STANDALONE POWER SYSTEMS (SAPS)

DRAFT REPORT AND DETERMINATION

Published: **May 2022**

NOTICE OF SECOND STAGE CONSULTATION – STANDALONE POWER SYSTEMS (SAPS) – IDENTIFYING A SAPS NMI IN MSATS

National Electricity Rules – Rule 8.9

Date of Notice: 18 May 2022

1. Second Consultation Stage Addition
2. First Consultation Stage Extension

Progress

AEMO commenced the Rules consultation process (Consultation) on Tuesday 1 March 2022 (First Stage Consultation), on the most efficient way to meet the objectives for implementing the Standalone Power Systems (SAPS) Priority One Framework in the AEMO Retail Electricity Market and Settlement procedures (Procedures). The consultation commenced with AEMO publishing the Issues Paper, to facilitate informed debate and feedback by industry. In the Issues Paper, AEMO indicated that:

- Initially, AEMO must determine the appropriate IT design options to support the SAPS Framework, with a focus on the appropriate way to identify in MSATS that a NMI is connected to a SAPS. For this purpose, AEMO identified three options in the Issues Paper. AEMO identified that there are advantages and disadvantages with each of the three options. AEMO had no clear preference for any of the three options
- Subsequently, AEMO would need to consult on changes to a number of Procedures.

The period for submissions by stakeholders in response to the Issues Paper closed on Wednesday 6 April 2022.

The substantive issues, as well as their procedural implications in the Consultation, were discussed by the approximately 30 industry stakeholders who participating in each of the AEMO convened forums on Friday 11 March and Friday 29 April 2022.

Issues

The participants raised and discussed a range of issues, including the implications of the changes associated with Five Minute Settlement.

The discussions enabled the participants to align on various issues, which include the need for the industry to provide feedback to AEMO on proposed changes to:

- The following procedures, as identified by the AEMC:
    - Service Level Procedure: Metering Data Provider Services – including SAPS-related requirements for the receipt of metering data by the MDP for the generator(s) by MDPs for the SAPS end user NMIs and the delivery of metering data by the MDPs.
    - Metrology Procedure: Part A and Part B – including requirements for MDP appointment and the calculation of SAPS generation metering data.
- The following additional issues in various procedures:
    - Registration requirements for a SAPS Resource Provider (MSRP), which is the new registration category for the party who is financially responsible for generating units within a SAPS.
    - Accreditation/qualification procedure for the new category of SAPS MDPs.
    - MDP appointment requirements.

- Calculation of the total generation by the MDP, i.e. who does estimation for missing NMI load data, if required.
- Profiling by SAPS generation MDPs.
- MDP processes at the MSRP NMI, where an MDP within a SAPS fails to provide metering data to the MDP at the MSRP NMI.
- AEMO and MDP processes at the MSRP NMI, where AEMO identifies a variance between the metering data for standard connection points within a SAPS and metering data for the generating units at the MSRP NMIs.
- Identification and use of methodologies treat missing SAPS end user NMI metering data by the MDP for the SAPS generator, where the MDP does estimation for missing SAPS end user NMI metering data.
- Calculation of metering data for MSRP connection points (i.e. SAPS generation NMIs), pursuant to the NER requirement that the MDP operating at MSRP NMIs is capable of calculating the metering data as an aggregation of the metering data related to the connection points within the SAPS.

Dates

Accordingly, AEMO confirms that:

- The dates in respect of the additional second consultation stage (Second Stage Consultation) for:
  - The publication of the Second Draft Report will be 17 June 2022.
  - The close of submissions on the Second Draft Report will be 13 July 2022.
- The dates in respect of the First Stage Consultation for:
  - The publication of the First Draft Report will be ***18 May 2022***, instead of Monday 9 May 2022.
  - The close of submissions on the First Draft Report will be ***2 June 2022***, instead of Tuesday 24 May 2022.

Finally, AEMO confirms that these date changes will not impact the deadline of Monday 1 August 2022 for AEMO's publication of the Final Report. This date of Monday 1 August 2022:

- Aligns to key dates of Monday 1 August 2022 and Tuesday 30 May 2023 for the commencement into operation of the National Electricity Amendment (Regulated Stand-Alone Power Systems) Rule 2022.
- Replaces the dates of:
  - Wednesday 3 August 2022, which had been discussed at the workshop on Friday 29 April 2022.
  - Tuesday 5 July 2022, which was the indicative date in the Issues Paper.

This notice informs all Registered Participants and interested parties (Consulted Persons) that AEMO is commencing the Second Stage Consultation.

This consultation is being conducted in accordance with the Rules consultation requirements detailed in rule 8.9 of the NER.

Invitation to make Submissions

AEMO invites written submissions on this First Draft Report and Determination (Draft Report).

Please identify any parts of your submission that you wish to remain confidential, and explain why. AEMO may still publish that information if it does not consider it to be confidential, but will consult with you before doing so.

Consulted Persons should note that material identified as confidential may be given less weight in the decision-making process than material that is published.

Closing Date and Time

Submissions in response to this Notice should be sent by email to nem.retailprocedureconsultations@aemo.com.au, to reach AEMO by 5.00pm (Australian Eastern Standard time) on 2 June 2022.

All submissions must be forwarded in electronic format (both pdf and Word). Please send any queries about this consultation to the same email address.

Submissions received after the closing date and time will not be valid, and AEMO is not obliged to consider them. Any late submissions should explain the reason for lateness and the detriment to you if AEMO does not consider your submission.

Publication

All submissions will be published on AEMO's website, other than confidential content.

EXECUTIVE SUMMARY

The publication of this First Draft Report commences the Second Consultation Stage of the Rules consultation process conducted by AEMO to determine the appropriate IT design options to support the Standalone Power Systems (SAPS) Priority One Framework under the National Electricity Rules (NER).

The Second Stage Consultation has been added to provide stakeholders with the opportunity to comment on AEMO's proposals (Proposals) to make changes (Changes) to the Procedures, in order to address the issues in the Notice which accompanies this First Draft Report.

AEMO published the Issues Paper to facilitate debate and feedback by industry about the most efficient way to meet the objectives for implementing the SAPS Framework in the Procedures.

A NMI connected to a SAPS will have a different wholesale settlement price to other NMIs in a region, as such, the NMI will need to be identifiable and discoverable by market participants and AEMO.

AEMO considered three options to enable a participant to identify in MSATS a NMI that is connected to a SAPS. These options are:

1. Identifying SAPS NMIs using Transmission Node Identifier (TNI) Code with a SAPS Flag against it which appears in MSATS (Option 1 (SAPS Flag)).
2. Identifying SAPS NMIs using TNI Codes with special convention or format for SAPS TNI Codes (Option 2 (TNI Convention)).
3. Identifying SAPS NMIs using a new SAPS ID field (Option 3 (New SAPS ID Field)).

