

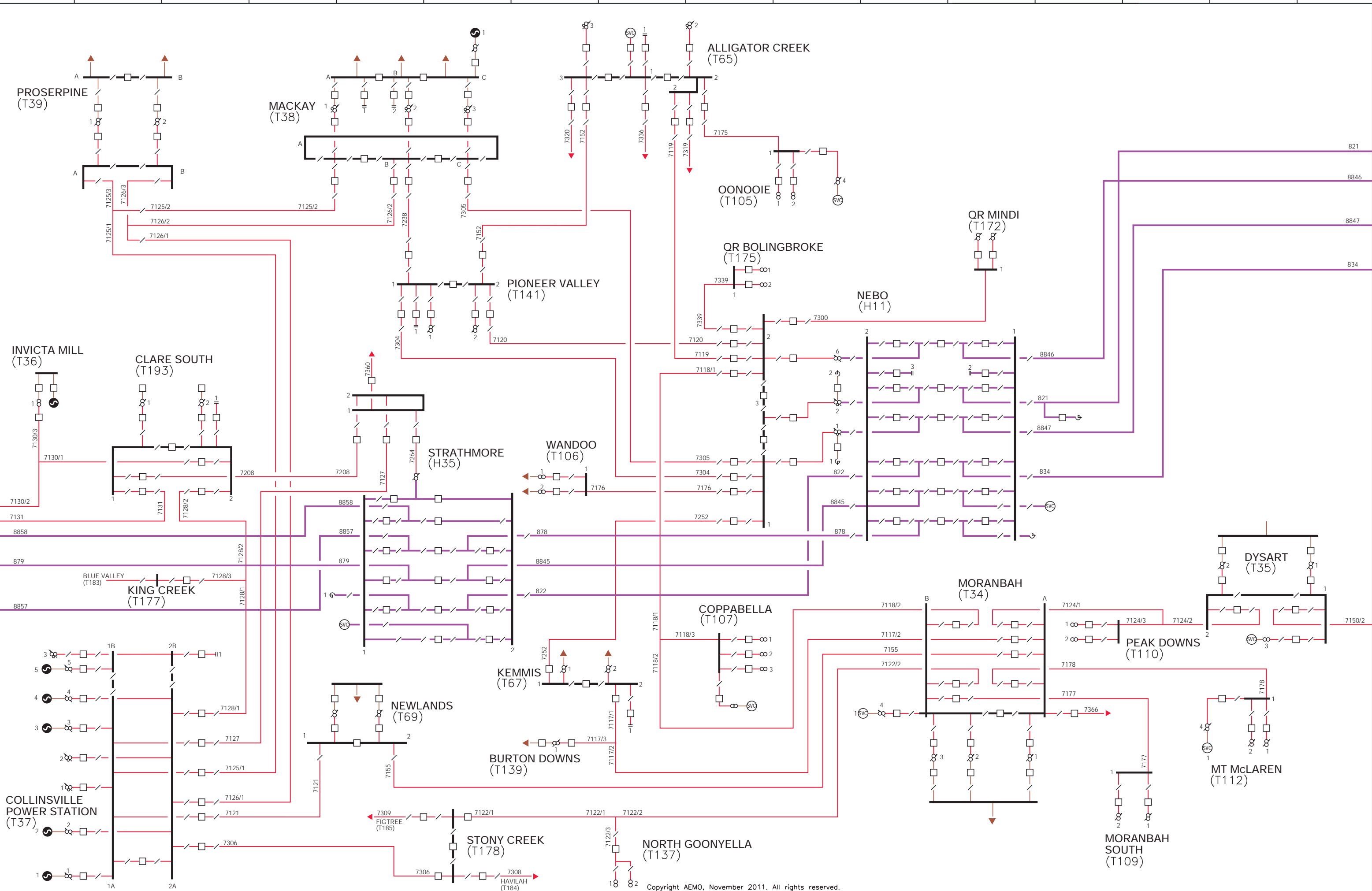
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AUSTRALIAN ENERGY MARKET OPERATOR
HIGH VOLTAGE NETWORK
 MAIN SYSTEM DIAGRAM
QUEENSLAND - a

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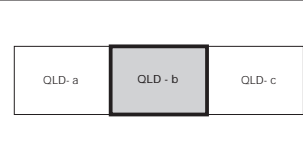
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AUSTRALIAN ENERGY MARKET OPERATOR
HIGH VOLTAGE NETWORK
 MAIN SYSTEM DIAGRAM
QUEENSLAND - b

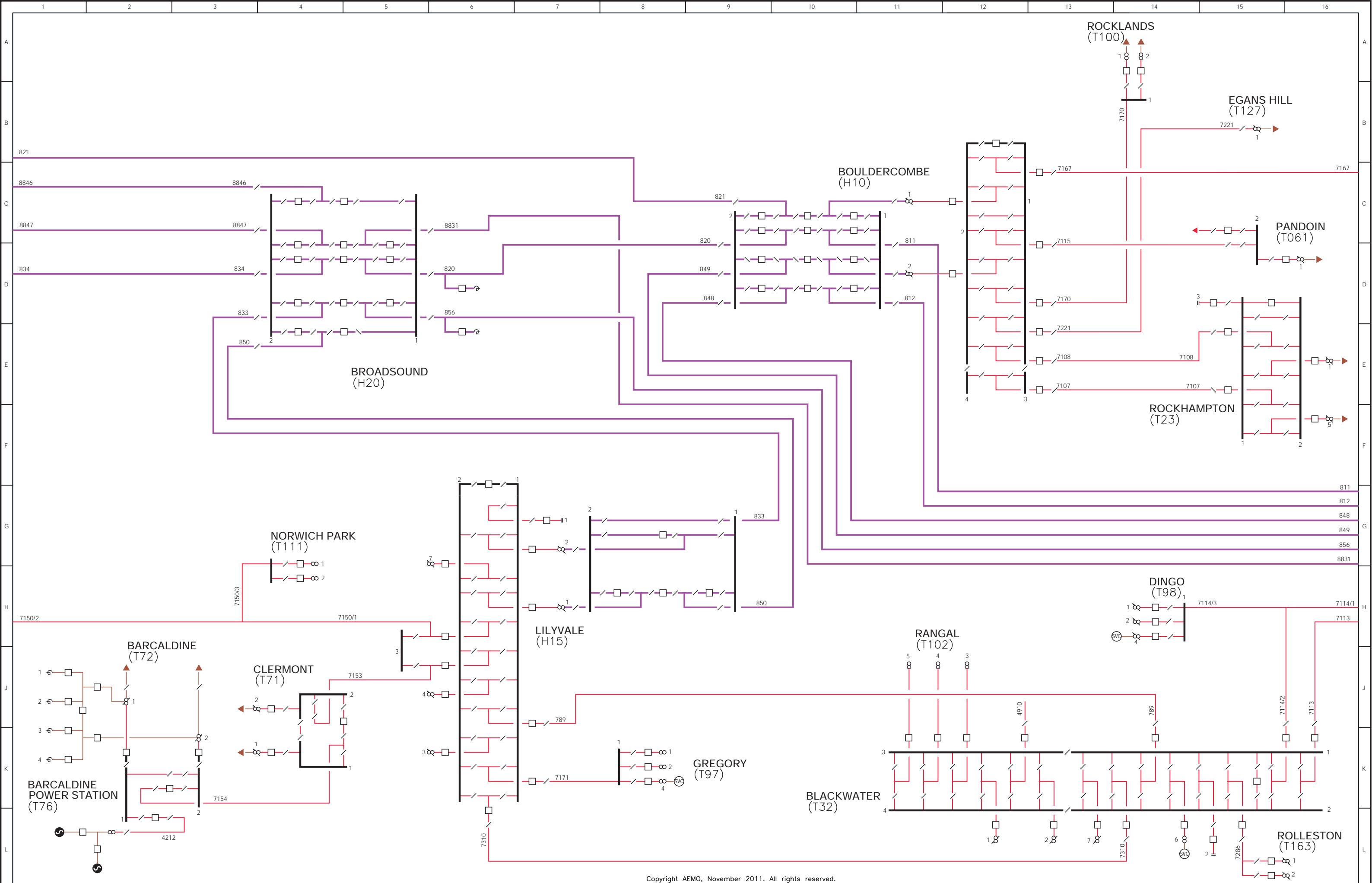


- 500kV
- 330kV
- 275kV
- 220kV
- 132 / 110kV
- 66kV and BELOW

- Generator
- Static Var Compensator
- Synchronous Condenser

- Circuit breaker
- Isolator
- Capacitor Bank
- Reactor

- 2 Winding fixed tap transformer
- 3 Winding fixed tap transformer
- 2 Winding tap transformer
- 3 Winding tap transformer
- Auto transformer, fixed tap
- Auto transformer, with tap changer



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AUSTRALIAN ENERGY MARKET OPERATOR
HIGH VOLTAGE NETWORK
 MAIN SYSTEM DIAGRAM
QUEENSLAND - c

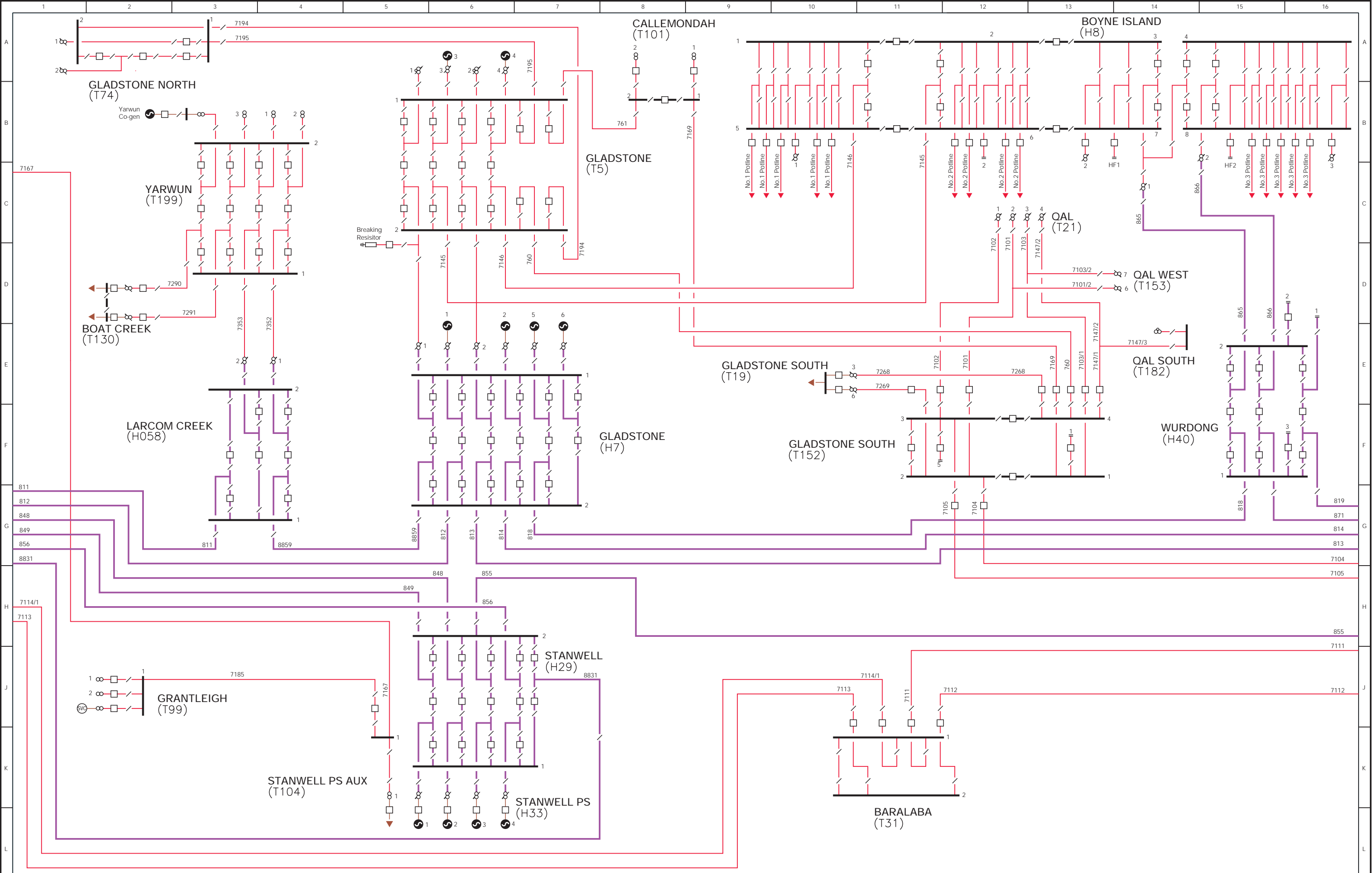


- 500kV
- 330kV
- 275kV
- 220kV
- 132 / 110kV
- 66kV and BELOW

- Generator
- Static Var Compensator
- Synchronous Condensator
- Circuit breaker
- Isolator
- Capacitor Bank
- Reactor

- 2 Winding fixed tap transformer
- 3 Winding fixed tap transformer
- 2 Winding tap transformer
- 3 Winding tap transformer
- Auto transformer, fixed tap
- Auto transformer, with tap changer

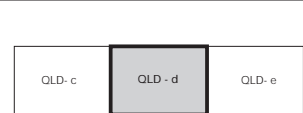
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AUSTRALIAN ENERGY MARKET OPERATOR
HIGH VOLTAGE NETWORK
 MAIN SYSTEM DIAGRAM
QUEENSLAND - d



