

# Attachment F: Transient Stability Analysis

## F-1 Contingency List and Fault Clearing Times

### F-1-1 : Category B Contingencies and Fault Clearing Times

Contingency	Fault Location	Clearing Time (Cycles)	
		Near End	Far End
900L (Benalto 17S to Red Deer 63S)	Red Deer 63S	5.5	5.5
	Benalto 17S	5.5	5.5
910L (Saunders Lake 289S to Wolf Creek 288S)	Saunders Lake 289S	5	6
	Wolf Creek 288S	5	6
912L (Nevis 766S to Red Deer 63S)	Nevis 766S	5.5	5.5
	Red Deer 63S	5.5	5.5
914L1 (Bigstone 86S to Gaetz 87S)	Bigstone 86S	5.5	5.5
	Gaetz 87S	5.5	5.5
914L2 (Red Deer 63S to Gaetz 87S)	Gaetz 87S	5.5	5.5
	Red Deer 63	5.5	5.5
9L16 (Tinchebray 972S to Cordel 755S)	Tinchebray 972S	5	6
	Cordel 755S	5	6
9L20 (Nevis 766S to Cordel 755S)	Nevis 766S	5	6
	Cordell 755S	5	6
925L (Red Deer 63S to Janet 74S)	Red Deer 63S	5.5	5.5
	Janet 74S	5.5	5.5
929L (Janet 74S to Hazelwood 287S)	Janet 74S	5.5	5.5
	Hazelwood 287S	5.5	5.5
935L (Cassils 324S to Milo 356S)	Cassils 324S	5	6
	Milo 356S	5	6
944L (Ware Junction 132S to Jenner 275S)	Ware Junction 132S	6.25	7.25
	Jenner 275S	6.25	7.25
9L46 (New Bridgen to Lanfine 959S)	New Bridgen	5	6
	Lanfine 959S	5	6
9L51 (New Bridgen to Pemukan 932S)	New Bridgen	5	6
	Pemukan 932S	5	6
9L59 (Tinchebray 972S to Anderson 801S)	Tinchebray 972S	5	6
	Anderson 801S	5	6
1002L (Jenner 275S to Dome Empress 163S)	Jenner 275S	5	6
	Dome Empress 163S	5	6
1034L (Cassils 324S to Bowmanton 244S)	Bowmanton 244S	5	6
	Cassils 324S	5	6
CETO1 (Tinchebray 972S to Gaetz 87S)	Tinchebray 972S	5	6
	Gaetz 87S	5	6
CETO2 (Tinchebray 972S to Gaetz 87S)	Tinchebray 972S	5	6
	Gaetz 87S	5	6

Contingency	Fault Location	Clearing Time (Cycles)	
		Near End	Far End
EATL	Newell 2075S	5	5
WATL	Crossings 511S	5	5

***F-1-2 : Select Category C5 Contingencies and Fault Clearing Times***

C5 Contingency	Fault Location	Clearing Time (Cycles)	
		Far End	Near End
923L (Milo to Newell) and 935L (Cassils 324S to Milo 356S) *	Milo 356S	5	6
925L (Red Deer 63S to Janet 74S) and 929L (Janet 74S to Hazelwood 287S)	Janet 74S	5.5	6.5
910L (Saunders Lake 289S to Wolf Creek 288S) and 914L (Saunders Lake 289S to Bigstone 86S)	Saunders Lake 289S	5.5	6.5
933L (Anderson 801S to Ware Junction 132S) and 934L (Anderson 801S to Ware Junction 132S)	Anderson 801S	5	6
924L (Langdon 102S to Milo 356S) and 927L (Langdon 102S to Milo 356S)	Milo 356S	5	6
931L (West Brooks 28S to Ware Junction 132S) and 1075L (West Brooks 28S to Ware Junction 132S)	West Brooks 28S	6.25	7.25
CETO 1 (Gaetz 87S to Tinchebray 972S) and CETO 2 (Gaetz 87S to Tinchebray 972S)	Gaetz 87S	5	6

