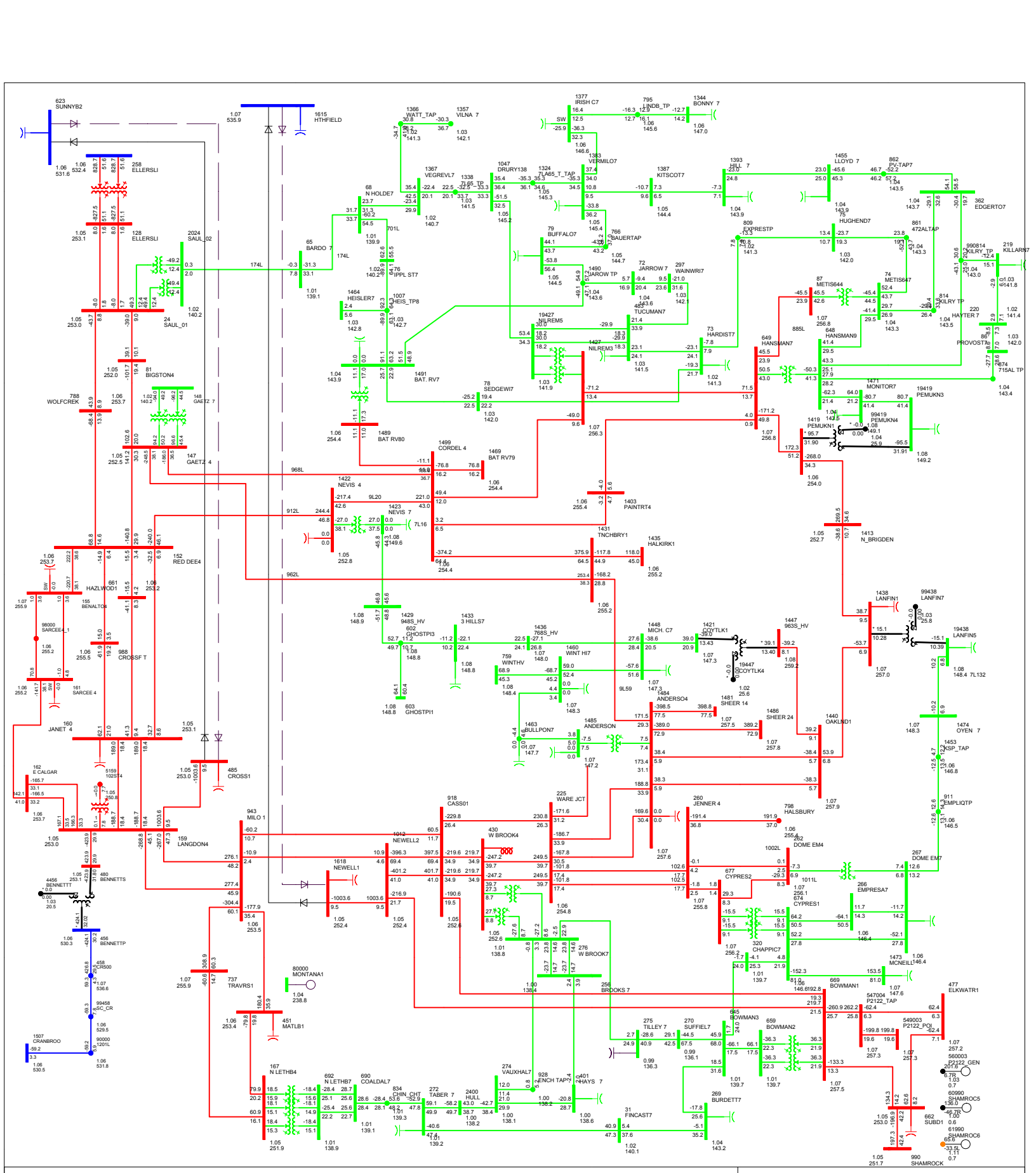


**P7001 Central East Transfer Out Transmission Development**

New Generation in Study Area and SW Sub-region  
 South East: 114.5 MW Central East: 780.0 MW South West: 913.4 MW  
 FIG. 9-31\_VR2023S\_CASE-HR\_GEN\_SON2  
 PROJECT: CPCC (AL-CORR-UPPL) SETO STAGE1&2  
 CAP. CETO ALT. PREP  
 FILE: MWK02020\_1503  
 Contingency: EATL; Trip Action: 174L overload trip, L274 BC 138V Tr, L753 overload trip

