DEMAND MANAGEMENT SCREENING TEST

Drummoyne Panel 23 & 27 Switching Constraint

Short form DMST criteria

1. Supply side project cost less than $5m **Yes** √ **No** ☐

AND

2. Demand forecast > 110% of *system normal* limit within 12 months **Yes** ☐ **No** √

OR

3. Demand forecast > 110% of *n-1 contingency* limit within 12 months **Yes** √ **No** ☐

Definitions

The system under consideration consists of urban feeders. The "*system normal"* limit is 80% of the thermal rating of the feeders. The "*n-1 contingency*" limit is the combined capacity of the feeders with one element out of service.

Summary of Capacity and Demand Forecast

Forecast demand will not exceed 110% of the system normal limit within 12 months. However, these feeders will exceed 110% of the limit under n-1 contingency conditions. Details of forecast demand versus capacity limits under n-1 contingency conditions are summarised below:

Emergency Scenario	Pickup Feeder	Limiting Section	Capacity of Limiting Section (MVA)	2009/10 Summer Emergency Load forecast (MVA)	Loading as % of feeder section limit
Fault on feeder 23	27	S.350 to S.47239	2.4	3.8	158%
Fault on feeder 27	23	Fdr 2 trunk	2.6	4.0	156%

Supply Strategy Option

The preferred supply-side option is the replacement of various cable sections on feeders 23 & 27 with larger capacity conductors, plus some minor augmentation works on feeders 27 & 30. The estimated project cost is $2.7m. Commissioning is required before winter 2011, with an investment decision date as soon as possible.

Recommendation

This proposal meets the conditions for a short form demand management screening test. Based on this information it is not considered reasonable to expect that it would be cost-effective to postpone the proposed supply-side solution by implementing demand management strategies.