

SMART eBox

An all-in-one
enclosed energy
management system

SMART Distribution

EMS COMMS PANEL



SMART eBOX



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The SMART eBox is a powerful solution for monitoring and storing a building's energy usage data. Its ability to centralise platform and store hourly energy data from a wide range of energy meters and other devices makes it the ideal solution for meeting the requirements of the National Construction Code 2022, part J9D3(3).

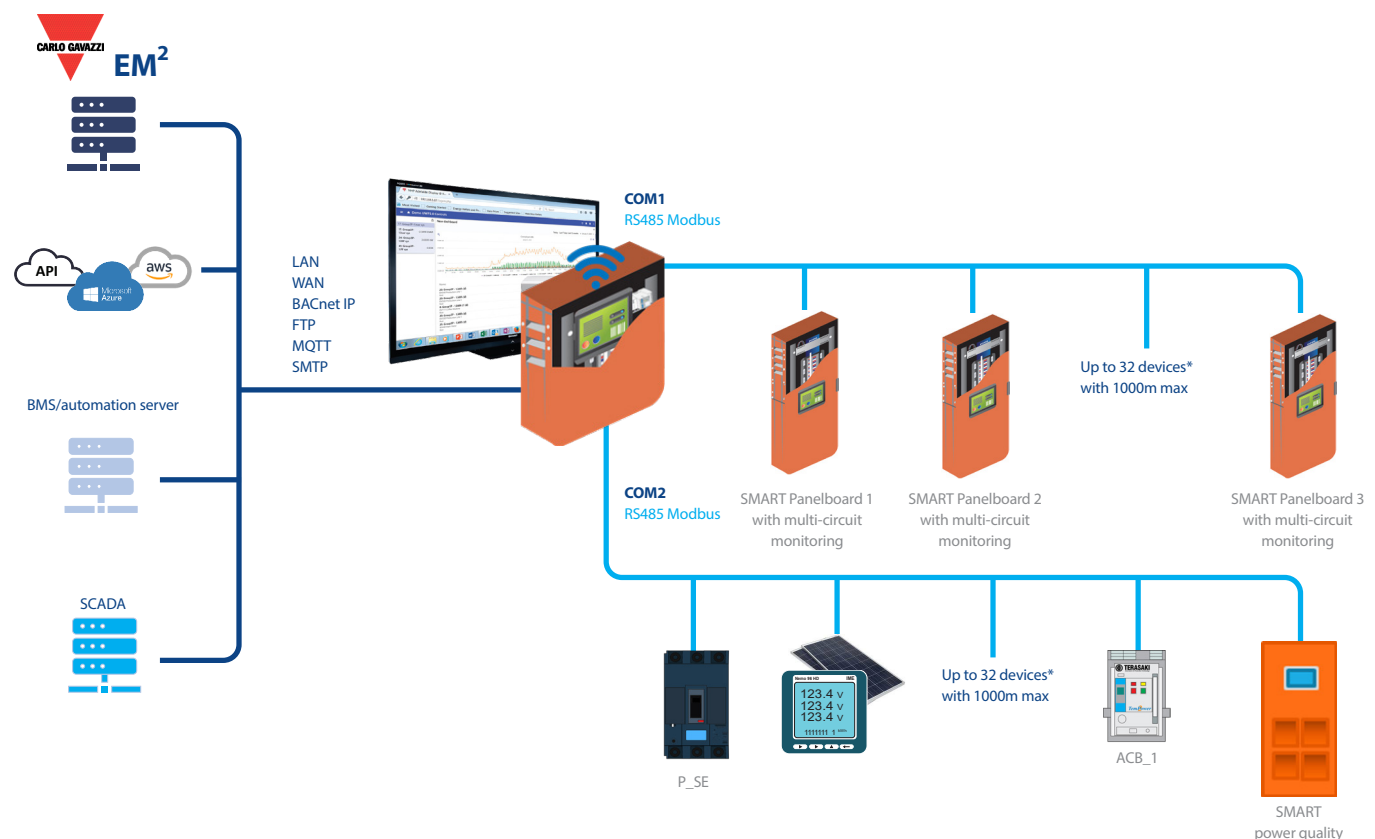
The SMART eBox can be utilised as a datalogger, gateway or controller for various meters, environmental sensors and other SMART power distribution devices via Modbus (RTU or Ethernet). The eBox can be used to centralise other webserver-based solutions (such as the VMUC and UWP3), and operate as a BACnet/IP gateway, seamlessly integrating any Modbus capable device into a building management system (BMS).

The fully customisable monitoring system is available on any browser on any platform including tablets and smart phones. It is easily scalable to a larger site or multi-site installations, compatible with Carlo Gavazzi's EM² server platform and other cloud-based servers including Microsoft Azure or Amazon AWS.

Its enclosed design makes installation of the SMART eBox as easy as installing a Concept Panelboard – simply mount on the wall and connect power and network cables to the unit. There's no need to worry about setup of the EMS platform – NHP does that for you as part of our service package!

Key features and benefits

- All-in-one enclosed EMS solution - datalogger, controller, gateway and webserver
- Guaranteed compliance to NCC Section J9D3
- Full customisable web-based user interface – view and analyse data that is most important to you on any browser, smartphone or tablet
- Stay aware of your energy consumption with scheduled reports and email/SMS alerts
- Compatible with a wide range of energy meters and power distribution products – connect up to 64 devices to a single SMART eBox!
- Push live data to cloud platforms such as Carlo Gavazzi EM², Microsoft Azure and AWS
- No additional software required and no ongoing subscription fee
- Easy to install – just mount and wire up required power and network cables



What is NCC Section J9?