\*Contingency triggers EATL curtailment RAS

## F-2 Transient Stability Analysis Results Summary

### F-2-1 2023 Pre-Development Transmission System

**Table F-2-1: Transient Stability Results under Category B Contingencies– Pre-Development in 2023**

Contingency	Fault Location	Fault Type	Transient Stability
910L (Saunders Lake 289S to Wolf Creek 288S)	Saunders Lake 289S	Three Phase to Ground	Stable
	Wolf Creek 288S	Three Phase to Ground	Stable
912L (Nevis 766S to Red Deer 63S)	Nevis 766S	Three Phase to Ground	Stable
	Red Deer 63S	Three Phase to Ground	Stable
914L1 (Bigstone 86S to Gaetz 87S)	Bigstone 86S	Three Phase to Ground	Stable
	Gaetz 87S	Three Phase to Ground	Stable
914L2 (Red Deer 63S to Gaetz 87S)	Gaetz 87S	Three Phase to Ground	Stable
	Red Deer 63S	Three Phase to Ground	Stable
9L16 (Tinchebray 972S to Cordel 755S)	Tinchebray 972S	Three Phase to Ground	Stable
	Cordel 755S	Three Phase to Ground	Stable
9L20 (Nevis 766S to Cordel 755S)	Nevis 766S	Three Phase to Ground	Stable
	Cordell 755S	Three Phase to Ground	Stable
925L (Red Deer 63S to Janet 74S)	Red Deer 63S	Three Phase to Ground	Stable
	Janet 74S	Three Phase to Ground	Stable
929L (Janet 74S to Hazelwood 287S)	Janet 74S	Three Phase to Ground	Stable
	Hazelwood 287S	Three Phase to Ground	Stable
935L (Cassils 324S to Milo 356S)	Cassils 324S	Three Phase to Ground	Stable
	Milo 356S	Three Phase to Ground	Stable
944L (Ware Junction 132S to Jenner 275S)	Ware Junction 132S	Three Phase to Ground	Stable
	Jenner 275S	Three Phase to Ground	Stable
9L46 (New Bridgen to Lanfine 959S)	New Bridgen	Three Phase to Ground	Stable
	Lanfine 959S	Three Phase to Ground	Stable
9L51 (New Bridgen to Pemukan 932S)	New Bridgen	Three Phase to Ground	Stable

Contingency	Fault Location	Fault Type	Transient Stability
	Pemukan 932S	Three Phase to Ground	Stable
9L59 (Tincebray 972S to Anderson 801S)	Tincebray 972S	Three Phase to Ground	Stable
	Anderson 801S	Three Phase to Ground	Stable
1002L (Jenner 275S to Dome Empress 163S)	Jenner 275S	Three Phase to Ground	Stable
	Dome Empress 163S	Three Phase to Ground	Stable
1034L (Cassils 324S to Bowmanton 244S)	Bowmanton 244S	Three Phase to Ground	Stable
	Cassils 324S	Three Phase to Ground	Stable
EATL	Newell 2075S	Three Phase to Ground	Stable
WATL	Crossings 511S	Three Phase to Ground	Stable

**Table F-2-2 Transient Stability Results under Category C5 Contingencies -Pre Development in 2023**

Contingency	Fault Location	Fault Type	Transient Stability
923L (Milo to Newell) and 935L (Cassils 324S to Milo 356S)	Milo 356S	Three Phase to Ground	Stable
925L (Red Deer 63S to Janet 74S) and 929L (Janet 74S to Hazelwood 287S)	Janet 74S	Three Phase to Ground	Stable
910L (Saunders Lake 289S to Wolf Creek 288S) and 914L (Saunders Lake 289S to Bigstone 86S)	Saunders Lake 289S	Three Phase to Ground	Stable
933L (Anderson 801S to Ware Junction 132S) and 934L (Anderson 801S to Ware Junction 132S)	Anderson 801S	Three Phase to Ground	Stable
924L (Langdon 102S to Milo 356S) and 927L (Langdon 102S to Milo 356S)	Milo 356S	Three Phase to Ground	Stable
931L (West Brooks 28S to Ware Junction 132S) and 1075L (West Brooks 28S to Ware Junction 132S)	West Brooks 28S	Three Phase to Ground	Stable

