

## APPENDIX E – STANDING CAPABILITY DATA

### E.1 GENERATION FACILITY DATA

E.1.1 The *standing capability data* pertaining to a *generation facility* or an *import registered facility* shall include:

- E.1.1.1 information sufficient to indicate the *generation facility* or *import registered facility* to which the *standing capability data* pertains;
- E.1.1.2 the maximum *generation capacity* of the *generation facility* or the maximum *import capacity* of the *import registered facility* in MW;
- E.1.1.3 the maximum ramp-up rate for the *generation facility* or *import registered facility* in MW/minute;
- E.1.1.4 the maximum ramp-down rate for the *generation facility* or *import registered facility* in MW/minute;
- E.1.1.5 in the case of a *generation facility*, the maximum *reserve capacity* of the *generation facility* for each *reserve class* which the *generation facility* is or seeks to be registered to provide;
- E.1.1.6 in the case of a *generation facility*, the maximum combined *generation capacity* and *reserve capacity* for each *reserve class* for which the *generation facility* is or seeks to be registered to provide;

**Explanatory Note – The previous clause allows the market participant to specify a capacity limit for the purpose of providing reserve which exceeds the facilities normal, sustainable, capacity.**

- E.1.1.7 if the *generation facility* is or seeks to be registered to provide any *reserve class*, the *reserve proportion*, which constrains the maximum *reserve* that may be scheduled from the *generation registered facility* to the specified ratio of *energy* scheduled for the *generation registered facility*. The *reserve proportion* should be specified to minimise the likelihood of the *generation registered facility* being scheduled to provide *reserve* in excess of what can reliably be provided at any given level of scheduled *energy*;

- E.1.1.8 the maximum *regulation* capacity of the *generation facility* if the *generation facility* is or seeks to be registered to provide *regulation*;
  - E.1.1.9 the maximum *energy* output at which *automatic generator control (AGC)* or other signals acceptable to the *PSO* can operate the *generation facility* to provide *regulation* capability if the *generation facility* is or seeks to be registered to provide *regulation*;
  - E.1.1.10 the minimum *energy* output at which *automatic generator control (AGC)* or other signals acceptable to the *PSO* can operate the *generation facility* to provide *regulation* capability if the *generation facility* is or seeks to be registered to provide *regulation*;
  - E.1.1.11 the time delay in seconds before the *generation facility* begins to respond following the standard *contingency event* specified in the *system operation manual*;
  - E.1.1.12 the lowest *energy* output level that the *generation facility* is capable of providing *reserve* for all *reserve classes*;
  - E.1.1.13 the *reserve* capacity of the *generation facility* at low, medium and high *energy* output levels for each *reserve class* which the *generation facility* is or seeks to be registered to provide; and
  - E.1.1.14 the minimum stable load level of the *generation facility* where the *generation facility* has or seeks to have its minimum stable load level registered.
- E.1.2 All references in section E.1.1 to an *import registered facility* shall also include a reference to any facility, installation and/or apparatus seeking to be registered as an *import registered facility*.
- E.1.3 Unless otherwise stated, a reference to a *generation facility* or *generation registered facility* in this section E.1.1 does not include a reference to an *energy storage facility*.

## **E.1A ENERGY STORAGE FACILITY DATA**

E.1A.1 The *standing capability data* pertaining to an *energy storage facility* shall include:

E.1A.1.1 information sufficient to indicate the *energy storage facility* to which the *standing capability data* pertains;

E.1A.1.2 the maximum charge limit representing the maximum rate, in MW, at which an *energy storage facility* can withdraw electrical *energy* from the *transmission system*;

E.1A.1.3 the maximum discharge limit representing the maximum rate, in MW, at which, an *energy storage facility* can inject electrical *energy* into the *transmission system*;

E.1A.1.4 the maximum ramp-up rate for the *energy storage facility* in MW/minute;

E.1A.1.5 the maximum ramp-down rate for the *energy storage facility* in MW/minute;

E.1A.1.6 the maximum *reserve* quantity of the *energy storage facility* for each *reserve class* which the *energy storage facility* is or seeks to be registered to provide;

E.1A.1.7 the maximum combined *generation* quantity and *reserve* quantity for each *reserve class* for which the *energy storage facility* is or seeks to be registered to provide;

E.1A.1.8 the maximum *regulation* quantity of the *energy storage facility* if the *energy storage facility* is or seeks to be registered to provide *regulation*;

E.1A.1.9 the maximum *energy* transfer level at which *automatic generator control (AGC)* or other signals acceptable to the *PSO* can operate the *energy storage facility* to provide *regulation* capability if the *energy storage facility* is or seeks to be registered to provide *regulation*;

E.1A.1.10 the minimum *energy* transfer level at which *automatic generator control (AGC)* or other signals acceptable to the *PSO* can operate the *energy storage facility* to provide *regulation* capability if the *energy storage facility* is or seeks to be registered to provide *regulation*;

E.1A.1.11 the maximum *energy* storage capacity, in MWh, of the *energy storage facility*;

- E.1A.1.12 the maximum *State-of-Charge* of the *energy storage facility*;
- E.1A.1.13 the minimum *State-of-Charge* of the *energy storage facility*;
- E.1A.1.14 the discharging efficiency of the *energy storage facility*; and
- E.1A.1.15 the charging efficiency of the *energy storage facility*.

## **E.2 LOAD FACILITY DATA**

- E.2.1 The *standing capability data* pertaining to a *load facility* which is or seeks to be registered to provide or withdraw any *physical service* shall include:
  - E.2.1.1 information sufficient to identify the *load facility* to which the *standing capability data* pertains;
  - E.2.1.2 the maximum *reserve capacity* of the *load facility* for each *reserve class* that the *load facility* is or seeks to be registered to provide;
  - E.2.1.3 the aggregate maximum *load curtailment capacity* of the *load facility*, if the *load facility* is or seeks to be registered to be scheduled for *energy withdrawal* for the purposes of *load curtailment*;
  - E.2.1.4 the maximum ramp-up rate for the *load facility* in MW/minute, if the *load facility* is or seeks to be registered to be scheduled for *energy withdrawal* for the purposes of *load curtailment*;
  - E.2.1.5 the maximum ramp-down rate for the *load facility* in MW/minute, if the *load facility* is or seeks to be registered to be scheduled for *energy withdrawal* for the purposes of *load curtailment*;
  - E.2.1.6 the *load zone* associated with the *load facility*, if the *load facility* is or seeks to be registered to be scheduled for *energy withdrawal* for the purposes of *load curtailment*; and
  - E.2.1.7 the set of *dispatch network nodes* associated with the *load facility*, if the *load facility* is or seeks to be scheduled for *energy withdrawal* for the purposes of *load curtailment*.