



Ref: A1758824

18 October 2013

Mr Chris Pattas  
General Manager  
Network Operations and Development  
Australian Energy Regulator  
GPO Box 520  
MELBOURNE VIC 3001

Attention: Mr Mark McLeish

Dear Chris

### **Draft Benchmarking RIN**

Powerlink appreciates the opportunity to respond to the Australian Energy Regulator's (AER's) draft benchmarking regulatory information notice (RIN).

Please note that data provision consistent with the AER's requirements can be provided on a forward looking basis, subject to clarification of some definitions. Such an undertaking will require certain systems and processes to be amended or have new ones established, which will require investment.

In relation to the provision of some historic data, there is a difficulty in that Powerlink's systems do not currently collect this information as described by the AER. As a result, some of the information may need to be estimated on the basis of high-level rules or allocations. Given how such information would be developed to suit the AER's request, the accuracy of this information may be questionable. Powerlink considers that in relation to such estimates, neither the AER nor other stakeholders should seek to assign any greater weight or veracity to these estimates than has been identified.

Powerlink's response to the specific information requested in the RIN is provided below.

#### **1. Variables and Definitions**

- Responses picked up in relevant sections below.

#### **2. Revenue**

- Historic revenue information should be able to be provided. However, this is subject to the AER providing further clarification on the "chargeable quantities" definitions.
- Note that the extent of effort required to develop this information in the form identified by the AER will be dependent upon the AER's definitions.
- STPIS information can be provided from 2007, when Powerlink became subject to the incentive scheme.

33 Harold Street, Virginia  
PO Box 1193, Virginia, Queensland 4014, Australia  
Telephone: (07) 3860 2111 Facsimile: (07) 3860 2100  
Website: [www.powerlink.com.au](http://www.powerlink.com.au)

## Draft Benchmarking RIN

---

- EBSS – AER to provide clarification on whether EBSS figures represent the incentive amounts determined by the AER at a regulatory reset which are then applied to MAR in the following regulatory period.

### 3. Opex

- Sheet refers to current opex categories prepared in accordance with Powerlink's current cost allocation methodology. On this basis, historic opex information can be provided back to 2003 on a consistent basis with the previous Transmission Submission Guideline templates (see Models – pro forma statements, as provided in the link <http://www.aer.gov.au/node/7945>)
- Historic controllable opex can be provided as follows:
  - Direct O & M split into:
    - Field maintenance - for sec sys, subs, lines, comms, land – split by labour and non-labour if required;
    - Operational refurbishment;
    - Maintenance support – field, other and direct; and
    - Network operations – switching, asset monitoring, NMS and operations.
  - Other controllable split into:
    - Asset management support – grid planning, network, IT and customer and regulatory; and
    - Corporate support.
- Non-controllable costs can be provided for insurances, network support and debt-raising costs.

### 4. Assets (RAB)

#### 4.1 RAB Values

RAB asset values can be allocated into the categories requested of:

- Overhead lines;
- Underground lines;
- Switchyards, substations and transformers;
- Easements;
- Long lived 'other' assets; and
- Short lived 'other' assets.

#### 4.2 Annual RAB Roll forward

RAB values are only available with each regulatory period through the Asset Roll Forward Model by updating it for approved capital expenditure and capitalisations.

Therefore this data is only available every 5 years, not on an annual basis – unless the AER provide direction as to how to address the differences between accounting and regulatory treatment of asset capitalisations, disposals, and depreciation. For example:

- What depreciation will be used to determine the closing value – straight line or regulatory? The instructions indicate that they should reflect the values in the Regulated Accounts which are based on Accounting values but, as noted below, there is no "regulated depreciation" for accounting; and

## Draft Benchmarking RIN

---

- Is the closing value for each class in 4.2 intended to reconcile back to 4.1? Again, the instructions indicate that they should but, depending on the answer to the question above, they may not.
- Should the line items of each asset class in 4.2 reflect accounting or regulatory values? Powerlink does not maintain an asset register solely for regulatory purposes and therefore does not have the regulatory equivalents to the values being requested (such as “regulatory depreciation”) as these are derived from the Asset Roll Forward Model used at the time of a Revenue Proposal.

Powerlink’s asset register is based on values “as commissioned” and not the “as incurred” values requested.

The consequential treatment would require further discussion with TNSPs following any direction provided by the AER – prior to finalisation of the RINs.

### 4.3 Asset Lives

For new assets - this information can be provided back to 2003.

For estimated residual service life, AER clarification required on whether this is to reflect accounting or regulatory values. In addition, in relation to the example provided in the “Variables and Definitions” tab, please clarify whether these calculations are to be performed in alignment with regulatory periods (ie. where a closing RAB value is determined and associated annual RAB values are determined for each of the 5-years of the relevant regulatory period) or on an annual basis per accounting records.

## 5. Operational Data

### 5.1 Energy Delivery

- Data can be provided.

