

## MSATS Standing Data Review

- MSDR Issues Paper
- Standing Data for MSATS Guideline

## CONSULTATION – First Stage

## CONSULTATION PARTICIPANT RESPONSE TEMPLATE

***Participant:***            *AGL*

***Completion Date:*** *31 March 2020*

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## 1. Context

This template is to assist stakeholders in giving feedback to the questions raised in the issues paper about the proposed changes to the MSATS Standing Data.

## 2. Questions raised in the MSATS Standing Data Review Issues Paper

### 2.1 Metering Installation Information

Information Category	Question No.	Question – Metering Installation	Participant Comments
General Metering Installation Information	1.	Do you support the addition of the Meter Malfunction Exemption Number field to MSATS? If not, why not?	<p>AGL strongly supports this change as it will make this exemption process more efficient and provide better information to all participants, including incoming retailers.</p> <p>With this change – AGL strongly suggests that the malfunction number be appropriately identified (eg by prefix) to separate out family failure exemptions versus malfunction exemptions. This would allow better understanding and reporting of fault types by all participants.</p> <p>Alternatively, the proposed <b>Meter Family Failure</b> field could be repurposed to a Fault Type field with an enumerated category of fault types and populated by AEMO together with the exemption number.</p>

Information Category	Question No.	Question – Metering Installation	Participant Comments
	2.	Do you support the addition of the Meter Malfunction Exemption Expiry Date field to MSATS? If not, why not?	AGL strongly supports this change as it will make this exemption process more efficient and provide better information to all participants, including incoming retailers.
	3.	If you do not support the addition of the suggested fields, do you support the addition of the Meter Family Failure field?	<p>See above – the malfunction exemption number without an appropriate identified is of far less value to any other participant except the MC and AEMO.</p> <p>If the exemption number is to remain a sequenced number then AGL strongly suggest that the <b>Meter Family Failure field</b> be repurposed to an enumerated <b>Meter Fault</b> field which would include family failure, meter failure, CT/VT failure etc.</p> <p>As discussed above, the exemption number on its own only provides the efficiency of not having the MC communicate the number to multiple participants.</p> <p>Improved information relating to the type of fault would assist both AEMO and participants in managing the various groups of faulted meters.</p>

Information Category	Question No.	Question – Metering Installation	Participant Comments
	4.	If you do not support the amendments proposed by AEMO, which ones and why?	<p>See Appendices for details of specific comments.</p> <p>However, AGL does not support the proposed concatenating of meter test result and last test date into a coded field. This new field would be hard to validate and would require logic to pull apart before any useful information could be obtained.</p> <p>AGL strongly suggest that the <b>Last Test Date</b> be retained as a date field (and hence easily queried and validated) and <b>Meter Test Result Accuracy</b> be retained as an enumerated field (eg pass / fail) to make data queries simple and agent understanding clear.</p>
	5.	What enumerations can be made for the Meter Use codes that would be useful for the market?	Clear identification of meter use, together with an enumerated list, will assist the broader management of energy meter deployment and management.
	6.	There are several existing fields that AEMO proposes removing from MSATS Standing Data. Do you see any value in their retention for the market? If so, please outline it.	<p>AGL does not support the amendment of <b>Meter Test Result Accuracy</b>. The proposal was to make the <b>Meter Test Result Accuracy</b> a combined date / result field – which would be very hard to validate and hard to manage through queries to produce information.</p> <p>AGL proposes the <b>Meter Test Result Accuracy</b> field be retained with an enumerated outcome – eg pass/fail and the <b>Last Test Date</b> be retained for the date, which can be easily validated. The two fields can then be used to produce useful reporting for industry.</p>