## F-2-2 2031 Pre-Development Transmission System

**Table F-2-3: Transient Stability Results under Category B Contingencies– Pre- Development System in 2031**

Contingency	Fault Location	Fault Type	Transient Stability
910L (Saunders Lake 289S to Wolf Creek 288S)	Saunders Lake 289S	Three Phase to Ground	Stable
	Wolf Creek 288S	Three Phase to Ground	Stable
912L (Nevis 766S to Red Deer 63S)	Nevis 766S	Three Phase to Ground	Stable
	Red Deer 63S	Three Phase to Ground	Stable
914L1 (Bigstone 86S to Gaetz 87S)	Bigstone 86S	Three Phase to Ground	Stable
	Gaetz 87S	Three Phase to Ground	Stable
914L2 (Red Deer 63S to Gaetz 87S)	Gaetz 87S	Three Phase to Ground	Stable
	Red Deer 63S	Three Phase to Ground	Stable
9L16 (Tinchebray 972S to Cordel 755S)	Tinchebray 972S	Three Phase to Ground	Stable
	Cordel 755S	Three Phase to Ground	Stable
9L20 (Nevis 766S to Cordel 755S)	Nevis 766S	Three Phase to Ground	Stable
	Cordell 755S	Three Phase to Ground	Stable
925L (Red Deer 63S to Janet 74S)	Red Deer 63S	Three Phase to Ground	Stable
	Janet 74S	Three Phase to Ground	Stable
929L (Janet 74S to Hazelwood 287S)	Janet 74S	Three Phase to Ground	Stable
	Hazelwood 287S	Three Phase to Ground	Stable
935L (Cassils 324S to Milo 356S)	Cassils 324S	Three Phase to Ground	Stable
	Milo 356S	Three Phase to Ground	Stable
944L (Ware Junction 132S to Jenner 275S)	Ware Junction 132S	Three Phase to Ground	Stable
	Jenner 275S	Three Phase to Ground	Stable
9L46 (New Bridgen to Lanfine 959S)	New Bridgen	Three Phase to Ground	Stable
	Lanfine 959S	Three Phase to Ground	Stable
9L51 (New Bridgen to Pemukan 932S)	New Bridgen	Three Phase to Ground	Stable
	Pemukan 932S	Three Phase to Ground	Stable
	Tinchebray 972S	Three Phase to Ground	Stable

Contingency	Fault Location	Fault Type	Transient Stability
9L59 (Tinchebay 972S to Anderson 801S)	Anderson 801S	Three Phase to Ground	Stable
1002L (Jenner 275S to Dome Empress 163S)	Jenner 275S	Three Phase to Ground	Stable
	Dome Empress 163S	Three Phase to Ground	Stable
1034L (Cassils 324S to Bowmanton 244S)	Bowmanton 244S	Three Phase to Ground	Stable
	Cassils 324S	Three Phase to Ground	Stable
EATL	Newell 2075S	Three Phase to Ground	Stable
WATL	Crossings 511S	Three Phase to Ground	Stable

**Table F-2-4: Transient Stability Results under Category C5 Contingencies – Pre-Development System in 2031**

Contingency	Fault Location	Fault Type	Transient Stability
923L (Milo to Newell) and 935L (Cassils 324S to Milo 356S)	Milo 356S	Three Phase to Ground	Stable
925L (Red Deer 63S to Janet 74S) and 929L (Janet 74S to Hazelwood 287S)	Janet 74S	Three Phase to Ground	Stable
910L (Saunders Lake 289S to Wolf Creek 288S) and 914L (Saunders Lake 289S to Bigstone 86S)	Saunders Lake 289S	Three Phase to Ground	Stable
933L (Anderson 801S to Ware Junction 132S) and 934L (Anderson 801S to Ware Junction 132S)	Anderson 801S	Three Phase to Ground	Stable
924L (Langdon 102S to Milo 356S) and 927L (Langdon 102S to Milo 356S)	Milo 356S	Three Phase to Ground	Stable
931L (West Brooks 28S to Ware Junction 132S) and 1075L (West Brooks 28S to Ware Junction 132S)	West Brooks 28S	Three Phase to Ground	Stable