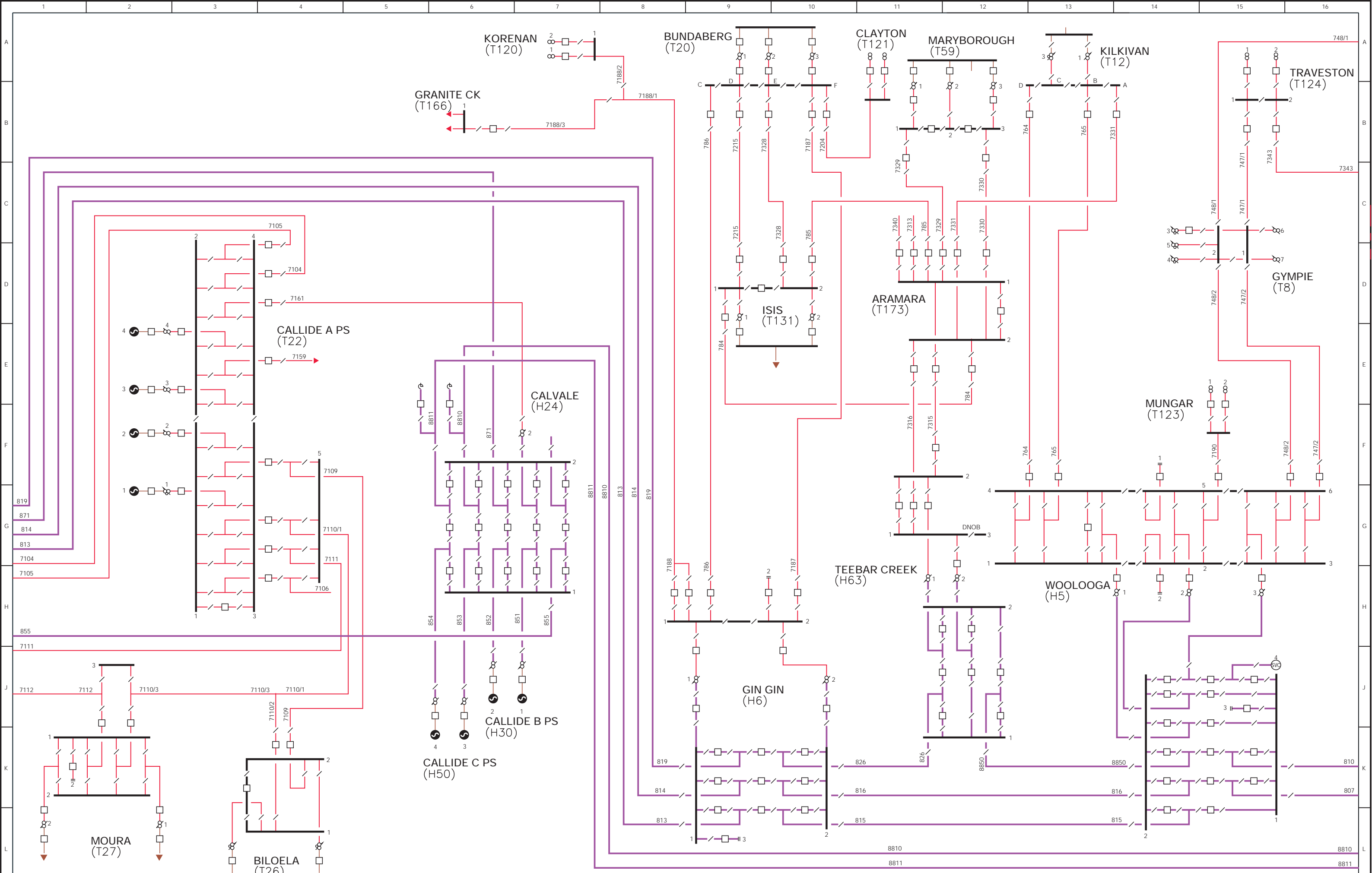
- 500kV
- 330kV
- 275kV
- 220kV
- 132 / 110kV
- 66kV and BELOW

- Generator
- Static Var Compensator
- Synchronous Condenser

- Circuit breaker
- Isolator
- Capacitor Bank
- Reactor
- Breaking Resistor

- 2 Winding fixed tap transformer
- 3 Winding fixed tap transformer
- 2 Winding tap transformer
- 3 Winding tap transformer
- Auto transformer, fixed tap
- Auto transformer, with tap changer

DATE: Nov '11



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AUSTRALIAN ENERGY MARKET OPERATOR
HIGH VOLTAGE NETWORK
 MAIN SYSTEM DIAGRAM
QUEENSLAND - e



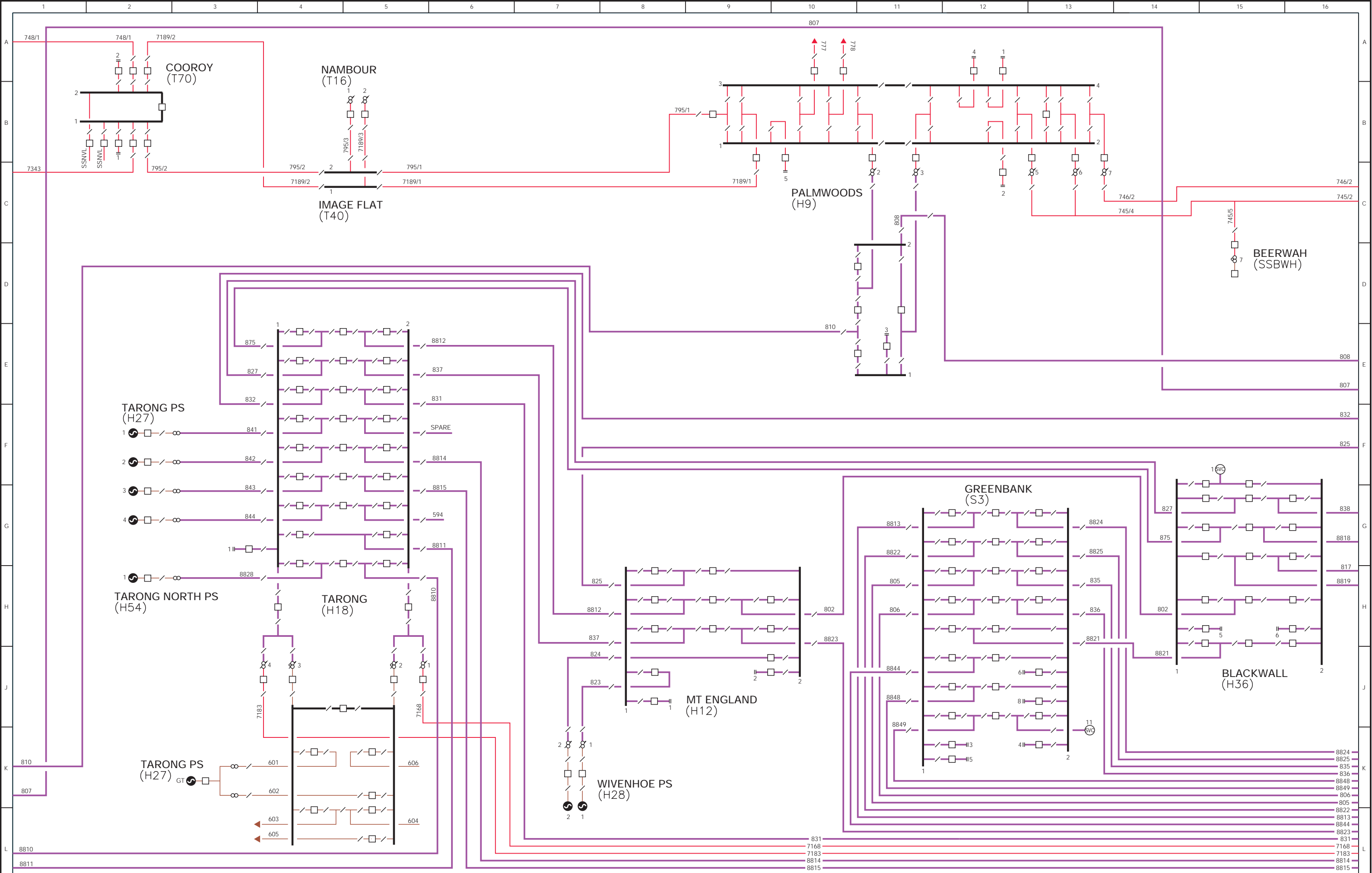
- 500kV
- 330kV
- 275kV
- 220kV
- 132 / 110kV
- 66kV and BELOW

- Generator
- Static Var Compensator
- Synchronous Condenser

- Circuit breaker
- Isolator
- Capacitor Bank
- Reactor

- 2 Winding fixed tap transformer
- 3 Winding fixed tap transformer
- 2 Winding tap transformer
- 3 Winding tap transformer
- Auto transformer, fixed tap
- Auto transformer, with tap changer

DATE : Nov '11



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**AUSTRALIAN ENERGY MARKET OPERATOR
HIGH VOLTAGE NETWORK
MAIN SYSTEM DIAGRAM
QUEENSLAND - f**



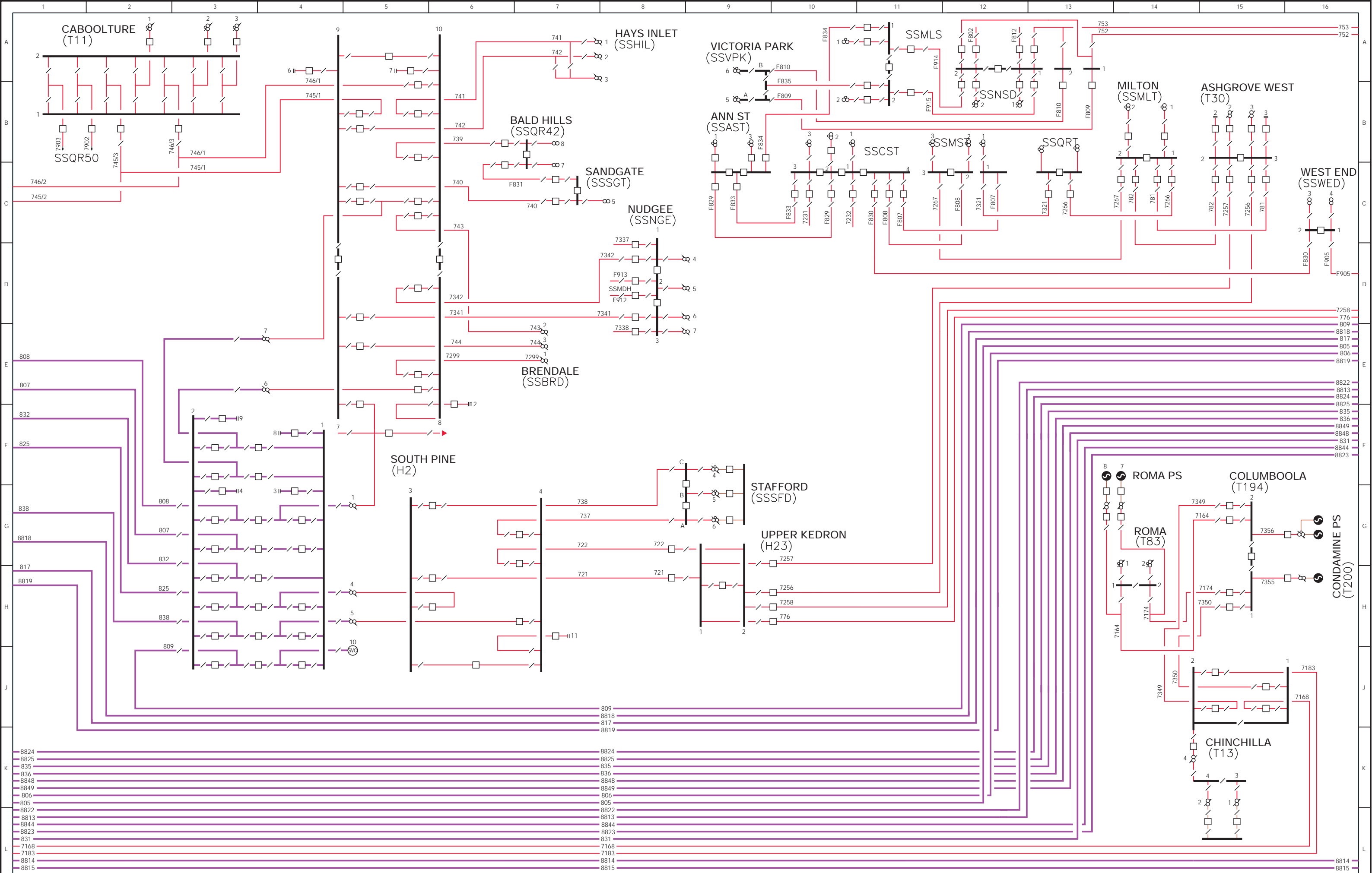
- 500kV
- 330kV
- 275kV
- 220kV
- 132 / 110kV
- 66kV and BELOW

- Generator
- Static Var Compensator
- Synchronous Condenser

- Circuit breaker
- Isolator
- Capacitor Bank
- Reactor

- 2 Winding fixed tap transformer
- 3 Winding fixed tap transformer
- 2 Winding tap transformer
- 3 Winding tap transformer

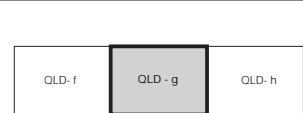
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AUSTRALIAN ENERGY MARKET OPERATOR
HIGH VOLTAGE NETWORK
 MAIN SYSTEM DIAGRAM
QUEENSLAND - g



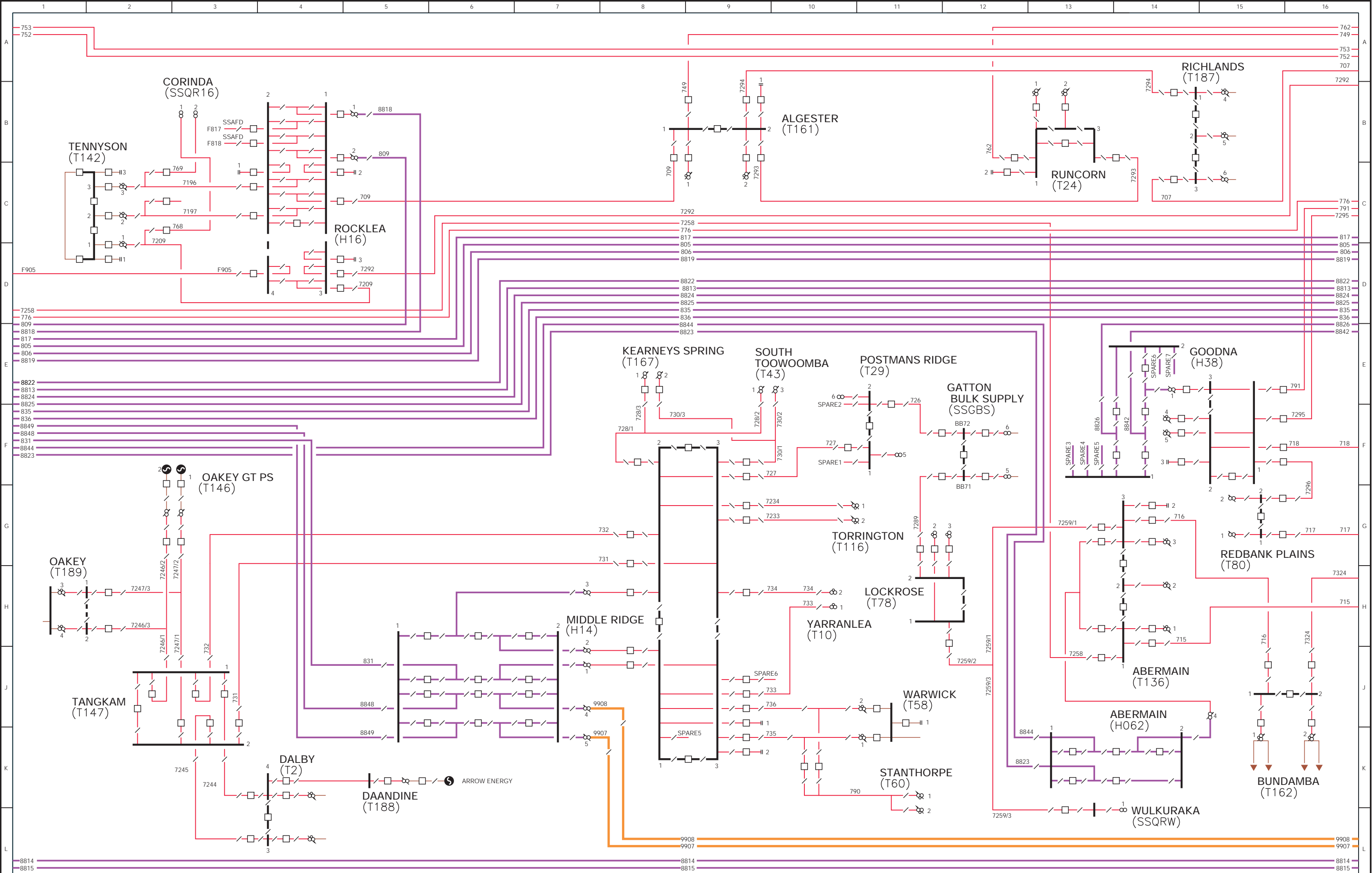
- 500kV
- 330kV
- 275kV
- 220kV
- 132 / 110kV
- 66kV and BELOW

