

**KEY**

- Transmission Facilities
- 500kV Facilities
  - 230kV Facilities
  - 115kV Facilities

**GENERATION**

Lennox	119MW	Calpine	1000.0MW
Darlington	2490MW	St Clair	500.0MW
Pickering	2668MW	Brighton Beach	526.0MW
Portlands GS	459MW	Windsor (115kV)	192.4MW
Sithe-Goreway GS	615MW	TransAlta	370.8MW
Halton Hills GS	600MW	Imperial Oil	0.0MW

**Load Flow Results:**

Primary Demand: 28400MW

With Eight Bruce Units & 725MW of Wind-turbine Generation in Bruce Area  
With Four Nanticoke Units on-condense

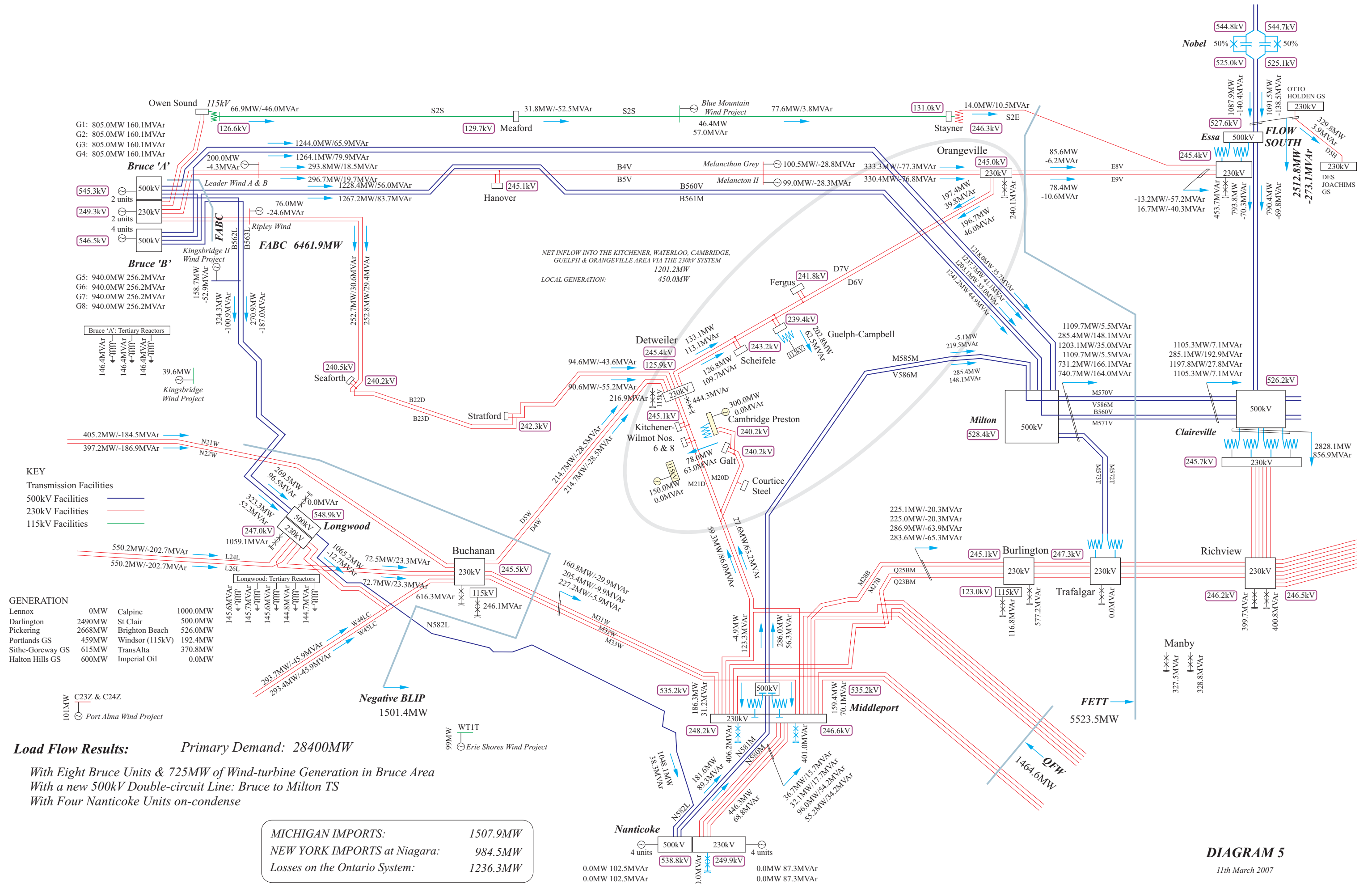
MICHIGAN IMPORTS: 1498.2MW

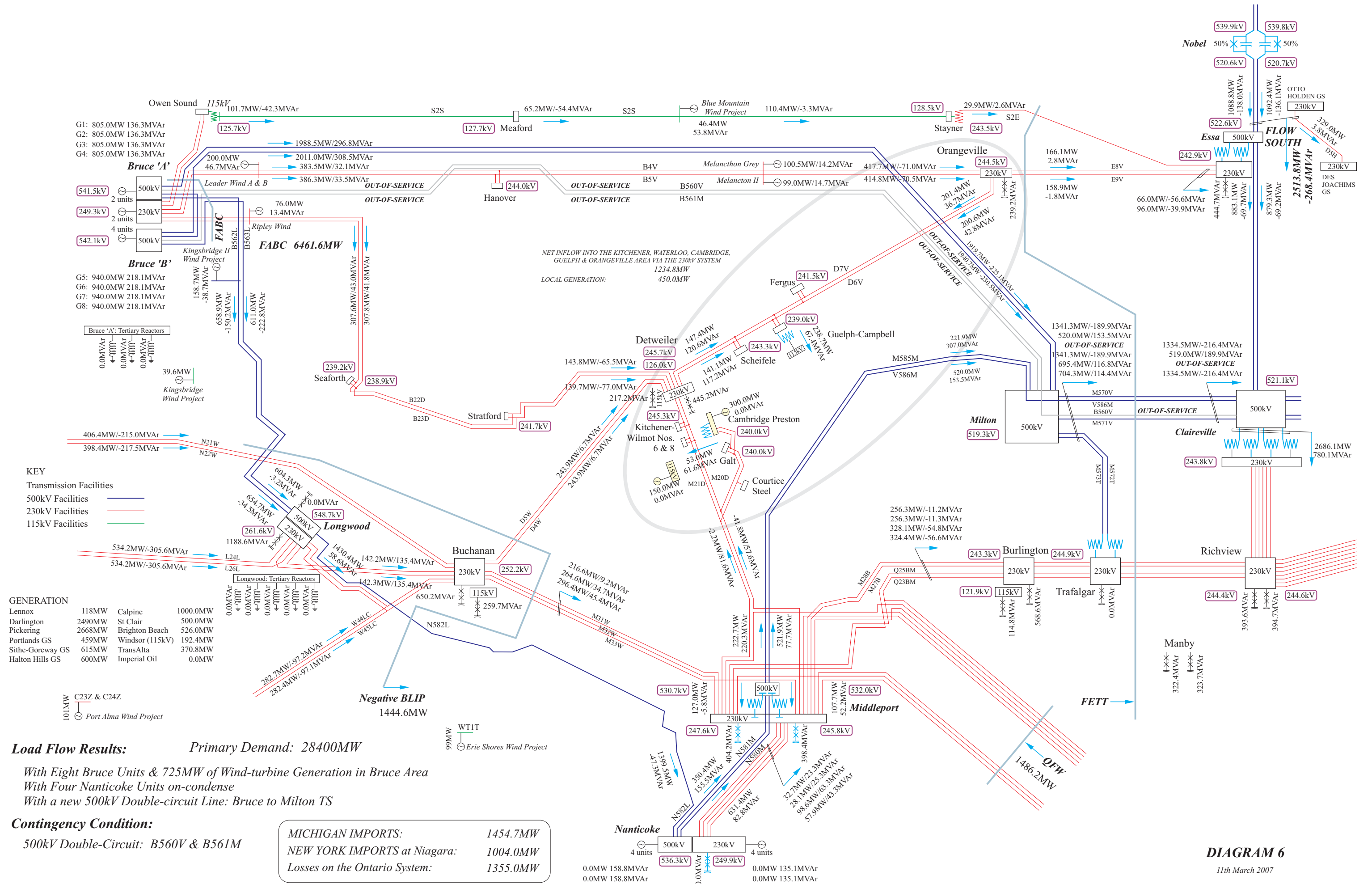
