

Consumer Principles for Home Area Networks and Direct Load Control

Version 1.0

These principles have been developed through extensive consultation with various members of the National Energy Consumer Roundtable. As such, this document is intended to represent the views of energy consumers based on our best understanding of smart metering at this time.

Scope

These principles apply both to the period of a exclusivity of delivery of smart meter services (the “mandated rollout” scenario) and to the ensuing “post-mandate” period.

Most of the principles will apply generally to the “non-mandate” scenario, however the Roundtable acknowledges that due to the uncertainty over what a “non-mandate” scenario looks like, the principles may need to further refined to fit that context. The roundtable welcomes the opportunity to further explore the context of a “non-mandate” scenario.

Document status

Version 1.0 of this document should be considered final for the purposes of the NSSC, BPPWG, and IEC/RMEC and progressing the work of the NSMP from April 2011.

Endorsement of the document by consumer stakeholders, for the purposes of release to MCE SCO, is still pending, and is expected in time for the NSSC meeting of 20th April.

Recent changes

In the latter stages of editing these principles, numerous wording changes have been made to ensure consistency with the language more recently used in the National Smart Meter Program working groups, particularly the Business Processes and Procedures Working Group.

Also during this process, changes of substance have mean made, by the author, to some principles. These changes reflect where

- In one case consumers had not previously reached an agreement on a principle, and the author has put forward a recommendation which has been verbally accepted by stakeholders
- One principle has been added to complement the above change
- Some ‘placeholder’ principles are now explicated
- In some cases our understanding has simply evolved, and this learning has allowed a principle to be refined (and in one case removed)
- A position arrived at in the NSSC or BPPWG has altered the way we need to express a principle
- Importantly, discussion with NSMP workstream leaders identified a need for greater detail or disambiguation of some principles to allow them to be applied



As such these changes are yet to be noted by most members of the Roundtable. Though extensive, the author is confident that these changes will be accepted by consumer stakeholders as a matter of course, as they are in the best interest of consumers. Hence the changes are unlikely to effect any pledges of endorsement made by consumers based on earlier versions of the document.

On behalf of the Roundtable, the author wishes to thank MCE SCO and the NSSC for the opportunity to provide this input into the development of smart meter frameworks. It has been the experience of industry and consumers alike that as the landscape continues to change and we learn more about smart metering, so our understanding continues to evolve. We look forward to the future opportunities to engage in the discussion around smart meters.



Consumer Policy Principles for the Utility HAN and DLC

1. Appropriately authorised representatives, including family members, administrators and financial counsellors, must be able to act on behalf of account holders with respect to utility HAN and DLC contracts and services.
2. The onus will be placed on new/potential financially responsible market participant (frmp), customer function service provider (cfsp) or authorised third parties to ensure that the account holder (or the representative of the account holder) is capable of providing explicit informed consent.
3. The HAN shall be based on an Open Interface Standard supporting consumer HAN devices from multiple manufacturers.
4. HAN devices sold in or imported to Australia will be certified according to the relevant technical standards consistent with the HAN Open Interface Standard and relevant technical and safety standards.
5. The consumer may choose to cede management of the Utility HAN or specific consumer HAN devices on the Utility HAN to an authorised party (on the provision of explicit informed consent (“opt-in” rather than “opt-out”), typically as part of a contracted service.
6. A consumer will be responsible for registration and deregistration of their consumer HAN devices (i.e. in home display, domestic appliances) on the HAN interface enabled by their smart meter.
7. Consumers will be provided with secure facilities for the registration and deregistration of consumer HAN devices. Secure facilities must only be provided by an authorised party who is accredited by AEMO.
8. A consumer may register their consumer HAN devices without those devices being associated with a contract with any party (For example, a consumer may purchase the device from a retail electronics outlet.)
9. Any information stored on a meter relating to a consumer is confidential. The appropriate NEM Procedures will be developed and implemented to ensure these requirements are met.
10. On move-out the outgoing consumer may choose to modify the list of consumer HAN devices registered on a Utility HAN.
11. A CFSP, AEMO, or potentially another authorised party will exclusively retain standing data for registered HAN devices at a property for the duration of the period between a move out and a move in, and this data will be released to authorised parties only when the incoming customer has provided explicit informed consent to for that authorised party.
12. On move-in the incoming consumer may choose to modify the list of consumer HAN devices registered on a Utility HAN.
13. A consumer will have the right to, real time access to all types of metered data (such as electricity, water, and gas) for an IHD or other HAN device via the HAN interface at no cost.
14. A consumer may authorise their metered data to be provided to any authorised third party, via a secure HAN device.

15. No consumer will be required to involuntarily place any appliance on direct load control via the Utility HAN.
16. When a new consumer moves into a premises where a consumer appliance was previously on direct load control via the Utility HAN, the new consumer will have the right to have reset or modify all settings relating to the device including direct load control without payment of compensation to any party.
17. A consumer may, with explicit informed consent, allow a third party to send messages to an IHD or other HAN devices via the Smart Meter Infrastructure (SMI) and Utility HAN without visibility of the message content to the FRMP or Distributor.
18. Authorised third parties will be required to register with AEMO and/or CFSPs to undertake a contractual agreement that they will abide by the NSMP Procedures which govern the use of the facility.
19. Where supported by legislation, a person who is the representative of an emergency service may use the Utility HAN to send emergency messages to a community of customers provided that the person does so directly through a Registered Participant, or a third party accredited system. The person must abide by the NSMP Procedures which govern the use of the facility.