Branch Loading: >=100.0%  
 kV: <=25.00 <=69.00 <=138.00 <=240.00 <=500.00

Bus - Voltage (kV/pu)  
 Branch - MW/Loading  
 Equipment - MW%/Loading

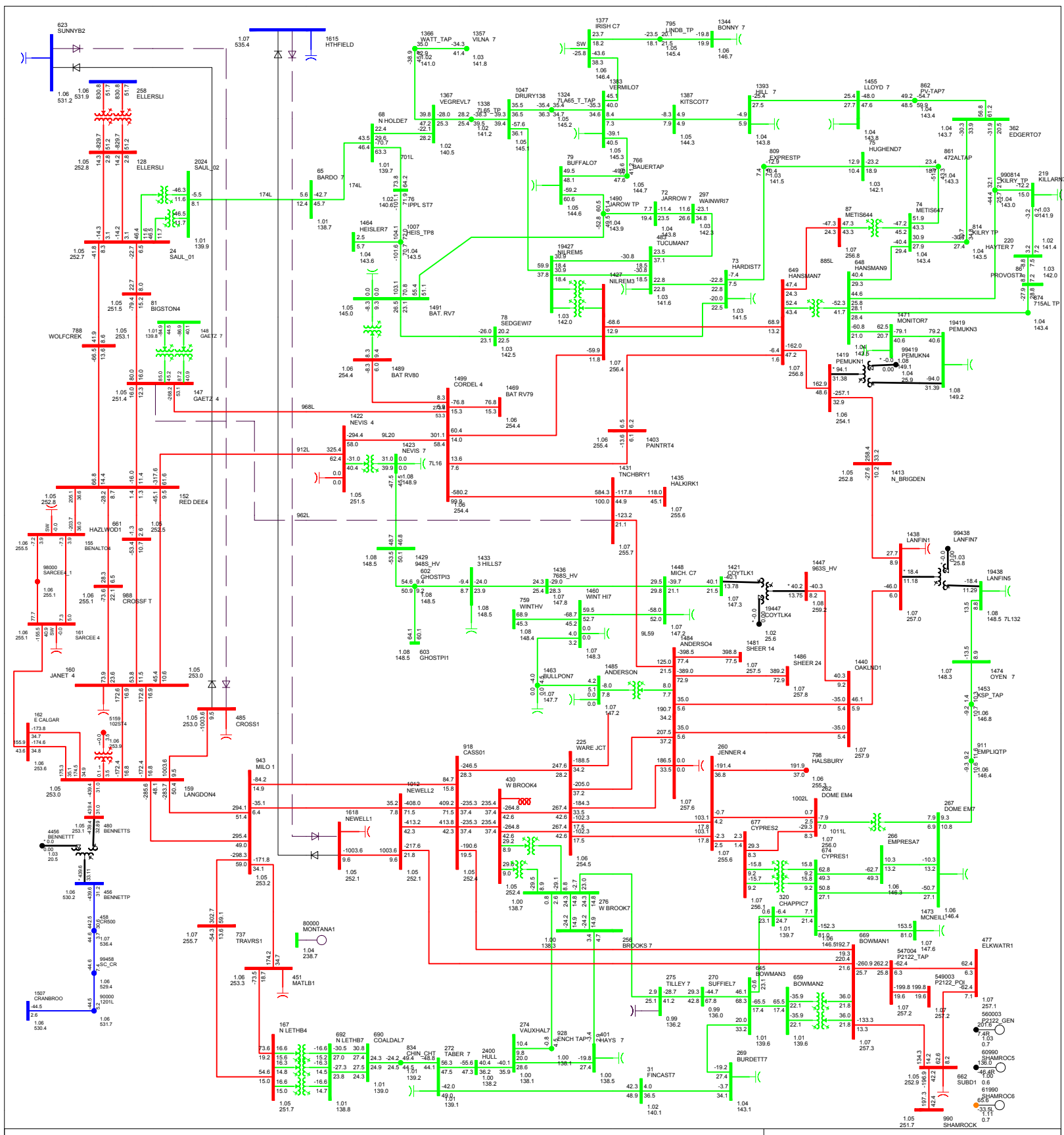


**P7001 Central East Transfer Out Substation Development**

New Generation in Study Area and SW Sub-region  
 South East: 118.8 MW Central East; 365.0 MW South West; 918.8 MW  
 FIG. 0-35: HV-2020S; CASE: H0\_GEN SON 2  
 PROJECT: CRPC (CR-CRR OPT), GETO OPTION 6  
 CAP: GETO ALT\_0216  
 TRM: MAR 09 2020 15:03  
 Contingency: Base; Trip Action: None

Branch Loading: >=100.0%  
 kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000

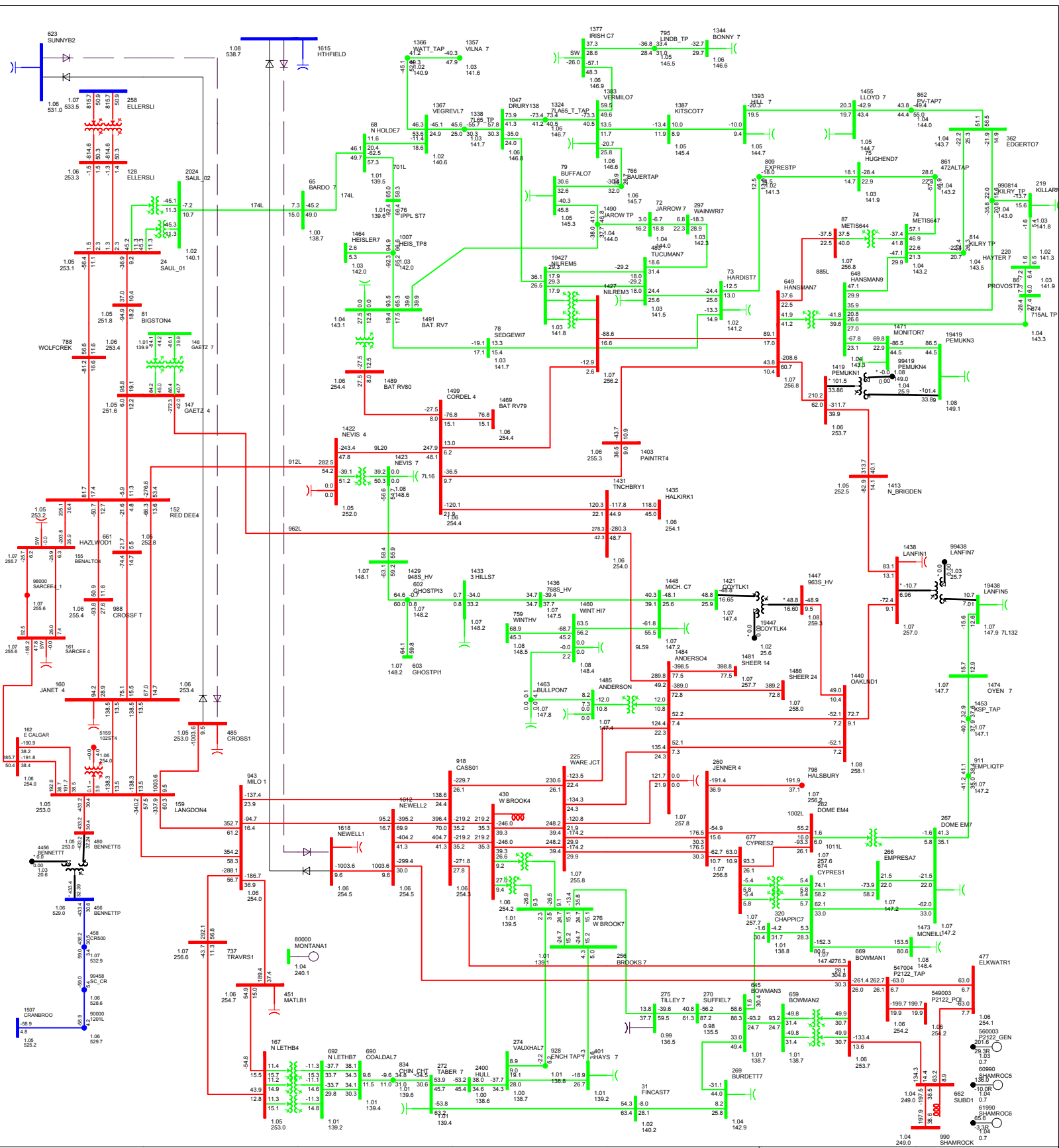
Bus - Voltage (kVpu)  
 Branch - MW/Loading  
 Equipment - MW/Loading



**P7001 Central East Transfer Out Transmission Development**  
 New Generation in Study Area and SW Sub-region  
 South East: 118.8 MW Central East: 365.0 MW South West: 918.8 MW  
 FIG: 0-33 HV-2020-03, CASE: HQ GEN SON 2  
 PROJECT: CRPC (CR-CRR OPT), GETO OPTION 6  
 CAP: GETO - 1.1, GETO  
 TRU: MAR 09 2020 15:02  
 Contingency: 962L\_RL962, Trip Action: None

Branch Loading: >=100.0%  
 kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000  
 Bus - Voltage (kVpu)  
 Branch - MW/Loading  
 Equipment - MW/Loading