NEW YORK IMPORTS at Niagara: 999.5MW

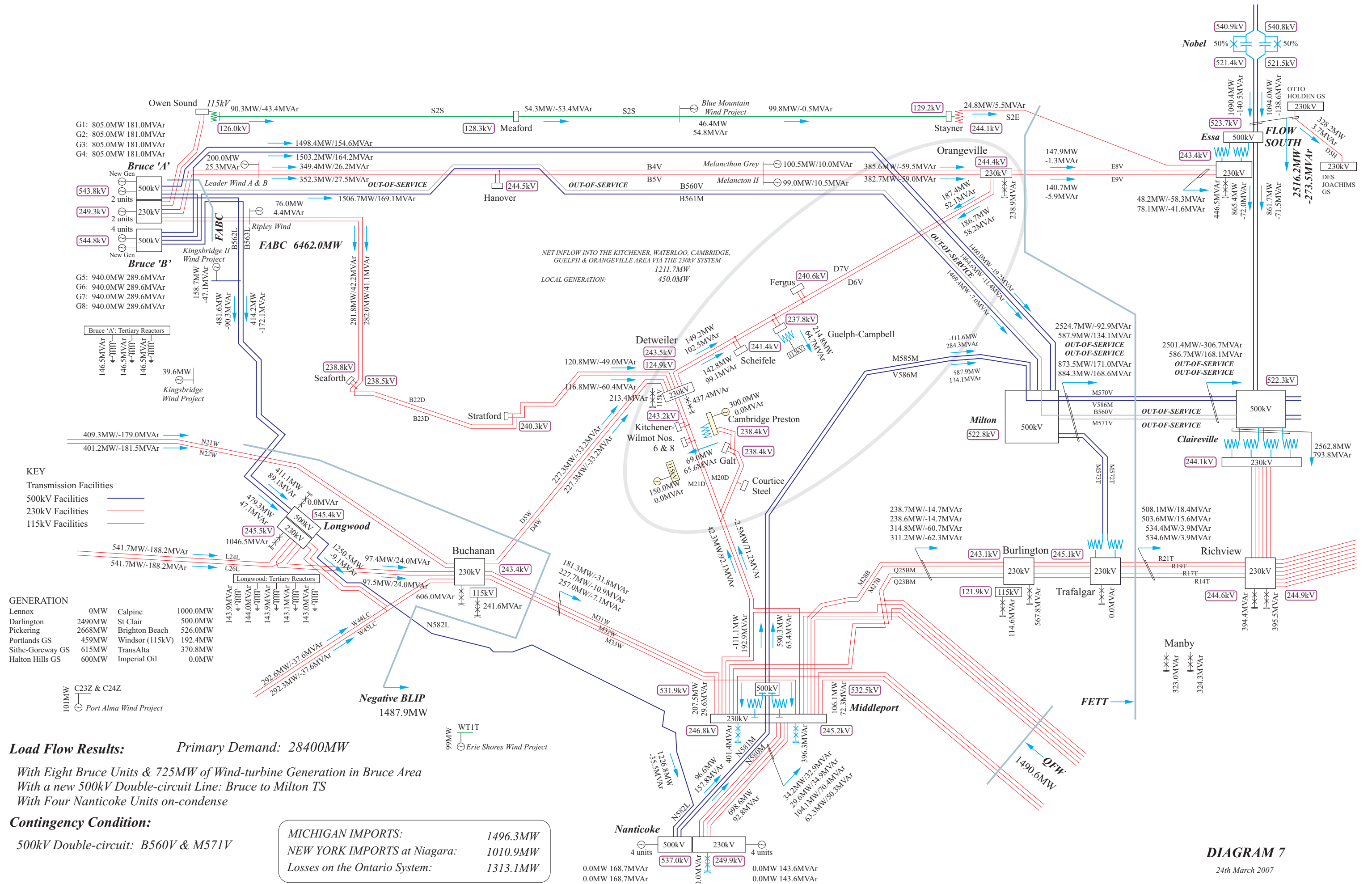
Losses on the Ontario System: 1355.2MW

**DIAGRAM 4**

11th March 2007







**Load Flow Results:**

Primary Demand: 28400MW

With Eight Bruce Units & 725MW of Wind-turbine Generation in Bruce Area  
 With a new 500kV Double-circuit Line: Bruce to Milton TS  
 With Four Nanticoke Units on-condense

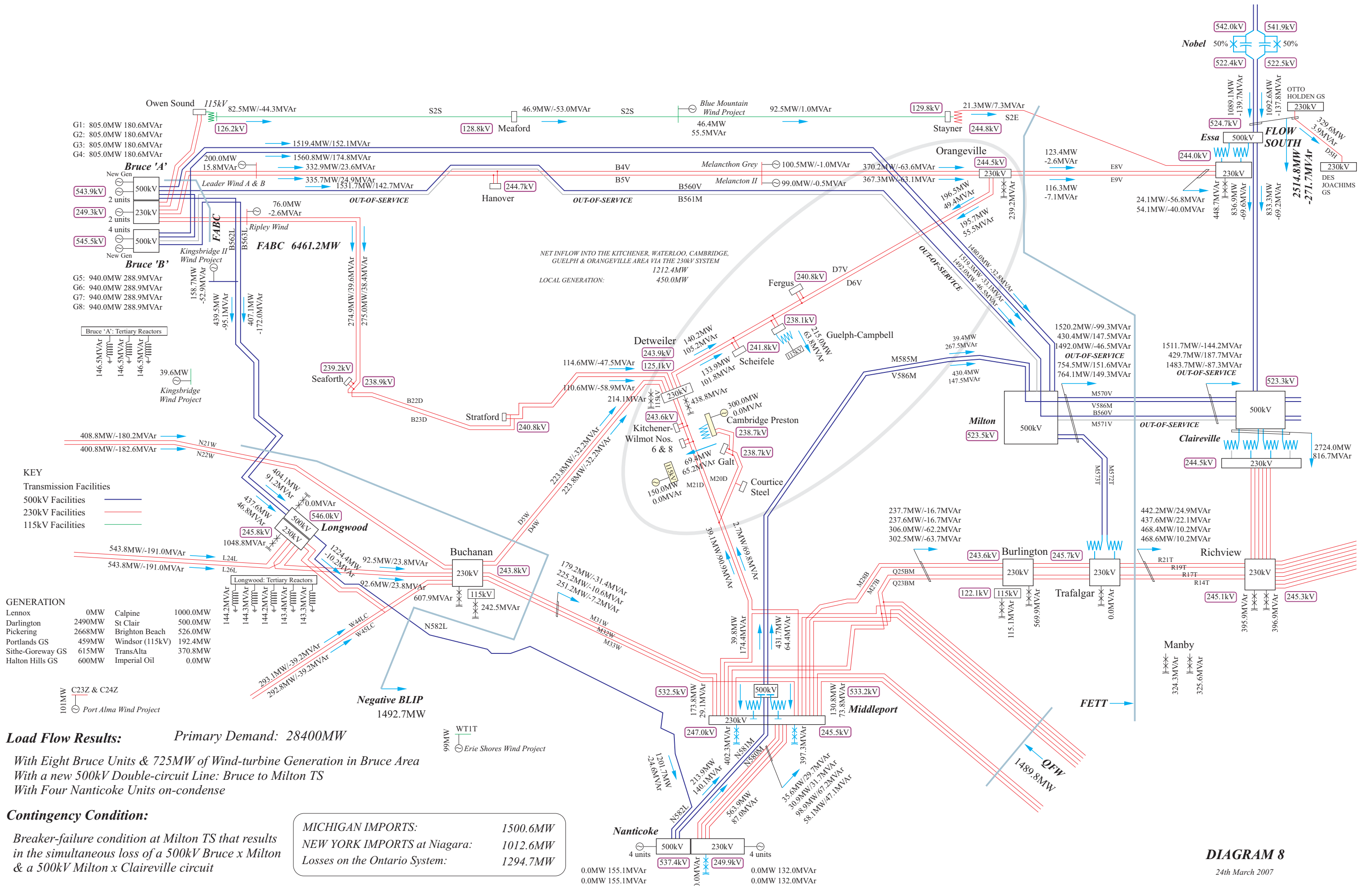
**Contingency Condition:**

500kV Double-circuit: B560V & M571V

MICHIGAN IMPORTS:	1496.3MW
NEW YORK IMPORTS at Niagara:	1010.9MW
Losses on the Ontario System:	1313.1MW