The National Construction Code (NCC) is produced by the Australian Building Codes Board. It specifies the minimum performance-based requirements for all new and refurbished buildings. Section J of the code covers sustainability and energy efficiency and Part 9 specifically covers the energy monitoring requirements of a building.

What are the changes?




The energy monitoring requirements have been updated in Part J9D3 to include more types of energy data to be collected. In buildings above 2500m², in addition to recording energy consumption of the individual loads, such as light, power, mechanical services, hot water and other large loads. This new clause adds the requirement to have energy metering for on-site renewable energy generation equipment, solar batteries and electrical vehicle chargers. All energy data must be fed into a single user interface for time stamped centralisation, storage and review.

What do the changes mean for you?

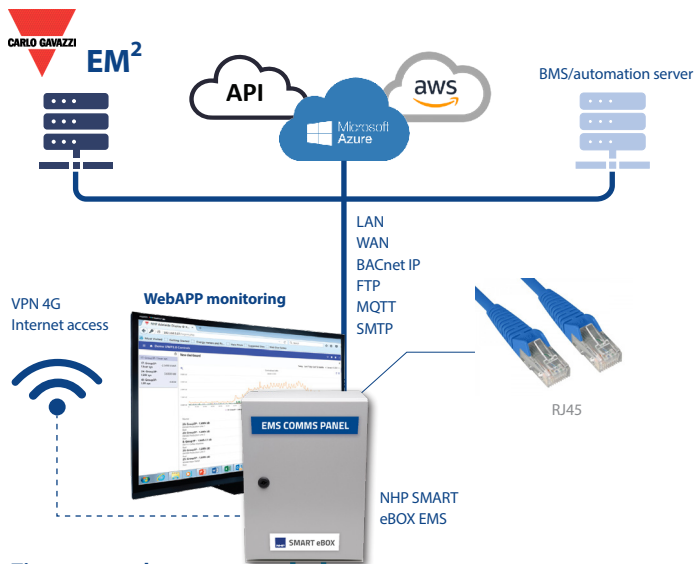
- Energy meters must be 'Comms Enabled'. Common protocols used include MODBUS RS485 or TCP/IP, and BACnet IP
- All energy meters installed on site must connect to a single user interface for data collection
- The energy data collected must be time and date stamped
- The information should be easily identifiable (ie. labelled according to the circuit it is monitoring, such as lighting, HVAC, power, solar, EV charger, etc.)
- The EMS interface must be able to store the data for a reasonable period, although minimum storage time is not specified.

How you can comply to section J9

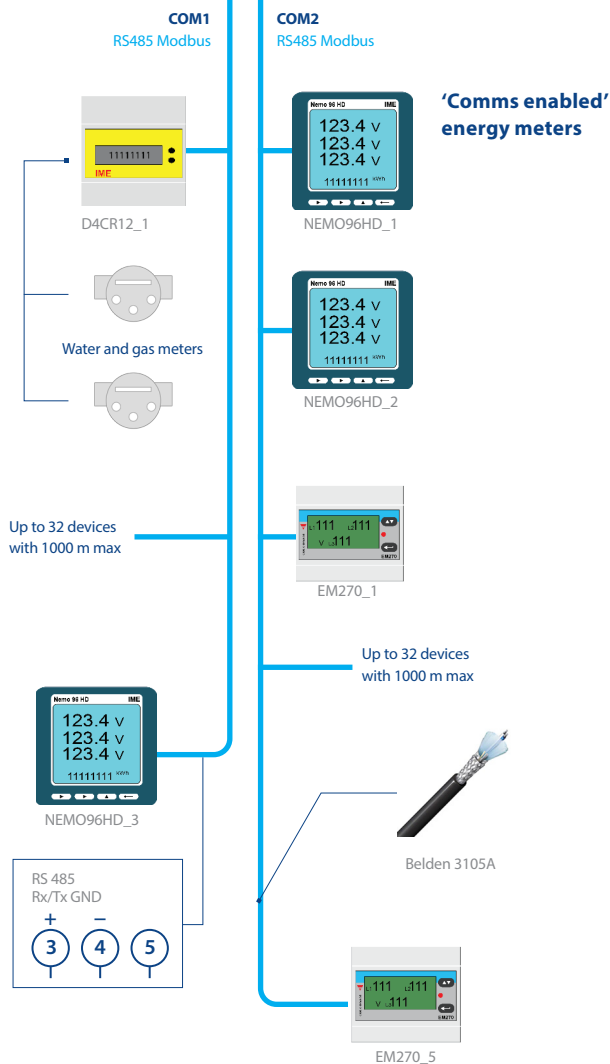
The SMART eBox is a flexible, easy to use and quick to install solution that ticks all the boxes for Section J9D3. Please contact your local NHP Account Representative to arrange your tailored SMART eBox solution today.

-  Ready-made solution to NCC J9D3 compliance
-  Easy to install – just like our Concept Panelboards!
-  Built and commissioned by NHP

Centralisation of devices for large/multi-site installations



Time stamped centralisation on a single user interface





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