AEMO received 15 submissions in response to the Issues Paper, of which:

- Ten were in favour of Option 2 (TNI Convention).
- Five were in favour of Option 3 (New SAPS ID Field).
- None were in favour of Option 1 (SAPS Flag).

After considering the submissions, AEMO has determined that it should proceed with Option 2 as the preferred approach for identifying a SAPS NMI in MSATS. The existing convention for TNIs (the first letter of the four-digit code identifies the state or territory that the TNI is located) is not formally documented in a Procedure. AEMO allocates TNI codes in accordance with internal processes.

Some participants indicated a preference for SAPS end user NMIs to be 5 minute capable to remove the need to profile loads for settlement. AEMO invites further feedback from participants as to the reasons for and against this proposal.

AEMO's draft determination is to adopt the TNI Code naming convention in the form published with this Draft Report.

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1. STAKEHOLDER CONSULTATION PROCESS

AEMO is conducting the Consultation in accordance with the Rules consultation process in rule 8.9.

AEMO's indicative timeline for the Consultation is outlined below.

Deliverable	Indicative date
Notice of First Stage Consultation and Issues Paper published	1 March 2022
First Stage Consultation submissions closed	6 April 2022
First Draft Report and Second Stage Consultation Notice published	18 May 2022
Submissions due on First Draft Report	2 June 2022
Second Draft Report published	17 June 2022
Submissions due on Second Draft Report	13 July 2022
Final Report published	1 August 2022

Future dates may be adjusted depending on the number and complexity of issues raised in submissions.

The publication of this First Draft Report marks the commencement of the Second Stage Consultation.

The glossary of terms used in this First Draft Report are at Appendix A.

2. BACKGROUND

2.1. NER requirements

AEMO is responsible for the establishment and maintenance of metering procedures specified in Chapter 7 except for procedures established and maintained under NER 7.17.

The procedures authorised by AEMO under NER Chapter 7 must be established and maintained by AEMO in accordance with the NER, including NER 7.16.7.

2.2. Context for this consultation

The AEMC's Final Report and Proposed Rules for Updating the regulatory frameworks for the distributor-led Stand-Alone Power Systems (SAPS) Priority 1 sets out a national framework that facilitates the provision of SAPS by DNSPs to their existing customers, where these offer a lower cost substitute to investing in, and maintaining, traditional network solutions.

2.3. First stage consultation

AEMO issued the Notice of First Stage Consultation on 1 March 2022.

In the Issues Paper AEMO identified the three options for identifying that a NMI is connected to a SAPS, being Option 1, Option 2 and Option 3, as set out in the Executive Summary. AEMO received 15 written submissions in the First Stage Consultation, as noted in the Executive Summary.

AEMO also held the two industry forums on 11 March 2022 and 29 April 2022, respectively.

Copies of all written submissions, minutes of meetings and issues raised in forums (excluding any confidential information) have been published on AEMO's website at:
https://aemo.com.au/en/consultations/current-and-closed-consultations

3. SUMMARY OF MATERIAL ISSUES

In the Issues Paper, AEMO invited feedback on the preferred option for identifying a SAPS NMI in MSATS. The feedback was as follows:

Option	Number of participants selecting as preferred option
(1) SAPS Flag	0
(2) TNI Convention	10
(3) New SAPS ID Field	5

No other viable option was identified in the participant feedback.

AGL and Red Energy and Lumo Energy stated a preference for 5-minute metering to be used for all NMIs connected to a SAPS. For settlement purposes, the total energy consumed on a SAPS is calculated as the sum of all the NMIs connected to the SAPS. This is calculated by the MDP for the generators. Without 5-minute metering for all NMIs connected to the SAPS, the MDP(s) would need to profile the metering information for the load NMIs that do not have 5-minute metering information available.

A detailed summary of issues raised by Consulted Persons in their submissions, together with AEMO's responses, is contained in Appendix B.

4. DISCUSSION OF MATERIAL ISSUES

4.1. Calculation of metering data for generation resource connection points within SAPS

The Rule [NER 7.6.3(c)(6)(iv)] requires the Metrology Procedures to include the method to be used by the MDP to determine the calculated metering data for market generating units in a regulated SAPS. The method of calculation will confirm the treatment of any losses within the SAPS.

In developing amendments to the Metrology Procedures, AEMO considers that the approach provided by way of examples in the AEMC's final report for updating the regulatory frameworks for distributor-led stand-alone power systems provides an appropriate design outline upon which requirements can be based; those examples being:

- Individual power system example:

  In an individual power system there will be a single customer NMI and a single generator NMI. In this example, the customer's meter records a consumption of 5kWh in a given period. Logical metering could be used to derive calculated metering data, in order to ensure that settlement balances. In this case, the metering data for the generator would be calculated as being 5kWh, irrespective of the generator's actual meter reading. In practice, the meter might read 5.1kWh (if there were electrical losses) or even 4.9kWh (in the event, say, of a meter error), but this would not be relevant or used for settlement purposes.

- Microgrid example:

  In a more complex system, there might be, for example, two customers and two generators. Customer A consumes 5kWh and customer B consumes 6kWh. Generator X generates 9kWh and generator Y generates 3kWh. There is, therefore, 1kWh of electrical losses. In this example, logical metering might be used to apportion the losses between the generators on a pro-rated basis. Three-quarters of the

losses would be allocated to generator X and one-quarter to generator Y, so that the calculated metering data for generator X would be 8.25kWh and for generator Y would be 2.75kWh. Note that in this example, unlike for the IPS example, actual metering data from the generators' meters would be required to perform the calculation.

The Rule (NER S7.2.3) has provided new categories of registration for MDPs that will engage in the remote acquisition, calculation, processing and delivery of calculated metering data for market connection points for market generating units in regulated SAPS. The Rule also provides for such an MDP to have access to the metering data for other connection points in the same regulated SAPS.

AEMO will include requirements for the provision of metering data to the MDP for a connection point in a regulated SAPS in the Service Level Procedures (Metering Data Provision Services). Specifically, to require MDPs at connection points within the regulated SAPS to deliver metering data to the MDP at the market connection points for market generating units at each regulated SAPS in which they are operating, consistent with provisions for current metering data recipients such as DNSPs, FRMPs and AEMO.

To enable MDPs for market generating units at a regulated SAPS to be able to perform the required calculation, it is important to consider the various types of metering installations that might exist within a regulated SAPS, the metering data that could be provided to that MDP, and how it would need to be treated. For example, if all metering installations within a SAPS had remotely read interval metering and produced metering data files based on five-minute interval granularity, then the calculation by MDPs for market generating units in SAPS is made relatively simple (e.g. aggregate five-minute metering data for all connection points within the SAPS to create the metering data values for the SAPS generating unit).