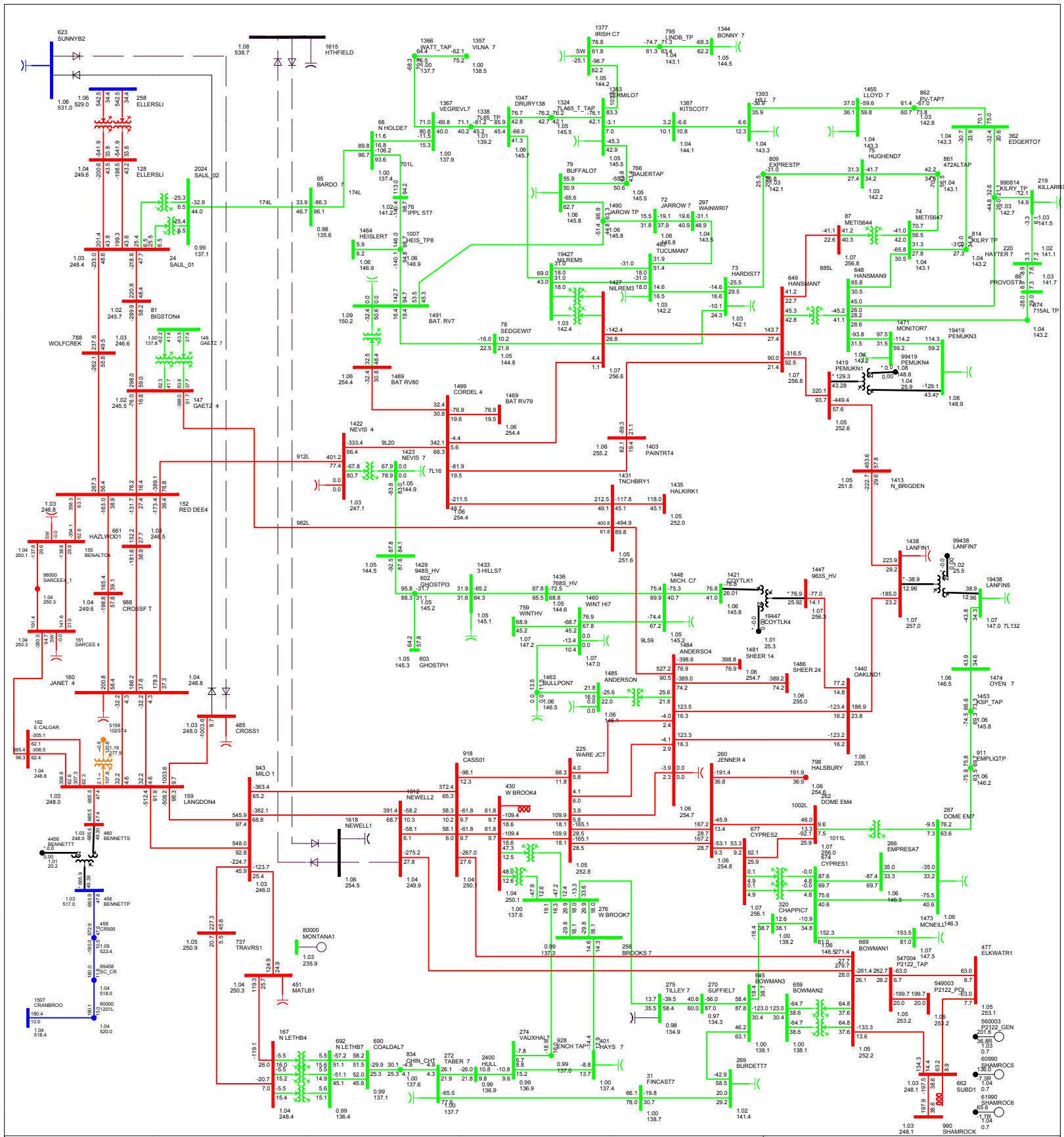




**P7001 Central East Transfer Out Transmission Development**  
 New Generation in Study Area and SW Sub-region  
 South East: 496.4 MW Central East: 114.6 MW South West: 940.0 MW  
 FIG. 9-34\_VR2023E\_CASE-HR\_GEN\_SON2  
 PROJECT: CPCC (CAG-COR-017), CETO STAGE1  
 CAP: CETO\_ALT\_PREF\_C  
 FILE: MW06\_2020\_1420  
 Contingency: Base, Trip Action: None

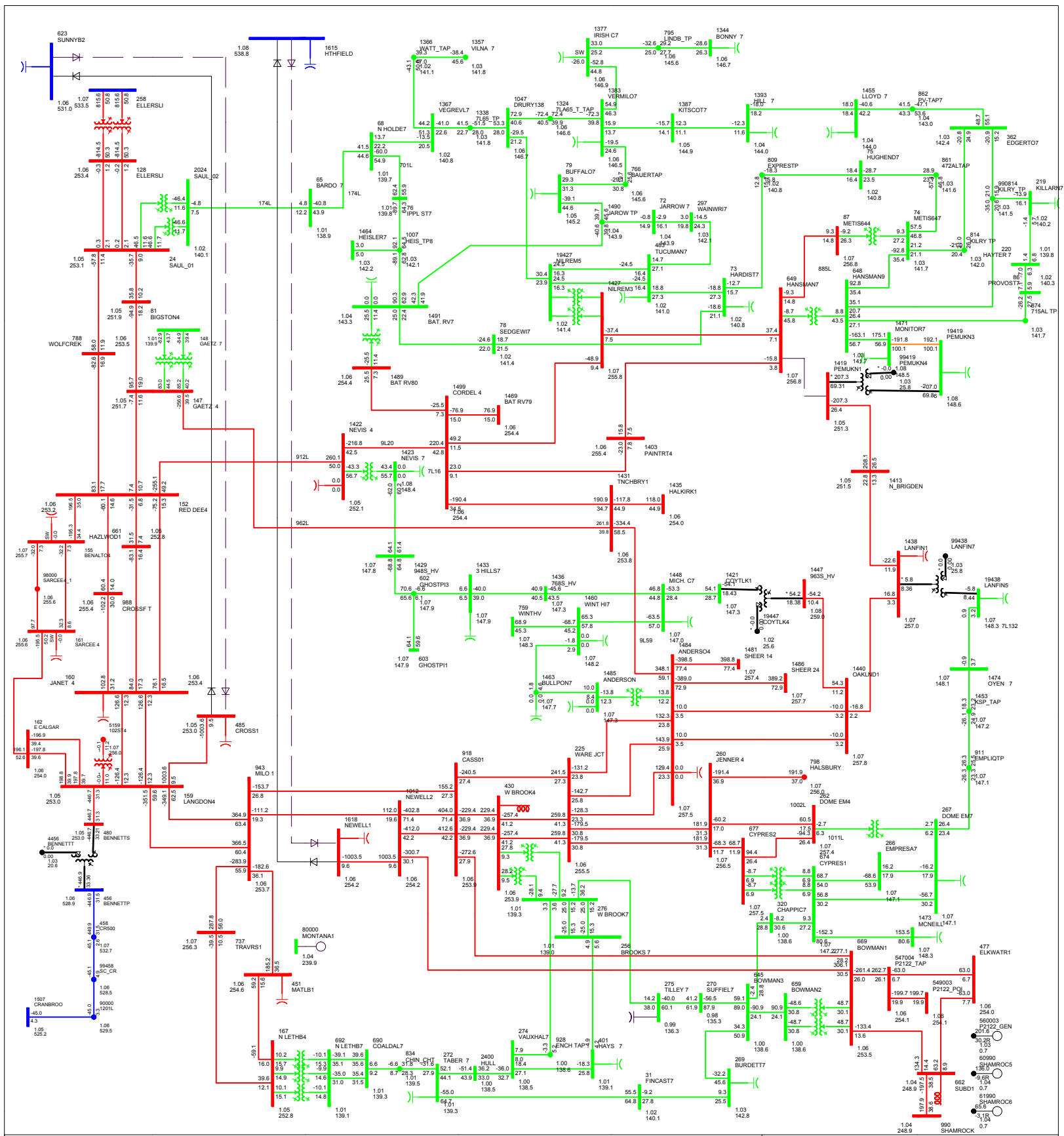
Branch Loading: >=100.0%  
 kV: <=25.000 <=99.000 <=138.000 <=240.000 <=500.000  
 Bus - Voltage (kV/pu)  
 Branch - MW/Loading  
 Equipment - MW/Loading