Information Category	Question No.	Question – Metering Installation	Participant Comments
	7.	<p><b>Meter Constant</b> may be a relevant field for older equipment as it refers to intrinsic constraint of meter in Wh/pulse.</p> <p>Is there value to this field for the market and, if so, is there another field that the constant could be listed in?</p>	AGL supports the removal of this field as it related to older style meter hardware which is no longer relevant.
	8.	A majority of workshop attendees did not support the inclusion of the aforementioned industry-proposed fields as they would not provide value to the market as a whole. Are any of them worth further consideration? If so, why and what value do they add to the market?	<p>See list at end of formal response.</p> <p>AGL specifically supports the inclusion of <b>Disconnection Method</b> as there are at least two methods to disconnect a NMI (Fuse and Street Disconnection), therefore the NMI status does not provide sufficient information.</p>
	8	<b>Last Test Date</b>	AGL does not support the removal of <b>Last Test Date</b> – see Q 6 for details.
	8	<b>Meter Lock</b>	<p><b>Meter Lock</b> – one of the major issues facing the industry as an outcome of Power of Choice is the variety and management of meter locks. This has led to substantial costs and re-work, and changes such as Energy Queensland releasing their metering key to metering businesses.</p> <p>As such, AGL supports this information being included in MSATS in an enumerated list.</p>

Information Category	Question No.	Question – Metering Installation	Participant Comments
	8	<b>Minimum Interval Length</b>	<p><b>Minimum Interval Length</b> – AGL strongly supports the inclusion of this information. As a result of 5 ms, it has been identified that many 30 min meters cannot be reconfigured to 5 min meters and will need physical replacement.</p> <p>With the introduction of Demand Response, some sites may need to be upgraded to 1 min meter reads (to cope with a 5 min settlement cycle) and therefore there will be a lot of value in knowing which meters can be reconfigured, versus replaced.</p>
	8	<b>Meter Family Failure</b>	<p><b>Meter Family Failure</b> – see response to Q3.</p> <p>AGL strongly believes that if the exemption number is to remain as a number, without identifying the type of fault, then this field should be an enumerated Fault Type Field associated with the exemption number.</p>
	8	<b>Meter Test Report</b>	<p><b>Meter Test Report</b> – see response to Q6.</p> <p>The combination of date and pass/fail should be adequate for data management and customer purposes.</p>

Information Category	Question No.	Question – Metering Installation	Participant Comments
	8	<b>Plug In Meter</b>	<p><b>Plug In Meter</b> – AGL believes that the proposal to include meter make and model should provide better information, as Plug In Meter is just one issue likely to be faced going forward.</p> <p>AGL would suggest that with the development of the make model enumeration list, that consideration be given to using that as the basis for a more comprehensive meter database which can be accessed by participants to understand the hardware in question.</p>
	9.	Do you have any other comments regarding the general Metering Installation Information fields?	<p>See appendices at end of response.</p> <p>AGL strongly supports the inclusion of a field to identify why a meter is a Type 4A. Clause 7.8.4 requires the MC to record the small customer refusal, but in a competitive market the FRMP and MC may be churned at the same time, leaving the incoming FRMP with no records of such a refusal.</p> <p>This in turn can lead to the incoming FRMP trying to service a customer with inadequate information, which often leads to a poor customer experience.</p> <p>By including this information within MSATS the incoming FRMP will not need to rely on information from the previous FRMP or the previous MC (following an MC churn).</p> <p>Noting previous comments about this information, AGL considers that this information relates to an energy market service, in the same way that information about solar, battery or controlled load is recorded to provide a customer service.</p>

Information Category	Question No.	Question – Metering Installation	Participant Comments
Metering Installation Transformer Information	10.	Do you agree to AEMO's proposal with regards to splitting transformer information into CT and VT?	Yes. Clearer information will assist in the longer-term management of CT/VT equipment, in particular the last test date.
	11.	Do you agree to AEMO's proposal with regards to adding new transformer information fields which includes: CT/VT Accuracy Class, CT/VT Last Test Date?	Yes
	12.	Do you agree with the validations proposed by AEMO for the transformer information fields? If not, please provide other types of validations that can be applied.	<p><b>Location</b> could be split to GPS and supporting text, especially for HV sites.</p> <p><b>Ratio</b> – careful analysis should be undertaken to minimise the possible variations so that it is difficult to load non-valid information. This is particularly important as the Ratio drives the load calculation and therefore the customer billing. This is a regular cause of incorrect energy measurement.</p> <p><b>Type</b> – no issue.</p> <p><b>Accuracy</b> - careful analysis should be undertaken to minimise the possible variations so that it is difficult to load non-valid information</p> <p><b>Test Date</b> – no issue</p>
	13.	Do you agree to not to add CT/VT serial number fields, and if you do not agree, can you propose solutions for adding those fields in (i.e. new NMI devices table) and will adding them provide more benefit than costs to your business and customers	If Serial Number is sufficiently valuable to metering businesses, then AGL proposes that it be part of the new group of CT/VT fields which will be created as a result of this proposal, otherwise we leave that to the Metering Businesses for a decision.