### F-2-3 2023 Post CETO First Circuit and CRPC

**Table F-2-5: Transient Stability Results under Category B Contingencies - CETO First Circuit and CRPC in 2023**

Contingency	Fault Location	Fault Type	Transient Stability
910L (Saunders Lake 289S to Wolf Creek 288S)	Saunders Lake 289S	Three Phase to Ground	Stable
	Wolf Creek 288S	Three Phase to Ground	Stable
912L (Nevis 766S to Red Deer 63S)	Nevis 766S	Three Phase to Ground	Stable
	Red Deer 63S	Three Phase to Ground	Stable
914L1 (Bigstone 86S to Gaetz 87S)	Bigstone 86S	Three Phase to Ground	Stable

<b>Contingency</b>	<b>Fault Location</b>	<b>Fault Type</b>	<b>Transient Stability</b>
	Gaetz 87S	Three Phase to Ground	Stable
914L2 (Red Deer 63S to Gaetz 87S)	Gaetz 87S	Three Phase to Ground	Stable
	Red Deer 63S	Three Phase to Ground	Stable
9L16 (Tincebray 972S to Cordel 755S)	Tincebray 972S	Three Phase to Ground	Stable
	Cordel 755S	Three Phase to Ground	Stable
9L20 (Nevis 766S to Cordel 755S)	Nevis 766S	Three Phase to Ground	Stable
	Cordell 755S	Three Phase to Ground	Stable
925L (Red Deer 63S to Janet 74S)	Red Deer 63S	Three Phase to Ground	Stable
	Janet 74S	Three Phase to Ground	Stable
929L (Janet 74S to Hazelwood 287S)	Janet 74S	Three Phase to Ground	Stable
	Hazelwood 287S	Three Phase to Ground	Stable
935L (Cassils 324S to Milo 356S)	Cassils 324S	Three Phase to Ground	Stable
	Milo 356S	Three Phase to Ground	Stable
944L (Ware Junction 132S to Jenner 275S)	Ware Junction 132S	Three Phase to Ground	Stable
	Jenner 275S	Three Phase to Ground	Stable
9L46 (New Bridgen to Lanfine 959S)	New Bridgen	Three Phase to Ground	Stable
	Lanfine 959S	Three Phase to Ground	Stable
9L51 (New Bridgen to Pemukan 932S)	New Bridgen	Three Phase to Ground	Stable
	Pemukan 932S	Three Phase to Ground	Stable
9L59 (Tincebray 972S to Anderson 801S)	Tincebray 972S	Three Phase to Ground	Stable
	Anderson 801S	Three Phase to Ground	Stable
1002L (Jenner 275S to Dome Empress 163S)	Jenner 275S	Three Phase to Ground	Stable
	Dome Empress 163S	Three Phase to Ground	Stable
1034L (Cassils 324S to Bowmanton 244S)	Bowmanton 244S	Three Phase to Ground	Stable
	Cassils 324S	Three Phase to Ground	Stable
CETO1 (Tincebray 972S to Gaetz 87S)	Tincebray 972S	Three Phase to Ground	Stable
	Gaetz 87S	Three Phase to Ground	Stable
EATL	Newell 2075S	Three Phase to Ground	Stable
WATL	Crossings 511S	Three Phase to Ground	Stable