- Generator
- Static Var Compensator
- Synchronous Condensator

- Circuit breaker
- Isolator
- Capacitor Bank
- Reactor

- 2 Winding fixed tap transformer
- 3 Winding fixed tap transformer
- 2 Winding tap transformer
- 3 Winding tap transformer

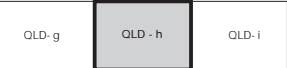
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AUSTRALIAN ENERGY MARKET OPERATOR
 HIGH VOLTAGE NETWORK
 MAIN SYSTEM DIAGRAM
 QUEENSLAND - h



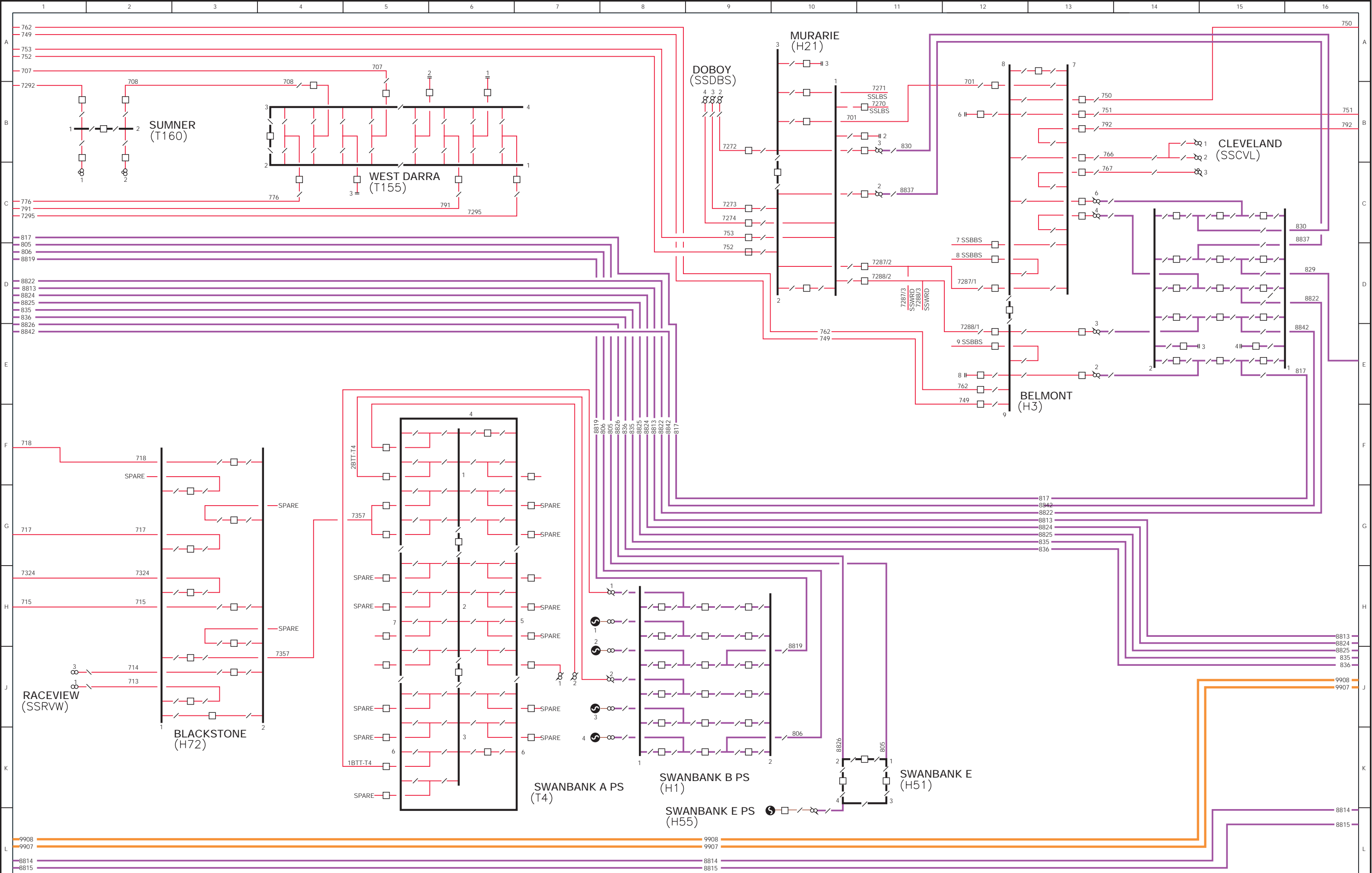
- 500kV
- 330kV
- 275kV
- 220kV
- 132 / 110kV
- 66kV and BELOW

- Generator
- Static Var Compensator
- Synchronous Condenser

- Circuit breaker
- Isolator
- Capacitor Bank
- Reactor

- 2 Winding fixed tap transformer
- 3 Winding fixed tap transformer
- 2 Winding tap transformer
- 3 Winding tap transformer
- Auto transformer, fixed tap
- Auto transformer, with tap changer

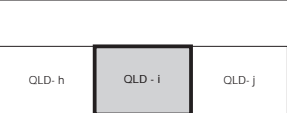
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AUSTRALIAN ENERGY MARKET OPERATOR
HIGH VOLTAGE NETWORK
 MAIN SYSTEM DIAGRAM
QUEENSLAND - i



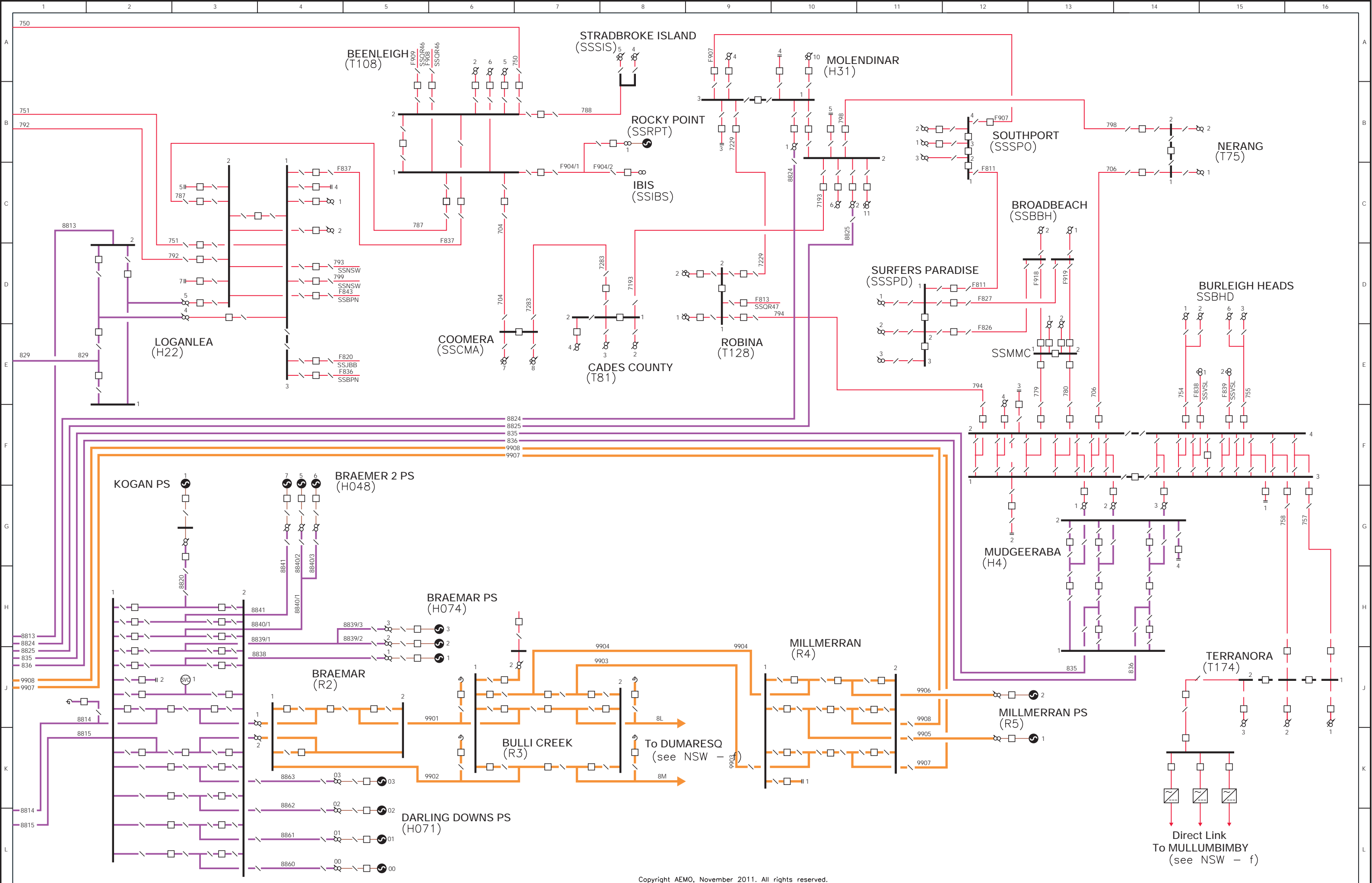
- 500kV
- 330kV
- 275kV
- 220kV
- 132 / 110kV
- 66kV and BELOW

- Generator
- Static Var Compensator
- Synchronous Condensator

- Circuit breaker
- Isolator
- Capacitor Bank
- Reactor

- 2 Winding fixed tap transformer
- 3 Winding fixed tap transformer
- 2 Winding tap transformer
- 3 Winding tap transformer
- Auto transformer, fixed tap
- Auto transformer, with tap changer

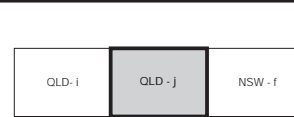
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AUSTRALIAN ENERGY MARKET OPERATOR
HIGH VOLTAGE NETWORK
 MAIN SYSTEM DIAGRAM
QUEENSLAND - j



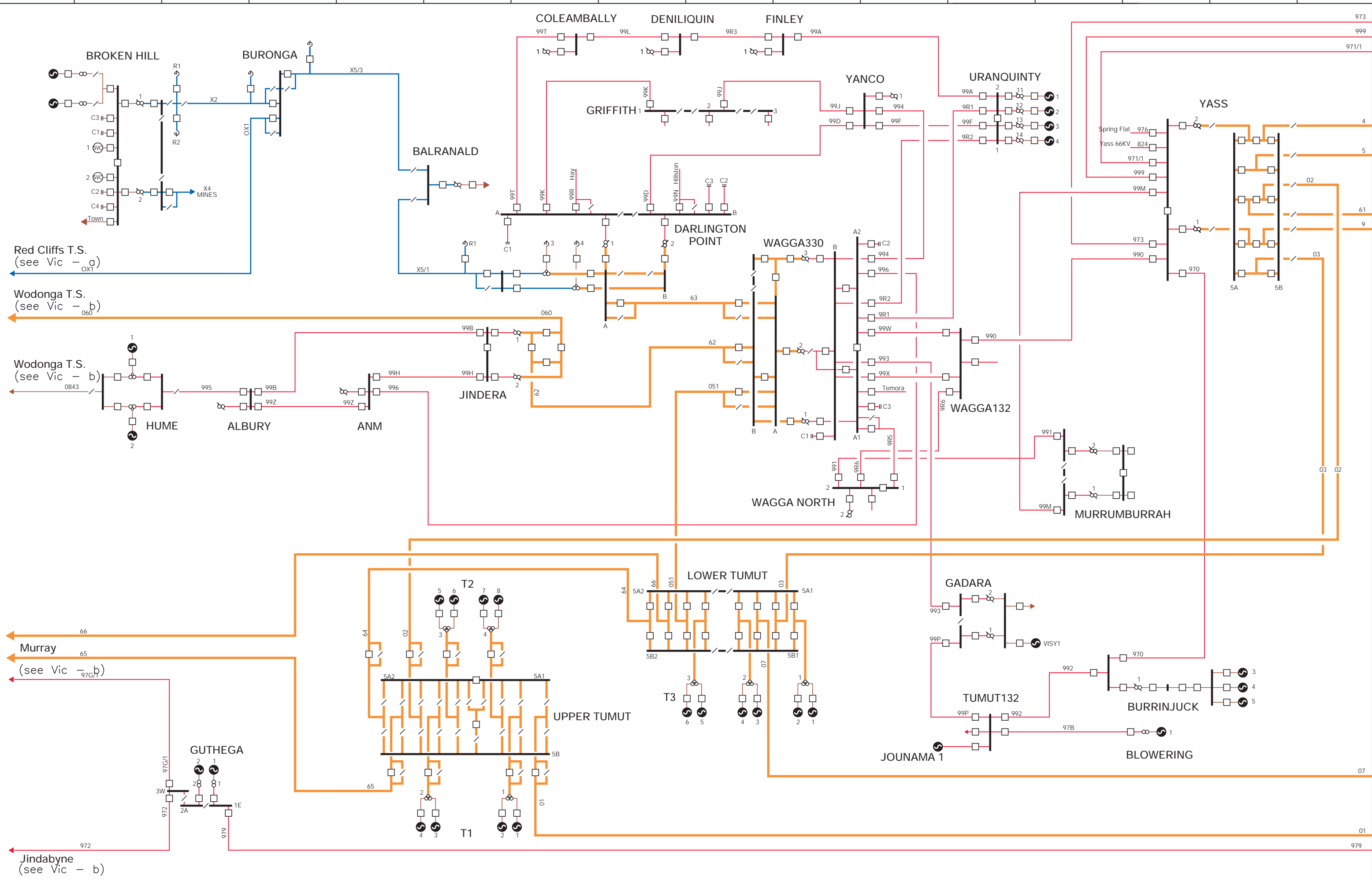
- 500kV
- 330kV
- 275kV
- 220kV
- 132 / 110kV
- 66kV and BELOW