If metering installations could exist within a SAPS that provide metering data in interval lengths that are greater than five-minute granularity, or are manually read, this creates greater complexity. Accommodating manually read accumulation metering installations would create greater complexity in the process. As the Rule does not specifically require a certain type of metering installation at all SAPS connection points, treatment of this matter is required in AEMO procedures.

Retention of accumulation metering in SAPS is problematic for reasons other than the calculation of metering data for market generating units at a regulated SAPS. AEMO utilises the Net System Load Profile (NSLP) to assign quantities of energy in each trading interval to respective FRMPs in market settlement. Not only is the NSLP unrelated to connection points that are moved within a SAPS but use of it to enable settlement outcomes would not resolve issues highlighted above for the calculation of metering data for SAPS generation; accordingly AEMO has discounted the use of the NSLP within SAPS. Whilst the spot price for energy traded within SAPS is stable for each 12-month period, it is required to change every year and any solution needs to include enabling appropriate allocation of the regulated SAPS energy price to FRMPs within SAPS. The NSLP processes also enable energy to be allocated to old and new FRMPs following a customer switch of retailers at a NMI.

If accumulation metering might be retained at connection points within SAPS then mechanisms need to be established to act as a substitute to the NSLP processes which enable settlement and customer switching.

4.1.1. Feedback and submissions

AGL and Red Energy and Lumo Energy stated a preference for 5-minute metering to be used for all NMIs connected to a SAPS and that the establishment of a SAPS might present a good opportunity to also install a modern metering installation if one did not already exist. However, it was noted by parties, including Vector, that any mandate to install new metering might result in a delay to the establishment of a regulated SAPS, noting that in some cases metering replacement can be delayed (as has been noted within the AEMC's ongoing review of the NEM metering framework [1]

[1] https://www.aemc.gov.au/market-reviews-advice/review-regulatory-framework-metering-services

4.1.2. AEMO's assessment

The metering installation type and the metering data that it can be provided for connection points with SAPS is a key consideration in determining the complexity and practical application of any method required in the Metrology Procedures for the calculation of metering data by MDPs at market connection points for market generating units at a regulated SAPS.

In simple terms, the more complex and variable the metering types at connection points within a SAPS, the more complex the requirements need to be for MDPs.

AEMO has considered three potential approaches to resolve this matter:

1. Five-minute metering mandate - Mandating remotely read five-minute metering for all connection points within SAPS.
2. Conversion of metering data to a common standard within SAPS:
    a. Type 6 MDP to convert accumulation to interval data - The MDP for connection points with type 6 (accumulation) metering installations transferred into a regulated SAPS is required to provide interval data to the relevant parties.
    b. SAPS generator MDP to convert accumulation to interval data - The MDP at the market connection points for market generating units at a regulated SAPS is required to receipt all types of metering data and convert to an interval data file, for provision to relevant parties.

Option 1 – Five-minute metering mandate

The initial approach considered is to mandate (in AEMO Metrology Procedures) the installation of five-minute remotely read interval metering at all connection points which are moved to a regulated SAPS. This option is appealing in principle as it would simplify metering data management processes for the calculation of metering data by MDPs at market connection points for market generating units in a regulated SAPS as previously described. It would also avoid the need to replicate or otherwise replace the NSLP processes that are required to support settlement and customer switching. More generally, such an approach might be considered consistent with the general themes emerging from the ESB initiatives and the metering framework review which considers mechanisms to progress the rollout of advanced metering.

However, AEMO considers that there is merit in the points raised by Vector and other parties, that requiring the installation of five-minute metering for every connection point within a SAPS has the potential to unnecessarily complicate the process to establish the SAPS and in extreme cases might delay the establishment of a SAPS for an extended period (AEMO notes delays and issues regarding metering installation work raised in submissions to the AEMC's Metering Framework review).

Should five-minute interval metering be needed by default, for reasons which might include substantial changes being made to end user connection points to enable the network augmentation needed to connect to a SAPS, then complexities in metering data management and calculation are resolved. However, if there is the potential for a connection point within a SAPS to have any other arrangement, AEMO procedures and MDP accreditation need to accommodate it.

Option 2 - Type 6 MDP to convert accumulation to interval data

If five-minute remotely read metering installations are not ubiquitous within SAPS and manually read accumulation and interval metering which records in intervals other than five-minute might be retained, MDP processes within SAPS will need to accommodate the differences in order that a calculation can be made as previously described.

These differences fall in to two main categories:

- Conversion of different interval lengths into a single interval length – e.g. the SAPS generation can be calculated once all non-five-minute metering data has been converted into five-minute data.
- The conversion of accumulated metering data into an interval file in order that it can be aggregated with other interval metering data within a SAPS and continue to support settlement outcomes and customer switching energy allocation.

AEMO considers that relatively simple requirements can be established for MDPs for market generating units at a regulated SAPS to convert metering data files with various interval lengths into five-minute intervals in order that a calculation can be performed, and a five-minute data file be produced for the generating unit connection point. Requirements would form part of MDPs accreditation (related to the new MDP accreditation categories) and could be audited on an ongoing basis to assure compliance.

Conversion of accumulation metering data to interval data is more problematic and AEMO has considered two methods by which it might be achieved:

Option 2(a) - Type 6 MDP to convert accumulation to interval data

This approach would require the MDP for any type 6 metering being retained within a SAPS to convert accumulation metering data from each relevant connection point into an interval metering data file (NEM12 file format), rather than an accumulation metering data file.

The precise method for managing the conversion could be proposed by the type 6 MDP for AEMO's assessment and approval and might be based on methodology such as:

- Referencing interval data from physical metering at the market generating units at a regulated SAPS;
- Referencing data acquired from other network devices; or
- Utilising the existing average daily load (ADL) calculation methodology.

This would ensure that MDPs at market connection points for market generating units at a regulated SAPS will only have to receipt and process interval metering data files for connection points in a SAPS and AEMO would be able to use the file to allocate energy to trading intervals, enabling energy settlement and customer switching to work without further change or restrictions.

Option 2(b) - SAPS generator MDP to convert accumulation to interval data

This approach would require the MDPs at market connection points for market generating units in a SAPS to be capable of receipting accumulation metering data files (NEM 13 file format) and have a process for converting this accumulation metering data into an interval metering data file in order to calculate the metering data for the SAPS generation.

The MDP has less options upon which to base any conversion but might be able to utilise interval metering data from SAPS generating units.

Whilst this option might provide a viable mechanism for the calculation of metering data at market connection points for market generating units in SAPS, it would not solve the energy settlement and customer switching issues previously described.