Information Category	Question No.	Question – Metering Installation	Participant Comments
Register Level Information	14.	<p>Do you agree with amending the fields Controlled Load and Time of Day to include enumerated list of values? If Yes, what values can be in the enumerated list for the fields:</p> <ul style="list-style-type: none"> <li>- Controlled Load</li> <li>- Time of Day</li> </ul>	<p>Yes</p> <p><b>Controlled Load</b> needs to contain sufficient information to support Tariff application as well as the changes required for the implementation of the <b>Demand Response</b> market.</p> <p>The MSATS enumerations should also be reflected in the B2B Enumerations to ensure a consistent application of information through the market.</p> <p>Eg:</p> <ul style="list-style-type: none"> <li>• External – Customer</li> <li>• External – Network Control device</li> <li>• External – Other</li> <li>• Internal - Time Control</li> <li>• Internal - Network Control</li> <li>• Internal - Other</li> </ul> <p><b>Time of Day</b></p> <p>AGL supports enumerated lists to simplify data management and ensure valid information is loaded to MSATS</p>

Information Category	Question No.	Question – Metering Installation	Participant Comments
	15.	<p>Do you agree with AEMO’s proposal to remove the following fields?</p> <ul style="list-style-type: none"> <li>- Demand1</li> <li>- Demand2</li> <li>- Network Additional Information</li> </ul>	AGL supports the proposal to cleanse the data and implement enumerated lists, noting that there are currently many versions of demand and more are expected over time.
Connection and Metering point Details	16.	Do you agree with the proposal to include the Connection Configuration field as described above? Why/why not?	AGL supports this proposal as it can be used as a validation check on other information available.
	17.	Are there any connection configurations that could not be contained in the above Connection Configuration field?	<p>AGL notes that there are certain components of the connection configuration which would not be available in this <b>Configuration</b> field. For example – a 2-phase connection most likely has 3-phase cable. A 2-phase connection may have a 3-phase meter.</p> <p>Should this configuration be both the connection information and the asset information as separate information, which may mean a longer field:</p> <p>Eg a 2-phase connection L2NN, might be extended to L2NN33, where the 3 represents the service capability and the second 3 represents the meter capability.</p>

Information Category	Question No.	Question – Metering Installation	Participant Comments
Shared Isolation Points Flag Field	18.	Are the values sufficient? What additional information should be provided, and how could it be validated?	While the identification of shared isolation is very valuable, without the GIS information or a suitable link, the field itself simply becomes an alert that there is a shared fuse. Without identifying the NMIs which are linked to the same fuse, the processing of the work will still require a physical visit to scope the site, however this is still more efficient than attending site and cancelling work.
	19.	Should “Unknown” be able to be changed into “Yes” / “No”?	The only value which is meaningful is <b>Yes</b> or <b>No</b> , which are definitive statements. <b>Unknown</b> is not definitive and has no value. Requiring unknown means this field has to be populated and then amended.  <b>Yes</b> and <b>No</b> clearly identify that some sort of site visit has been undertaken. In both cases, the criteria and responsibility for updating this field needs to be clear.
Metering Installation Location Information	20.	Do you support the deletion of Additional Site Information?	AGL supports the use of GPS coordinates for meter and CT locations, but notes that for high rise and shopping centres, GPS may not be adequate or suitable. This field may be useful for those situations where it is not possible to use GPS coordinates or for supporting information, such as associated with UMS connections, where the connection point may be very different to the device location or high rises..
	21.	Are there any pieces of information that would be useful to explicitly flag for inclusion in the Meter Location field? (these can be included in the definition of the field)	AGL leaves this feedback to the metering businesses.