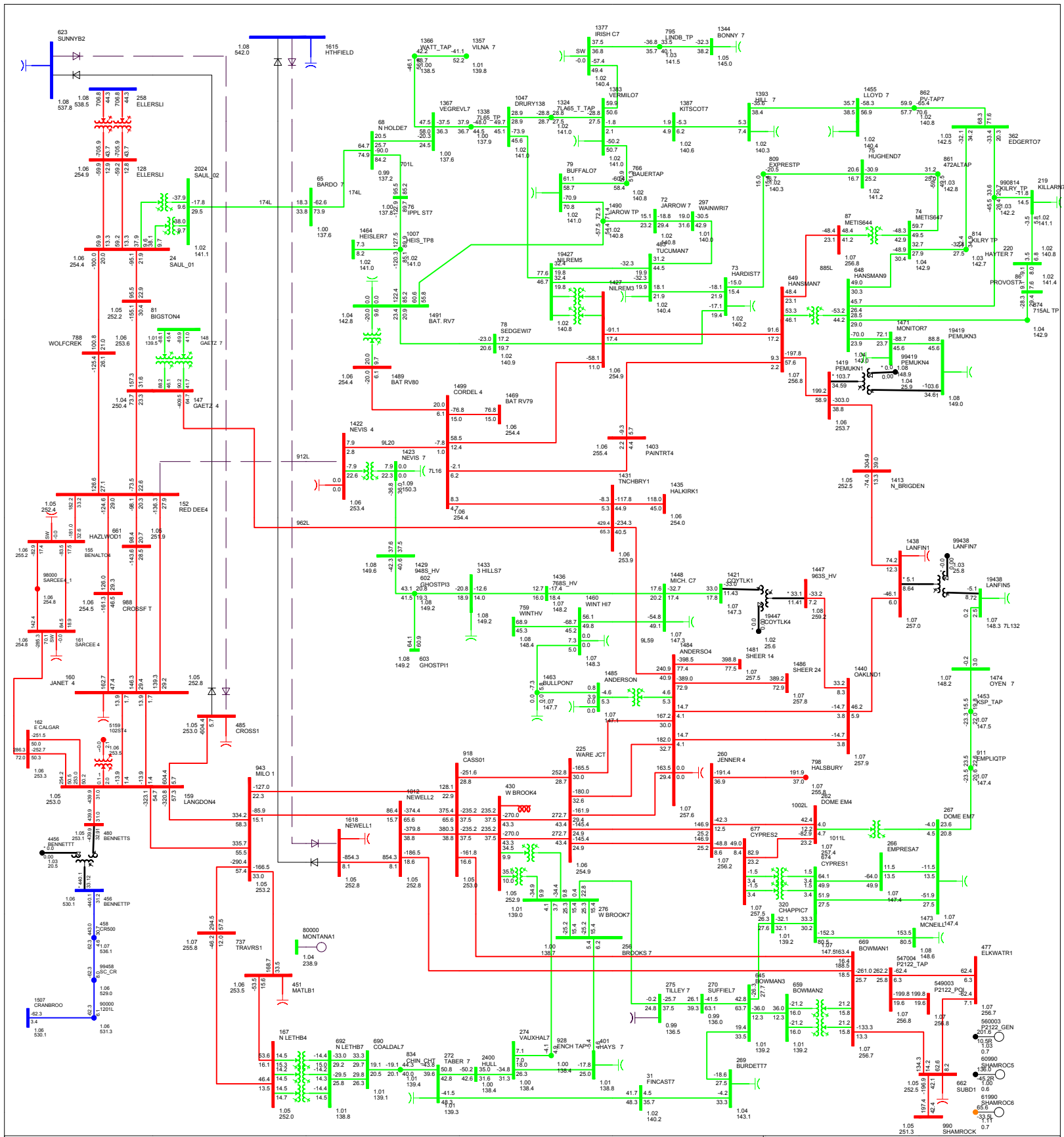
**P7001 Central East Transfer Out Transmission Development**  
 New Generation in Study Area and SW Sub-region  
 South East: 496.4 MW Central East: 114.6 MW South West: 940.0 MW  
 FIG. 9-35-VR-2023-02- CASE: HSE GEN SON 2  
 PROJECT: CPCC (C/CORR OPT), CETO STAGE 1  
 CAP: CETO ALT\_PREF\_C  
 FILE: MW09-2023-14-03  
 Contingency: EATL; Trip Action: L274 BC 1388V Tie

Branch Loading: >=100.0%  
 kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000  
 Bus - Voltage (kV/pu)  
 Branch - MW/Loading  
 Equipment - MW/Loading