Consumer Utility HAN Device Registration and Deregistration

These principles define how the registration and deregistration of a consumer device by a consumer should be designed.

Consumer HAN Device Registration

1. All consumers will be provided with accessible facilities to register and deregister consumer HAN devices, without charge.
2. The consumer may register certified consumer HAN devices of their choosing.
3. Consumer HAN devices must be registered against the correct smart meter, and unauthorised access by any other devices will be prevented.
4. The registration information for consumer HAN devices and other utility meters or utility devices will be preserved as standing data against the NMI.
5. The registration information for consumer HAN devices is confidential
6. The consumer will be provided with a facility to provide consent to one or more market participants or third parties to access all or a subset of the consumer's HAN devices.
7. Any contract entered into in granting access to a consumer's HAN device must include a cooling-off period during which the consumer can withdraw their consent without penalty.
8. Any consent granted will be revoked when the consumer moves out, changes retailer or revokes their consent. The revocation itself will not be subject to contract conditions.
9. While a consumer may incur a penalty for early cancellation of a contract within a contract period, this will not affect their right to withdraw consent and will be reflective of the true cost to the business of this early cessation of the contract.

Move Out

10. When a consumer moves out of a property the consumer will have the right to deregister any consumer HAN devices they plan to remove from the property. Any other consumer



HAN devices will remain registered, however the communication between consumer HAN devices and the smart meter will be disabled via the SMI.

11. On a move out, the standing data associated with the HAN devices of that NMI remains confidential information until a new customer moves in.

Move in

12. On a move in any existing standing data can be released to potential authorised parties only when the incoming customer has provided explicit informed consent to that specific party.
13. On a move in, the preserved standing data associated with the HAN devices of that NMI becomes confidential information once a consumer enters into a contract for the supply of electricity to the property.
14. When a consumer moves into a property they will have the right to access the standing data that has been preserved against that NMI.
15. When a consumer moves into a property they have the right to register or deregister any existing consumer HAN devices on that NMI.
16. Market participants will not modify the list of registered HAN devices around move-out, and move-in events without consumer consent.

Change in Retailer

17. When a consumer changes retailer, any consent granted to the previous retailer will be revoked. The list of registered HAN devices will be maintained as standing data. The consumer can establish consent with the new retailer for the Consumer HAN devices registered on the Utility HAN.

Meter replacement

18. When an electricity meter is replaced, the list of consumer HAN devices registered will be maintained and the setting and operation of the device will not be required to be changed by the consumer.

Confidential Information

20. Access to confidential registration information will be restricted to authorised parties that are required to facilitate the customer service function, based on explicit informed consent.
21. Market participants and authorised third parties may need to handle HAN device registration data and other confidential consumer information in the course of facilitating a customer service function. The market participant must not use that information for any other purpose and must protect the confidentiality of that information.

Consumer Access to Energy Data via the Utility HAN

These principles apply to an In-Home-Display and equally to any other device that allows the consumer to access real time energy consumption information directly from the Smart Meter via the Utility HAN.

22. Meter data available directly from the smart meter will be made available to registered HAN devices without limitation and without any additional charges.
23. While NER Chapter 7 rules govern the handling of metering and energy data, this data is considered confidential customer information.



24. Historical interval data represents a signature of a consumers usage patterns and may indicate personal details or behavioural traits. As such it is important to prevent unauthorised access to this data.
25. The HAN technology standards, security protocols and business procedures will together ensure that unauthorised HAN devices are not able to access a consumer's metering data stored in the smart meter or other registered and authorised HAN devices.
26. On a move-in there will be a means for the incoming consumer to prevent devices that belong to the previous consumer from continuing to read consumption data from the smart meter. This implies the incoming consumer may deregister a consumer HAN device.
27. The HAN shall also support communication of metering data from any embedded generation and sub-metering of end-use devices and controlled circuits.

Consumer Access to Tariff and Billing Data via the Utility HAN

These principles apply to an In-Home-Display and equally to any other device or system that allows the consumer to access, evaluate and respond to energy, tariff and price data from the Smart Meter via the HAN.

1. Tariff information is based on a contract between the retailer and consumer and is classified as confidential information.
2. Upon request a consumer must be given ongoing access to their retail tariff data via the Utility HAN. Whenever tariff or other cost details change they will be routinely loaded to the smart meter, in line with the regulated notification requirements to customers.
3. On a move-in, or with a change of retail product or retailer, the consumer may request their retailer to load their tariff information.
4. Based on the consumer request the retailer will arrange for the tariff information to be loaded into the smart meter. The retailer has an obligation to provide such a service whether or not the consumer HAN device has been provided by the retailer.
5. All cost and related billing data made available to a consumer HAN device will be accurate to the extent that it reflects what appears on a consumer's bill, with only immaterial inaccuracies.
6. At the time of move-out or change of retailer tariff information will be removed (cleared) from the smart meter.
7. Tariff information will be automatically loaded into a smart meter on installation of replacement smart meter.

