CONSUMED ENERGY SCENARIOS (VICTORIA)

PREPARED BY: Market Development

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FINAL

Version Control

VERSION	DATE	AUTHOR(S)	CHANGES / COMMENTS
6.0	Oct 2002	Danny McGowan	Final version from market start.
6.1	August 2009	Stefanie Monaco	Draft: (i) Removing the DB to RB section (ii) Removing the section Adjustment to BL and TSF (iii) Rewording for new regulatory framework.
7.0	21 March 2011	Stefanie Monaco	Final version

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1. Introduction

In accordance with Attachment 6 clause 2.1 of the Retail Market Procedures (Victoria), this document details the validation rules that will apply with respect to the consumed energy data that AEMO receives from the Distribution Businesses, as well as the method used to adjust generated consumption where the sum of generated values does not match the net system load for any single day.

The specific information/data supplied by the Distribution Businesses is described in the Gas Interface Protocol (GIP) Participant Build Pack 2 Systems Interface Definitions document.

The Distribution Businesses must adjust any Estimated Consumed Energy value provided, with a new Consumed Energy whenever a subsequent Actual reading is available, as per Retail Market Procedures (Victoria) clause2.4.3

The set of diagrams in Appendix A of this document represents scenarios associated with the import and validation of consumed energy data provided by the Distributor and transferred to AEMOs FRC systems. The scenarios detail valid transactions to manage the delivery of actual readings, estimated readings and adjustments to previously supplied readings.

The codes associated with each value supplied by the Distribution Businesses pertain to the meter index reading, not the derived consumed energy.

The codes supplied will be the same as those supplied, by each Distribution Business, to each of the Retail Businesses and AEMO as part of the billing data stream viz:

- "A" – assigned to an actual meter index reading;
- "S" – assigned to a substituted index reading and where an actual meter index reading will most likely never occur;
- "E" assigned where an estimated index reading was calculated as an actual meter index reading was not achieved on this occasion; or
- "C" assigned where a customers own reading has been provided as an actual meter reading was not possible on this occasion.

The scenarios described in Appendix A may generate three possible validation results, they are:

- Valid data;
- Invalid data, determined during the import process, and rejected by the Retail Businesses and AEMO for resubmission by Distribution Business; or
- Incomplete data delivery, arising from integrity checks to identify data that has been missing for more than 70 days.

2. AEMO's Basic Meter Profiling (BMP) Validation and Processing Rules

1. If the consumed energy value, delivered by the Distribution Business, for a supply point is negative then AEMO will reject the data record. If a value is required to meet settlement timetables AEMO will generate an estimated value, for purposes of settlement and prudential calculations. The estimation methodology used will be as defined in clause 2.3 of Attachment 6 of the Retail Market Procedures (Victoria);

2. The Distribution Businesses are required to provide to the Retail Businesses and AEMO the same start and end dates, consumed energy and type of read values;

3. A data record for a second tier supply point must not have **a start date** that doesn't align with a previously delivered **end date**;

4. A data record, delivered to AEMO, must not have data gaps between the start and end dates for any contiguous period it is 2nd Tier. In the event of a gap then AEMO will follow up with the Distribution Business. If a value is required to meet settlement timetables AEMO will generate an estimated value, for purposes of settlement and prudential calculations. The estimation methodology used will be as defined in clause 2.3 of Attachment 6 of the Retail Market Procedures (Victoria);

5. AEMO will generate a daily consumed energy allocation based on the billing period consumed energy provided by the Distribution Business (both actual and estimated). AEMO will not re-apportion, or correct the apportionment where previously delivered consumed energy estimate(s) are bounded by two actual reads.