Information Category	Question No.	Question – Metering Installation	Participant Comments
	22.	Does your organisation support the mandatory provision of GPS coordinates for all rural sites?	AGL supports the use of GPS coordinates for meter and CT locations, but notes that for high rise and shopping centres, GPS may not be adequate or suitable.
	23.	If the provision of GPS coordinates for all rural NMIs were made mandatory, does your organisation support the use of “Designated regional area postcodes” to define “rural”? If not, what alternative would your organisation prefer?	AGL believes that GPS coordinates should extend to urban areas as well, especially for meter locations which are for street equipment (eg traffic lights) or large expanses – such as university sites, UMS connections, parks etc.
	24.	Does your organisation support the mandatory provision of GPS coordinates for any sites with an MRIM meter?	AGL believes that GPS coordinates should be included for all meters, not just MRIM, but MRAM, Comms, VICAMI etc.
	25.	Does your organisation support the mandatory provision of GPS coordinates for any new installations?	Yes
	26.	Does your organisation believe that the provision of this information should be made mandatory for any other scenarios?	Yes – some clear guidelines need to be provided so that the DBs and MCs have a clear responsibility for capturing GPS coordinates when visiting customer sites, so that the information can be captured over time.
	27.	Does your organisation believe that the provision of this information should be made required for any other scenarios?	Yes – some clear guidelines need to be provided so that the DBs and MCs have a clear responsibility for capturing GPS coordinates when visiting customer sites.

Information Category	Question No.	Question – Metering Installation	Participant Comments
	28.	Bearing in mind that GPS coordinates to four decimal places allow identification to the nearest 10 metres, that GPS coordinates to five decimal places allows identification to the nearest metre, and that GPS coordinates to six decimal places allows identification to the nearest 10 centimetres, if the field is added should it be to four, five, or six decimal places?	AGL would suggest that 5 decimal places (ie the nearest metre) should be adequate for locating a meter. Also, noting that the GPC equipment, may not be physically able to get any closer to the meter in any case. Four decimal places (10m) does not seem adequate for locating a meter.
Meter Read and Estimation Information	29.	Do you agree with AEMO's proposal to amend or remove the meter read and estimation information as per the proposal above, if not please specify which ones you do not agree with and why?	<p><b>NSRD</b> is an important piece of information, especially for MRAM and basic meters, especially in an environment of faster switching.</p> <p><b>Data Validation, Estimation and Measurement Type</b> are fields that AGL supports the removal of.</p>

Information Category	Question No.	Question – Metering Installation	Participant Comments
Meter Communications Information	30.	Do you agree with AEMO’s proposal to remove the meter communications information fields as per the proposal above, if not please specify which ones you do not agree with and why?	<p>AGL supports AEMOs proposal to remove the following fields:</p> <ul style="list-style-type: none"> <li>• <b>Communications Equipment Type</b></li> <li>• <b>Data Conversion</b></li> <li>• <b>Remote Phone Number</b></li> </ul> <p>• However, the <b>Communication Protocol</b> provided useful information historically, when the meters connected with 2G had to be upgraded when the 2G network was turned off. AGL can therefore see value in this field being populated to manage future changes in communications requirements, eg 3G networks being retired.</p> <p><b>Password / User Access Rights</b> - It was noted that there may be options for customers to have direct access to meters via interface devices (eg Zigby in AMI meters). This generally requires a password or activation, therefore this field may be beneficial in flagging the requirement to support customer meter access.</p>