- Generator
- Static Var Compensator
- Synchronous Condenser

- Circuit breaker
- Isolator
- Capacitor Bank
- Reactor
- Converter Station

- 2 Winding fixed tap transformer
- 3 Winding fixed tap transformer
- 2 Winding tap transformer
- 3 Winding tap transformer

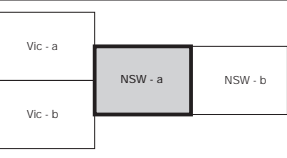
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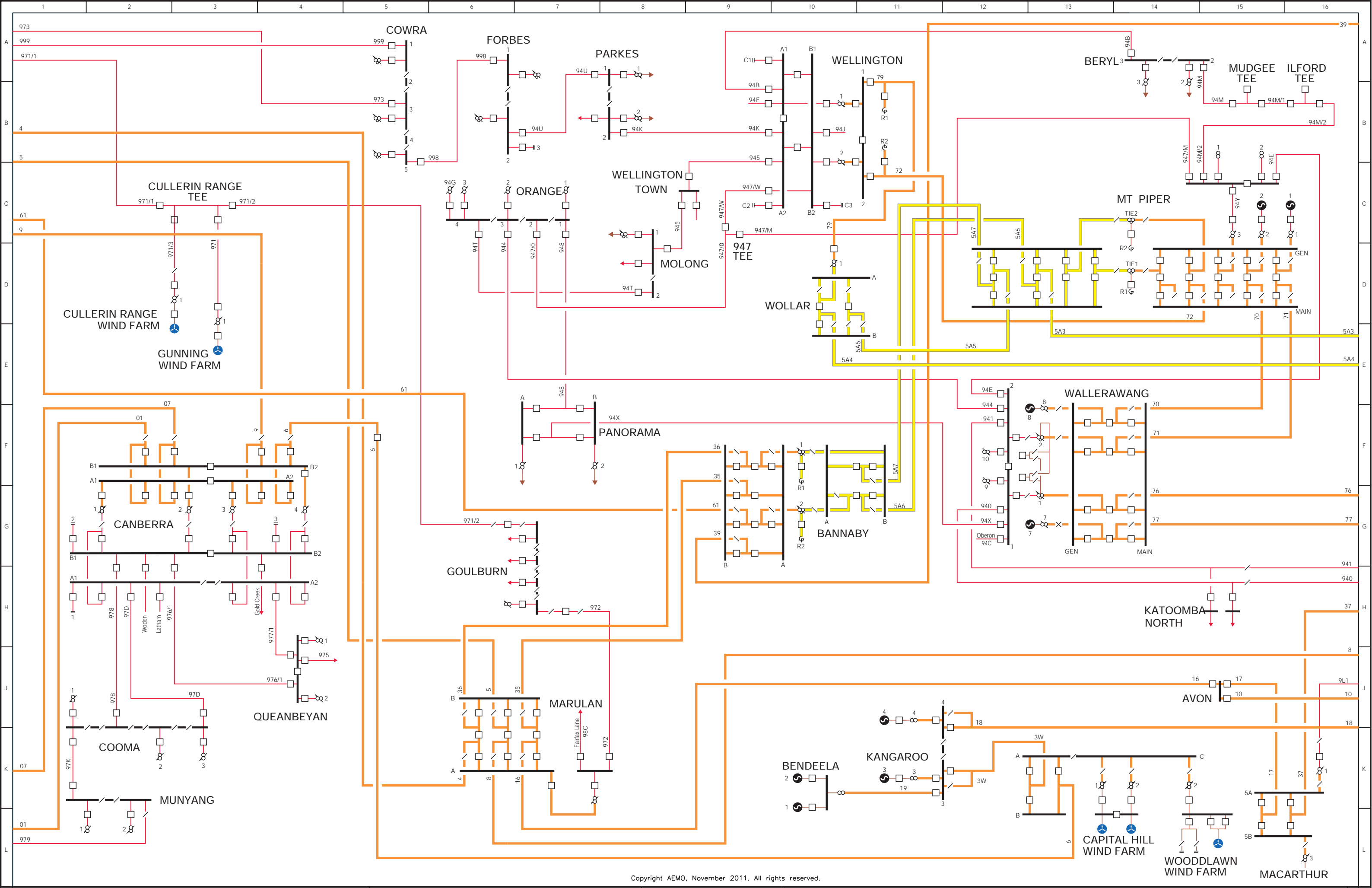


AUSTRALIAN ENERGY MARKET OPERATOR
HIGH VOLTAGE NETWORK
 MAIN SYSTEM DIAGRAM
NEW SOUTH WALES - a



- | | | | |
|----------------|------------------------|-----------------|---------------------------------|
| 500kV | Generator | Circuit breaker | 2 Winding fixed tap transformer |
| 330kV | Static Var Compensator | Isolator | 3 Winding fixed tap transformer |
| 275kV | Synchronous Condenser | Capacitor Bank | 2 Winding tap transformer |
| 220kV | | Reactor | 3 Winding tap transformer |
| 132 / 110kV | | Shunt Reactor | |
| 66kV and BELOW | | | |

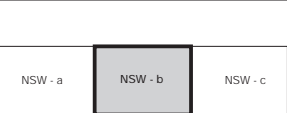
DATE: Nov. '11



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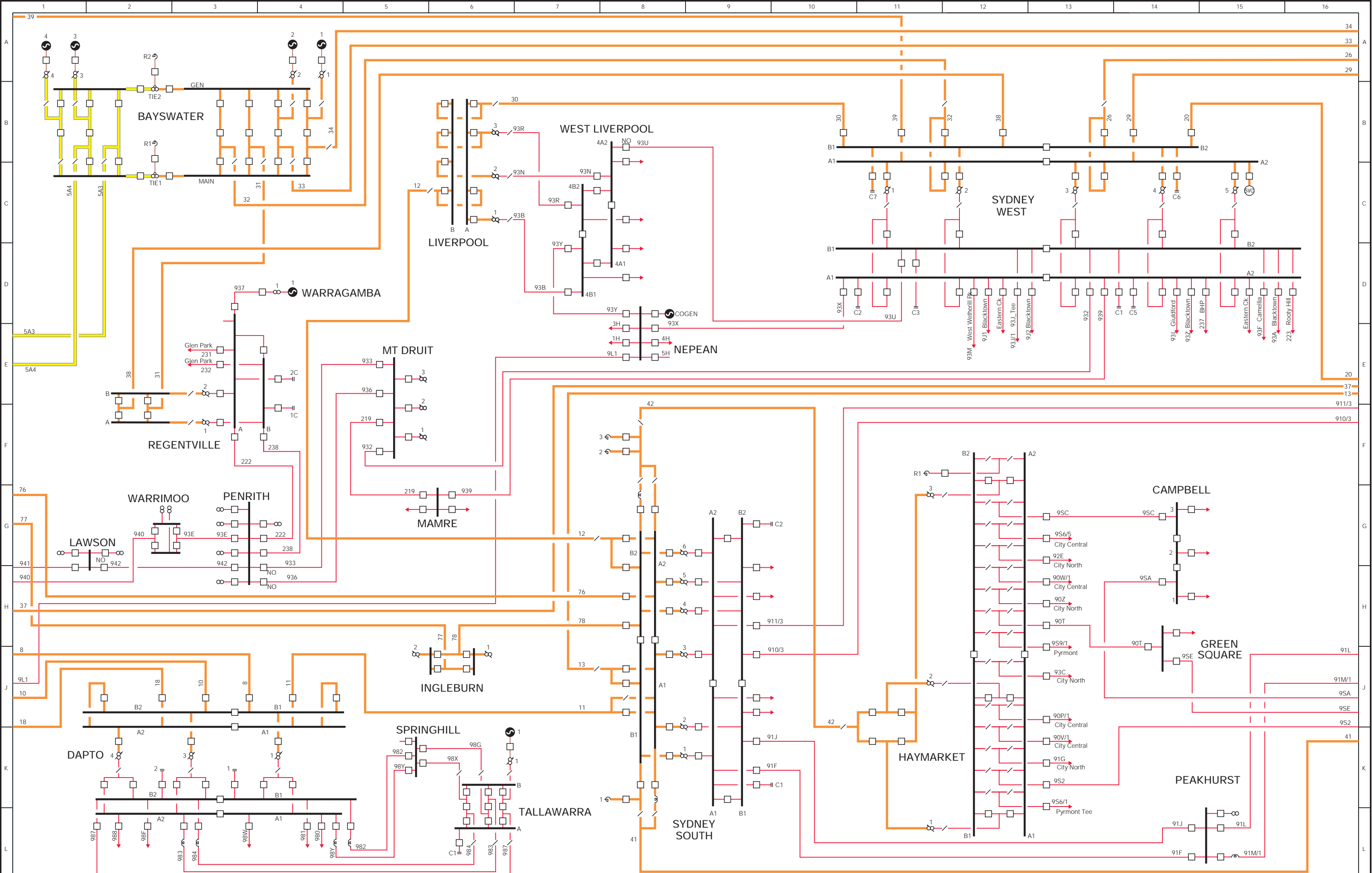


AUSTRALIAN ENERGY MARKET OPERATOR
 HIGH VOLTAGE NETWORK
 MAIN SYSTEM DIAGRAM
 NEW SOUTH WALES - b



500kV	Generator	Circuit breaker	2 Winding fixed tap transformer
330kV	Static Var Compensator	Isolator	3 Winding fixed tap transformer
275kV	Synchronous Condenser	Capacitor Bank	2 Winding tap transformer
220kV	Windfarm	Reactor	3 Winding tap transformer
132 / 110kV		Shunt Reactor	
66kV and BELOW			

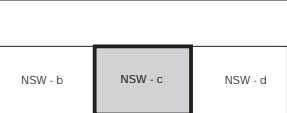
DATE: Nov '11



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AUSTRALIAN ENERGY MARKET OPERATOR
 HIGH VOLTAGE NETWORK
 MAIN SYSTEM DIAGRAM
 NEW SOUTH WALES - c



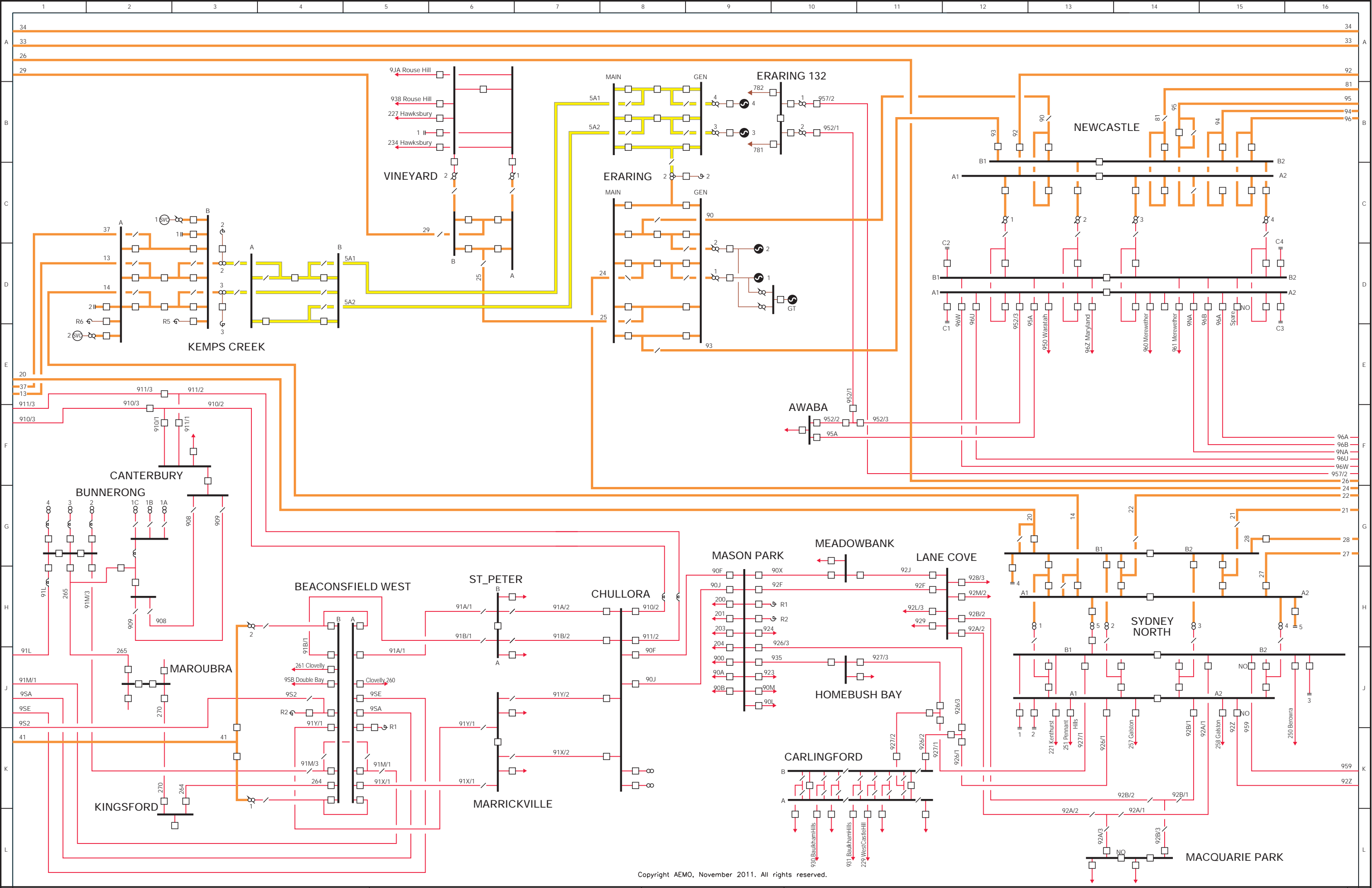
- 500kV
- 330kV
- 275kV
- 220kV
- 132 / 110kV
- 66kV and BELOW

- Generator
- Static Var Compensator
- Synchronous Condenser
- NO Normally Open

- Circuit breaker
- Isolator
- Capacitor Bank
- Reactor
- Shunt Reactor

- 2 Winding fixed tap transformer
- 3 Winding fixed tap transformer
- 2 Winding tap transformer
- 3 Winding tap transformer