3. NSL and Apportioned Energy Mismatch

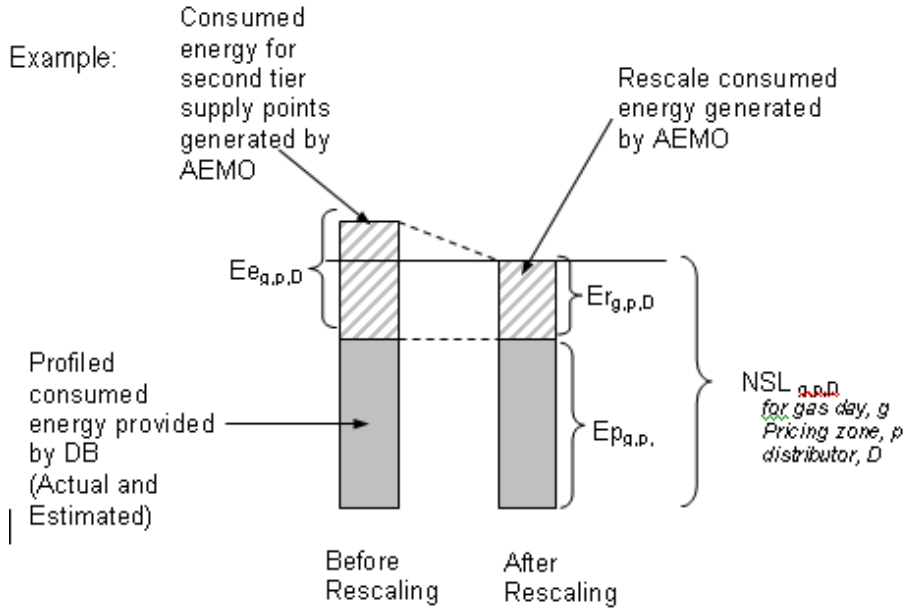
Where a constrained day occurs that results in consumer behaviour being modified from the norm, the BMP calculation for the sum of withdrawals for all second tier basic metered supply points for a gas day, incorporating estimated values generated by AEMO, potentially can exceed the Net System Load (NSL) in a Distribution Businesses Boundary Area (DBBA). Without adjustment to take in account the modified consumer behaviour the total allocated energy may result in the imposition of a negative withdrawal for the host retailer because the estimated consumer energy will be based on historical behaviour. An adjustment to the estimates generated by AEMO is required to avoid this scenario. The adjusted values will be replaced by the actual consumed energy provided at M+118, at which time the profiled allocation will be applied over the full billing period thereby removing the negative apportionment.

Resolution:

The profiled consumption for the second tier supply points is aggregated for each of the Distribution Business/Retail Business/day. Where a meter reading is not available for a supply point, AEMO generates the consumed energy using base load (BL) and temperature sensitivity factor (TSF) as per the Retail Market Procedures (Victoria).

Where the sum of the allocated energy is greater than the NSL, AEMO will rescale the estimated consumed energy for the supply points generated by AEMO. The adjustment factor applied to the AEMO generated estimates will be set so that the sum of the withdrawals does not exceed the NSL in a DBBA for that day.

The rescaling, as illustrated in the diagram below, ensures the allocated gas withdrawals for the host retailer will not be less than zero. The estimated and actual consumed energy readings provided by the Distribution Businesses to AEMO will not be rescaled in this process, as these are deemed to be valid readings from the record of source. When AEMO runs the M+118 business day revision settlement, greater than 95% of the generated estimated consumption values will be replaced by actual or estimated consumption values provided by the Distribution Businesses.



The sum of the generated consumed energy for each second tier retailer will be reduced by the ratio $Er_{g,p,D}$ / $Ee_{g,p,D}$. The rescaling must ensure that the sum of $Ep_{g,p,D}$ and $Er_{g,p,D}$ must be equal to NSL $_{g,p,D,}$ (accurate to the MJ).