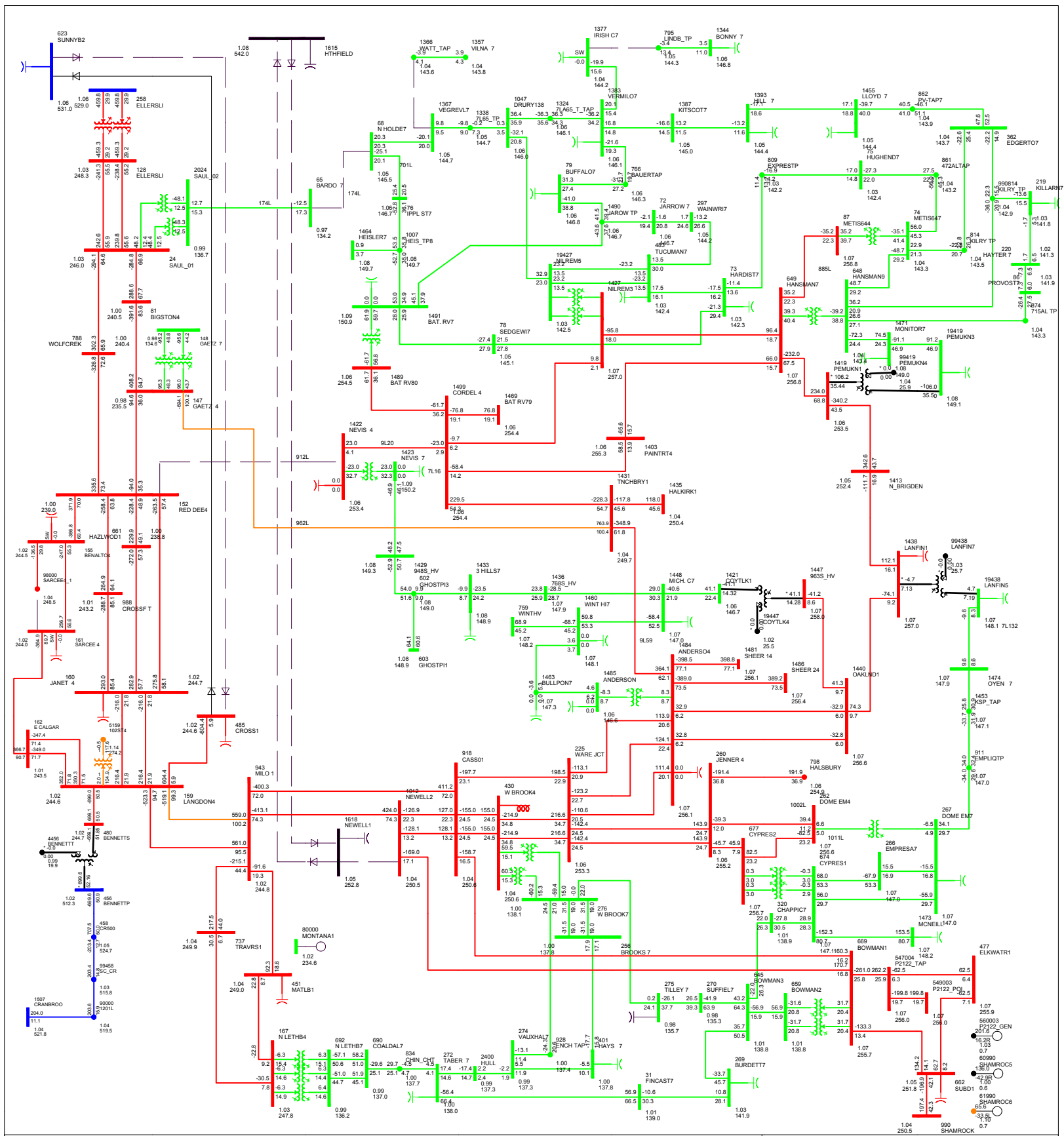
**P7001 Central East Transfer Out Transmission Development**  
 New Generation in Study Area and SW Sub-region  
 South East: 496.4 MW Central East: 114.6 MW South West: 940.0 MW  
 FIG. 9-36\_VR2023E\_CASR\_HR\_GEN\_SON 2  
 PROJECT: CRPC (CAG-CROR-UPPL) CETO STAGE1  
 CAP: CETO\_ALT\_PREF\_C  
 FILE: MW09\_2020\_1423  
 Contingency: 966L, Trip Action: None

Branch Loading: >=100.0%  
 kV: <=250.0 <=90.0 <=138.0 <=240.0 <=500.0  
 Bus - Voltage (kV/pu)  
 Branch - MW/Loading  
 Equipment - MW%/Loading



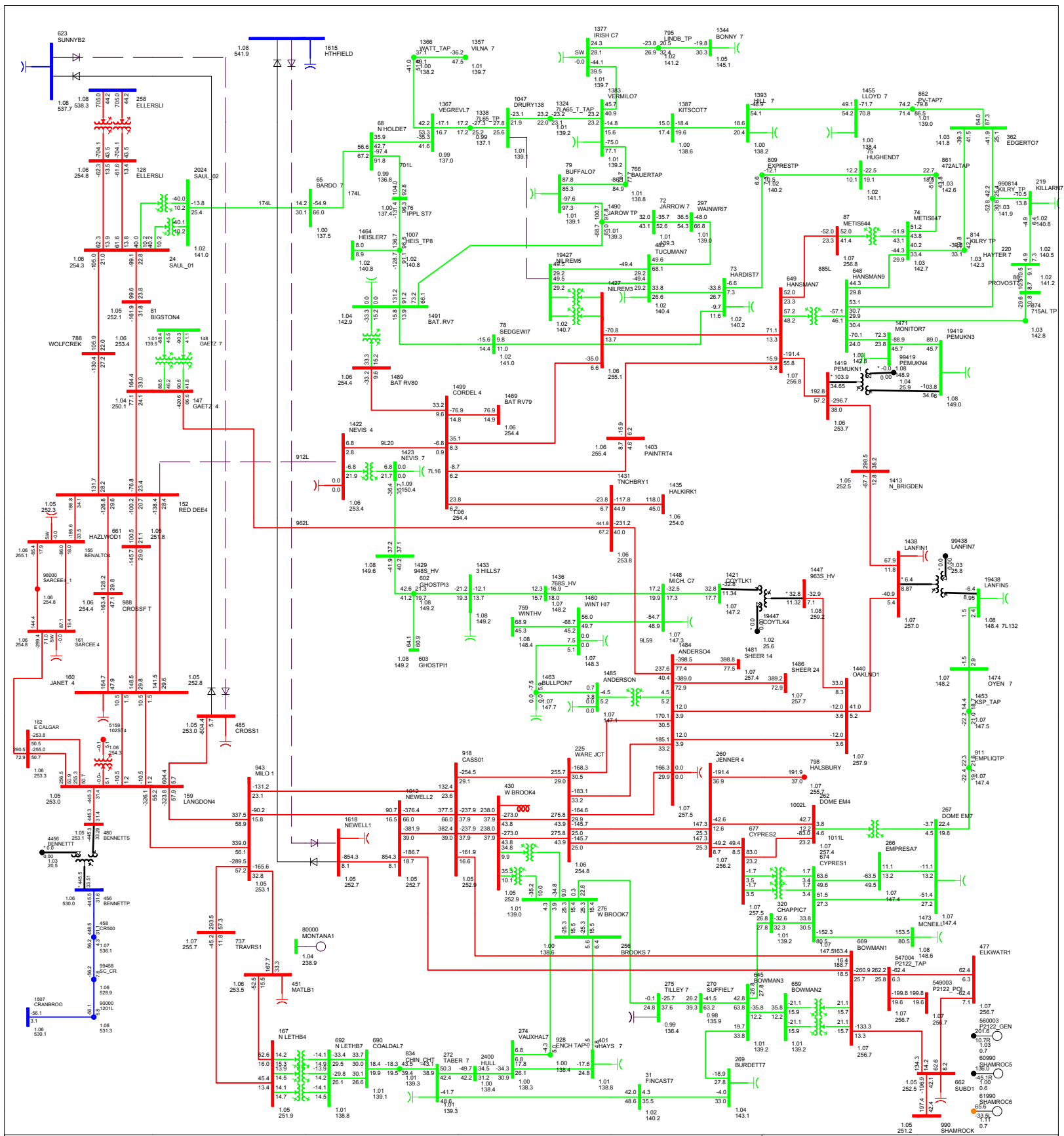
**P7001 Central East Transfer Out Transmission Development**  
 New Generation in Study Area and SW Sub-region  
 South East: 190.8 MW Central East: 121.2 MW South West: 982.1 MW  
 FIG. 9-37\_YR2025\_CASR\_HR\_GEN\_SCN 2  
 PROJECT: CPCC (CA-CORR-UPFL) CETO OPTION 3  
 CAP: CETO ALT #12  
 FILE: MW05\_2020\_REV33  
 Contingency: Base, Trip Action: None