## 2.2 NMI details

Information Category	Question No.	Question	Participant Comments
Address Structure	31.	Do you agree with the proposal to remove unstructured address fields, following a period for data holders to clean their existing data?	<p>Yes – or at least going forward with an obligation to update noting that the MSATS address is for the physical connection.</p> <p>AGL also queries how this would be populated for UMS devices – such as BBQs in Parks, or buildings within large properties like university campuses which may require unstructured information.</p> <p>AGL suggests the obligation should be to use structured addresses unless only unstructured works.</p> <p>But given the proposal to include GNAF / GPS is this change warranted</p>
	32.	Are there any reasons to keep the Unstructured Address fields, given that additional locational information (e.g. “pump by the dam”) can be provided in other fields, e.g. Location Descriptor where we have proposed to lengthen the characters available?	AGL believes that the obligation should be to use the structured address fields unless they are not suitable, such as for UMS NMIs or some generator sites, in which case the unstructured fields could then be used.
	33.	Do you agree with the proposal to add G-NAF PID to MSATS if the data were populated by AEMO on the basis of structured address (as is currently done for DPIDs) and thereafter by LNSPs?	AGL supports this proposal.
	34.	Do you agree with the proposal to add G-NAF PID to MSATS if the data were populated entirely by LNSPs?	AGL believes that it is more efficient for AEMO to populate the existing data in MSATS with the networks being responsible for populating MSATS as part of NMI creation.

Information Category	Question No.	Question	Participant Comments
	35.	If AEMO were to add the G-NAF PID field (which would uniquely identify a physical address), do participants believe there is use in keeping the DPID field?	<p>AGL sees value in maintaining the DPID information as this relates to Australia Post, and a substantial amount of correspondence is still issued to customers via Australia Post.</p> <p>AGL suggest that this field be maintained for an additional 5 years at which time an assessment is made to determine if it should be retained.</p>
	36.	Would your organisation support adding Section Number and DP Number if G-NAF PID were also to be added?	AGL understands that if GNAF is used, then Section No and DP No should not be required, and therefore this information is unnecessary.
	37.	Would your organisation support adding Section Number and DP Number if G-NAF PID were <b>not</b> to be added?	If GNAF is not included, then the Section No and DP No would be required by NSW DBs for NMI creation. Unless other jurisdictions require it, then these fields should only be required for NSW.
Feeder Class	38.	Do you agree with the proposal to make Feeder Class required for the jurisdiction of Queensland?	This is required for QLD, so it makes sense to retain it for QLD, on the basis that EQ maintains it.
Transmission Node Identifier2	39.	Do you agree with the proposal to introduce TNI2?	AGL can see value in the use of TNI2 for some of the changes arising from Global Settlements, but noting the discussion held at the Standing Data workshop, AGL believes that AEMO should work closely with DBs to determine whether or not this inclusion add the value expected and can be made useful for Global Market settlements.

## 2.3 NER Schedule 7.1

Information Category	Question No.	Question	Participant Comments
NER Schedule 7.1 Rule Change		Do you see any benefit in Schedule 7.1 remaining as-is? If so, please detail the benefit.	<p>AGL broadly supports this move to minimise the requirements set out in Schedule 7.1 as it will allow greater flexibility for the market.</p> <p>AGL believes that Schedule 7.1 should contain some high level (but not exhaustive information) on what MSATS should contain.</p> <p>However, AGL believes that as NMI standing data is substantially for use by industry participants, and that a number of B2B processes either rely on it or are driven by the available NMI standing data that the overall governance of the NMI standing should rest jointly with AEMO and an industry body, such as the IEC, not just AEMO alone</p>
		Do you support AEMO's proposal? If you do not, please detail why.	<p>AGL broadly supports this move to minimise the requirements set out in Schedule 7.1 as it will allow greater flexibility for the market.</p> <p>AGL believes that Schedule 7.1 should contain some high level (but not exhaustive information) on what MSATS should contain.</p> <p>However, AGL believes that as NMI standing data is substantially for use by industry participants, and that a number of B2B processes either rely on it or are driven by the available NMI standing data that the overall governance of the NMI standing should rest jointly with AEMO and an industry body, such as the IEC, not just AEMO alone</p>

Information Category	Question No.	Question	Participant Comments
Fields referenced in the NER that are not implemented in MSATS		Do you see any benefit in adding the aforementioned fields to MSATS? If so, in which table would you propose they be added and how can the quality of data be ensured?	AGL believes that generally the Rules should be sufficiently high-level ensuring clarity of obligation and governance, with specific details being managed through procedures.  Having said that, the relevant information, where required, can be managed through other means.