If option 2(a) or 2(b) were to be progressed, AEMO would need to consider impacts, if any, to the current process of forward estimation of metering data at manually read metering installations within SAPS (i.e. whether it needs to be provided, if it does need to continue who should the receivers of the forward estimates be and in what format should that data be provided?)

4.1.3. AEMO's conclusion

AEMO considers that Option 1 (five-minute metering requirement stipulated in AEMO procedures) is impractical and unreasonable as it makes the establishment of a SAPS contingent of changes to metering installations as a matter of process rather than need.

Option 2(b) appears insufficient in outcome and complex in design, whereas Option 2(a) provides both a viable solution to all the issues created by retention of accumulation metering installations within SAPS and places the responsibility for metering data provision to make the SAPS viable on the party who is establishing the SAPS – the DNSP. Should the DNSP determine that a type 6 metering installation is required to be retained within a SAPS then they would need to build and have approved processes to convert the metering data in order that it could successfully function as intended by the Rule. Conversely, if the DNSP identified that no accumulation metering was present, or that work required for the establishment of the SAPS would otherwise require installation of modern interval metering by default, then no additional metering data processes would need to be adopted.

Option 2(a) would enable the creation of calculation methodology in the Metrology Procedures for MDPs at market connection points for market generating units to be based on the receipt and processing of interval metering data files (NEM 12 file format) only.

Question: Do participants agree with AEMO's assessment that MDPs for accumulation meters should provide interval data to the generator MDP and AEMO in a NEM12 file as outlined in option 2(a)?

Question: Are there other advantages and disadvantages of the various options that AEMO should consider?

Question: Are there other options that AEMO should consider to resolve this matter?

4.2. Identifying a SAPS NMI in MSATS

4.2.1. Issue summary and submissions

The TNI is a four-character alphanumeric code. By existing convention, the first character is used to identify the jurisdiction as follows:

First character	Jurisdiction
A	ACT
D	NT (does not participate in the NEM)
N	NSW
Q	Queensland
S	South Australia

First character	Jurisdiction
T	Tasmania
V	Victoria
W	Western Australia (does not participate in the NEM)

The remaining characters in the four-digit code are used to identify individual TNIs within a jurisdiction.

The SAPS rule requires that the TNI be changed for a SAPS NMI, that is, "delinked" from the current TNI. As the current TNI must be changed, in accordance with the Rule, AEMO proposes that the TNI field for SAPS NMIs (Generators and end users) is populated with a TNI code that is unique for each SAPS.

The first character would identify the DNSP in which the SAPS is located. It is proposed to use the remaining 16 alpha characters that are not used for the current NEM TNIs. The letters "O" and "I" would not be used to avoid confusion with "zero" and "one".

The first character for each DNSP would be unique to a DNSP, the remaining three characters would be used to identify a specific SAPS. The combinations for three alphanumeric characters provide 39,304 unique SAPS identifiers for each DNSP.

The market convention for allocating the first character of the four-digit TNI code by jurisdiction is not captured by procedure but rather in AEMO internal processes. The process for creating TNIs is a function performed by AEMO, DNSP's can then allocate NMIs to TNIs once they have been created in MSATS tables by AEMO. Change marked procedures have therefore not been included as part of this draft determination.

4.2.2. AEMO's conclusion

Based on participant feedback, AEMO would adopt the TNI convention for allocating codes for SAPS TNIs. In order to ensure that the creation of SAPS TNI codes is transparent and consistent, AEMO proposes that the SAPS TNI code structure convention is included in a procedure.

Question: Do participants agree that this convention is to be captured in a procedure?

Question: In which procedure or supporting document should it be included?

5. OTHER MATTERS

The rule change will require AEMO to consider and if necessary, make changes to:

- Qualification Procedure for the new categories of SAPS MDPs (1SAPD, 2SAPD, 3SAPD and 4SAPD).
- Credit limit procedures.
- Market management systems access procedures.
- PoLR cost procedures.

However, such changes to these procedures are outside of the scope of this Consultation. Where necessary, AEMO will consult separately on the relevant proposed changes.

Further:

- A new set of registration requirements needs to be established for the MRSP.
- These requirements are likely to substantially similar to current requirements for MSGA registration.

- AEMO possibly could enable a simplified registration, should an applicant be already registered as an MSGA.
- The AEMO Glossary and Framework is expected to require changes to accommodate the MSRP role. The changes may need to be reflected in changes to the MSATS Procedures and other Procedures, including in respect of the new FRMP (MSRP) category.

Again, these are outside of the scope of this Consultation. Where necessary, AEMO will consult separately.

Question: Has AEMO captured all the changes? Question: In making the changes to the SLP and Metrology procedures, what are the issues that AEMO should keep in mind/consider?

6. DRAFT DETERMINATION

AEMO's draft determination is to **proceed with Option 2 (TNI convention)**.

APPENDIX A. GLOSSARY

Term or acronym	Meaning
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
DNSP	Distribution Network Service Provider
MSATS	Market Settlements and Transfer Solution
MSGA	Market Small Scale Generator
MSRP	Market SAPS Resource Provider
NER	National Electricity Rules
SAPS	Standalone Power System
TNI	Transmission Node Identifier

APPENDIX B. SUMMARY OF SUBMISSIONS AND AEMO RESPONSES

No.	Question	Consulted person	Participant comment	AEMO response
1.	Are there other advantages / disadvantages of any of the options that AEMO should have considered?	AGL	Any option selected must: 1. Allow for both the supply NMI and customer NMIs to be easily identified by Participants via NMI discovery in MSATS. This is to ensure that the appropriate products and services are offered to SAPS consumers by Retailers and that they can be appropriately managed within the greater pool of grid connected NMIs. Equally it is to ensure that products, services and obligations that may impact customers can be managed. As these customers are not Grid connected, retailers would not want to enrol them in Demand Response programs, VPP programs, Solar curtailment, load shedding programs etc. Also, as there is greater understanding of how SAPS systems operate physically, the market may want new tariffs, for example which discourage overnight demand, rather than encourage this demand. Thus, it will be critical that these customers are easily identified so they can be appropriately managed and located. 2. Preferably the Supply NMIs should have a specific 'SAPS' NMI Classification to ensure these NMIs are readily identifiable as supply NMIs and protect them from accidental NMI transfer. AGL notes that the GENERATR classification could be used, but strongly urges a SAPS identifier be created to ensure these supplies are clearly and separately identified from Grid connected generators and because different Settlement processes are used for these supplies. Accidental NMI transfer can occur when customers provide adjacent – but incorrect NMIs. Therefore, a specific NMI classification can be used to enable validations and assist in managing market functions. 3. The implementation of these SAPS identifiers should not impact any supporting services, such as meter data file provision. MDM changes are not required for generators, so it is unclear why AEMO has indicated that the implementation of a SAPS Identifier would require secondary changes to MDM files. While a simple administered wholesale price for all SAPS within a region is proposed, AGL – who is currently working closely with Western Power (WA) on their SAPS Program – does	AEMO notes respondent's support for the proposed change. To identify a SAPS generator participants would use the GENERATR classification as used with other NME generation. AEMO notes that the WIGS procedure CR1020 can be used to correct any erroneous transfers. AEMO acknowledges that implementation of these SAPS identifiers should not impact any supporting services, such as meter data file provision. This was incorrectly identified as an issue in the Issues Paper.