**DIAGRAM 7**

24th March 2007



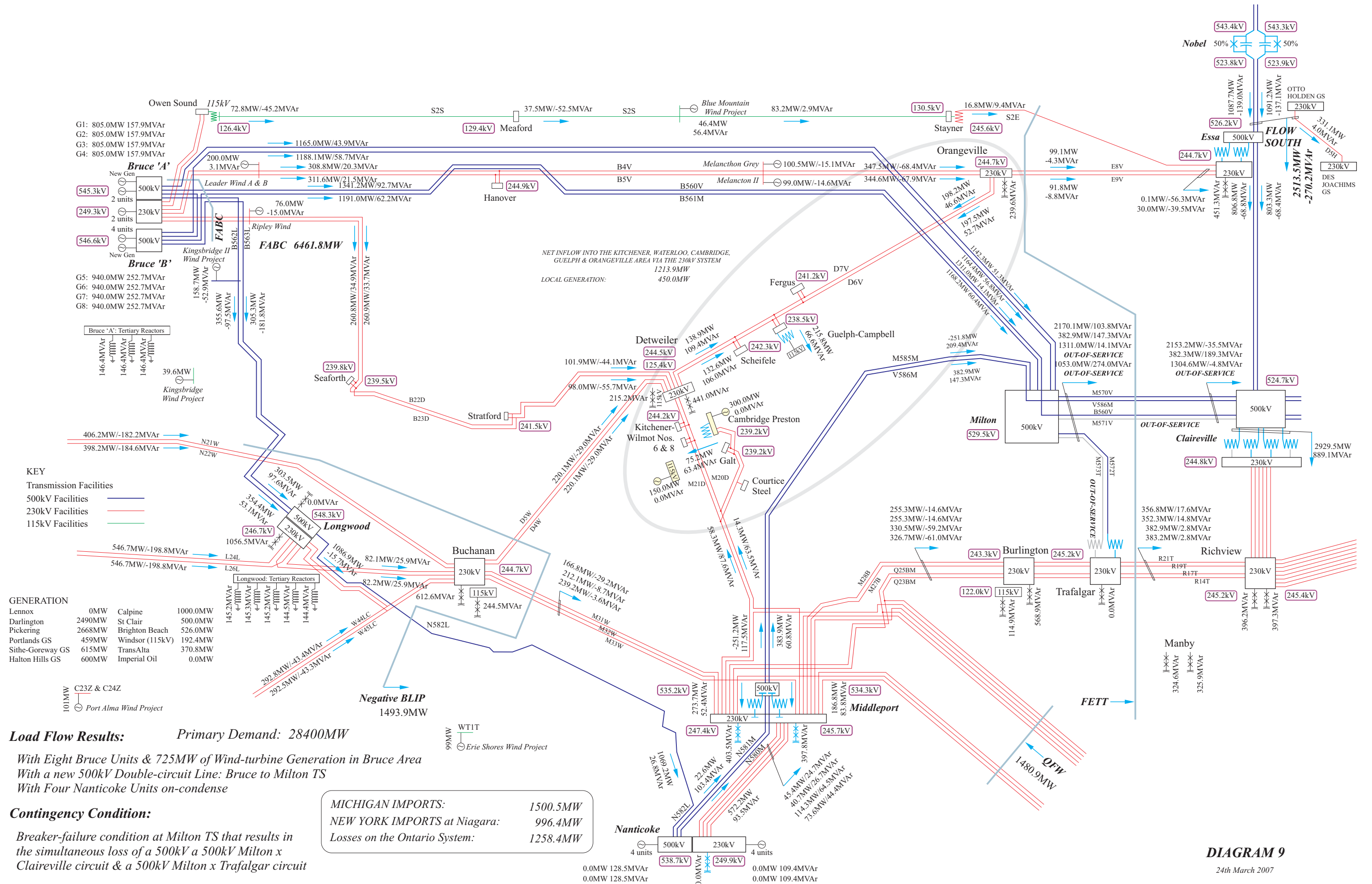
**Load Flow Results:** Primary Demand: 28400MW

With Eight Bruce Units & 725MW of Wind-turbine Generation in Bruce Area  
 With a new 500kV Double-circuit Line: Bruce to Milton TS  
 With Four Nanticoke Units on-condense

**Contingency Condition:**  
 Breaker-failure condition at Milton TS that results in the simultaneous loss of a 500kV Bruce x Milton & a 500kV Milton x Claireville circuit

MICHIGAN IMPORTS:	1500.6MW
NEW YORK IMPORTS at Niagara:	1012.6MW
Losses on the Ontario System:	1294.7MW

**DIAGRAM 8**  
24th March 2007



G1: 805.0MW 157.9MVar  
 G2: 805.0MW 157.9MVar  
 G3: 805.0MW 157.9MVar  
 G4: 805.0MW 157.9MVar

New Gen  
**Bruce 'A'**  
 500kV  
 2 units  
 230kV  
 2 units  
 500kV  
 4 units  
**Bruce 'B'**  
 New Gen  
 G5: 940.0MW 252.7MVar  
 G6: 940.0MW 252.7MVar  
 G7: 940.0MW 252.7MVar  
 G8: 940.0MW 252.7MVar

Bruce 'A': Tertiary Reactors  
 146.4MVar  
 146.4MVar  
 146.4MVar  
 39.6MW  
 Kingsbridge Wind Project

**KEY**  
 Transmission Facilities  
 500kV Facilities  
 230kV Facilities  
 115kV Facilities

**GENERATION**

Lennox	0MW	Calpine	1000.0MW
Darlington	2490MW	St Clair	500.0MW
Pickering	2668MW	Brighton Beach	526.0MW
Portlands GS	459MW	Windsor (115kV)	192.4MW
Sithe-Goreway GS	615MW	TransAlta	370.8MW
Halton Hills GS	600MW	Imperial Oil	0.0MW

