

STANDARDS BULLETIN No : S12-070

SUBJECT: Notification on the Release of the MkIII Package Substation

Purpose:

The purpose of this bulletin is:

- to announce the release of the MkIII package substation (MkIII)
- the MkIII supersedes the Mk II package substation for new construction works.
- enable a transition to MkIII in the planning and development approval process.

Reasons:

The reasons for the change are to;

- simplify the civil design, earthworks and construction sequence and to reduce construction cost.
- reduce cable/HV bushing stresses and the potential failure mechanisms associated and to reduce the cost of terminations.
- improve ergonomics associated with the location and working height of the bushings
- externalise the streetlight control module associated with streetlight ownership moving to the road owners

Implementation:

There are no changes to the easement reserve or concrete plinth for the MkIII package substation. There is a minor change to the dimension of the footprint of the assembled MkIII unit and fits on the concrete plinth for the MkII. The MkIII's HV and LV terminations align with the concrete plinth's cable penetration footprint.

The significant associated changes to the MkIII are:

- The civil design and earthworks
 - The below ground retaining and structural wall has been removed
 - All the earthworks including the installation of the conduits are executed prior to the concrete plinth being set into position.
- The HV bushings are horizontally positioned and screened dead break elbows are fitted to the HV cable terminations.
- The street light control module has been removed from the LV compartment/bay configuration.

- The street light control module is a separate item and it's excluded from the assembly and fit out of the MkIII. In addition, the standalone box/pillar to accommodate the street light control module is prohibited within the Power Water easement.
- The standalone box/pillar will incorporate the current functionality contained within the MkII package substation which will be detailed in a Standard Drawing. Developers, consultants and/or contractors shall engage with the road owner to obtain approve in writing for the location of the standalone box/pillar.

Standards Drawings for release on the PWC's website are works in progress. For the interim period, until the Standards Drawings are released on PWC's website; developers, consultants and contractors are requested to contact Power Networks – Manager Distribution Development to discuss the technical and design specification of the MkIII package substation and release of the required document for engineering design. The Manager-Works Management should be contacted for matters pertaining to the construction.

Project managers or developers intending to use the MkIII need to be aware of the changes outlined above and that all costs associated with the installation will be borne developer or their subcontractors as is currently the case. Should you wish to discuss the matter further please contact Power Water on the numbers below.

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