### 3. Proposed Changes in Standing Data for MSATS Guideline

Section No/Field Name	Participant Comments

## 4. Other Issues Related to Consultation Subject Matter

Heading	Participant Comments
Controlled Load enumerations	Align B2B enumerations with standing data enumerations
UMS 5 min segments – decimal places	Issue raised that a small UMS device (eg 12W) cannot be broken into 5 min segments and allocated over a day with 4 decimal places – need work on MSATS and NEM 12 data files to resolve this possibly with more decimal places.
Use of ADL	ADL is used in different processes. <ul style="list-style-type: none"><li>• During connection, it is used to determine the required metering and tariff (and service capability);</li><li>• During the early part of the connection it is used when a substitution is required if there is no previous load history;</li><li>• This field may be utilised for recording the agreed load for NCONUML devices (still being determined).</li><li>•</li></ul>

## Appendix I – Fields to be Amended

Field	Description	AEMO Proposal	AGL Position
Meter Manufacturer	The manufacturer of the installed meter.	To be made 'Mandatory' with a 12-month transition timeframe. To be an itemised list with regular compulsory updates.	Support
Meter Model	The meter manufacturer's designation for the meter model.	To be made 'Mandatory' with a 12-month transition timeframe. To be an itemised list with regular compulsory updates.	Support
Meter Read Type Code	Code to denote the method and frequency of Meter Reading.  First Character = Remote (R) or Manual (M);  Second Character = Mode Third Character = Frequency of Scheduled Meter Readings  Fourth Character = Undefined.	This field to be made 'Required' and the fourth character be used to identify what interval length the meter is capable of reading.  This includes five, 15 and 30 minute granularity.  This follows on from AGL's Issue Change Form raised at the Electricity Retail Consultative Forum.	Support  AGL also notes that flexibility should be allowed for meters at 1 minute granularity for DER programs.

Field	Description	AEMO Proposal	AGL Position
Meter Suffix	Metering Datastream identifier (for MDM). Identifies the Datastream as delivered to AEMO for settlements purposes. The value must be a valid suffix for this NMI and is active for this date range. The value must comply with requirements of the NMI Procedure. If the MeterInstallCode is COMMSn, MRIM, MRAM, VICAMI or UMCP, the Suffix value must be in the form Nx where DataStreamType is I or P for an interval Datastream. If the MeterInstallCode is BASIC, the Suffix value must be numeric.	To be made retrospectively 'Mandatory' with a 12-month transition timeframe. This is with a view towards removing Meter Point in the future.	AGL supports a long-term consistent approach to managing meter data registers and the associated meter datastreams.
Meter Use	A code identifying how the meter is used.	To be made 'Required'. Clearer description and an itemised list to be provided (EG: statistical, logical meters).	Support

## Low Quality under Populated Fields

Field	Description	AEMO Proposal	Proposed Position
Meter Test Result Accuracy	The accuracy figure from the meter test performed on the date indicated in the Last Test Date field.	Amended to instead be a combined test date and pass / fail flag (e.g. a successful test on 1 January 2020 could be coded as 202001011) Logic list to be included in description of field to ensure data quality.	AGL suggest this field be an enumerated Pass/Fail enumeration which should be possible to associate with an enumeration for proposed <b>Meter Fault Type</b> (replacing Family Failure)
Last Test Date	The date on which the metering installation was last tested or inspected by the Metering Provider "B". This date will be used if clause 7.9.4(a) of the NER needs to be applied.	Assuming the Meter Test Result Accuracy field will be implemented as described, this field will be redundant and can be removed.	AGL rejects removal of <b>Last Test Date</b> – retain this for validation and data management And use Meter Test Result Accuracy with an enumeration  Keep both fields <ul style="list-style-type: none"> <li>• Benefits of simpler data</li> <li>• GUI look ups</li> <li>• Ease of data validation</li> <li>• Ease of generating reports (without having to deconstruct the new coding)</li> <li>• Both fields already exist – no substantial MSATS system changes needed</li> </ul>