10.1MW  
 C23Z & C24Z  
 Port Alma Wind Project

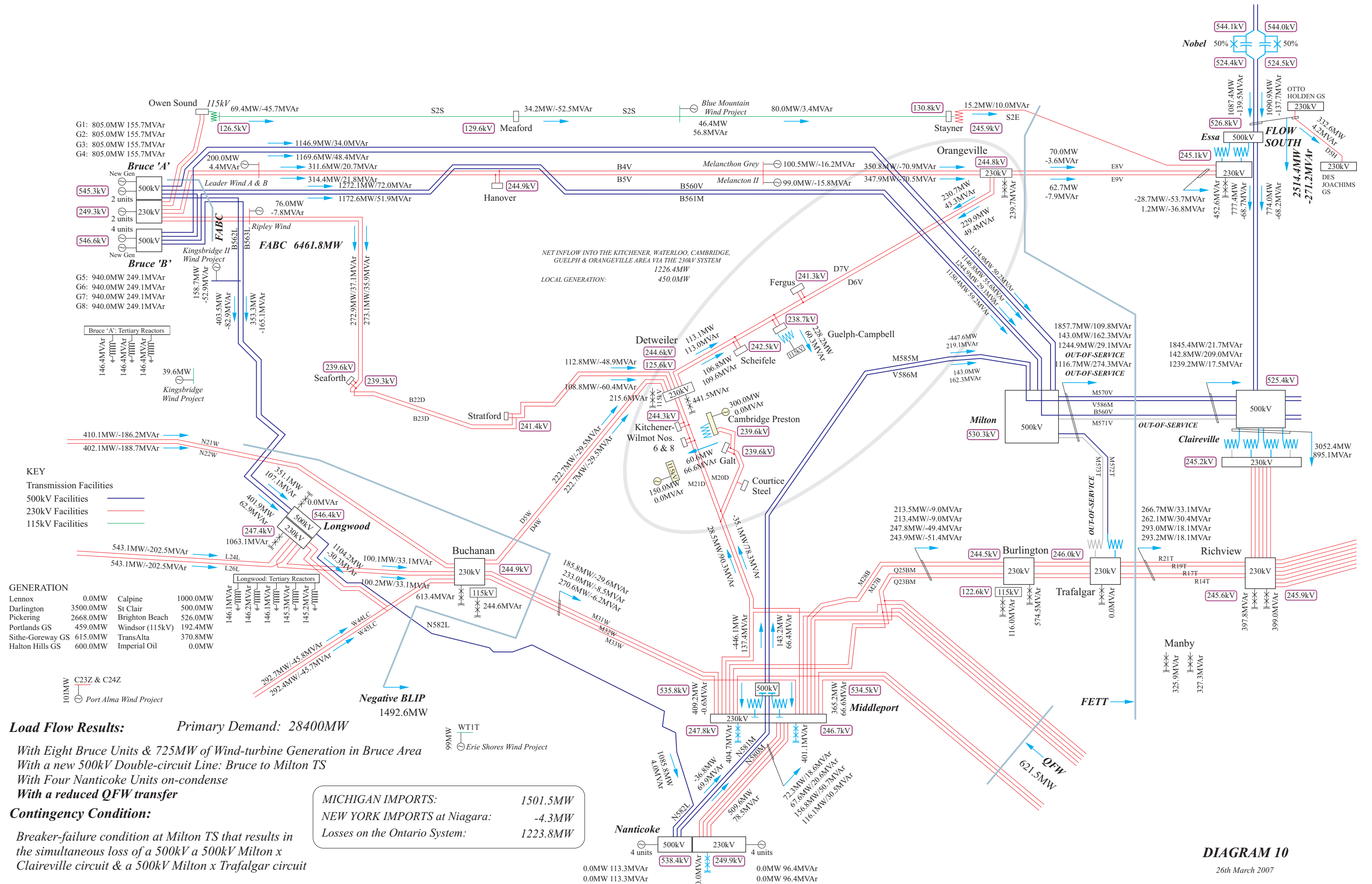
**Load Flow Results:** Primary Demand: 28400MW

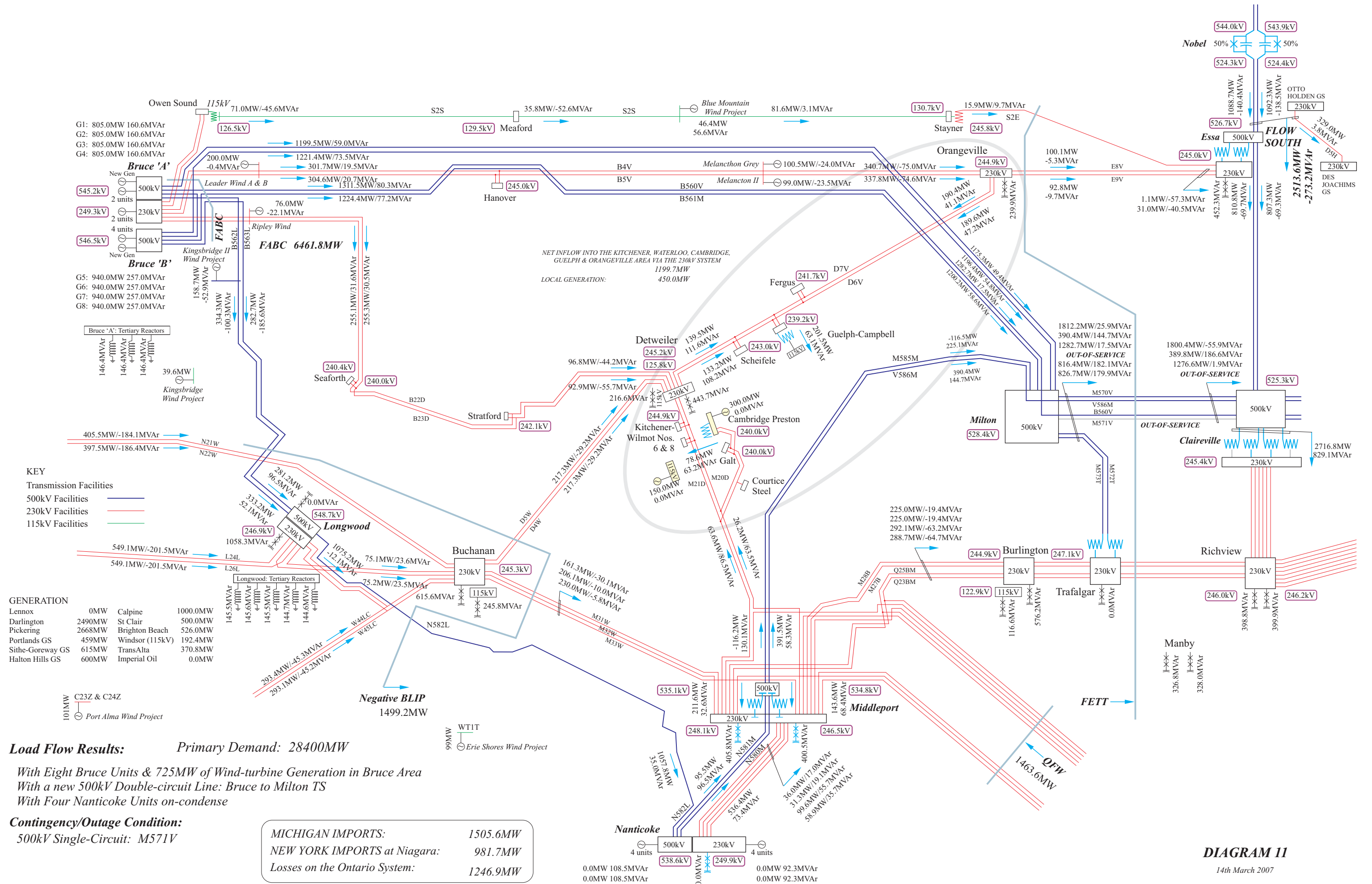
With Eight Bruce Units & 725MW of Wind-turbine Generation in Bruce Area  
 With a new 500kV Double-circuit Line: Bruce to Milton TS  
 With Four Nanticoke Units on-condense