No.	Question	Consulted person	Participant comment	AEMO response
			consider that different wholesale prices may be required over time. As such, the ability to individually identify SAPS devices (by region, by network) seems the most prudent option.	
2.		Ausgrid	One potential issue with option 2, Ausgrid would like to highlight is the individual allocation of a unique TNI code for each SAPS. As the first letter designates the jurisdiction (ie. N for NSW), that only leaves 3 characters for the SAPS and if AEMO suggests that the second character should be 'S' for SAPS this only leave 2 characters and what of the existing TNI that already use 'S' as second letter such as NSYS, NSBY. As there are already 296 TNIs allocated to NSW, wil there be sufficient number of TNIs for a potential few thousand SAPS, noting that new TNIs for transmission nodes and generators are being added constantly and we assume that old TNI codes could not be used.	The use of alphanumeric characters as described in section 5 of the draft determination provides each individual DNSP with 39,304 codes. AEMO considers this to be a sufficient number of codes to support the industry for the longer term.
3.		Ausnet	AusNet considers that options 1 and 3 that require a SAPS flag are unnecessary for Priority 1 DNSP provided SAPS. That is because all existing business processes apply to Priority 1 SAPS customers in exactly the same way as to non-SAPS (priority 1) customers including connection alterations for solar, life support, de-energistation and re-energisations. In fact, the only difference that should be applied is retailers will need to identify them for the purpose of financial wholesale settlements. We consider the wholesale settlements reporting could be done using the lowest cost solution of option 2. To which we agree with AEMO's assessment that option 2 has the least implementation and integration costs for DSNPs.	AEMO notes respondent's support for the option 2
4.		Endeavour	We note that the objective is for a SAPS NMI to be '… identifiable and discoverable by market participants and AEMO'. We understand this objective is not only from a systems point of view but also a user point of view, therefore we suggest another criteria AEMO considers is the useability of the solution options. For example, if a user was to look at a NMI using the MSATS browser then based on the issues paper we believe the useability of each option to be (high means better usability): Option 1: Useability is medium: the user will have to look at the NMI Master screen and the TNI screen to determine if a NMI is within a SAPS	AEMO notes the respondent's comment.

No.	Question	Consulted person	Participant comment	AEMO response
			Option 2: Useability is low: the user will have to look at the NMI Master screen and an AEMO Procedure (located somewhere else on AEMO's website) to determine if a NMI is within a SAPS Option 3: Useability is high: the user only has to look at the NMI Master screen (assuming the name of the new field is intuitive) Note, it is common for participant's systems to replicate MSATS, therefore any useability benefit in MSATS also gets replicated in participant's systems.	
5.		EQL	Energy Queensland notes that given the likely significant administrative burden of this change, particularly in relation to individual SAPS, that this may incentivise individual SAPS to leave the NEM, with only SAPS microgrids to remain. Should this occur, the industry would likely need to identify NMIs departing the NEM. AEMO may need to consider a solution, such as a new NMI classification (e.g. "S" code) and an end date of market role relationships.	AEMO notes the respondent's comment. Creation of the SAPS does not remove NMIs from the NEM or from settlement. Changes to a NMI TNI relationship are captured by existing MSATS functionality.
6.		Intellihub	No further comments.	
7.		Jemena Electricity Networks	Jemena has assessed the three options and is happy to share the following view on each of the options: Option 2 (preferred option) – is our preferred option. This option is considered the most cost-effective and quickest to implement for our business. Option 3 – is our second choice. However, the implementation cost of this option for Jemena would be high. Jemena is not expecting to deploy many (if any) SAPS in the near future to justify the cost of this option. Option 1 – is our least preferred. It is the most complex of the three options, and the cost to implement this option is high for Jemena.	AEMO notes the respondent's comment.
8.		PLUS ES	Option 1: Provides additional system changes which option 2 would not require – PLUS ES recommends a cost benefit analysis to justify the system and schema change for the projected	AEMO notes the respondent's comment and