## Appendix II – Fields to be Removed

Field	Description	AEMO Proposal	AGL Position
Asset Management Plan*	If a site plan is used, description of plan. If a sample plan is used, the name of the AEMO approved plan.	This field will be difficult to make a structured field (and thus high-quality and complete), and it is currently sparsely populated. This indicates that participants do not find it useful.	Support Removal
Calibration tables*	Details of any calibration factors programmed into the meter.	This field is virtually unpopulated. This indicates that participants do not find it useful.	Support removal
Meter Constant*	The meter KE (intrinsic constraint of meter in Wh/pulse).	This field was originally proposed by AEMO to be made 'Mandatory' as it has a 55.81% population rate. However, industry feedback indicated it may not be relevant to the market. The necessity of this field has been raised as part of this consultation.	Support removal

Field	Description	AEMO Proposal	AGL Position
Meter Point*	Identifies the order of the meter uniquely for the NMI, e.g. this field will be 01 for the first meter at the NMI, 02 will be the second meter at the NMI, and so on. In the format 0n, where n is the meter number per the protocol described in the NMI Procedure.	This field will be made redundant with the Meter Suffix field being made 'Mandatory' and available retrospectively.	Support removal
Meter Program	A description of the program used to initialise the installed meter	This field will be difficult to make structured and it is currently very sparsely populated which indicates that participants do not find it useful.	Support Removal
Meter Route	The route identifier the meter is currently being read in.	This field is well-populated but not widely used. AEMO proposes to remove this field in favour of improved locational information.	Support Removal
Meter test & calibration program*	Meter test & calibration program.	This field will be difficult to make structured and it is currently very sparsely populated which indicates that participants do not find it useful.	Support removal for reasons listed by AEMO

Field	Description	AEMO Proposal	AGL Position
Meter Test Result Notes	A statement of compliance indicating the standard of the test regime applied at the time of the last test.	This field will be difficult to make structured and it is currently sparsely populated which indicates that participants do not find it useful.	Support removal  (see comments later with meter test date and meter test accuracy)
Next Test Date*	Next date on which the meter should be tested.	AEMO proposes that this field be removed. This field is not useful to industry as a whole. Please see comments on Last Test Date	Support Removal
Test Performed By	Identifying the Metering Provider "B" and the technician responsible for conducting the last meter test. The technician is to be identified by a number unique to the Metering Provider "B".	This field will be difficult to make structured and it is currently sparsely populated which indicates that participants do not find it useful.	Support removal

## Appendix II – New Fields

Field	Description	AEMO Proposal	Proposed Position
Meter Commission Date	the date the meter was commissioned. This was proposed as it may be useful for new retailers that win sites that are already active or when there are discrepancies around the NMI active date. However, AEMO does not believe this would not provide value for the market as a whole and this information can be provided through other means.		Support inclusion of field
Disconnection Method	an enumerated list describing the method by which the meter at that point for that NMI was most recently disconnected.		Support inclusion of field as enumerated list  Note – The NMI status can indicate multiple disconnection methods – eg fuse and Street, which makes the NMI status less useful.

Field	Description	AEMO Proposal	Proposed Position
Meter Locks	an enumerated list denoting the presence of locks on the metering installation.		AGL supports the use of this field with enumerated values to clearly identify the lock in use – eg customer, industry etc
Minimum Interval Length	the minimum interval at which the meter can record data		AGL supports this change as it will establish the minimal interval length meters can be reconfigured to, which will be important in the move to DER.
Meter Malfunction Exemption Number		AEMO to fill these details which could be used to identify family failure	Support But want clarity on the type of malfunction – either suffix for exemption number of use Family Failure field as Fault Type field
Meter Malfunction Exemption Expiry Date			Support

## Appendix IV – Transformer Fields

Field	Description	AEMO proposal	Proposed Position
CT Location VT Location	Replace Transformer Location with new fields		Support position
CT Ratio VT Ratio	Replace Transformer Ratio with new fields		Support position
CT Type VT Type	Replace Transformer Type with new fields		Support position
CT Accuracy Class VT Accuracy Class	Add new fields		Support position
CT Last Test date VT last Test Date	Add new fields		Support position