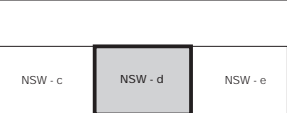
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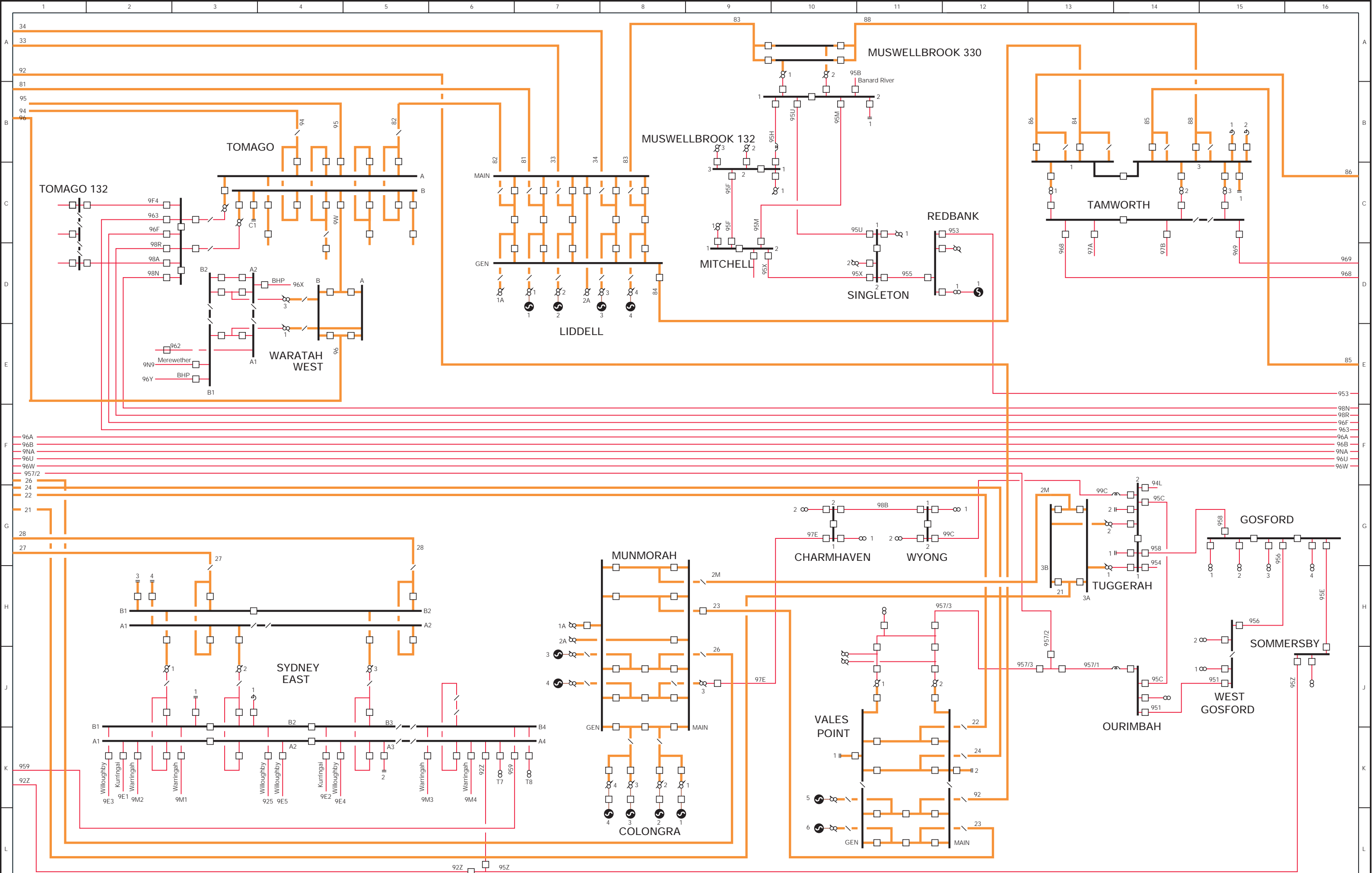


AUSTRALIAN ENERGY MARKET OPERATOR
HIGH VOLTAGE NETWORK
 MAIN SYSTEM DIAGRAM
NEW SOUTH WALES - d



- | | | | |
|----------------|------------------------|-----------------|---------------------------------|
| 500kV | Generator | Circuit breaker | 2 Winding fixed tap transformer |
| 330kV | Static Var Compensator | Isolator | 3 Winding fixed tap transformer |
| 275kV | Synchronous Condenser | Capacitor Bank | 2 Winding tap transformer |
| 220kV | Normally Open | Reactor | 3 Winding tap transformer |
| 132 / 110kV | | Shunt Reactor | |
| 66kV and BELOW | | | |

DATE: Nov '11



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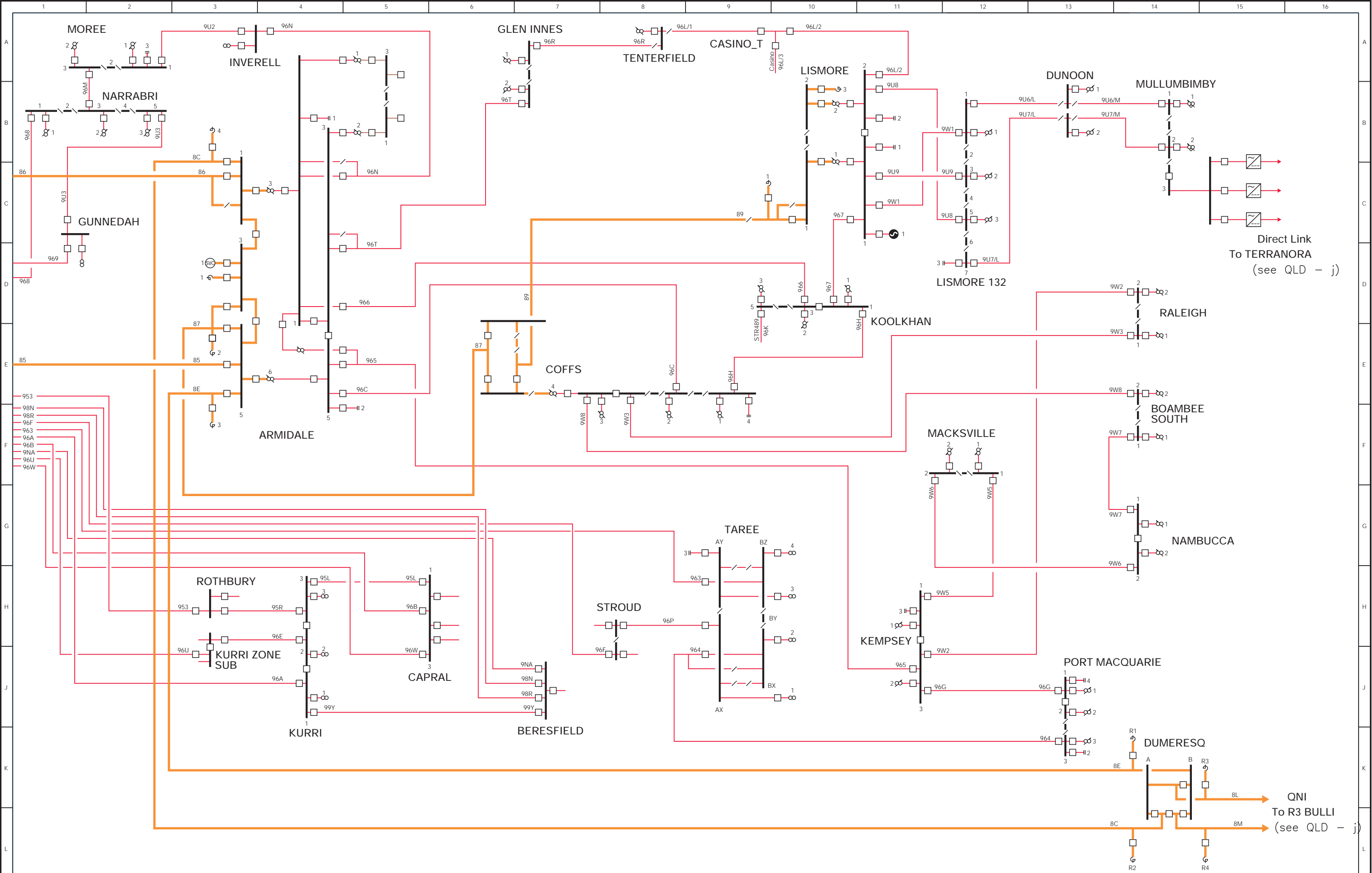


**AUSTRALIAN ENERGY MARKET OPERATOR
HIGH VOLTAGE NETWORK
MAIN SYSTEM DIAGRAM
NEW SOUTH WALES - e**



- | | | | |
|----------------|------------------------|-----------------|---------------------------------|
| 500kV | Generator | Circuit breaker | 2 Winding fixed tap transformer |
| 330kV | Static Var Compensator | Isolator | 3 Winding fixed tap transformer |
| 275kV | Synchronous Condenser | Capacitor Bank | 2 Winding tap transformer |
| 220kV | | Reactor | 3 Winding tap transformer |
| 132 / 110kV | | Shunt Reactor | |
| 66kV and BELOW | | | |

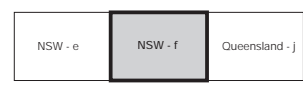
DATE: Nov '11



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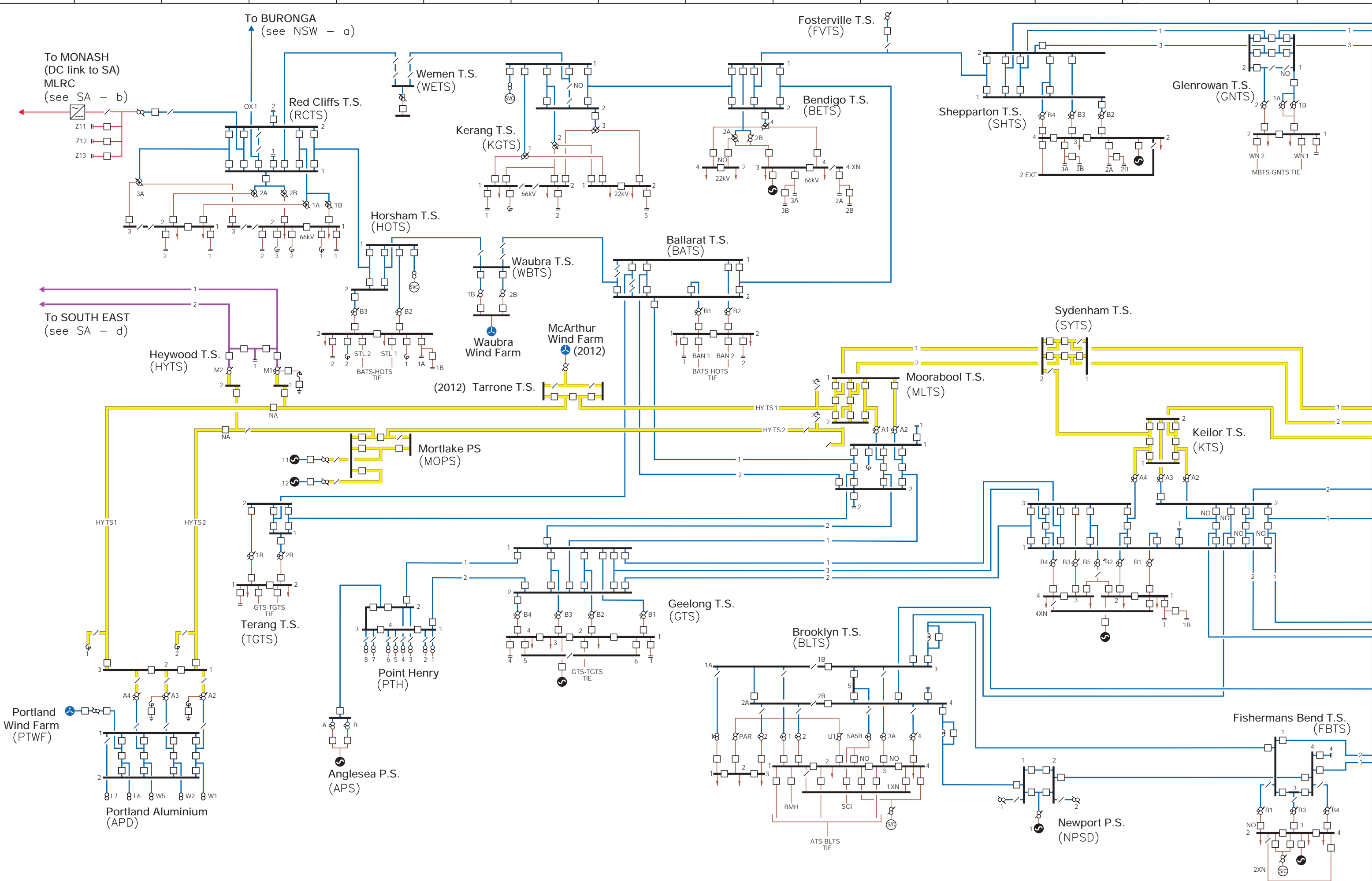


AUSTRALIAN ENERGY MARKET OPERATOR
HIGH VOLTAGE NETWORK
 MAIN SYSTEM DIAGRAM
NEW SOUTH WALES - f



- | | | | |
|----------------|------------------------|-----------------|---------------------------------|
| 500kV | Generator | Circuit breaker | 2 Winding fixed tap transformer |
| 330kV | Static Var Compensator | Isolator | 3 Winding fixed tap transformer |
| 275kV | Synchronous Condenser | Capacitor Bank | 2 Winding tap transformer |
| 220kV | | Reactor | 3 Winding tap transformer |
| 132 / 110kV | | Shunt Reactor | Converter Station |
| 66kV and BELOW | | | |

DATE: Aug '11

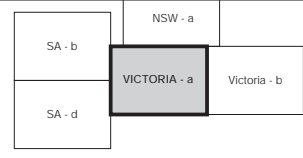


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**AUSTRALIAN ENERGY MARKET OPERATOR
HIGH VOLTAGE NETWORK
MAIN SYSTEM DIAGRAM**