Confidential Information

8. Those parties that are required to facilitate the transfer and loading of tariff information in to the smart meter must not use that information for any other purpose and must protect the confidentiality of that information.

Messaging from market participants and other third parties to the consumer via the Utility HAN



These principles apply to an In-Home-Display and equally to any other device that allows the consumer to receive text messages from market participants or third parties via the Utility HAN. (principles for larger messages and advertising will need to be further considered, because the capability to send these messages may add significant overhead to the SMI).

1. With the exception of

- a. messages from emergency services (where supported by legislation)
- b. messages from an authorised party with whom a consumer has a contract
- c. notices of disconnection

any messaging by any third party to the consumer over the Utility HAN requires explicit informed consent to be established in advance (“opt-in” rather than “opt-out”).

2. With the exception of messages from emergency services (where supported by legislation), consumers will be provided with an automated facility, via the utility HAN, to opt-out of receiving messages from any individual party, including authorised parties with whom that consumer has a contract

3. Where supported by legislation, a person who is the representative of an emergency service may use the Utility HAN to send emergency messages to a community of customers provided that the person does so directly through an authorised party, or a third party accredited system. The person must abide by the NSMP Procedures which govern the use of the facility.
4. Whether an individual message is general in nature or consumer specific, the data is considered confidential consumer information, excluding emergency services messages.
5. On a move-out any messages will be removed (cleared) from the smart meter, and any consent to messaging services granted by the outgoing consumer will be revoked and will not transfer to the new consumer.
6. Those market participants and authorised third parties that are required to facilitate the transfer and communication of messages and information to the smart meter must not use that information for any other purpose and must protect the confidentiality of that information.

Direct Load Control of Consumer Appliances

These principles apply to a consumer appliance where the consumer has entered into direct load control contract with an authorised party. These principles are an addition to the Consumer HAN Device Registration and Deregistration Principles. These principles relate to the load control management, including but not limited to schedules and load control switch actions that may be applied to a consumer appliance on direct load control via

- A Controlled Load Contactor / Relay located on the meter
- The Utility HAN
- Any other technology for Direct Load Control

1. The consumer may cede control of a specific device for direct load control on the Utility HAN or CLC/R to an authorised party, with explicit informed consent. The default position for DLC of any consumer appliance will be “opt-in” rather than “opt-out”.



2. The consumer may opt out of direct load control during or at the completion of the direct load control contract period.
3. Any contract entered into in granting consent to control a consumer's device must include a cooling-off period during which the consumer can withdraw their consent without penalty.
4. The DLC appliance settings for consumer HAN devices will be preserved and maintained as standing data against the NMI or until the device is deregistered by the customer.
5. The DLC appliance settings for consumer HAN devices are confidential information.
6. The consumer will be provided with a facility to provide consent to one or more authorised parties for the purpose of DLC at any one time.
7. The consumer may provide consent to access all or a subset of the consumer's HAN devices for DLC..
8. Any consent granted for direct load control of an appliance will be revoked when the consumer moves out, provides explicit informed consent to another authorised party to operate that device, or otherwise withdraws their consent, regardless of contract conditions. For example, while a consumer may incur a penalty for cancelling a contract within a contract period, this will not affect their right to withdraw consent.

Move Out

9. When a consumer moves out of a property that consumer has the right to deregister any devices on direct load control that they intend to remove from the property. Any other devices on direct load control will remain registered.
10. On a move out, the standing data associated with devices on direct load control of that NMI is no longer confidential information solely for the purposes of informing the incumbent customer of the status of DLC devices.

Move in

11. When a consumer moves into a property they will have the right to access the standing data that has been preserved against that NMI. Any market participant or authorised party may access that preserved standing data on request from that consumer.
12. On a move in, the preserved standing data associated with devices on direct load control on that NMI becomes confidential information once a consumer enters into a contract for the supply of electricity to the property.
13. Prior to commencement of a new retail contract associated with a move in, the new FRMP is required to disclose to the consumer all information preserved in standing data regarding registered DLC devices associated with that NMI.
14. When a consumer moves into a property they have the right to register or deregister any devices on direct load control on that NMI.
15. Parties will not modify the list of registered HAN devices on direct load control around move-out, and move-in events without consumer consent.

Change in Retailer

16. When a consumer changes retailer, any explicit informed consent granted to the previous retailer will be revoked. The list of registered HAN devices on direct load control will be maintained in the market systems. The consumer can establish consent with the new retailer or other authorised party for .

Meter replacement



17. When an electricity meter is replaced, the list of devices on direct load control registered against that NMI will be maintained.

Confidential DLC Appliance Settings Information

18. Access to confidential consumer DLC appliance settings information will be restricted to the authorised parties required to facilitate the direct load control, based on explicit informed consent.
19. Market participants may need to handle confidential consumer information in the course of facilitating a customer service function for direct load control. In such a case, the market participant must not use that information for any other purpose and must implement processes that protect the confidentiality of that information.