Branch Loading: >=100.0%  
 kV: <=250.0 <=138.0 <=138.0 <=240.0 <=500.0  
 Bus - Voltage (kV/pu) Branch - MW/Loading Equipment - MW/Loading



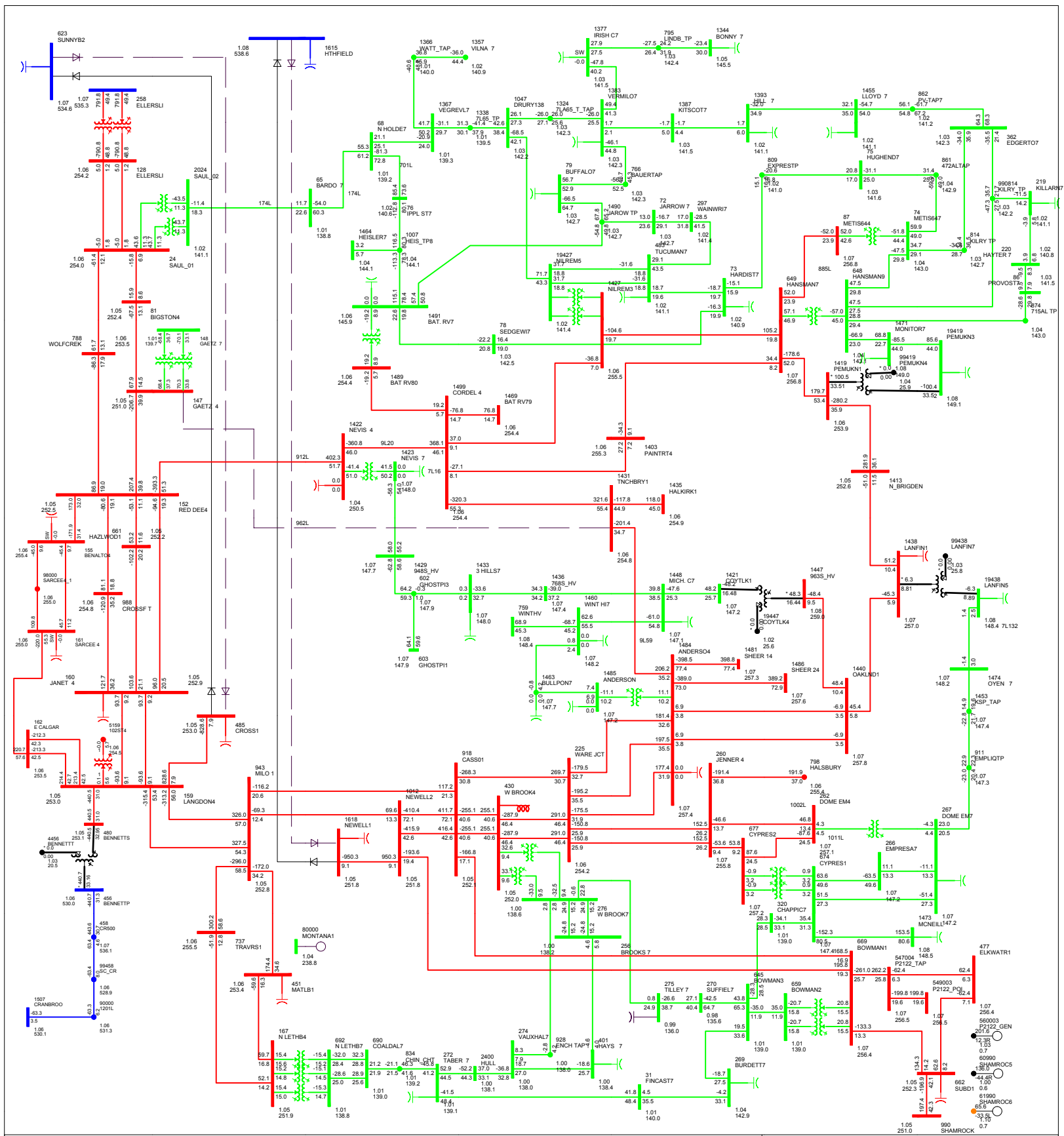
**P7001 Central East Transfer Out Transmission Development**  
 New Generation in Study Area and SW Sub-region  
 South East: 190.8 MW Central East: 121.2 MW South West: 982.1 MW  
 FIG. 9-38 - YR2022S, CASE-HR, GEN SCH 2  
 PROJECT: CPEC (CA-CORR-DPL), CETO OPT10N 3  
 CAP: CETO ALT 512  
 REV: APR 20 2022 10:28  
 Contingency: EATL; Trip Action: 174L overload trip, L274 BC 138kV TL, 916L, overload, Sarcee bus split, L512 overload trip

Branch Loading: >=100.0%  
 kV: <=250.0 <=69.00 <=138.00 <=240.00 <=500.00  
 Bus - Voltage (kV/pu)  
 Branch - MW/Loading  
 Equipment - MW/Loading



**P7001 Central East Transfer Out Transmission Development**  
 New Generation in Study Area and SW Sub-region  
 South East: 190.8 MW Central East: 121.2 MW South West: 982.1 MW  
 FIG. 9-39-IR-2023S; CASE: H8; GEN: SCN 2  
 PROJECT: CRPC (CR-CROR-DPL); CETO: OPTION 3  
 CAP: CETO\_ALT\_512  
 FILE: MW09-2020\_1E-53  
 Contingency: 7L23S; Trip Action: None