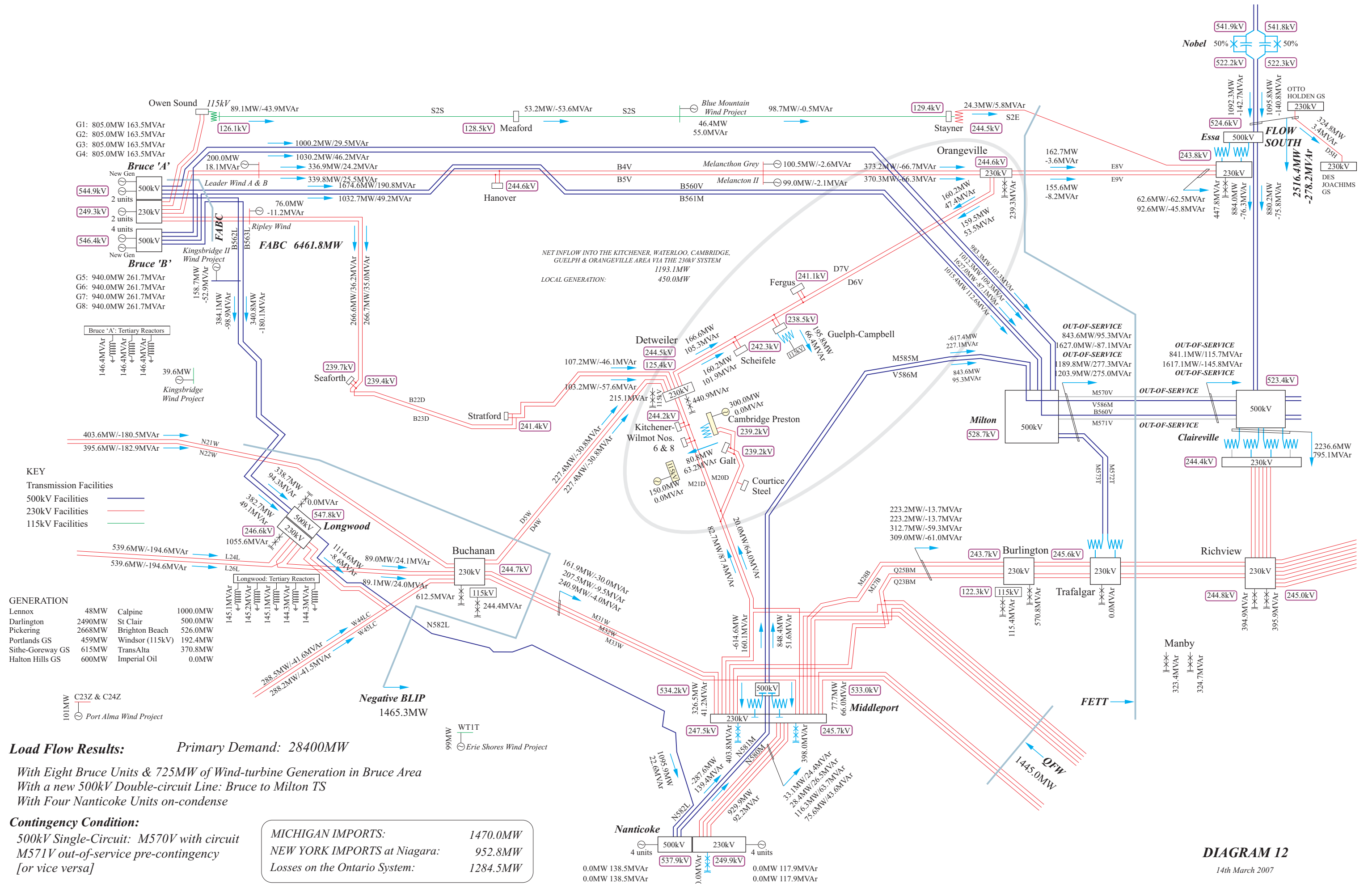
**Contingency Condition:**

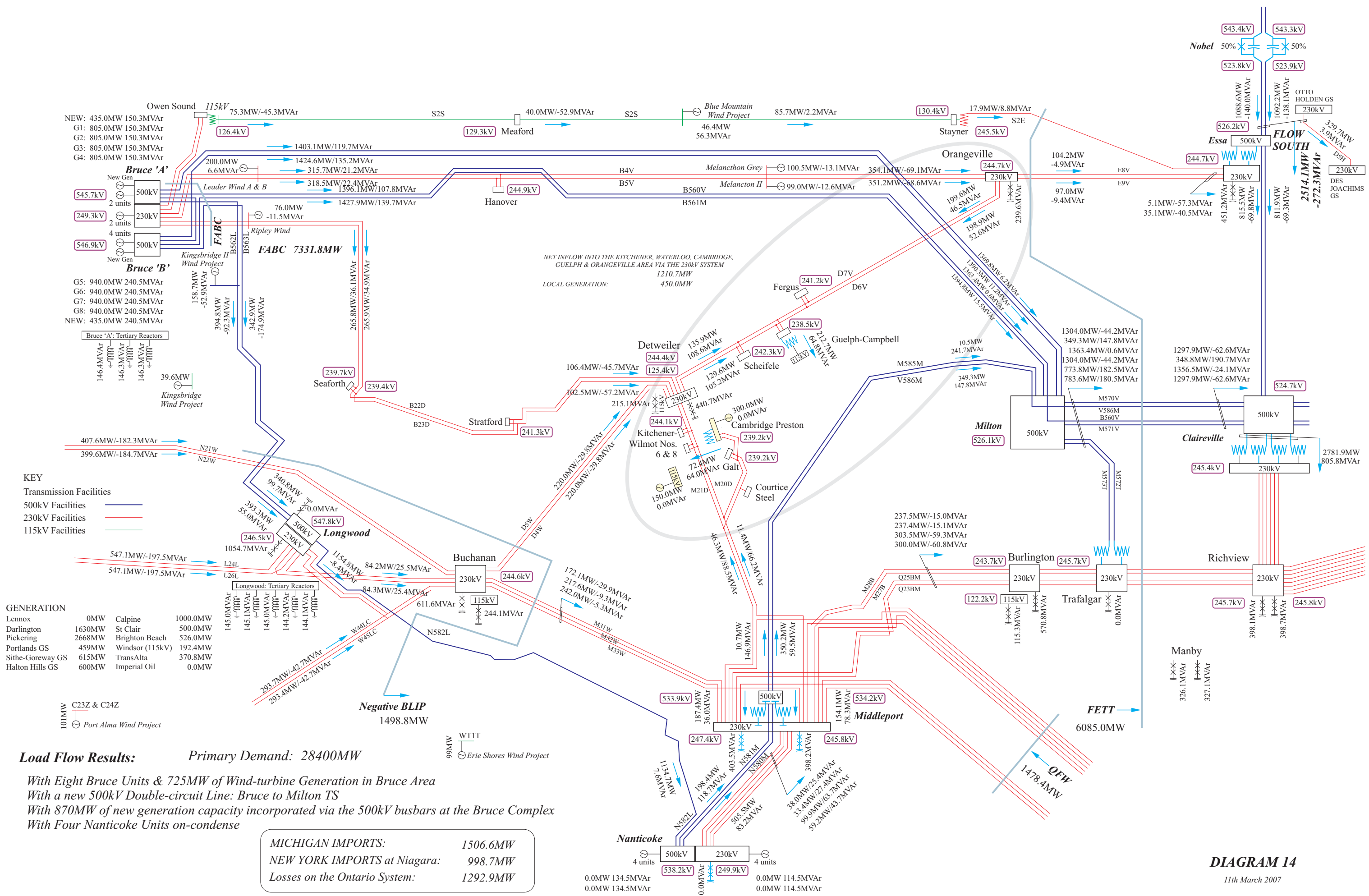
Breaker-failure condition at Milton TS that results in the simultaneous loss of a 500kV a 500kV Milton x Claireville circuit & a 500kV Milton x Trafalgar circuit

MICHIGAN IMPORTS: 1500.5MW  
 NEW YORK IMPORTS at Niagara: 996.4MW  
 Losses on the Ontario System: 1258.4MW