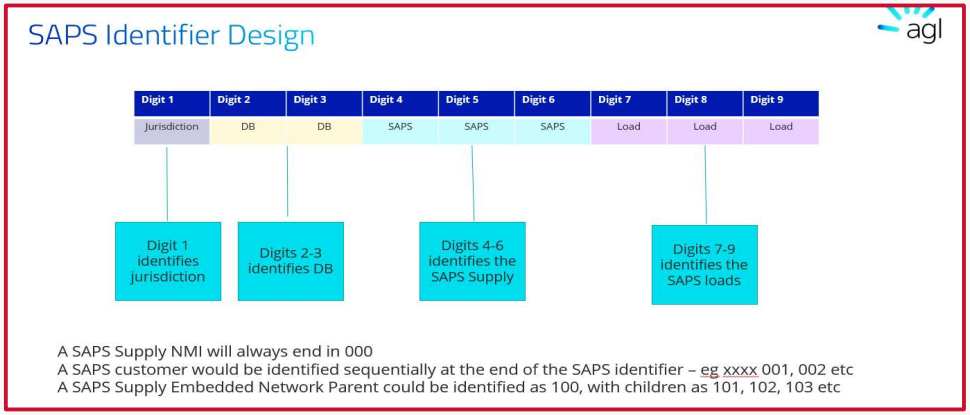
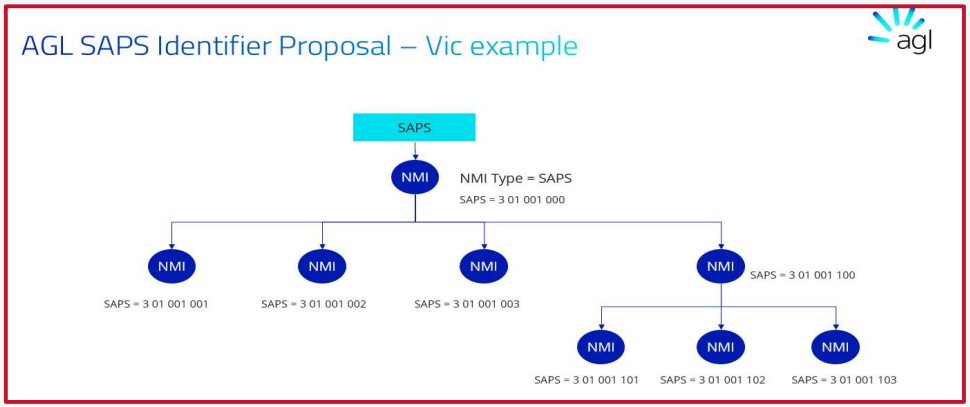
No.	Question	Consulted person	Participant comment	AEMO response
			volumes of such NMIs, especially if Option 2 provides a more cost efficient option and minimal industry impacts, in meeting the requirement. Option2: Option 2 delivers no Schema changes and potentially the least cost option whilst meeting the requirement. There is a potential challenge to come up with a uniform convention within the constraints of the current 4 digit TNI structure (if it is to be maintained). That is, ensuring the digits of the convention are sufficient to cater for the SAPS NMI volumes. Option 3: Provides additional system changes which option 1 and 2 would not require – PLUS ES recommends a cost benefit analysis to justify the system and schema changes for the projected volumes of such NMIs, especially if Option 2 provides a more cost efficient option and minimal industry impacts in meeting the requirement.	refers to the response in item 2.
9.		Red Energy and Lumo Energy	Red Energy and Lumo Energy (Red & Lumo) agree that option 1 (SAPS flag at the TNI) and option 2 (additional character to the TNI) may be the cheapest of the two options from an initial implementation cost over option 3 (new SAPS field against NMI). However, options 1 and 2 are limited in their scope for future considerations of what information can be added to be captured and presented when NMIs are linked to a SAPS and are likely to be more costly in the longer term. Option 1 by itself provides no option in what information retailers or networks may want to capture. A simple Yes/No flag whether at a TNI or even NMI level adds little value. Red and Lumo do not consider this option as viable. Looking to retrofit an existing field, such as proposed in option 2, comes with challenges from a retailer system perspective. It is not straightforward as retailers will need to identify and amend any and all TNI field related touch points in their own systems. This complexity makes option 2 less favourable, and in the long run less ideal, and more costly, for any future amendments to this field. Option 3 allows for a more scalable solution with greater flexibility in retail offerings (consideration of new specific tariff structures) for customers within specific SAPS. Being able to identify these NMIs during the NMI discovery in MSATS allows for a far more appropriate offering of options to customers upfront, delivering a more transparent and positive customer experience. Overall, option 3 is our preferred solution to identifying SAPS NMIs in MSATS. It can be used to enable validations and assist in managing market functions and offerings, with the potential to design the identifying field in a manner which best captures any and all relevant	AEMO notes the respondent's comment and refers to the response in item 2. AEMO notes that none of the options would change the existing TNI codes for NMIs not connected to a SAPS

No.	Question	Consulted person	Participant comment	AEMO response
			information. It would be more readily identifiable at the NMI discovery in MSATS and allow a more granular offering at a NMI level based on specific requirements for individual customers.	
10.		SA Power Networks	SA Power Networks assessment of the 3 options is as follows – Option 1 – adds complexitiy to the TNI field that is not warranted, therefore, we do not support this option. Option 2 – this is a viable option given the TNI field is not required by AEMO for settlements purpose. This opition is a lowest cost solution to implement. Option 3 – this is rated as the best solution option given it provides a unique SAPS field. This is the highest cost solution to implement, therefore, SAPS volumes need to be significant enough to warrant the addition costs.	AEMO notes the respondent's comment.
11.		CitiPower Powercor	CitiPower Powercor has assessed the three options and has the following feedback for each: Option 2 – is our preferred option. This option is considered the most cost effective and quickest to implement for our business. Option 3 – is our second choice. This option is considered an appropriate solution but the cost to implement would be significant and it is too early to determine if there will be a high enough number of SAPS to warrant this solution. Option 1 – is our least preferred. It is the most complex of the three options and the cost to implement would be significant.	AEMO notes the respondent's comment.
12.		United Energy	United Energy has assessed the three options and has the following feedback for each: Option 2 – is our preferred option. This option is considered the most cost effective and quickest to implement for our business. Option 3 – is our second choice. This option is considered an appropriate solution but the cost to implement would be significant and it is too early to determine if there will be a high enough number of SAPS to warrant this solution.	AEMO notes the respondent's comment.

No.	Question	Consulted person	Participant comment	AEMO response
			Option 1 – is our least preferred. It is the most complex of the three options and the cost to implement would be significant.	
13.		Origin Energy	• Origin's understanding is the TNI field is limited to 4 characters. While there are no examples provided in the issues paper, the AEMO pack has examples of TNI with 4 characters with potentially 'S' being the last character to denote an SAPs NMI. Origin seeks confirmations whether there will be a different naming convention that will be implemented for Option 2 or would the length of TNI characters be increased. If the length of TNI is to be increased, this might require a schema change and as such, Origin will require further details/clarification on Option 2/TNI code to perform a detailed impact assessment. • Furthermore, for Option 3, the issues paper mentions that the SAPS ID field is a new field that will be added to the MDM files. Due to the limited information available in the paper, Origin would like to confirm whether: o This field is proposed to be added only to the AEMO MDM files? o From a retailer perspective, the updates will only be in the standing data tables? • Can AEMO please confirm for Option 3 that the implementation is to have a similar set up as Embedded Network where it is easy to identify the generation NMI, and all the SAPs NMI's attached to that NMI will be identified via the SAPS ID. • Given the issues paper is high level Origin would like to get further details to complete detailed impact assessment.	AEMO notes the respondent's comment and refers to the response in item 2.
14.		TasNetworks	TasNetworks believes AEMO has suitably identified the key advantages/disadvantages of the three options.	AEMO notes the respondent's comment.
15.		EnergyAustralia	This was discussed in the meeting on the 11th March 2022	AEMO notes the respondent's comment.
16.				
17.	Is there another option for identifying a SAPS NMI that AEMO	AGL	One option which was raised was to use a specific sub-set of NMIs purely for SAPS connections – however, AGL considers that this may be difficult to implement, and would require a secondary table to identify a SAPS connection.	AEMO notes the respondent's comment. AEMO considers that this approach would not