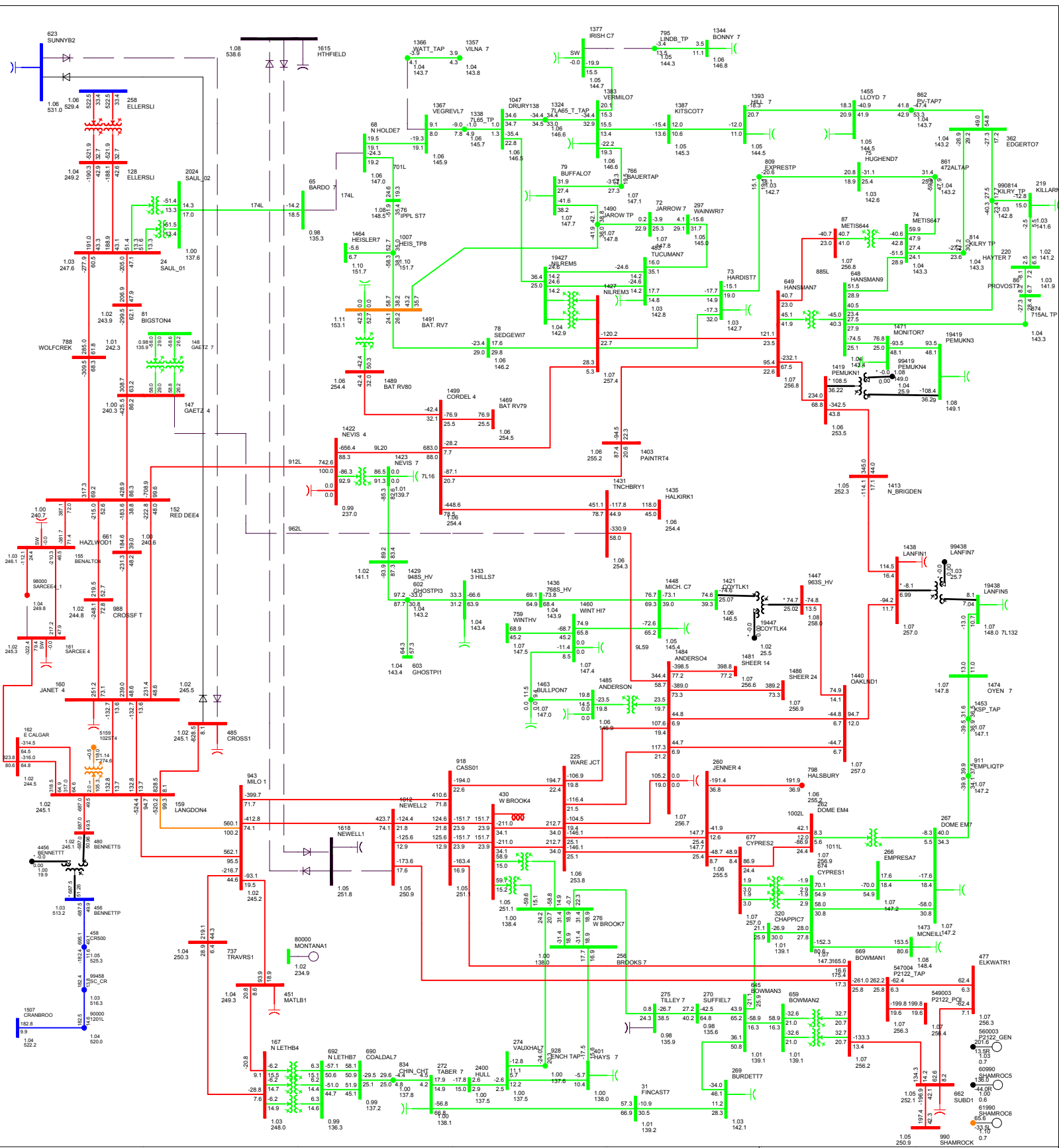
Branch Loading: >=100.0%  
 kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000  
 Bus - Voltage (kV/pu) Branch - MW/Loading Equipment - MW/Loading



**P7001 Central East Transfer Out Transmission Development**  
 New Generation in Study Area and SW Sub-region  
 South East: 245.6 MW Central East: 86.5 MW South West: 979.9 MW  
 FIG. 9-40\_VR-2023S\_CASR\_HR\_GEN SCH 2  
 PROJECT: CRIC (CIC-CROR-UPFL) CETO OPTION 3  
 CAP. CETO ALT #12  
 FILE: MW-02-2020\_1E-53  
 Contingency: Base, Trip Action: None

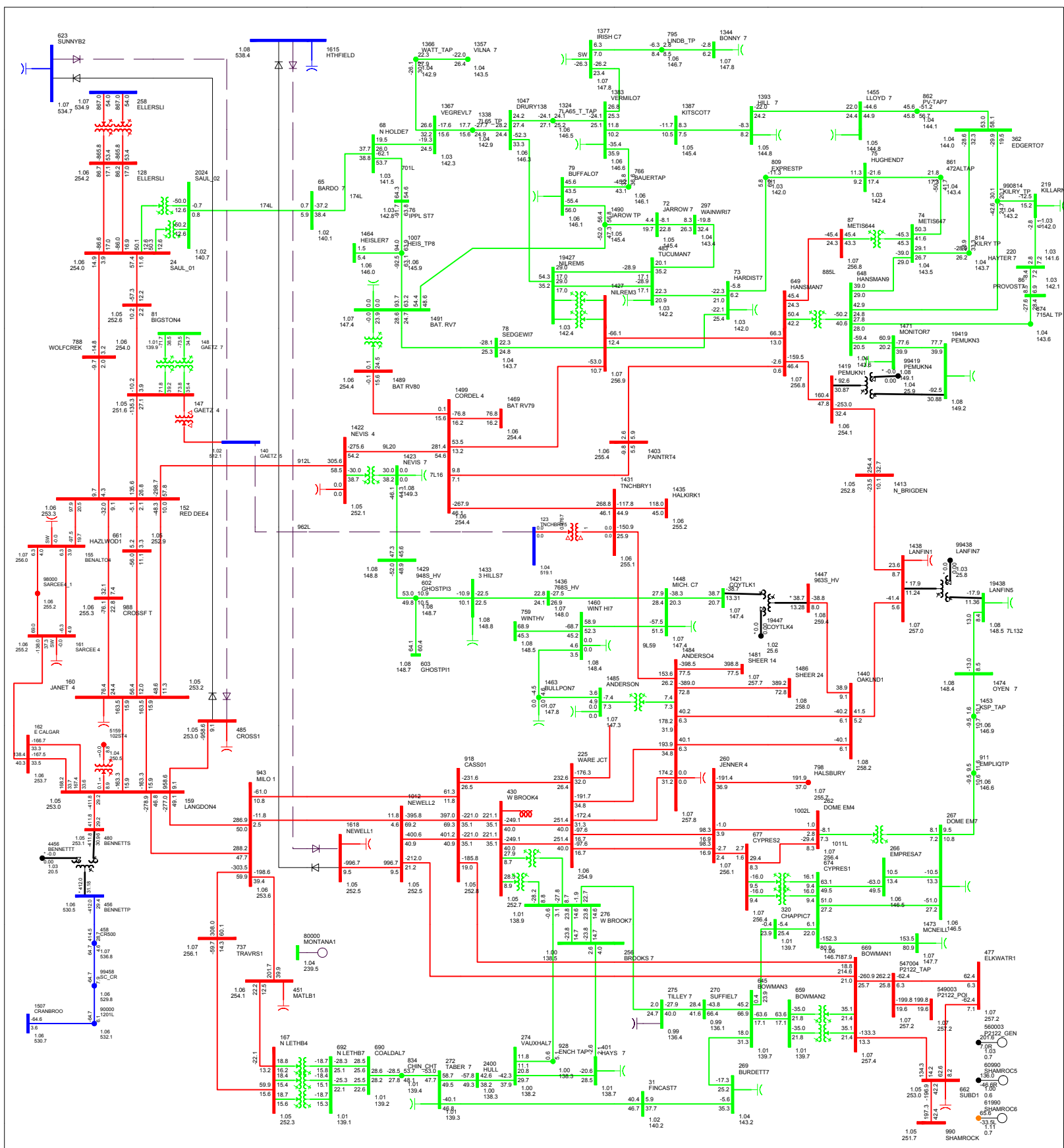
Branch Loading: >=100.0%  
 kV: <=25.00 <=69.00 <=138.00 <=240.00 <=500.00  
 Bus - Voltage (kV/pu)  
 Branch - MW/Loading  
 Equipment - MW/Loading





