SUBMISSION TO

INDEPENDENT PRICING & REGULATORY TRIBUNAL

ON

REVIEW OF INITIAL METROLOGY PROCEDURE

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Australian Inland (AI) welcomes the opportunity to comment on the review of the initial NSW Metrology Procedure - Draft Report, as detailed in the National Electricity Code Report NCR-11 dated September 2002.

Comments are only provided on the draft decisions outlined in the paper where Australian Inland does not agree with the draft decision or believes that an alternative wording or amended wording will achieve the Tribunal's intention and cover circumstances possibly not considered by the Tribunal or where the draft decision could be interpreted differently by market participants.

EMBEDDED NETWORKS

2.4.2 Child customers should not be permitted to switch using a different meter to the parent.

The draft decision is unclear as to whether the same meter Type as defined in the Code must be used, or the same functionality, such as interval or accumulation metering. Australian Inland recommends that the wording should be changed to reflect that identical functionality must exist, ie. both interval metering, but the interval meter Types as defined in the Code could vary.

The Metrology Procedure applies where a retail customer whose consumption is less than 160MWh per annum chooses to take their electricity supply from a 2nd tier retailer under a negotiated supply contract, using Types 5 – 7 metering. However, in some embedded networks supplying <160MWh pa customers, although child metering may be of Types 5 – 7 covered by the Metrology Procedure, the parent metering may be a Type 3 – 4 covered by the Code.

The National Electricity Code (the Code) originally classified remote-interrogation interval meters by various Types depending on annual consumption levels, being Types 1 – 4 inclusive. As retail competition was introduced and extended to all customers, manually read interval meters (MRIM – Type 5) and basic accumulation meters (Type 6) were introduced, as well as un-metered loads (Type 7) that are primarily constant profile loads within defined times.

Neglecting un-metered loads, metering is primarily either interval or accumulation register, with interval metering either remote interrogation or manually read.

There are situations in the National Electricity Market where there may be small customers (children) consuming < 100MWh per annum supplied by an embedded network where the annual energy consumption of the parent is > 100GWh, with considerable variation in the metering types.

Such a situation exists at Perilya mining in Broken Hill where there are a number of individually metered residential dwellings supplied through the mine distribution network at single-phase low voltage, with the original parent supply being at transmission level voltage using current and voltage transformer metering.

Similar situations are likely to occur in other embedded networks such as large shopping centers or Sydney Airport where the annual consumption of individual tenants is orders of magnitude less than that of the parent.

Depending on the annual consumption of the parent, the parent metering may be Type 3 (higher accuracy remotely read interval metering) whereas the child metering may be basic accumulation Type 6 metering.

In the example above, it would be economically and technically inefficient to install Type 3 metering on any small customer installation that may wish to choose their retail supplier, thereby restricting competition. However, it is not unreasonable that a Type 5 manually read interval meter (MRIM) be installed on the child installation, providing interval metering for both parent and child, the only difference being the availability of the interval data streams to the NEM.

For single-phase supplies, there are low-cost interval meters that are primarily Type 5, or by connecting communication facilities can be converted to Type 4 metering. Alternatively, they are a cost-effective alternative to a Type 6 accumulation meter, and can be used as a Type 6 meter by reading the accumulation display.

With technological advances and volume production it is expected that interval meters (that can be used as either Type 4 or Type 5) will eventually become directly competitive with existing Type 6 accumulation meters. Advances in telecommunications and powerline communication technology could also mean that future cost of Type 4 meters may be competitive with the total cost of servicing Type 6 meters, particularly in rural areas.

Allowing Type 5 MRIM meters to be used for child loads where the parent has a higher Type interval meter will still provide interval data streams for both parties, although the parent profile may be available daily, whereas the child profile may only be collected quarterly.

Australian Inland proposes that the draft decision be amended such that it is allowed that where the parent has an interval meter, the child must have an interval meter, however the Code Types may be different depending on annual consumption and number of phases or supply.

ADDITIONAL CONTROLLED LOAD PROFILE

Australian Inland supports the change to allow for ‘peel-off’ of a second controlled load profile covering OP2 or extended off-peak with a daytime boost, to primarily improve the accuracy of pricing signals.

Whilst no detailed analysis has yet been undertaken to quantify the expected benefits, of the 200 sample meters installed by AI, a number of these relate to OP2 loads. Considering that AI has installed >200 sample meters for the overall customer base, when compared to other NSW networks with significantly higher network customer connections, the overall sample meter base should be able to provide the same accuracy for OP1 and OP2 peel off without the extra cost required to install additional sample meters.

Costs and benefits diverge across different DNSP areas primarily because actual controlled load switching times vary significantly, not only across networks but also within networks, even though the overall time window may span the same hours.

Considering that OP1 and OP2 samples are being read and averaged at the moment for the AI network, there should be no significant cost within AI systems in allowing for a second controlled load peel-off covering OP2 or extended off-peak.

UNMETERED LOADS – INVENTORY TABLES

Whilst LNSPs should update inventory tables on a monthly basis, as the Metrology Procedure only applies to 2nd tier metered loads, the same obligation will not apply to 1st tier unmetered load inventory tables unless the same provisions apply in Market Operations Rule No.3.

TARIFFS FOR CUSTOMERS WITH SAMPLE METERS

Although sample meters are remotely interrogated on a weekly basis, Australian Inland reads these meters for customer billing purposes as if they are basic meters with accumulation registers, which is consistent with the Tribunal's draft decision.

However, this should not exclude future billing of the customer on a Time Of Use (TOU) tariff if introduced, based on peak, shoulder and off-peak accumulation register readings from these electronic meters, that are capable of providing multi-tariff register accumulation readings as well as an interval data stream.

Although 2nd tier customers with Types 4 and 5 meters may be billed on the interval data stream, in most cases the data stream is analysed into multi-tariffs such as peak, shoulder and off-peak consumption, with the customer billed at a flat rate per kWh in each tariff band. AI's network charges applicable to TOU and demand customers are applied in this manner.

Therefore in reality most customers are billed on the basis of accumulation data although not on accumulated register readings.

The interval data streams are primarily used to derive the Net System Load Profile (NSLP) by subtracting from the transmission supply point load profiles. Some large customers may be billed based upon different rates applying in each half-hourly interval, but in most cases billing is based on accumulated readings that are derived from interval data streams.