VICTORIA - a

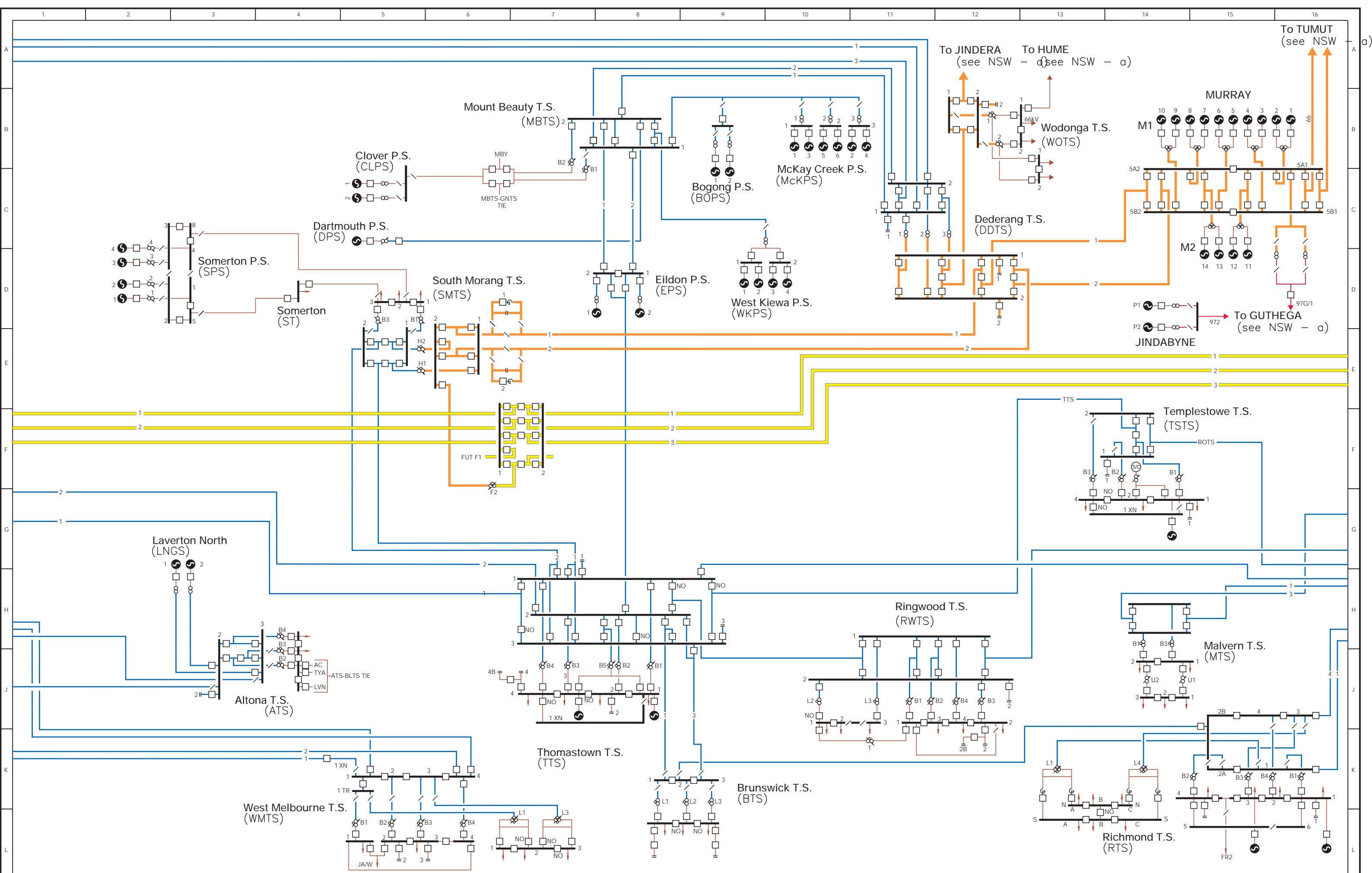


- 500kV
- 330kV
- 275kV
- 220kV
- 132 / 110kV
- 66kV and BELOW

- Generator
- Static Var Compensator
- Synchronous Condenser
- Windfarm
- Converter Station

- Circuit breaker
- Isolator
- Capacitor Bank
- Reactor
- Shunt Reactor
- Normally open

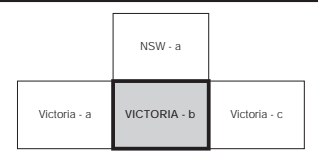
- 2 Winding fixed tap transformer
- 3 Winding fixed tap transformer
- 2 Winding tap transformer
- 3 Winding tap transformer
- 4 Winding tap transformer



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**AUSTRALIAN ENERGY MARKET OPERATOR
HIGH VOLTAGE NETWORK
MAIN SYSTEM DIAGRAM
VICTORIA - b**



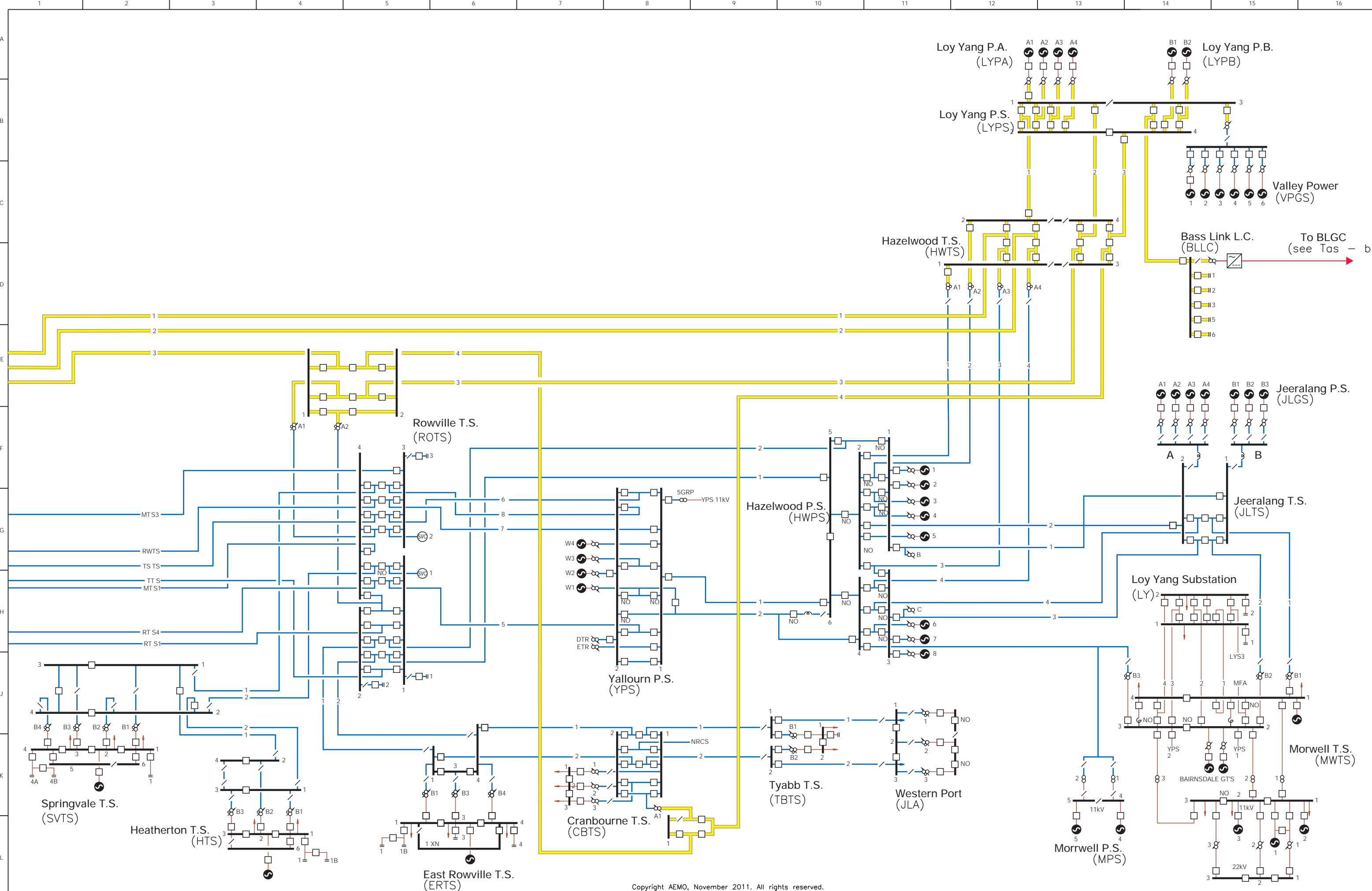
- 500kV
- 330kV
- 275kV
- 220kV
- 132 / 110kV
- 66kV and BELOW

- Generator
- Static Var Compensator
- Synchronous Condenser
- NO Normally open
- Converter Station

- Circuit breaker
- Isolator
- Capacitor Bank
- Reactor
- Shunt Reactor

- 2 Winding fixed tap transformer
- 3 Winding fixed tap transformer
- 2 Winding tap transformer
- 3 Winding tap transformer
- 4 Winding tap transformer

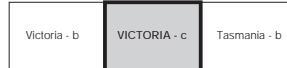
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AUSTRALIAN ENERGY MARKET OPERATOR
 HIGH VOLTAGE NETWORK
 MAIN SYSTEM DIAGRAM
 VICTORIA - c



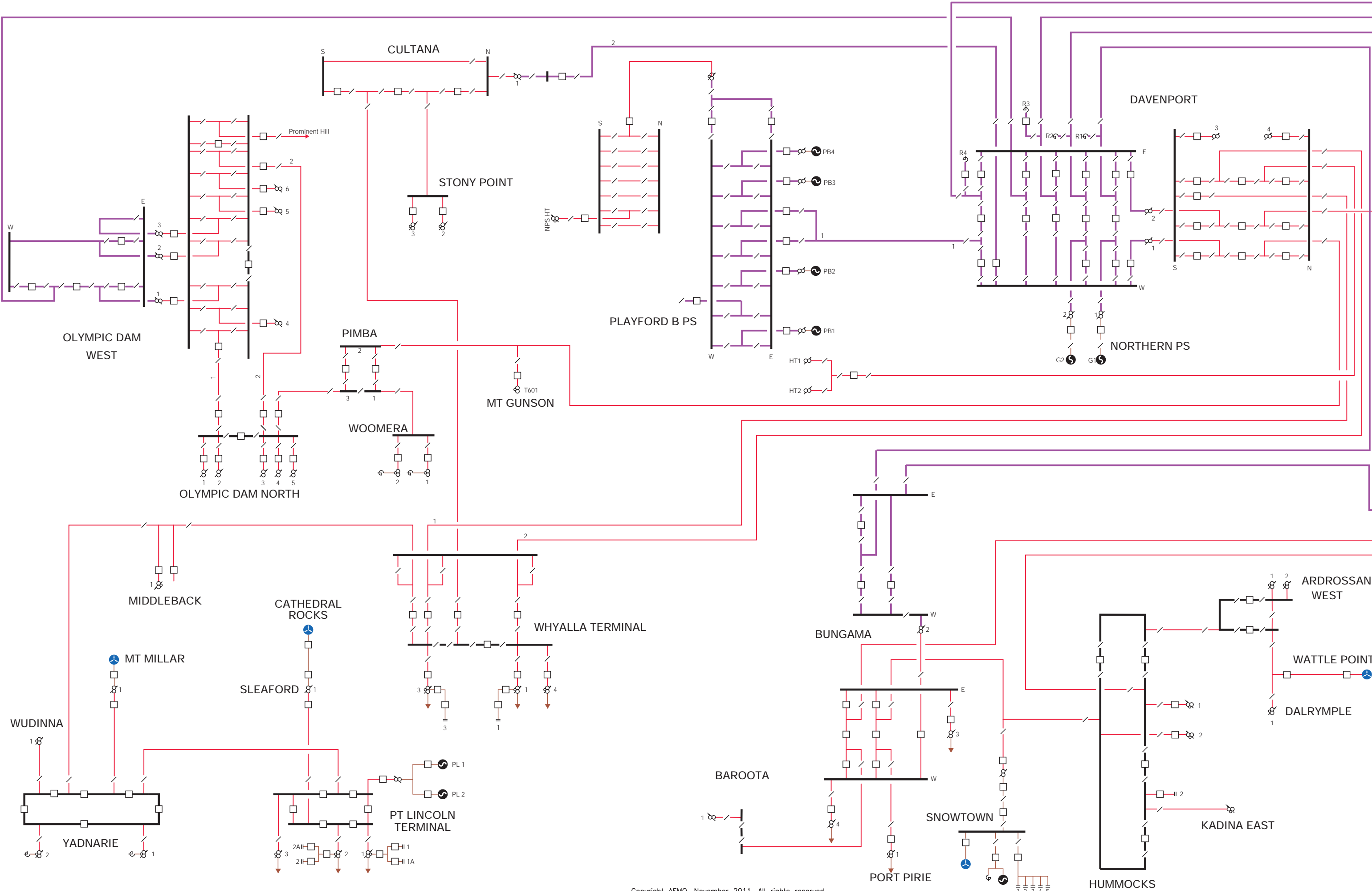
- 500kV
- 330kV
- 275kV
- 220kV
- 132 / 110kV
- 66kV and BELOW

- Generator
- Static Var Compensator
- Synchronous Condenser
- NO Normally open
- Converter Station

- Circuit breaker
- Isolator
- Capacitor Bank
- Reactor
- Shunt Reactor

- 2 Winding fixed tap transformer
- 3 Winding fixed tap transformer
- 2 Winding tap transformer
- 3 Winding tap transformer
- 4 Winding tap transformer

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AUSTRALIAN ENERGY MARKET OPERATOR
 HIGH VOLTAGE NETWORK
 MAIN SYSTEM DIAGRAM
 SOUTH AUSTRALIA - a



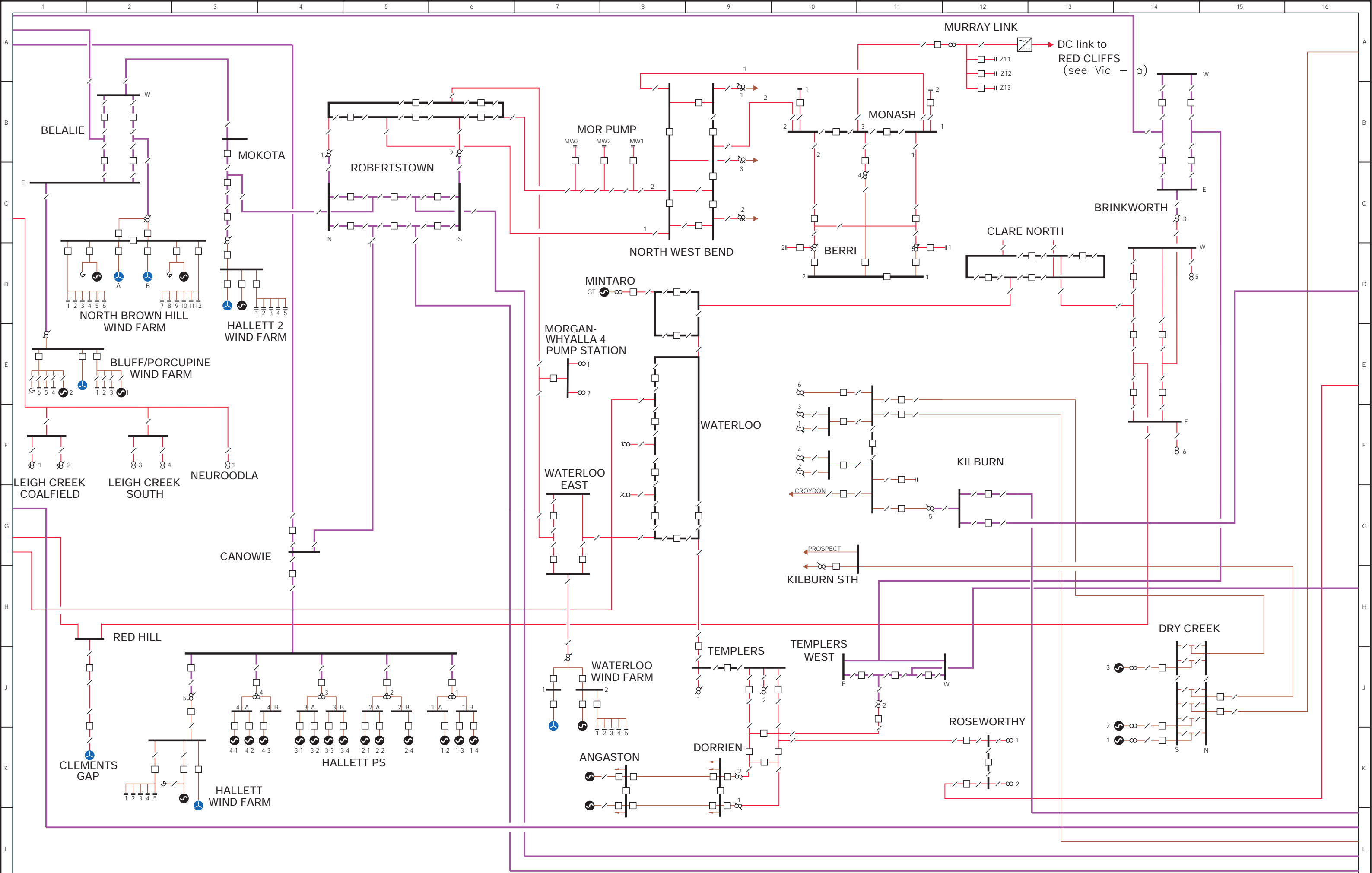
- 500kV
- 330kV
- 275kV
- 220kV
- 132 / 110kV
- 66kV and BELOW