### 5.2 Connection point numbers

- AER to define what is “main grid transmission voltage”? Powerlink would suggest that this be either 275kV or 330kV.
- Historical numbers of connection points – should be able to provide.
- Powerlink have areas where Ergon or Energex 132kV or 110kV networks operate in parallel with the Powerlink network. It may be that under system normal conditions both ends are exit points. However, under outage conditions and/or abnormally high power transfers, energy may exit at one end and then re-enter the Powerlink network at the other end. Need to understand how critical the distinction is for the AER and can a connection point change over time?

### 5.3 System Demand

- AER to provide a more robust definition of the conversion factor. For any given line is it:
  - PF for each ½ hour in the year and then the average of all those numbers?; or
  - MWh in the year / MVAh in the year?

## Draft Benchmarking RIN

---

- Similar question applies to average across lines in a voltage class, and then average across all voltage classes. How is the averaging to be done?
- No entry for 110kV lines – should Powerlink include in 132kV?

### 6. Physical Assets

#### 6.1 Transmission System Capacities Variables

- Overhead lines (km) – data can be provided for relevant voltages back to 03/04;
- Underground cables (km) – data can be provided for relevant voltages to back to 03/04;
- Estimated overhead network weighted average MVA capacity by voltage class –
  - historic data back to 03/04 will need to be estimated for relevant voltages – overhead (330, 275, 132 )and underground (275, 132), summer and winter;
- Installed transmission system transformer capacity (MVA) – the majority of historic data requested will need to be estimated, ie. for substations, terminal points, transformer capacity (TNSP and end-user owned) and interconnector capacity; and
- Spare transformers – very limited data available prior to 2008/09.

### 7. Quality of Services (relates to the different components of the STPIS)

#### 7.1 Service Component Data

All identified data can be provided back to 2003 with the exception of the following which relate to forced outages:

- Lines outage rate – forced outages;
- Number of lines forced outages;
- Transformer outage rate – forced outages;
- Number of transformer forced outages;
- Reactive plant outage rate – forced outages; and
- Number of reactive plant forced outages.

Note – historic data cannot be provided. However, the data can be collected for future years. Powerlink's fault database records faults which are immediate. Significant work would be required to retrieve such information and this information would be subject to inaccuracy. Powerlink notes that forced outages have zero weighting under V4 of the STPIS.

- Service Parameter 2 – Loss of supply event frequency
  - Yes data can be provided back to 2003.
- Service Parameter 3 – Average outage duration
  - Yes data can be provided back to 2003.
- System Parameter 4 – proper operation of equipment
  - No historic data can be provided.

## **Draft Benchmarking RIN**

---

- Definitions are required for failure of protection system, material failure of SCADA system and incorrect operation isolation of primary or secondary equipment.
- Data can be collected in future years, once definitions provided and assessed.

### 7.2 Market Impact Component

- No. of dispatch intervals can only be provided back to 2005, consistent with history used for Powerlink to enter the scheme in July 2010.

### 7.3 System Losses – line losses

- Yes historic data can be provided in line with the losses definition.

## **8. Operating Environment Factors**

### 8.1 Terrain Factors

- Various historic data from 03/04 to 11/12 will need to be estimated – namely, rural proportions, vegetation management cycles and tropical/sub-tropic areas, standard vehicle access and altitude;
- Tropical or sub-tropical area - AER to clarify definition of tropical/sub-tropical. Powerlink:
  - will assume that if a built section is north of, or spans the tropic of Capricorn, it is considered tropical/subtropical; and
  - proposes to use route km rather than # spans.
- Bushfire legislative requirement – not applicable;
- Standard vehicle access (km) - AER to clarify definition. Powerlink standard vehicle is dry weather 4WD. Currently no data available.
- Bushfire risk – currently no data available. Powerlink will investigate other sources.

### 8.2 Network Characteristics

- Line length (km) – estimate;
- Variability of dispatch (coal - %) – reasonable estimate back to 04/05 assuming thermal = coal only, winter capacity and includes Wivenhoe pump storage;
- Variability of dispatch (renewable) – reasonable estimate back to 04/05 with assuming thermal = coal only, winter capacity and includes Wivenhoe pump storage;
- Concentrated load distance – AER to provide further clarification on:
  - Definition of a node – physical substation?
  - Largest single substation with the most generation connected to the largest load substation or some other meaning?
  - Distance – linear or line route?
  - Generation capacity – no single generator has over 3000MW output (approx 30% generation). Perhaps a lower proportion is more appropriate.

If you have any queries in relation to Powerlink's response, please contact Jennifer Harris.

Yours sincerely



Garry Mulherin  
**EXECUTIVE MANAGER INVESTMENT & PLANNING**

Enquiries: Jennifer Harris, Tel. (07) 3860-2667, Email: [jharris@powerlink.com.au](mailto:jharris@powerlink.com.au)