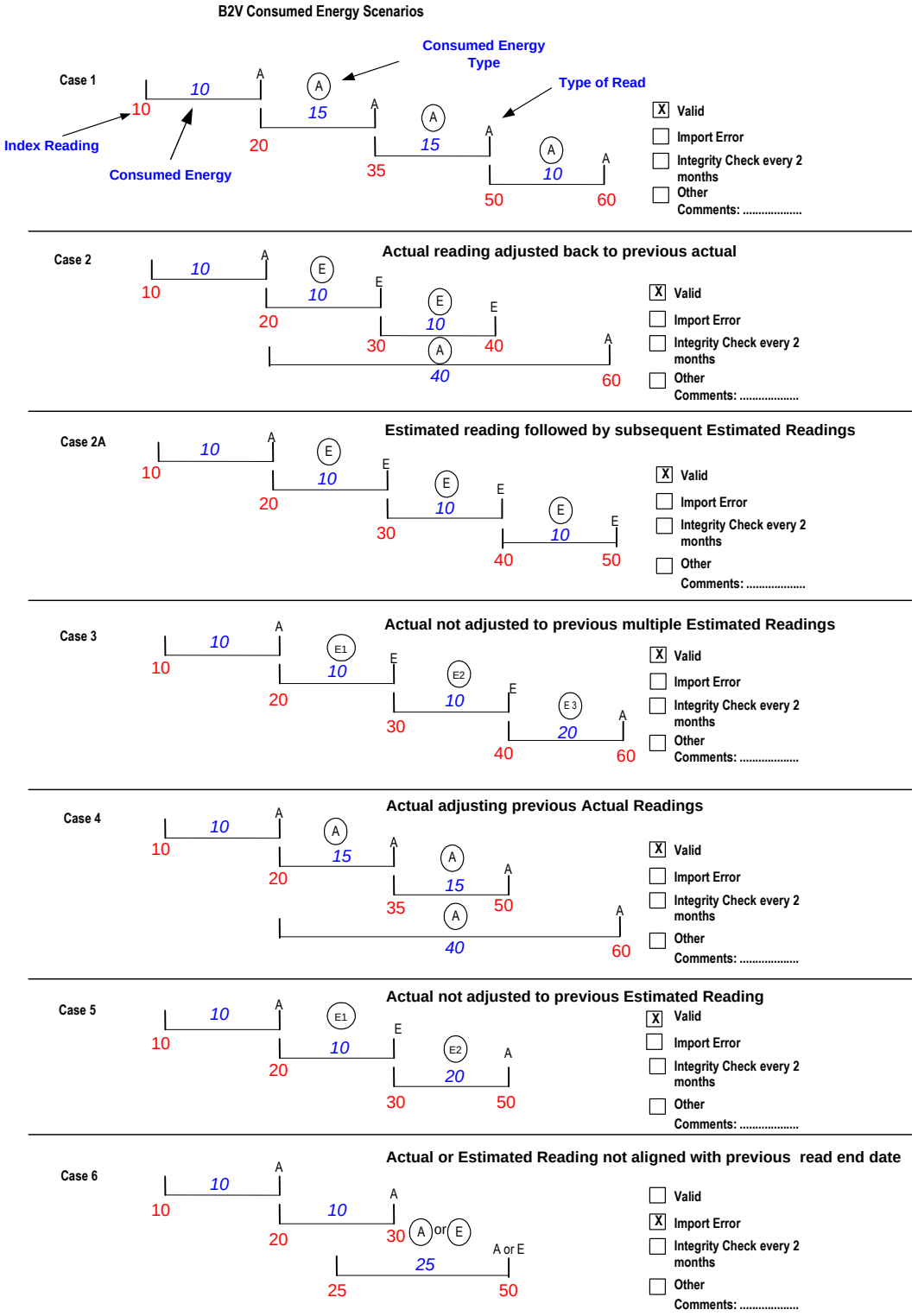
4. Data Delivery Validation Scenarios

Appendix A describes the potential scenarios that can arise when a Distribution Businesses delivers data to AEMO. Each scenario identifies whether the delivery scenario is valid or invalid.

- Refer cases 13 and 14 in Appendix A; The AEMO system will treat the deliveries as valid in each case. The system will firstly apportion a daily amount as per the first set of energy delivered. When the second data delivery occurs the system will re-apportion the days covered by the new reading and retain the daily readings for the subsequent days. It is expected the next energy value provided by the Distribution Business will start from the end read date of the last delivered energy value.

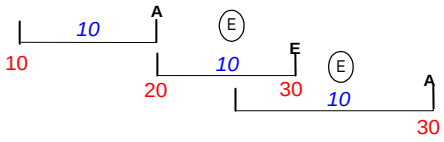
NB: The index values are represented by the values beneath the vertical bars and the consumed energy is represented by the italicised values above each horizontal bar.