- Generator
- Static Var Compensator
- Synchronous Condenser
- Windfarm

- Circuit breaker
- Isolator
- Capacitor Bank
- Reactor

- 2 Winding fixed tap transformer
- 3 Winding fixed tap transformer
- 2 Winding tap transformer
- 3 Winding tap transformer

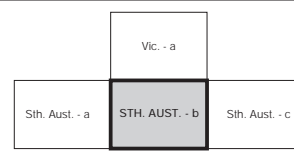
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**AUSTRALIAN ENERGY MARKET OPERATOR
HIGH VOLTAGE NETWORK
MAIN SYSTEM DIAGRAM
SOUTH AUSTRALIA - b**



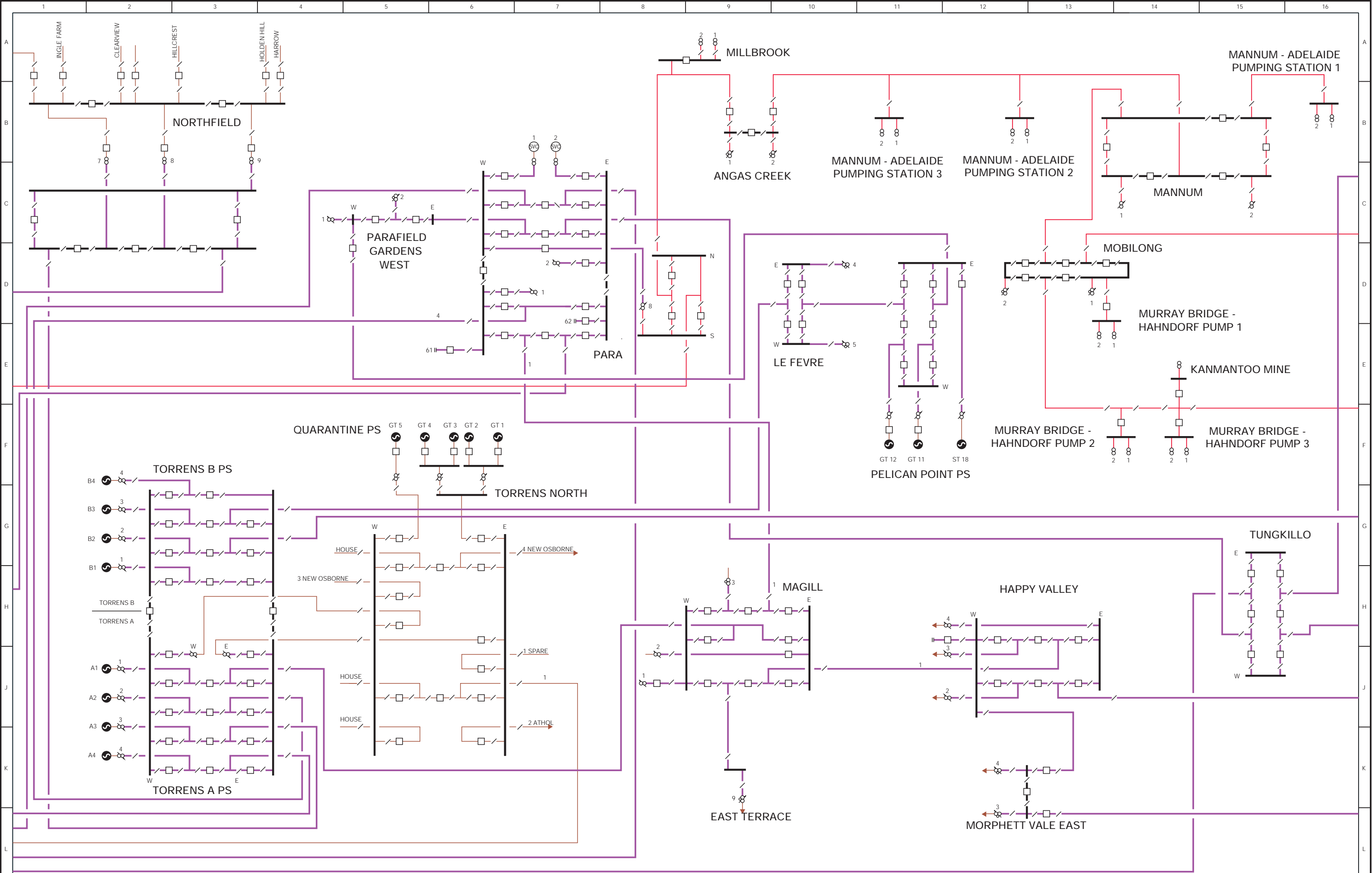
- 500kV
- 330kV
- 275kV
- 220kV
- 132 / 110kV
- 66kV and BELOW

- Generator
- Static Var Compensator
- Synchronous Condenser
- Windfarm

- Circuit breaker
- Isolator
- Capacitor Bank
- Reactor

- 2 Winding fixed tap transformer
- 3 Winding fixed tap transformer
- 2 Winding tap transformer
- 3 Winding tap transformer
- Converter Station

DATE: Nov '11



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**AUSTRALIAN ENERGY MARKET OPERATOR
HIGH VOLTAGE NETWORK
MAIN SYSTEM DIAGRAM
SOUTH AUSTRALIA - c**



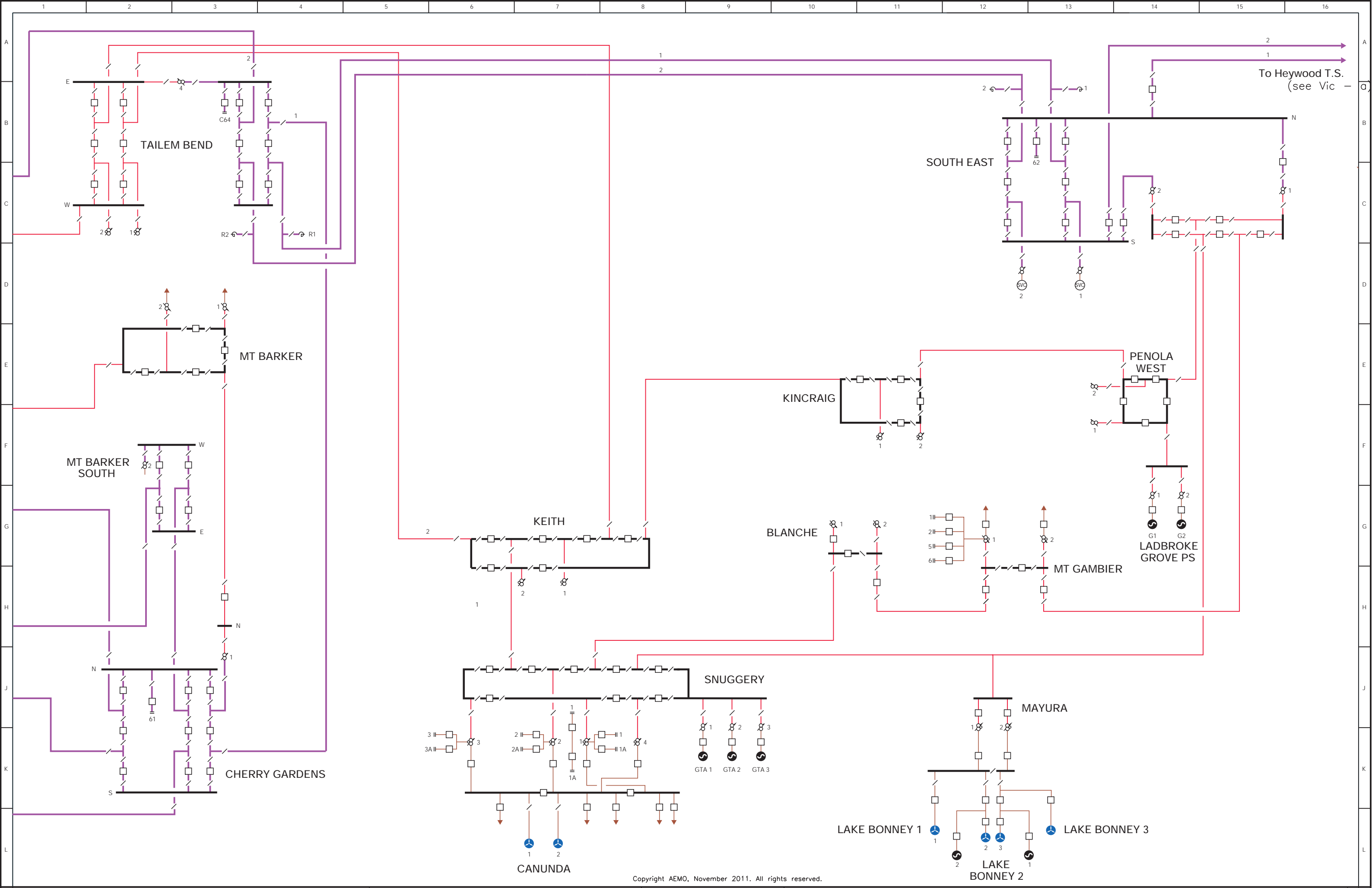
- 500kV
- 330kV
- 275kV
- 220kV
- 132 / 110kV
- 66kV and BELOW

- Generator
- Static Var Compensator
- Synchronous Condensator

- Circuit breaker
- Isolator
- Capacitor Bank
- Reactor

- 2 Winding fixed tap transformer
- 3 Winding fixed tap transformer
- 2 Winding tap transformer
- 3 Winding tap transformer

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AUSTRALIAN ENERGY MARKET OPERATOR
HIGH VOLTAGE NETWORK
MAIN SYSTEM DIAGRAM
SOUTH AUSTRALIA - d



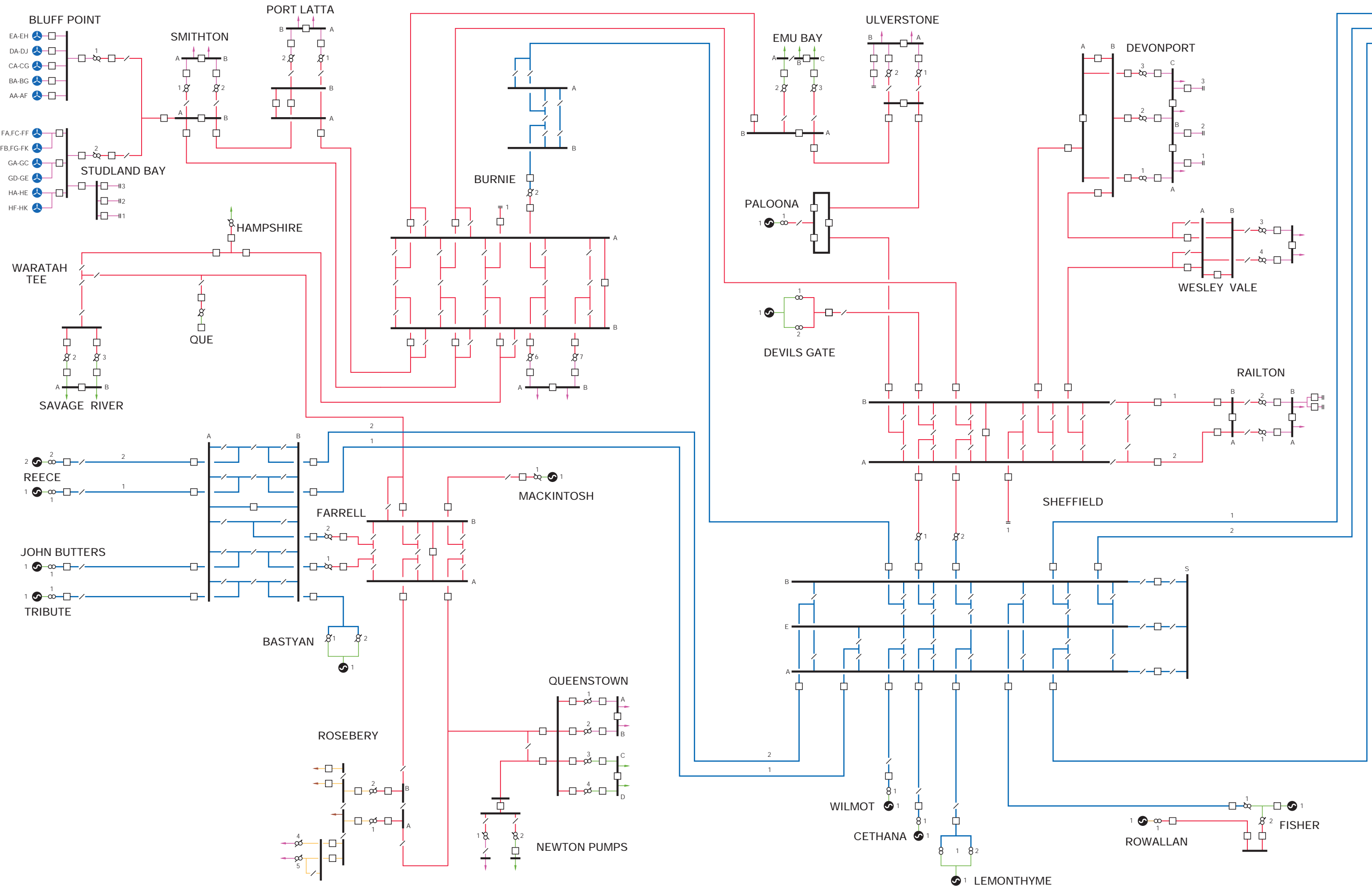
- 500kV
- 330kV
- 275kV
- 220kV
- 132 / 110kV
- 66kV and BELOW

