

Farhad Fozdar – Submission via email

REAL-TIME NET POWER MONITORING SUPPORT FOR CUSTOMERS

Although the WA Metering Code specifies metrology requirements for revenue and SCADA purposes, it is silent on the provision to the customer of a real-time power monitoring capability which is required for existing or future programmes including peer-to-peer energy trading, EV charging optimisation, Demand Response Management, activity monitoring, etc.

Without direct meter support, the monitoring of real-time power consumption generally requires installation of a secondary meter. The associated capital and installation costs would dissuade customers from participating in such programmes, and thus forego the potential generation, network, customer, and environmental benefits.

Some meters have an electrical or LED pulse output (typically 1Wh) which can be used to derive real-time power consumption but it ceases operation when net (import - export) consumption is negative, due to overall export from PV, batteries, or other behind-the-meter sources. It is equally (or more) important to know the amount of exported power at these times.

“Smart” / AMI meters typically provide a local wireless capability (or Home Area Network) at negligible incremental cost using ZigBee, Bluetooth, or Wi-Fi, to access meter data including net power and interval import/export energy, typically using the Smart Energy Profile. Relevant data can then be viewed on an In-Home Display or incorporated into a local or remote automated system (via a gateway or mobile app) to support various energy programmes.

I propose that the wireless HAN capability be mandated in the Metering Code in order to preserve and extend the feature for future use, which would otherwise require an expensive meter replacement or retrofit. It should apply to all AMI meters of any type/class, and both contestable and non-contestable customers. The HAN connection and data should be logically separated from revenue data, and provided on request to the customer or their agent, enabling related services to be offered by independent parties in addition to Western Power and Synergy.

The accreditation and connection (or pairing) of HAN devices to the meter may require the metering provider’s cooperation, to which an impartial cost-reflective nominal fee could apply.