**P7001 Central East Transfer Out Transmission Development**  
 New Generation in Study Area and SW Sub-region  
 South East: 245.6 MW Central East: 86.5 MW South West: 979.9 MW  
 FIG. 9-41\_VR2023S\_CASE-HR\_GEN-SCN 2  
 PROJECT: CPSC (C-GR-CR-UPFL) SETO OPTION 3  
 CAP: CETO ALT #12  
 FILE: MWK-0-2020-1E-03  
 Contingency: EATL; Trip Action: 174L overload trip, L274 BC 138V TP, 916L overload, Sarcee bus split, 715L overload trip

Branch Loading: >=100.0%  
 kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000  
 Bus - Voltage (kV/pu)  
 Branch - MW/Loading  
 Equipment - MW%/Loading

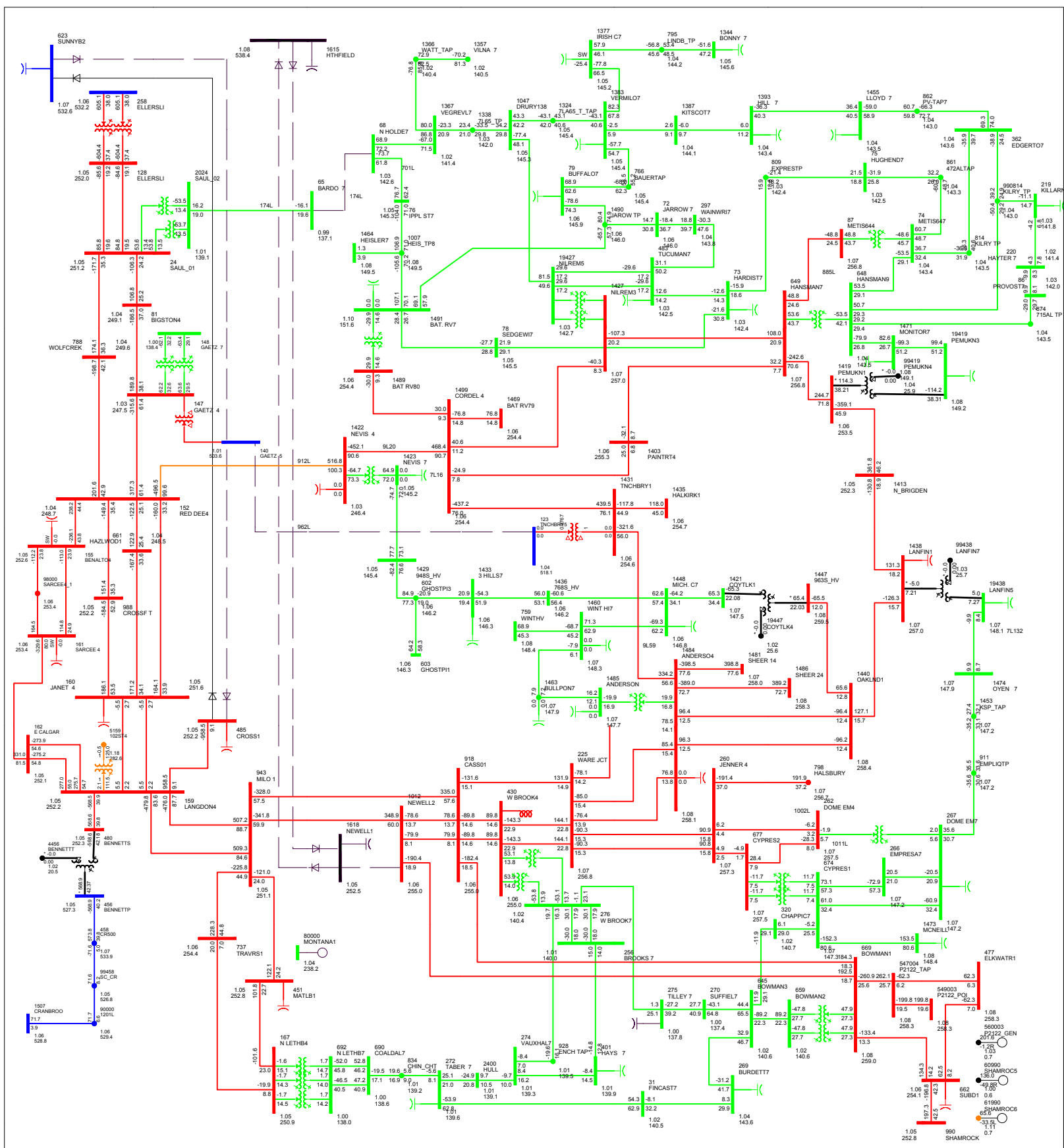


**P7001 Central East Transfer Out Transmission Development**

New Generation in Study Area and SW Sub-region  
 South East: 79.4 MW Central East: 0.6 MW South West: 909.7 MW  
 FIG. 9-42-1R-2023-03 CASE: HS GEN SEN 2  
 PROJECT: CRPC (CR-CRR OPT), CETO OPTION 4  
 CAP: CETO A.L. 300  
 THU, MAR 05 2020 14:53  
 Contingency: Base, Trip Action: None

Branch Loading: >=100.0%  
 kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000

Bus - Voltage (kV)  
 Branch - MW/Loading  
 Equipment - MW/Loading



**P7001 Central East Transfer Out Transmission Development**

New Generation in Study Area and SW Sub-region  
 South East: 79.4 MW Central East: 0.6 MW South West: 909.7 MW  
 FIG. B-43-1R-2023S\_CASE: HSE, HSE GEN SOW 2  
 PROJECT: CRPC (CR-CRR OPT), CETO OPTION 4  
 CAP-CETO A1, B01  
 THU, MAR 05 2020 14:53  
 Contingency: EATL, TP Action: 174L on load tap

Branch Loading: >=100.0%  
 kV: <=25.00 <=69.00 <=138.00 <=240.00 <=500.00  
 Bus - Voltage (kV)  
 Branch - MW/Loading  
 Equipment - MW/Loading