No.	Question	Consulted person	Participant comment	AEMO response
	should consider? Why?			provide any extra information to the user of the data. It would also not link the NMI to a SAPS for the purpose of settlement.
18.		Ausgrid	As discussed in the March workshop, Ausgrid would like to re- suggest the use of a NMI classification of SAPS and the Type 7 methodology for AEMO to consider. We believe the workshop did not adequately discuss these options in full. AEMO suggested that each NMI must be uniquely identifiable as as SAPS, with 1 SAPS TNI code per network, a NMI classification of SAPS and a unique NMI per SAPS and an allocated FRMP, why would this not provide AEMO with enough Information to flag and appropriately "treat" the SAPS metering data for settlement. Ausgrid also highlighted the Type 7 model which may also be able to be used for SAPS. In Ausgrid's network we have 3 Virtual TNIs for Type 7 and NONCONUML NMIs whilst it is a one NMI to multiple connection point method, can the framework be used for SAPS. In the Type 7 framework we have multiple NMIs for council public lighting which can be with any FRMP the customer chooses. The Metering data is adequately split and settled in the NEM using this methodology. Again a SAPS TNI is allocated per network area, each SAPS will have its own unique NMI. In the work shop AEMO stated that the SAPS must be individually identifiable per SAPS per FRMP.	AEMO notes the respondent's comment. As noted in the workshop, for the purpose of settlement each SAPS needs to be separately identifiable along with the TNI and NMI relationship.
19.		Ausnet	We have not identified another solution.	AEMO notes the respondent's comment.
20.		Endeavour	We suggest that AEMO considers introducing a new value (eg SAPSGENR or SAPSBULK) for the NMI Classification field so that the NMI for the SAPS generation can easily be identifiable and distinguishable from NMIs that belong to customers within a SAPS. We believe this suggestion would complement any of the solution options presented.	AEMO notes the respondent's comment and refers to the response in item 2.
21.		EQL	Energy Queensland considers that there is value in a new SAPS jurisdiction that mimics Queensland's existing "ISO" jurisdiction that enables the identification of non-NEM connections. Energy Queensland is available to meet with AEMO representatives to discuss this approach further.	AEMO notes the respondent's comment and refers to the response in item 18.
22.		Intellihub	No further comments.	

No.	Question	Consulted person	Participant comment	AEMO response
23.		Jemena Electricity Networks	Jemena has not identified any other option.	AEMO notes the respondent's comment.
24.		PLUS ES	No comment	
25.		Red Energy and Lumo Energy	Red and Lumo have not identified another option suitable for the identification of SAPS NMI in MSATS.	AEMO notes the respondent's comment.
26.		SA Power Networks	SA Power Networks has not identified any other options.	AEMO notes the respondent's comment.
27.		CitiPower Powercor	CitiPower Powercor has not identified any other option.	AEMO notes the respondent's comment.
28.		United Energy	United Energy has not identified any other option.	AEMO notes the respondent's comment.
29.		Origin Energy	No comments	
30.		TasNetworks	No, TasNetworks does not believe there is another option that provides any additional advantages than those already identified.	AEMO notes the respondent's comment.
31.		EnergyAustralia	No other options	AEMO notes the respondent's comment.
32.	Which of the three options for identifying a SAPS NMI do you prefer and why?	AGL	Option 3 is recommended as this allows the opportunity to develop and install flexibility and further granular information in the Identifier coding. AGL believes that given the likely expansion of SAPS devices and potential changes which may occur over time, it is prudent to establish a strong identifier at the start of the program, rather than be forced to undertake a rectification program in a few years. Noting the likely growth and changes associated with SAPS and the likely need to identify both the SAPS Supply and SAPS customers, AGL supports • Option 3 - the SAPS Identifier and	AEMO notes the respondent's comment and refers to the response in item 2.

No.	Question	Consulted person	Participant comment	AEMO response
			• proposes a new MSATS NMI Classification of 'SAPS' for the Supply NMI (like the GENERATR NMI classification). A proposed format for a SAPS Identifier might be:  An example layout is shown below.  	
33.		Ausgrid	Ausgrid supports Option 2 as this will not require a schema update, and for the total number of SAPS NMIs proposed to be connected in the NEM does not seems financially viable to put AEMO and all participants in the NEM through a schema change for such a small number of	AEMO notes the respondent's comment.

No.	Question	Consulted person	Participant comment	AEMO response
			NMIs. Ausgrid suggests a cost benefit analysis to support a schema change is conducted if one of these options is preferred.	
34.		Ausnet	AusNet prefers option 2 as lowest cost solution that fully meets the objective of making priority 1 SAPS identifiable to FRMPs and AEMO for the purpose of wholesale energy settlements. There are no other process or system considerations for priority 1 SAPS. All existing business processes apply to Priority 1 SAPS customers in exactly the same way as to non-SAPS (priority 1) customers including connection alterations for solar, life support, de-energistation and re-energisations.	AEMO notes the respondent's comment.
35.		Endeavour	We prefer option 3. Our next preference is option 1 followed by option 2. We note that option 3 does not have any impact to the registration process/system and therefore would result in less on-going operational cost and option 3 provides a high level of useability. We acknowledge that option 3 requires a schema change but believe that in the long term this option will deliver better value.	AEMO notes the respondent's comment.
36.		EQL	Energy Queensland acknowledges the need to easily identify a SAPS NMI. Of the three options presented in the issues paper, Energy Queensland prefers Option 2 – TNI code with special convention/format for SAPS TNI codes. We note that if a special convention/format of the TNI field does not involve a schema change, there will be fewer impacts on internal systems and will reduce costs by reducing the need for coding changes and testing. We also consider that there may be value in an additional SAPS ID field, in conjunction with Option 2 (i.e. not as a stand-alone solution). However, it may be up to participants to create SAPS flags internally based on the new TNIs.	AEMO notes the respondent's comment.
37.		Intellihub	Option 2 – TNI Codes with special conversion is Intellihub's preferred option. Based on projected volume to convert SAPS NMI, the rule change is highly manageable via process change as oppose to system change resulting in a cost effective solution.	AEMO notes the respondent's comment.
38.		Jemena Electricity Networks	Option 2 is our preferred option. It is the most cost-effective option for Jemena, considering the low volume of SAPS we expected to be dealing with in the market.	AEMO notes the respondent's comment.
39.		PLUS ES	PLUS ES' preference is Option 2, for the below reasoning:	AEMO notes the respondent's comment.