**Table F-2-6 Transient Stability Results under Category C5 Contingencies - CETO First Circuit and CRPC in 2023**

Contingency	Fault Location	Fault Type	Transient Stability
923L (Milo to Newell) and 935L (Cassils 324S to Milo 356S)	Milo 356S	Three Phase to Ground	Stable
925L (Red Deer 63S to Janet 74S) and 929L (Janet 74S to Hazelwood 287S)	Janet 74S	Three Phase to Ground	Stable
910L (Saunders Lake 289S to Wolf Creek 288S) and 914L (Saunders Lake 289S to Bigstone 86S)	Saunders Lake 289S	Three Phase to Ground	Stable
933L (Anderson 801S to Ware Junction 132S) and 934L (Anderson 801S to Ware Junction 132S)	Anderson 801S	Three Phase to Ground	Stable
924L (Langdon 102S to Milo 356S) and 927L (Langdon 102S to Milo 356S)	Milo 356S	Three Phase to Ground	Stable
931L (West Brooks 28S to Ware Junction 132S) and 1075L (West Brooks 28S to Ware Junction 132S)	West Brooks 28S	Three Phase to Ground	Stable

#### F-2-4 2031 Post CETO First Circuit and CRPC

**Table F-2-7: Transient Stability Results under Category B Contingencies - CETO First Circuit and CRPC 2031**

Contingency	Fault Location	Fault Type	Transient Stability
910L (Saunders Lake 289S to Wolf Creek 288S)	Saunders Lake 289S	Three Phase to Ground	Stable
	Wolf Creek 288S	Three Phase to Ground	Stable
912L (Nevis 766S to Red Deer 63S)	Nevis 766S	Three Phase to Ground	Stable
	Red Deer 63S	Three Phase to Ground	Stable
914L1 (Bigstone 86S to Gaetz 87S)	Bigstone 86S	Three Phase to Ground	Stable
	Gaetz 87S	Three Phase to Ground	Stable
914L2 (Red Deer 63S to Gaetz 87S)	Gaetz 87S	Three Phase to Ground	Stable
	Red Deer 63S	Three Phase to Ground	Stable
9L16 (Tincheyray 972S to Cordel 755S)	Tincheyray 972S	Three Phase to Ground	Stable
	Cordel 755S	Three Phase to Ground	Stable
9L20 (Nevis 766S to Cordel 755S)	Nevis 766S	Three Phase to Ground	Stable
	Cordell 755S	Three Phase to Ground	Stable
925L (Red Deer 63S to Janet 74S)	Red Deer 63S	Three Phase to Ground	Stable

Contingency	Fault Location	Fault Type	Transient Stability
	Janet 74S	Three Phase to Ground	Stable
929L (Janet 74S to Hazelwood 287S)	Janet 74S	Three Phase to Ground	Stable
	Hazelwood 287S	Three Phase to Ground	Stable
935L (Cassils 324S to Milo 356S)	Cassils 324S	Three Phase to Ground	Stable
	Milo 356S	Three Phase to Ground	Stable
944L (Ware Junction 132S to Jenner 275S)	Ware Junction 132S	Three Phase to Ground	Stable
	Jenner 275S	Three Phase to Ground	Stable
9L46 (New Bridgen to Lanfine 959S)	New Bridgen	Three Phase to Ground	Stable
	Lanfine 959S	Three Phase to Ground	Stable
9L51 (New Bridgen to Pemukan 932S)	New Bridgen	Three Phase to Ground	Stable
	Pemukan 932S	Three Phase to Ground	Stable
9L59 (Tincebray 972S to Anderson 801S)	Tincebray 972S	Three Phase to Ground	Stable
	Anderson 801S	Three Phase to Ground	Stable
1002L (Jenner 275S to Dome Empress 163S)	Jenner 275S	Three Phase to Ground	Stable
	Dome Empress 163S	Three Phase to Ground	Stable
1034L (Cassils 324S to Bowmanton 244S)	Bowmanton 244S	Three Phase to Ground	Stable
	Cassils 324S	Three Phase to Ground	Stable
CETO1 (Tincebray 972S to Gaetz 87S)	Tincebray 972S	Three Phase to Ground	Stable
	Gaetz 87S	Three Phase to Ground	Stable
EATL	Newell 2075S	Three Phase to Ground	Stable
WATL	Crossings 511S	Three Phase to Ground	Stable