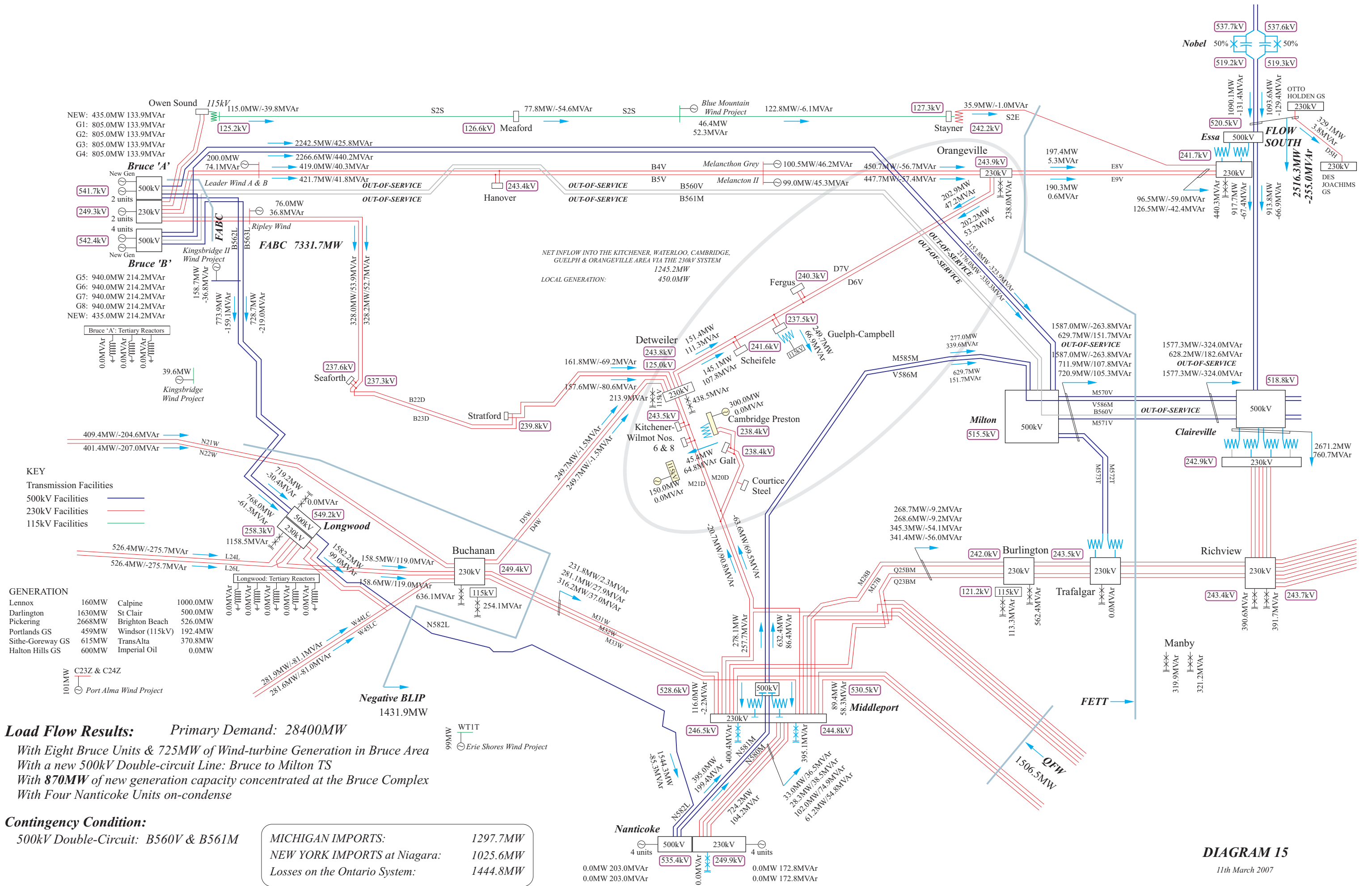


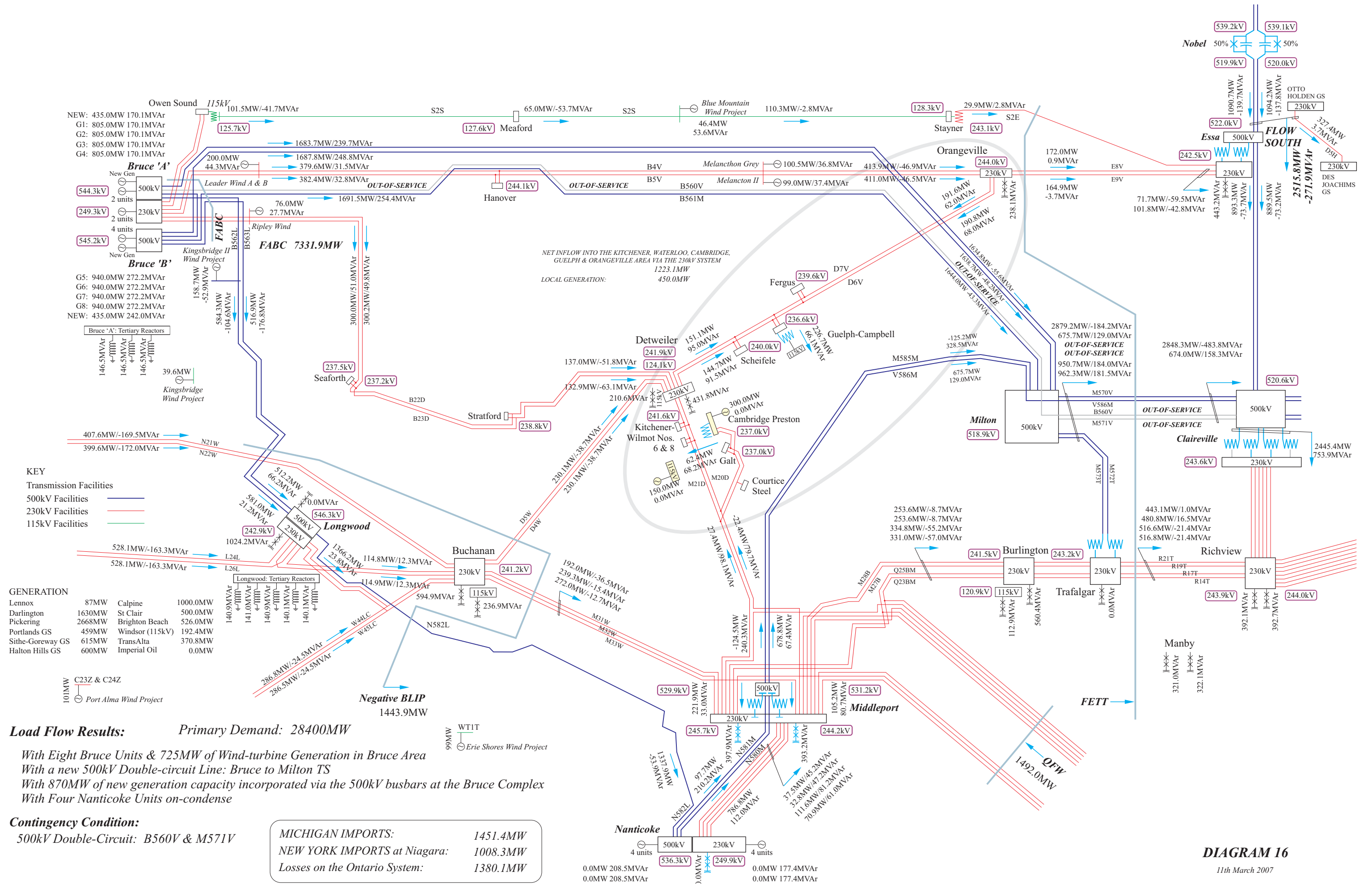


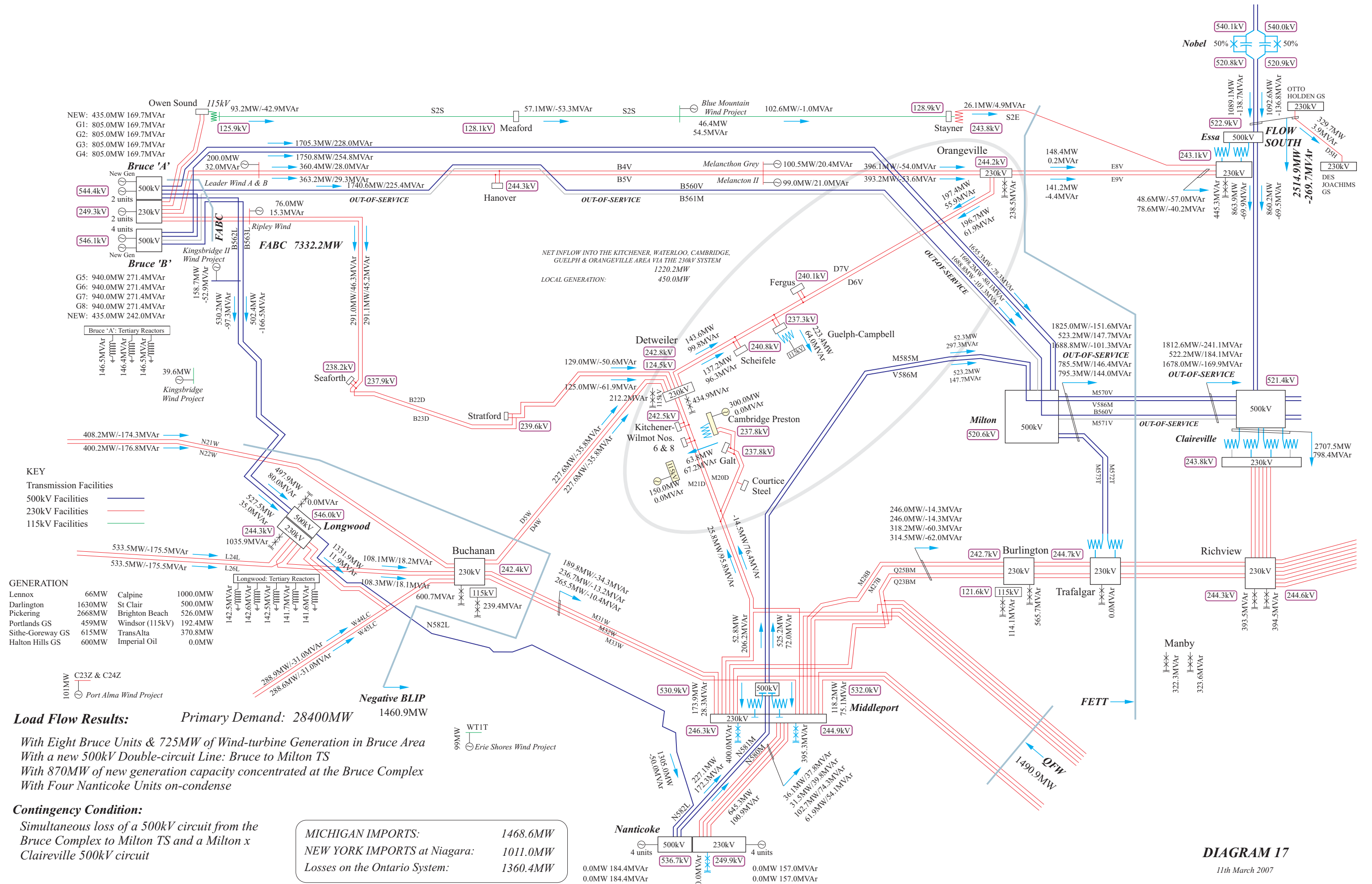


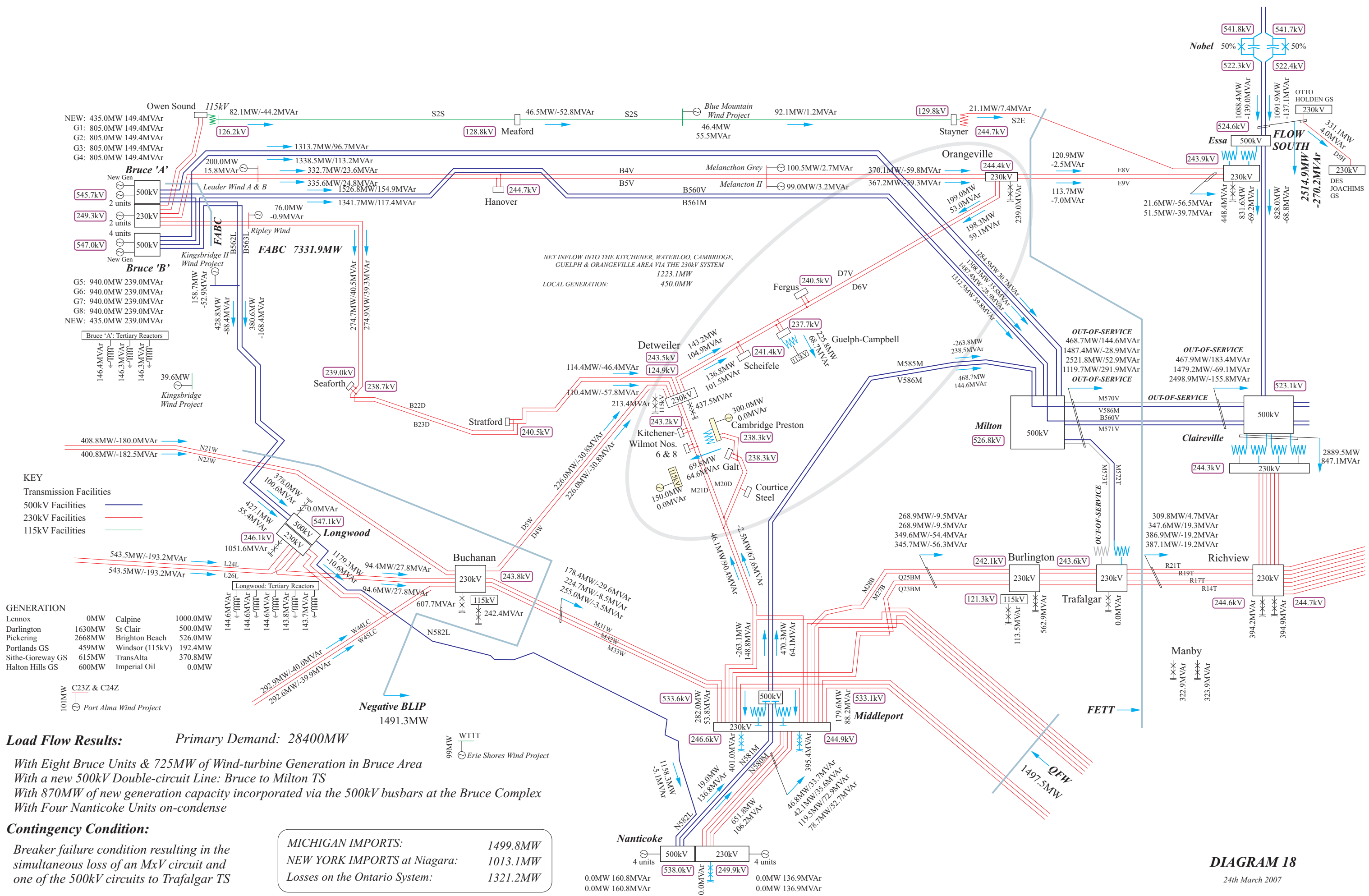


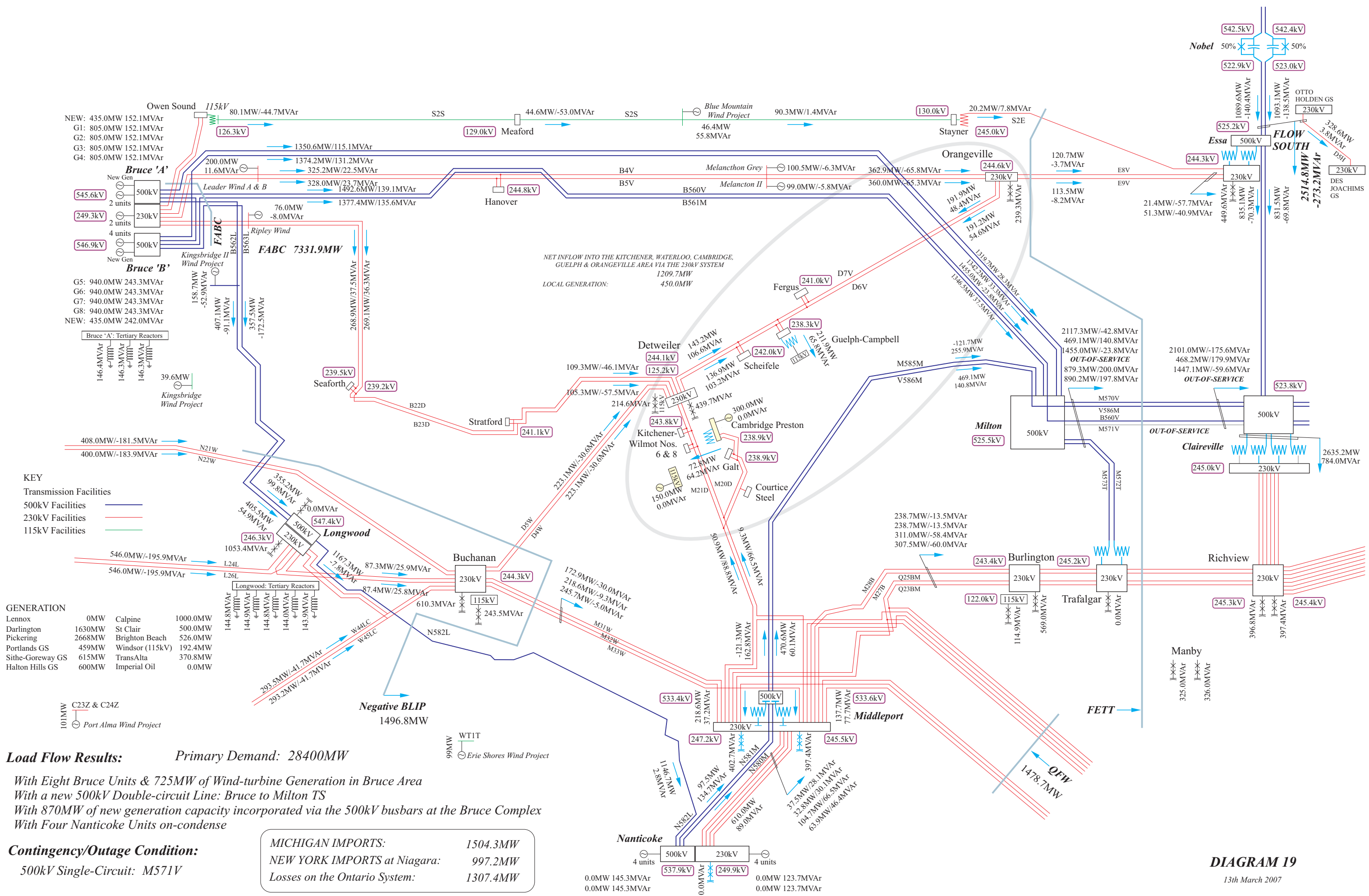
**DIAGRAM 14**  
11th March 2007



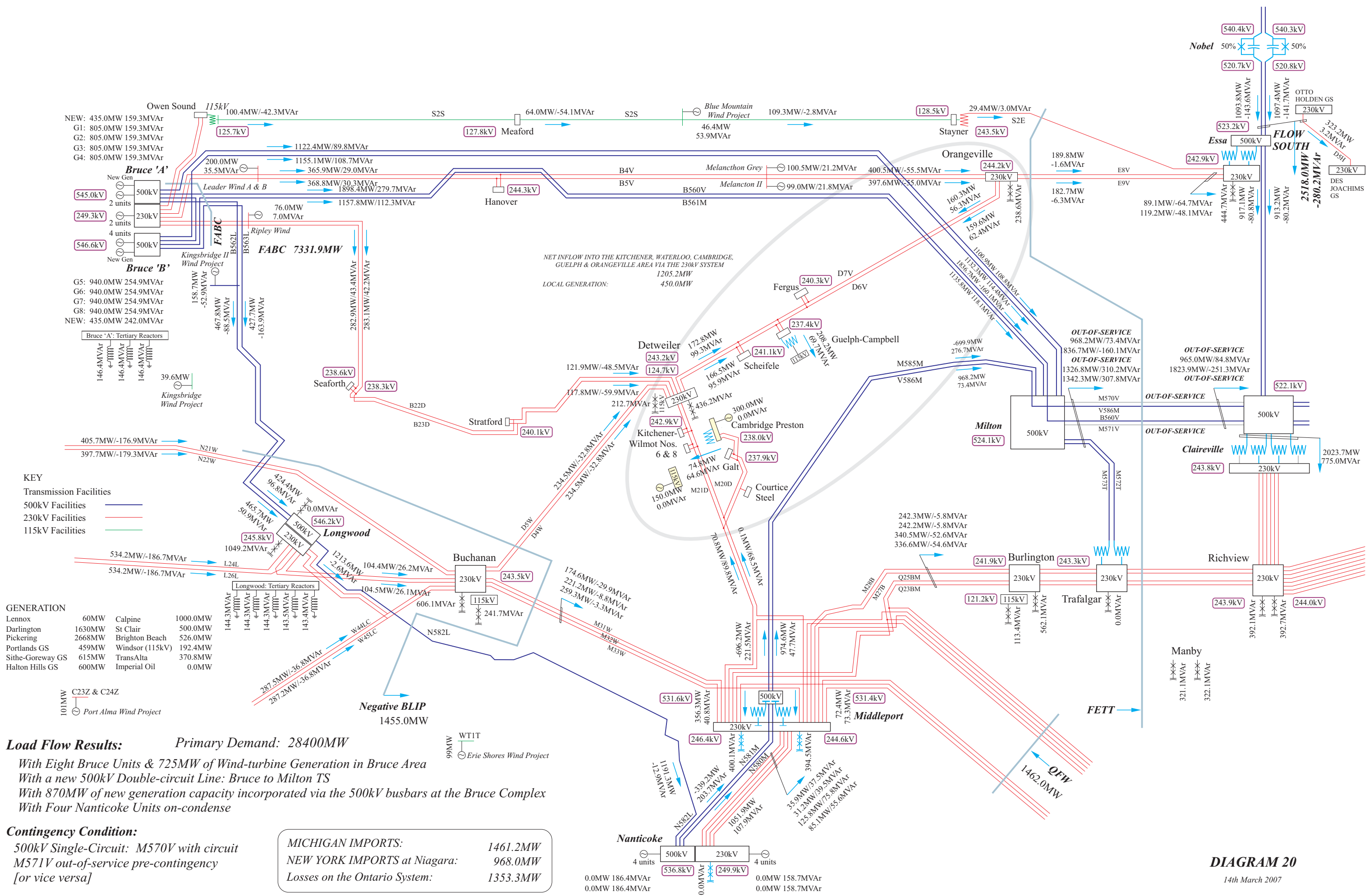








**DIAGRAM 19**  
13th March 2007



**KEY**  
 Transmission Facilities  
 500kV Facilities ———  
 230kV Facilities ———  
 115kV Facilities ———

**GENERATION**

Lennox	60MW	Calpine	1000.0MW
Darlington	1630MW	St Clair	500.0MW
Pickering	2668MW	Brighton Beach	526.0MW
Portlands GS	459MW	Windsor (115kV)	192.4MW
Sithe-Goreway GS	615MW	TransAlta	370.8MW
Halton Hills GS	600MW	Imperial Oil	0.0MW

101MW C23Z & C24Z  
 Port Alma Wind Project

**Load Flow Results:** Primary Demand: 28400MW  
 With Eight Bruce Units & 725MW of Wind-turbine Generation in Bruce Area  
 With a new 500kV Double-circuit Line: Bruce to Milton TS  
 With 870MW of new generation capacity incorporated via the 500kV busbars at the Bruce Complex  
 With Four Nanticoke Units on-condense

**Contingency Condition:**  
 500kV Single-Circuit: M570V with circuit M571V out-of-service pre-contingency [or vice versa]

MICHIGAN IMPORTS:	1461.2MW
NEW YORK IMPORTS at Niagara:	968.0MW
Losses on the Ontario System:	1353.3MW

**DIAGRAM 20**  
 14th March 2007