Appendix A – DB to AEMO



Actual Reading start date not aligned with previous read end date

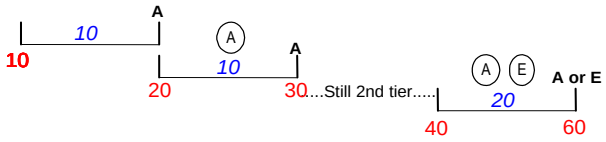
Case 7



☐ Valid
☒ Import Error
☐ months
☐ Other
Comments: .....

Actual or Estimate Read start date not aligned with previous read end date

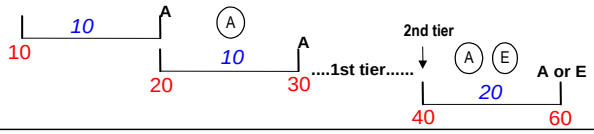
Case 8



☐ Valid
☐ Import Error
☒ Integrity Check every 2 months
☐ Other
Comments: .....

Actual or Estimate Read start date not aligned with previous read end date - Valid for VENCorp data delivery only

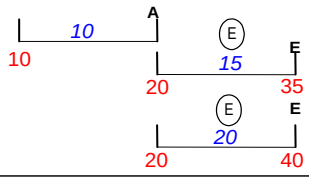
Case 9



☒ Valid
☐ Import Error
☐ Integrity Check every 2 months
☐ Other
Comments: .....

Case 10

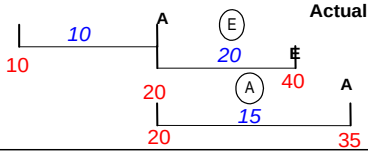
Estimate Read replaces previous Estimate read



☒ Valid
☐ Import Error
☐ Integrity Check every 2 months
☐ Other
Comments: .....

Case 11

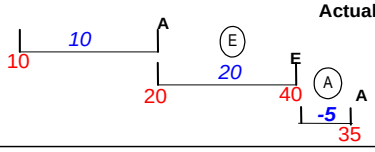
Actual Read replaces previous Estimate read



☒ Valid
☐ Import Error
☐ Integrity Check every 2 months
☐ Other
Comments: .....

Case 11A

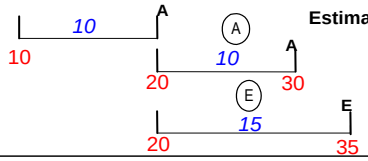
Actual Read delivered as a negative adjustment read



☐ Valid
☒ Import Error
☐ Integrity Check every 2 months
☐ Other
Comments: .....

Case 12

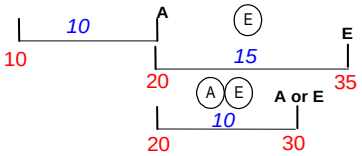
Estimated Read replaces previous Actual read



☒ Valid
☐ Import Error
☐ Integrity Check every 2 months
☐ Other
Comments: .....

Delayed delivery of Actual or Etimated read when Estimate already delivered

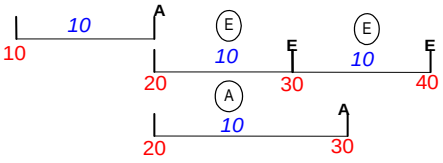
Case 13



☒ Valid
☐ Import Error
☐ Integrity Check every 2 months
☐ Other 1
Comments: .....

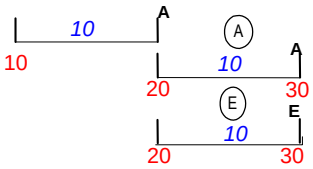
Case 14

Delayed delivery of Actual read when Estimate already delivered



☒ Valid
☐ Import Error
☐ Integrity Check every 2 months
☐ Other
Comments: .....

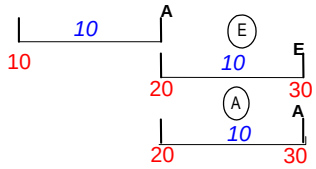
Case 12A



Estimated Read and previous Actual read same period

- [X] Valid
- [ ] Import Error
- [ ] Integrity Check every 2 months
- [ ] Other Comments: .....

Case 12B



Actual Read and previous Estimate read same period

- [X] Valid
- [ ] Import Error
- [ ] Integrity Check every 2 months
- [ ] Other Comments: .....