**Table F-2-8: Transient Stability Results under Category C5 Contingencies - CETO First Circuit and CRPC in 2031**

Contingency	Fault Location	Fault Type	Transient Stability
923L (Milo to Newell) and 935L (Cassils 324S to Milo 356S)	Milo 356S	Three Phase to Ground	Stable
925L (Red Deer 63S to Janet 74S) and 929L (Janet 74S to Hazelwood 287S)	Janet 74S	Three Phase to Ground	Stable
910L (Saunders Lake 289S to Wolf Creek 288S) and 914L (Saunders Lake 289S to Bigstone 86S)	Saunders Lake 289S	Three Phase to Ground	Stable

Contingency	Fault Location	Fault Type	Transient Stability
933L (Anderson 801S to Ware Junction 132S) and 934L (Anderson 801S to Ware Junction 132S)	Anderson 801S	Three Phase to Ground	Stable
924L (Langdon 102S to Milo 356S) and 927L (Langdon 102S to Milo 356S)	Milo 356S	Three Phase to Ground	Stable
931L (West Brooks 28S to Ware Junction 132S) and 1075L (West Brooks 28S to Ware Junction 132S)	West Brooks 28S	Three Phase to Ground	Stable

## F-2-5 2023 Post CETO Both Circuits and CRPC

**Table F-2-9: Transient Stability Results under Category B Contingencies - CETO Both Circuits and CRPC in 2023**

Contingency	Fault Location	Fault Type	Transient Stability
910L (Saunders Lake 289S to Wolf Creek 288S)	Saunders Lake 289S	Three Phase to Ground	Stable
	Wolf Creek 288S	Three Phase to Ground	Stable
912L (Nevis 766S to Red Deer 63S)	Nevis 766S	Three Phase to Ground	Stable
	Red Deer 63S	Three Phase to Ground	Stable
914L1 (Bigstone 86S to Gaetz 87S)	Bigstone 86S	Three Phase to Ground	Stable
	Gaetz 87S	Three Phase to Ground	Stable
914L2 (Red Deer 63S to Gaetz 87S)	Gaetz 87S	Three Phase to Ground	Stable
	Red Deer 63S	Three Phase to Ground	Stable
9L16 (Tinchebray 972S to Cordel 755S)	Tinchebray 972S	Three Phase to Ground	Stable
	Cordel 755S	Three Phase to Ground	Stable
9L20 (Nevis 766S to Cordel 755S)	Nevis 766S	Three Phase to Ground	Stable
	Cordell 755S	Three Phase to Ground	Stable
925L (Red Deer 63S to Janet 74S)	Red Deer 63S	Three Phase to Ground	Stable
	Janet 74S	Three Phase to Ground	Stable
929L (Janet 74S to Hazelwood 287S)	Janet 74S	Three Phase to Ground	Stable
	Hazelwood 287S	Three Phase to Ground	Stable
935L (Cassils 324S to Milo 356S)	Cassils 324S	Three Phase to Ground	Stable
	Milo 356S	Three Phase to Ground	Stable