## Appendix V – Meter Register Information

Field	Description	AEMO Proposal	Proposed Position
Controlled Load	Develop common enumerated list for both B2B and B2M and cleanse existing data		AGL believes that this field should be used to designate the presence and type of controlled load – eg none, internal clock , external clock, DB controlled, DER controlled etc with enumerated fields
Demand 1	Develop enumerated list and cleanse existing data		Clearer information on demand will be beneficial – support proposal
Demand 2	Remove		Support proposal
Time of Day	Remove		Support proposal
Network Additional Information	Remove		Support proposal

## Appendix VI - Connection Configuration

Field	Description	AEMO Position	Proposed Position
New Field – 4 characters			
Connection Type	<ul style="list-style-type: none"> <li>L = Low Voltage</li> <li>H = High Voltage</li> </ul>		<b>Support</b> this proposal
Phases In Use	<ul style="list-style-type: none"> <li>1 = Single Phase</li> <li>2 = Two Phase</li> <li>3 = Three Phase</li> </ul>		
Presence of CT	<ul style="list-style-type: none"> <li>C = Current Transformer</li> <li>N = No Current Transformer</li> </ul>		
Presence of VT	<ul style="list-style-type: none"> <li>V = Voltage Transformer</li> <li>N = No Voltage Transformer</li> </ul>		
Shared Isolation Point	<ul style="list-style-type: none"> <li>Yes</li> <li>No</li> <li>Unknown</li> </ul>	Available from 1 July 2021 Populated by DNSP No requirement to proactively populate	Support this proposal AGL notes the AEMC proposed delay in the associated rule, which may impact the implementation of this field.

## Appendix VII – Meter Location

Field	Description		Proposed Position
GPS	Mandatory for: <ul style="list-style-type: none"><li>• Rural</li><li>• MRIM</li><li>• New installation</li></ul>		Suggest also ensure 4A Meters included  Clarity on how this data would be collected and obligations to collect  Need more than rural – eg university sites, UMS sites etc

## Appendix VIII - Meter Read Information

Field	Description	AEMO Proposal	Proposed Position
Next Scheduled Read Date		Change from Optional to required	Support this proposal
Data Validation			Support removal
Estimation Instructions			Support removal Metrology Procedures Part B deals with this
Measurement Type			Support removal

## Appendix IX – Meter Communications

Field	Description	AEMO Proposal	AGL Current Position
Communication Equipment Types			Support Removal
Communications Protocol			AGL can see some value in this information to manage comms changes going forward – eg 2G retirement
Data Conversion			Support Removal
Password			There is a potential for customer access to meter / meter data (eg Zigby) – or should this be a flag /capability ?
Remote Phone Number			Support Removal
User Access Rights			There is a potential for customer access to meter / meter data – or should this be a flag /capability ?

## Appendix X – Address Information

Field	Description	AEMO Proposal	Proposed Position
G-NAF ID	<p>A Geocoded National Address File Persistent Identifier (G-NAF PID), which comes from the free-to-use Creative Commons G-NAF database.</p> <p>Each G-NAF PID corresponds uniquely to an address and corresponds to a specific geocode (though this geocode will be for the site, not for the meter)</p> <p>Section and DP Number are part of G-NAF information</p>		Support inclusion of GNAF
Unstructured Address		Remove - Leaves only structured address Information	<p>Can be used for UMS / generator sites</p> <p>Use structured wherever possible and unstructured when structured won't work or as additional information – eg university site, UMS</p>
DPID		Remove	Do not support removal at this stage as DPID is Australia Post and used to validate postal addresses

## Appendix XI - Locational Information

Field	Description	AEMO Proposal	Proposed Position
Feeder Class	Qld Only Specifies feeder type for GSLs	Leave in place Required for Qld only	Support
TNI2	This code is to identify a virtual transmission node or transmission network connection point that the NMI is associated with.	AEMO proposes to include a new field to support the requirement to provide data for Global Settlement which requires LNSPs to register all cross-boundary connection points for unaccounted-for energy (UFE) calculation.	Support Better understanding of how this will work prior to implementation, noting the difficulty of how this field may be used