- Generator
- Static Var Compensator
- Synchronous Condenser
- Windfarm

- Circuit breaker
- Isolator
- Capacitor Bank
- Reactor

- 2 Winding fixed tap transformer
- 3 Winding fixed tap transformer
- 2 Winding tap transformer
- 3 Winding tap transformer

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**AUSTRALIAN ENERGY MARKET OPERATOR
HIGH VOLTAGE NETWORK
MAIN SYSTEM DIAGRAM
TASMANIA - a**

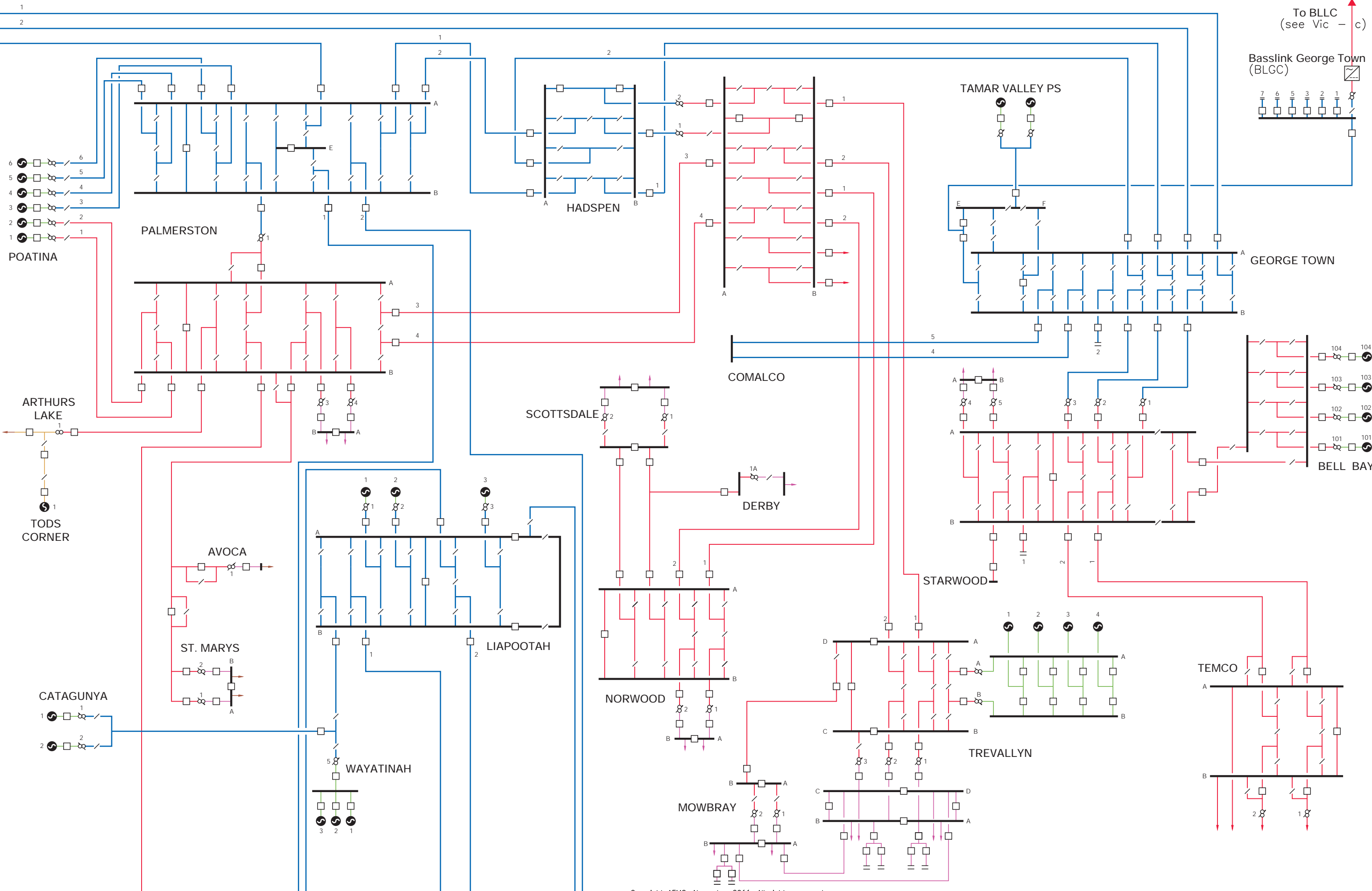
Victoria - c	Tasmania - b
Tasmania - a	Tasmania - d

- 220kV
- 110kV
- 88kV
- 44kV
- 33kV
- 22kV
- 18kV
- 11kV
- 6.6kV

- Generator
- Static Var Compensator
- Synchronous Condenser
- Windfarm

- Circuit breaker
- Isolator
- Capacitor Bank
- Reactor
- 2 Winding fixed tap transformer
- 3 Winding fixed tap transformer
- 2 Winding tap transformer
- 3 Winding tap transformer

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AUSTRALIAN ENERGY MARKET OPERATOR
HIGH VOLTAGE NETWORK
MAIN SYSTEM DIAGRAM
TASMANIA - b

Victoria - c	Tasmania - a	TASMANIA - b	Tasmania - c	Tasmania - d
--------------	--------------	---------------------	--------------	--------------

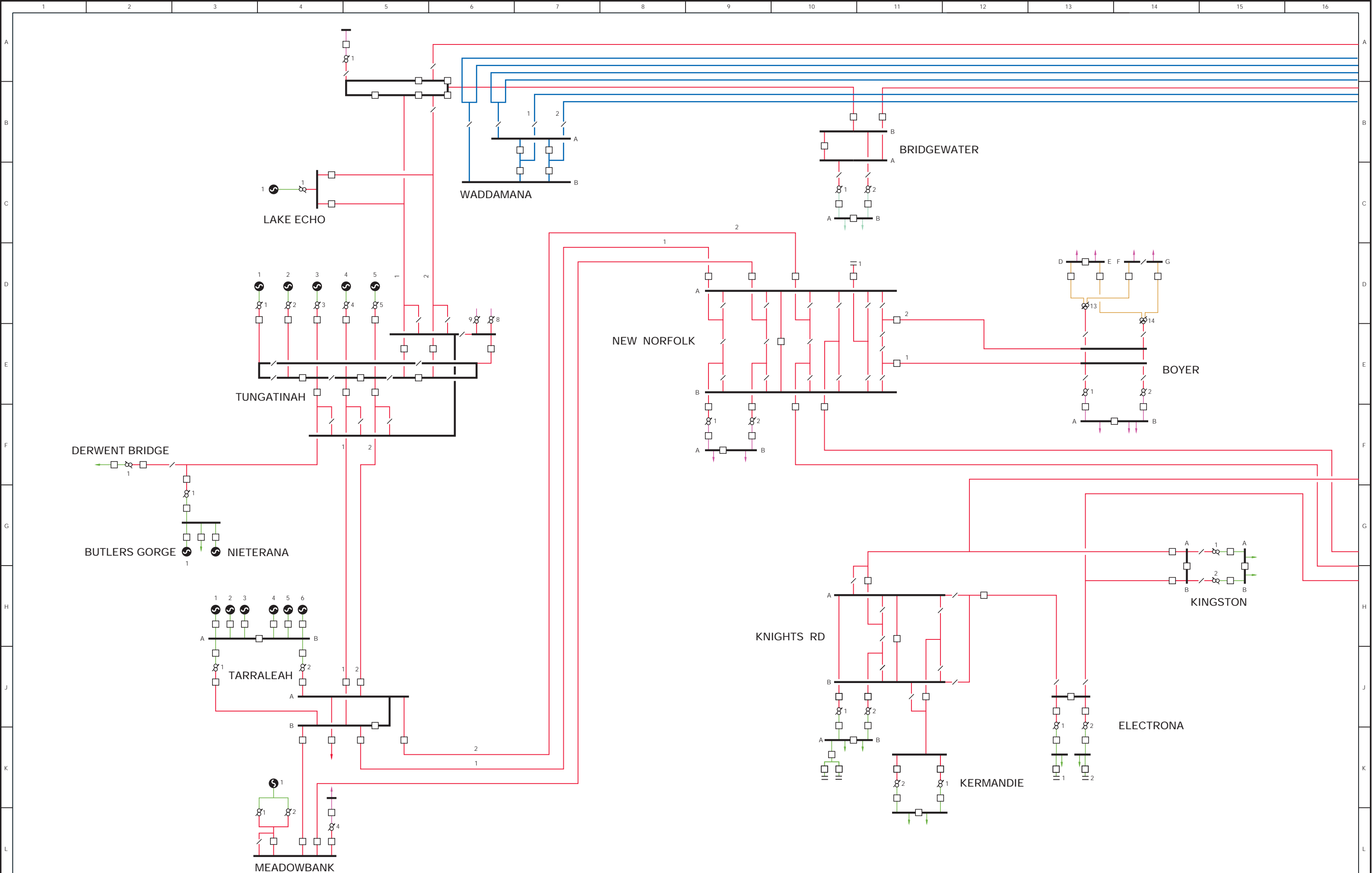
- 220kV
- 110kV
- 88kV
- 44kV
- 33kV
- 22kV
- 18kV
- 11kV
- 6.6kV

- Generator
- Static Var Compensator
- Synchronous Condenser
- Windfarm

- Circuit breaker
- Isolator
- Capacitor Bank
- Reactor

- 2 Winding fixed tap transformer
- 3 Winding fixed tap transformer
- 2 Winding tap transformer
- 3 Winding tap transformer

DATE: Nov. 11



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**AUSTRALIAN ENERGY MARKET OPERATOR
HIGH VOLTAGE NETWORK
MAIN SYSTEM DIAGRAM
TASMANIA - c**

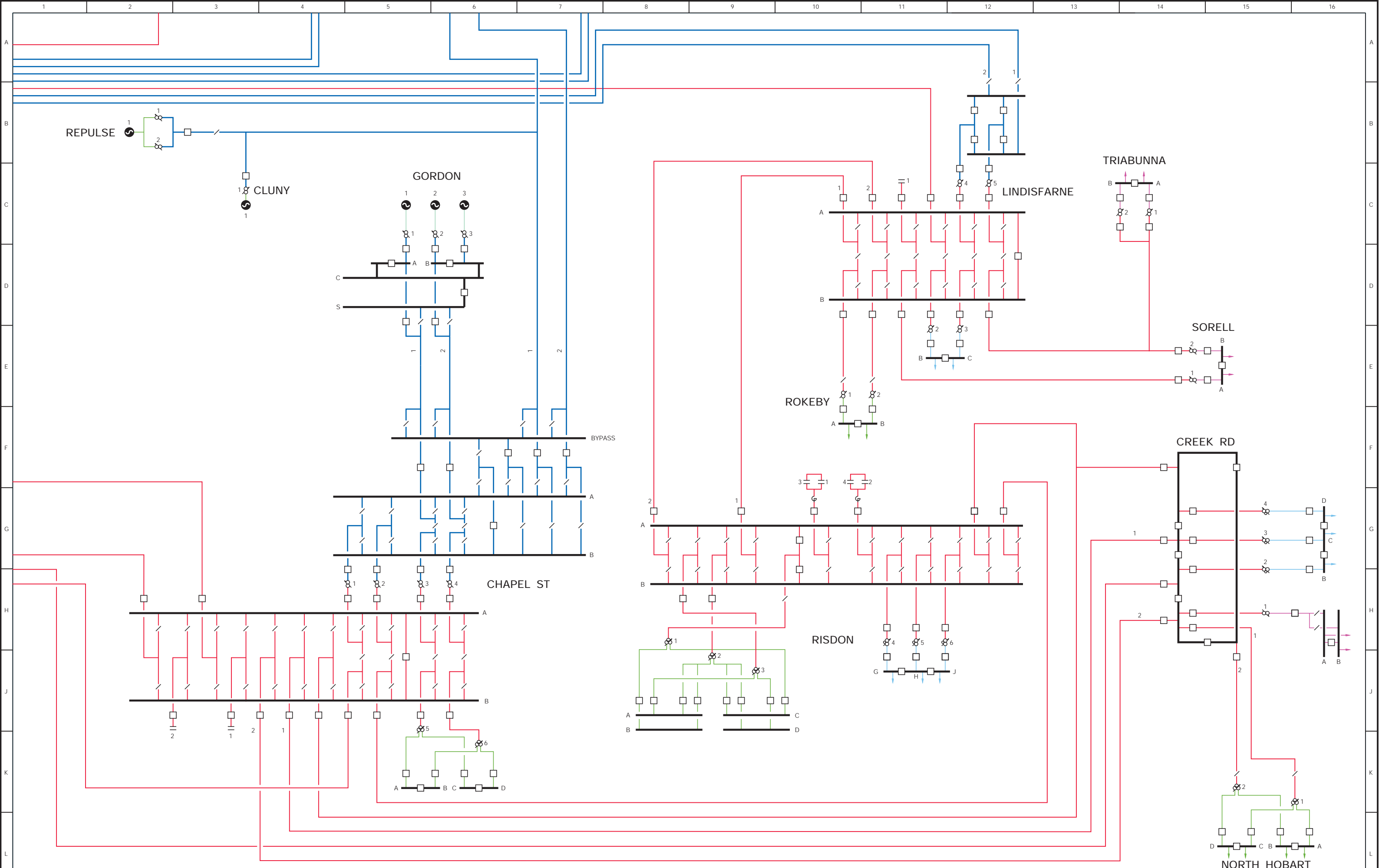
Victoria - c	Victoria - d
Tasmania - a	Tasmania - b
TASMANIA - c	Tasmania - d

220kV	22kV
110kV	18kV
88kV	11kV
44kV	6.6kV
33kV	

Generator	Circuit breaker
Static Var Compensator	Isolator
Synchronous Condenser	Capacitor Bank
	Reactor
	Transformer

2 Winding fixed tap transformer
3 Winding fixed tap transformer
2 Winding tap transformer
3 Winding tap transformer
Transformer

DATE: Nov. 11



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**AUSTRALIAN ENERGY MARKET OPERATOR
HIGH VOLTAGE NETWORK
MAIN SYSTEM DIAGRAM
TASMANIA - d**

Victoria - c	Tasmania - a	Tasmania - b
Tasmania - c	TASMANIA - d	

- | | | | | |
|-------|-------|------------------------|-----------------|---------------------------------|
| 220kV | 22kV | Generator | Circuit breaker | 2 Winding fixed tap transformer |
| 110kV | 18kV | Static Var Compensator | Isolator | 3 Winding fixed tap transformer |
| 88kV | 11kV | Synchronous Condenser | Capacitor Bank | 2 Winding tap transformer |
| 44kV | 6.6kV | | Reactor | 3 Winding tap transformer |
| 33kV | | | | |

DATE: Nov. 11