Contingency	Fault Location	Fault Type	Transient Stability
944L (Ware Junction 132S to Jenner 275S)	Ware Junction 132S	Three Phase to Ground	Stable
	Jenner 275S	Three Phase to Ground	Stable
9L46 (New Bridgen to Lanfine 959S)	New Bridgen	Three Phase to Ground	Stable
	Lanfine 959S	Three Phase to Ground	Stable
9L51 (New Bridgen to Pemukan 932S)	New Bridgen	Three Phase to Ground	Stable
	Pemukan 932S	Three Phase to Ground	Stable
9L59 (Tincebray 972S to Anderson 801S)	Tincebray 972S	Three Phase to Ground	Stable
	Anderson 801S	Three Phase to Ground	Stable
1002L (Jenner 275S to Dome Empress 163S)	Jenner 275S	Three Phase to Ground	Stable
	Dome Empress 163S	Three Phase to Ground	Stable
1034L (Cassils 324S to Bowmanton 244S)	Bowmanton 244S	Three Phase to Ground	Stable
	Cassils 324S	Three Phase to Ground	Stable
CETO1 (Tincebray 972S to Gaetz 87S)	Tincebray 972S	Three Phase to Ground	Stable
	Gaetz 87S	Three Phase to Ground	Stable
CETO2 (Tincebray 972S to Gaetz 87S)	Tincebray 972S	Three Phase to Ground	Stable
	Gaetz 87S	Three Phase to Ground	Stable
EATL	Newell 2075S	Three Phase to Ground	Stable
WATL	Crossings 511S	Three Phase to Ground	Stable

**Table F-2-10 Transient Stability Results under Category C5 Contingencies - CETO Both Circuits and CRPC in 2023**

Contingency	Fault Location	Fault Type	Transient Stability
923L (Milo to Newell) and 935L (Cassils 324S to Milo 356S)	Milo 356S	Three Phase to Ground	Stable
925L (Red Deer 63S to Janet 74S) and 929L (Janet 74S to Hazelwood 287S)	Janet 74S	Three Phase to Ground	Stable
910L (Saunders Lake 289S to Wolf Creek 288S) and 914L (Saunders Lake 289S to Bigstone 86S)	Saunders Lake 289S	Three Phase to Ground	Stable
933L (Anderson 801S to Ware Junction 132S) and 934L (Anderson 801S to Ware Junction 132S)	Anderson 801S	Three Phase to Ground	Stable
924L (Langdon 102S to Milo 356S) and 927L (Langdon 102S to Milo 356S)	Milo 356S	Three Phase to Ground	Stable
931L (West Brooks 28S to Ware Junction 132S) and 1075L (West Brooks 28S to Ware Junction 132S)	West Brooks 28S	Three Phase to Ground	Stable

Contingency	Fault Location	Fault Type	Transient Stability
CETO 1 (Gaetz 87S to Tinchebray 972S) and CETO 2 (Gaetz 87S to Tinchebray 972S)	Gaetz 87S	Three Phase to Ground	Stable

## F-2-6 2031 Post CETO Both Circuits and CRPC

**Table F-2-11: Transient Stability Results under Category B Contingencies - CETO Both Circuits and CRPC in 2031**

Contingency	Fault Location	Fault Type	Transient Stability
910L (Saunders Lake 289S to Wolf Creek 288S)	Saunders Lake 289S	Three Phase to Ground	Stable
	Wolf Creek 288S	Three Phase to Ground	Stable
912L (Nevis 766S to Red Deer 63S)	Nevis 766S	Three Phase to Ground	Stable
	Red Deer 63S	Three Phase to Ground	Stable
914L1 (Bigstone 86S to Gaetz 87S)	Bigstone 86S	Three Phase to Ground	Stable
	Gaetz 87S	Three Phase to Ground	Stable
914L2 (Red Deer 63S to Gaetz 87S)	Gaetz 87S	Three Phase to Ground	Stable
	Red Deer 63S	Three Phase to Ground	Stable
9L16 (Tinchebray 972S to Cordel 755S)	Tinchebray 972S	Three Phase to Ground	Stable
	Cordel 755S	Three Phase to Ground	Stable
9L20 (Nevis 766S to Cordel 755S)	Nevis 766S	Three Phase to Ground	Stable
	Cordell 755S	Three Phase to Ground	Stable
925L (Red Deer 63S to Janet 74S)	Red Deer 63S	Three Phase to Ground	Stable
	Janet 74S	Three Phase to Ground	Stable
929L (Janet 74S to Hazelwood 287S)	Janet 74S	Three Phase to Ground	Stable
	Hazelwood 287S	Three Phase to Ground	Stable
935L (Cassils 324S to Milo 356S)	Cassils 324S	Three Phase to Ground	Stable
	Milo 356S	Three Phase to Ground	Stable
944L (Ware Junction 132S to Jenner 275S)	Ware Junction 132S	Three Phase to Ground	Stable
	Jenner 275S	Three Phase to Ground	Stable
9L46 (New Bridgen to Lanfine 959S)	New Bridgen	Three Phase to Ground	Stable