No.	Question	Consulted person	Participant comment	AEMO response
			• The SAPS NMI volumes are currently estimated to be < 0.002% of the NMI population • This option meets the requirements of identifying the NMI as SAPS From our analysis with information made available, it is the most efficient and least impact deliverable.	
40.		Red Energy and Lumo Energy	After reviewing the three different options proposed by AEMO, Red and Lumo support Option 3. While cognisant of the fact that this option would be costlier than the alternatives proposed, in the long run we consider that it will deliver the greatest net benefit to consumers, delivering on the National Electricity Objective (NEO) to promote efficient investment in, and efficient operation and use of, electricity services for the long-term interests of consumers of electricity with respect to the reliability, safety and security of the national electricity system. See question 1 for further details. Red and Lumo request that a separate workshop be set up to design the new SAPS field which will be allocated at the NMI level (aligned to option 3). This should be organised as soon as possible. We acknowledge that option 3 requires a schema change, thus increasing the cost to implement. However, with schema changes already in the AEMO pipeline, this option could be bundled into one of these releases reducing the cost and effort to implement as a stand alone release.	AEMO notes the respondent's comment and refers to the response in item 2.
41.		SA Power Networks	SA Power Networks prefer Option 2 as this is the lowest cost solution to implement and we currently do not forecast large volumes of SAPS within our network. If industry collectively determine that Option 3 is the preferred option, SA Power Networks would be comfortable with this approach.	AEMO notes the respondent's comment.
42.		CitiPower Powercor	CitiPower Powercor's preference is for option 2, this option is considered the most cost effective considering the volume of SAPS expected in the market.	AEMO notes the respondent's comment.
43.		United Energy	United Energy's preference is for option 2, this option is considered the most cost effective considering the volume of SAPS expected in the market.	AEMO notes the respondent's comment.
44.		Origin Energy	• Based on the limited details and information in the issues paper, at a high level, Origin's preferred option is Option 3.	AEMO notes the respondent's comment and

No.	Question	Consulted person	Participant comment	AEMO response

			• Reason for option 3 is:
			  ○ Given the information is at NMI level it significantly aligns with the way retailers use market data to retail products and services. However, for Option 1 & 2 since the information will be at a TNI level, this is inconsistent with servicing at NMI level, and likely require complex training requirements, especially with the naming convention and looking into the TNI details.
			  ○ Theoretically, Option 3 would be easier to identify a SAPS NMI while servicing the customer, as information will be easily accessible via NMI Discovery
			  ○ Origin notes that if there are other changes that are being implemented at the same time that require a schema change, it will add value is assessing the cost-benefit analysis for Option 3.
			
			Due to the limited information and constraints on details provided in the issues paper, Origin has only performed a high-level impact assessment. To make an informed decision, Origin requires further detail and thorough information, with worked examples, for each option.
				refers to the response in item 2.

45.		TasNetworks	TasNetworks preference is option 2 (TNI codes with special convention or format). TasNetworks see the primary benefits of this option being it does not require a schema change nor does it require participants to modify systems to cater for additional standing data fields. It is suggested that the naming convention be structured in such a way that SAPS TNI's can be easily distinguishable from other TNI codes that are already in operation, relative to each region.	AEMO notes the respondent's comment.
46.		EnergyAustralia	Option 3 – Identifying SAPS NMIs using a new SAPS ID field	AEMO notes the respondent's comment.
47.	Other Issues Related to Consultation Subject Matter	AGL	1. SAPS Supply metering will be 5ms (new connection) and therefore the customer metering is expected to all be at 5ms as the SAPS loads must balance in settlements. It seems that all loads must be metered at 5ms to remove any potential profiling issues/ settlement discrepancies as SAPS loads must balance. Noting that the implementation of a SAPS Supply is being driven by the DB, AGL	AEMO notes the respondent's comment. This was raised and discussed at the April 28 workshop and has been included

No.	Question	Consulted person	Participant comment	AEMO response
			would propose that the DB pay for any customer metering changes required to convert the customer metering to 5ms as the result of implementing a SAPS. 2. AGL understands that supporting this option requires a schema change, but notes that there are already other industry changes in train requiring a schema release, and believes that this change can therefore be accommodated within one of those releases, making the costs incremental.	
48.		Ausgrid	Ausgrid requests AEMO provide a summary including a diagram of how AEMO propose to settle SAPS in the NEM for general education and to assist in the debate abound which methods are viable and can be discounted. Ausgrid does not believe that until this is understood by participants can an appropriate identifcation method be determined by industry. When creating TNIs for SAPS will AEMO need to do any calculation for MLF? Normally the Network need to provide information to AEMO to allow for this clcualtion such as cable/transformer impedances, annual load forecast for the TNI etc. Provision of this information by the network and the calculation by AEMO would be an extremely tedious process. Has AEMO determined other standing data to be applied to SAPS NMIs, such as DLF, is it applicable and what figure should it be? Would the DLF be a standard DLF for all SAPS NMIs?	AEMO notes the respondent's comment. Participants were provided with a high-level summary of the settlements process as it applies to SAPS at the April 28 workshop. Participants should refer to the final rule for an explanation of the application of losses on a SAPS.
49.		Intellihub	Intellihub has requested AEMO to provide further clarifications on the additional requirements for MDP.	AEMO notes the respondent's comment and has responded directly by email
50.		PLUS ES	A visual aid such as a overview diagram would be beneficial to provide the audience a level of SAPS understanding from the field installation of a SAPS through to Market settlements.	AEMO notes the respondent's comment. AEMO considers this beyond the scope of this consultation process.
51.		Red Energy and Lumo Energy	At the AEMO workshop on 11 March 2022, AGL noted that customer metering is expected to be delivered at 5 minute intervals in order to avoid any discrepancies in settlements or profiling issues. It is our expectation too that distributor-led SAPS that result in any changes required to existing electrical configuration (including metering) at a customer's installation must be borne by the distributor as the SAPS owner. It is not in neither the customer's interest nor the retailer's interests to cover the costs required to convert the customer metering to 5 minutes as the result of implementing a distributor-led SAPS.	AEMO notes the respondent's comment and refers to the response in item 47.

No.	Question	Consulted person	Participant comment	AEMO response
52.		United Energy	United Energy has not identified any other issues.	AEMO notes the respondent's comment.
53.		Origin Energy	• Origin seeks confirmation on the order of magnitude and volume of SAPs NMI's in order to perform the cost/benefit analysis for the given solution options. E.g., if the current volumes are (say) 1000-2000 NMIs, the solution that would be more feasible and preferable would be different to if the volumes were in 10,000's. The volumes will help make a more informed decision and assist with the impact assessment. • Origin recommends that AEMO should consider scalability of the solution options, as the industry will be required to implement Phase 2 (third party SAPS) after this phase (DB SAPS). Hence investing in a longer-term solution would be Origin's preference.	AEMO notes the respondent's comment and refers to the response in item 2. In the final report on SAPS priority 1 the AEMC noted the likely uptake of DNSP SAPS as being: WA 15,000 over 10 years, SAPN no candidates, Ausnet between 300 and 400 customers, Citipower/Powercor/United no candidate sites, TasNetworks 1 over the next 5 years, Endeavour and Ausgrid each likely to "have a handful of potential candidates over the next 5-10 years, Essential 2,000 over the next 5-10 years, Energy Queensland a handful over the next 5-10 years.
54.		Energy Australia	EnerygAustralia highly recommend a new SAPs ID field to have SAPS identified first time and correctly. This will save on rework in later years	AEMO notes the respondent's comment and refers to the response in item 2.