



2nd December 2015

Manager Energy Projects
Operations and Programs Branch
NSW Department of Industry – Division of Resources and Energy

To The Manager of Energy Projects,

Thank you for the opportunity to provide feedback on the current ESS Review.

We are generally supportive of most of the proposed changes and thank the Department of Industry and the Office of Environment for the work underway to continuously improve the ESS.

We provide notes on the following areas that impact NCBA and our clients :

PIAM+V

Further to the announcement that Sampling methodology would be “paused” until October 2016, we request clarification of the treatment of our Accreditation and specifically our Sydney Trains project. The Sampling method was identified in the Energy Saving Scheme (Amendment no 2) Rule 2014 as an eligible way to calculate Energy Savings using an Acceptable energy model under Clause 7A.1 c) and 7A.2 iii).

National Carbon Bank of Australia (NCBA) was successfully Accredited by the Scheme Administrator on 29th June 2015 for Electric Railcar Lighting Upgrades using Energy Models established using a Sampling Method. Following that, Sydney Trains nominated NCBA on the 16th July as the Energy Saver for an energy efficiency upgrade to complete ESC creation works alongside an implementation team.

Work has almost completed to upgrade 440 Railcars and collection of evidence and baseline and upgrade modelling is well underway. Significant time to go over the modelling and evidence collection has been invested. PAIM+V restrictions on calculating savings, has to date, contributed to the extended time taken to complete this modelling.

NCBA has considered alternative suggestions to our request below, including NCBA applying to amend the PIAM+V accreditation ; for example it has been discussed that it might be feasible to treat all trains as one “site”, and take a sampling approach to measurement of equipment (i.e. carriages) on the site. This is a legitimate IPMVP approach. However the rule is currently ambiguous in its treatment of single site, equipment level sampling and given the nature of the project and current resourcing as well as timeline restrictions, NCBA and Sydney Trains are not of the opinion that an amendment to the accreditation to incorporate the necessary changes would be feasible.

Therefore NCBA seeks confirmation that transition arrangements will be provided specifically in the regulations or specifically in the application of the scheme requirements, to ensure existing accreditations of this nature, will be unaffected by the proposed “pause” in the sampling sub method.

Further, NCBA seeks confirmation that the adjustments proposed to the minimum statistical requirements in PAIM+V will apply retrospectively to existing PIAM+V implementations so that they can be incorporated in current projects, including the Sydney Trains Sampling project.

NCBA additionally requests that the rule change specifically allows:

- estimation of a mean from a population as well as regression modelling to develop an energy model
- sampling of equipment performance as per IPMVP
- spot measurements of power to estimate energy consumption where no regression is required.

In addition, it has been our experience during 2015 on several M+V projects that the current OEH tool interpretation of the Effective Range may be inconsistent with the ESS Rule. The term used in the ESS Rule is the ‘Effective Range is consistent with the range of measured values for Independent Variables and Site Constants, where relevant’ but the PIAMM&V tool interpretation of this appears to be is effectively ‘Normal year values must be a subset of the observed values in both measurement periods’. This means that if energy usage changes to lower or higher values than in the Effective Range the claim is then invalid, on the basis that the energy model only applies to the Effective Range. This is despite also having to account for changes in static factors and non-routine adjustments. And despite an increase in the efficiency of electricity use clearly being observed. Following implementation, energy savers are frequently presented with the situation where more energy is available under the same approved electricity budget. The Energy Saver can then chose to either save that part of the budget or add production capacity to utilise more energy for the same cost. Energy savers will almost always elect the latter in this situation because the revenue gains and increased market position are worth more than the savings on an NPV basis. While this is not an energy saving per se it is an ‘increased efficiency of electricity consumption’.

HEER

Technology to improve consumption of electricity in homes is improving by the day. NCBA has witnessed the success of the Victorian Energy Efficiency Target Regulations for effective methods to encourage the uptake of Stand by Power Controllers (VEET Regulations Sch 29) and In Home Display devices (Sch 30). NCBA strongly believes that if an installer is already in the home assessing the potential energy savings, then these technologies should be available for inclusion in a potential energy upgrade. In the interest of harmonisation across the schemes, we would support the same rules from VIC applying in NSW .

Whilst we have been unable to conduct modelling, calculations for creation of ESC of LED lighting upgrades under the proposed changes are still very low and if this method is to encourage real change, the commercial incentive must exist for businesses to invest and grow. Asset lifetime of lamps appears inconsistent with the 30000 hrs standard across the industry for quality products.

Commercial Lighting

Clause 9.4.1 (g), proposes lighting upgrade of Roads and Public Spaces must achieve

- i. AS/NZS 1158 AND
- ii. Any other standard or benchmark specified by the Scheme Administrator.

From our experience of lighting upgrades in Road and Public Spaces, the energy saver has a higher standard of lighting output requirements than AS/NZS 1158 (eg Railcorp engineering standards). It should not be necessary for an ACP to prove compliance to both i and ii. If the Scheme Administrator has agreed to an alternative benchmark, then the ACP should be required to only demonstrate compliance to the alternative and not to both the alternative **as well as** AS/ANZ 1158.

In Table A10.4A, the description in 'Control System' column is ambiguous. For example, it could be interpreted either as applying to the undercover carpark in the BCA classes mentioned of 2, 5 and 7a. OR it could be interpreted as applying to the BCA classes 2 and 5, as well as to undercover carparks 7a .. It is not clear to us why BCA 2 has been included but not BCA 3 common areas which is of the similar type to BCA 2 in that common areas must be fit for safety purposes around the 24hr clock and these spaces are open to the public.

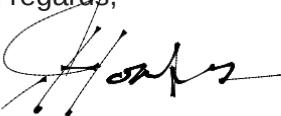
Table A10.4 defines Occupancy Sensors with a maximum of 6 luminaires per control. However Table A10.4A defined Occupancy Sensor 1 with a maximum of 2 luminaires per control. Our interpretation is that when one occupancy sensor is attached to each luminaire, the control multiplier (CM) A 0.55 is used instead of 0.7 in Table A10.4.

GAS inclusion

There appears to be no prescribed factor for converting gas consumption measurements in GJ to MWh as required for use in calculation of savings and ESC's. The conversion factor in the slide used to present the proposed Amendments has 9.2 GJ equalling 2.5MWh's or 1 ESC. Is this the conversion (which is 3.68GJ = 1MWh) intended under the rule?

Please feel free to contact me for further detail or discussion at any time.
Thank you.

Kind regards,



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Audit

All parties have signed document. Signed copies sent to: Jo Hoatson and Jo Hoatson.

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