Contingency	Fault Location	Fault Type	Transient Stability
	Lanfine 959S	Three Phase to Ground	Stable
9L51 (New Bridgen to Pemukan 932S)	New Bridgen	Three Phase to Ground	Stable
	Pemukan 932S	Three Phase to Ground	Stable
9L59 (Tincebray 972S to Anderson 801S)	Tincebray 972S	Three Phase to Ground	Stable
	Anderson 801S	Three Phase to Ground	Stable
1002L (Jenner 275S to Dome Empress 163S)	Jenner 275S	Three Phase to Ground	Stable
	Dome Empress 163S	Three Phase to Ground	Stable
1034L (Cassils 324S to Bowmanton 244S)	Bowmanton 244S	Three Phase to Ground	Stable
	Cassils 324S	Three Phase to Ground	Stable
CETO1 (Tincebray 972S to Gaetz 87S)	Tincebray 972S	Three Phase to Ground	Stable
	Gaetz 87S	Three Phase to Ground	Stable
CETO2 (Tincebray 972S to Gaetz 87S)	Tincebray 972S	Three Phase to Ground	Stable
	Gaetz 87S	Three Phase to Ground	Stable
EATL	Newell 2075S	Three Phase to Ground	Stable
WATL	Crossings 511S	Three Phase to Ground	Stable

**Table F-2-12: Transient Stability Results under Category C5 Contingencies - CETO Both Circuits and CRPC in 2031**

Contingency	Fault Location	Fault Type	Transient Stability
923L (Milo to Newell) and 935L (Cassils 324S to Milo 356S)	Milo 356S	Three Phase to Ground	Stable
925L (Red Deer 63S to Janet 74S) and 929L (Janet 74S to Hazelwood 287S)	Janet 74S	Three Phase to Ground	Stable
910L (Saunders Lake 289S to Wolf Creek 288S) and 914L (Saunders Lake 289S to Bigstone 86S)	Saunders Lake 289S	Three Phase to Ground	Stable
933L (Anderson 801S to Ware Junction 132S) and 934L (Anderson 801S to Ware Junction 132S)	Anderson 801S	Three Phase to Ground	Stable
924L (Langdon 102S to Milo 356S) and 927L (Langdon 102S to Milo 356S)	Milo 356S	Three Phase to Ground	Stable
931L (West Brooks 28S to Ware Junction 132S) and 1075L (West Brooks 28S to Ware Junction 132S)	West Brooks 28S	Three Phase to Ground	Stable
CETO 1 (Gaetz 87S to Tincebray 972S) and CETO 2 (Gaetz 87S to Tincebray 972S)	Gaetz 87S	Three Phase to Ground	Stable

### F-3 Transient Stability Analysis Plots Summary

Section	Study Year	Scenario	Topology	
F-1	2023	1	Pre-Development	Part 1
F-2				Part 2
F-3		2	Pre-Development	
F-4				
F-5		1	CETO 1 circuit and CRPC	Part 1
F-6				Part 2
F-7		2	CETO 1 circuit and CRPC	Part 1
F-8				Part 2
F-9		1	CETO 2 circuits and CRPC	Part 1
F-10				Part 2
F-11	2031	2	CETO 2 circuits and CRPC	
F-12		1	Pre-Development	
F-13		2	Pre-Development	
F-14				
F-15		1	CETO 1 circuit and CRPC	Part 1
F-16				Part 2
F-17		2	CETO 1 circuit and CRPC	