Energy Savings Scheme Notice 08/2018
End-user equipment categories under PIAM&V

10 August 2018

WHAT

The Independent Pricing and Regulatory Tribunal (**IPART**) is introducing end-user equipment (**EUE**) categories for use under the Project Impact Assessment with Measurement and Verification (**PIAM&V**) method.

WHY

We are standardising EUE categories to:

- improve administrative efficiency by reducing the need for accredited certificate providers (**ACPs**) to request amendments
- promote consistency and equitable treatment of ACPs requesting amendments related to EUE, and
- ensure consistency between EUE listed in accreditation notices and Measurement and Verification (**M&V**) Professional approvals.

WHO

New applicants for accreditation under the PIAM&V method and applicants seeking general approval to become M&V Professionals will need to select from the new EUE categories when completing their application form.

Existing ACPs accredited under PIAM&V that are interested in the EUE categories can discuss their options with us.

We will transition M&V Professionals' current approved EUE to equivalent new EUE categories.

PIAM&V Auditors should refer to this fact sheet to understand the equivalence between current and new EUE categories and transitional arrangements.

HOW

EUE categories will be included in the *PIAM&V Application Form Part B* and *Application Form – M&V Professionals*.

ACPs already accredited under the PIAM&V method that are interested in the new EUE categories can contact us at ESS_Compliance@ipart.nsw.gov.au.

We will transition EUE categories for approved M&V Professionals following the annual performance reviews that are currently underway. Transition to new EUE categories will depend on performance review outcomes. However, M&V Professionals unable to transition at this time will still be able to validate energy models related to EUE for which they are currently approved.

WHAT NEXT

We have updated our PIAM&V guidance material and application forms to reflect EUE changes. New versions of PIAM&V documents are available on the ESS website.

We will discuss the outcome of the reviews and the transition to new EUE categories with M&V Professionals following their performance reviews.

If you have any questions or comments please contacts us by email at ess@ipart.nsw.gov.au.

INTRODUCTION OF EUE CATEGORIES

Benefits of implementing EUE categories

Using EUE categories in the PIAM&V method will facilitate consistent, equitable treatment of ACPs applying for accreditation or requesting an amendment to their accreditation, by removing the advantage conferred by general EUE definitions over specific definitions. We also aim to promote administrative efficiency by reducing the need for ACPs to request amendments to include specific items of EUE.

The same EUE categories will be applied to M&V Professionals to ensure consistency between EUE in ACP accreditation notices and M&V Professional approvals. This is intended to reduce the risk of ACPs engaging an M&V Professional for an implementation using a specific item of EUE for which the M&V Professional is not approved.

Current definitions of EUE are inconsistent

ACPs accredited under the PIAM&V method are limited to implementing projects from a defined list of EUE included in their accreditation notice. To date, applicants under the PIAM&V method have had the option to provide their own description of the EUE they intended to use in their RESA. This has led to some ACPs having highly specific lists of EUE, while other ACPs have more general descriptions, with the latter resulting in greater flexibility in implementing their RESA.

New EUE categories

The new EUE categories under the PIAM&V method are:

- building envelope
- commercial heating/cooling
- fluid transport and materials handling
- industrial heating/cooling
- industrial processes (other)
- information and communication technology
- lighting
- power generation systems, and
- power supply / distribution systems.

These categories are similar to the existing M&V Professional approval categories, but have been revised to more appropriately group technologies using similar modelling approaches.

Table 1 at the end of this fact sheet shows examples of equipment under each category.

TRANSITIONING TO NEW EUE CATEGORIES

New applications for accreditation

New applications for accreditation will include new EUE categories only. Applicants will be asked to select new EUE categories from the list given in the updated *Application Form Part B* and provide a description of the activities and equipment involved in each selected category.

The assessment process remains unchanged, as applicants will be required to demonstrate they are capable of applying the PIAM&V method in relation to the relevant EUE categories.

If accredited, ACPs will have EUE categories listed in Item 1(a)(4) in the Schedule to their accreditation notice.

New applications for M&V Professional approval

The new EUE categories will replace the existing EUE categories for M&V Professionals applying for general approval. We will amend the *Application Form for M&V Professionals* to reflect these changes.

The assessment process remains unchanged, as M&V Professionals applying for general approval will be required to demonstrate capability to apply the PIAM&V method in relation to each new EUE category included in their application.

If approved, M&V Professionals will have the new EUE categories listed in their approval and on the public *List of approved M&V Professionals* on the ESS website.

Existing accreditations

The introduction of EUE categories does not automatically change the accreditation conditions for existing ACPs accredited under the PIAM&V method. ACPs who believe new EUE categories may be relevant to their existing accreditations and would like to get further information can contact us at: ESS_Compliance@ipart.nsw.gov.au.

Approved M&V Professionals

We propose to transition all approved M&V Professionals to new EUE categories, following completion of their performance review. The transition will take into account each individual M&V Professional's performance in relation to each type of EUE included in their current approval, following a gap assessment against the EUE categories.

If no gaps exist, existing types of EUE listed in each M&V Professional's approval will be replaced with new EUE categories. New EUE categories in M&V Professional approvals will retain the same date of approval as their equivalent former categories.

If there are gaps, we will ask the M&V Professional to provide additional information to demonstrate their capability to apply the PIAM&V method in relation to new EUE categories.

M&V Professionals who are unable to transition to new EUE categories will still be able to validate energy models in relation to the categories included in their current approval.

MANAGING OLD VS NEW EUE CATEGORIES

To manage the transition process and understand the relationship between the existing and new EUE categories, PIAM&V stakeholders should refer to Table 1 below, which provides examples of how the EUE currently included in accreditation notices and M&V Professional approvals fit into each new EUE category. This is not an exhaustive list and ACPs and applicants should consider which category their EUE falls into.

Managing discrepancies between accreditation notices and M&V Professional approvals.

To validate their energy models in relation to a particular EUE (existing or new category), ACPs will be able to choose an M&V Professional with approval for either the existing category or the equivalent new category (refer to Table 1).

For example, an ACP that has 'voltage optimisation' in its accreditation notice can choose an M&V Professional with approval for either 'power supply/distribution systems' (new EUE category) or 'voltage optimisation' (existing EUE category) to validate its energy models.

However, an M&V Professional who has been unable to transition from 'voltage optimisation' (existing EUE category) to 'power supply/distribution systems' (new EUE category) will only be able validate energy models for ACPs whose implementation involves voltage optimisation only and not other technologies included within the new category.

PIAM&V auditors should consult Table 1 in this fact sheet if they find discrepancies in EUE categories between the ACP's implementation and the approved M&V Professional validating the energy models for such implementation.

Table 1 New EUE categories and examples of equipment under each category

	NEW EUE CATEGORIES								
	Building envelope	**Commercial heating/cooling**	**Industrial heating/cooling**	**Power generation systems**	**Power supply/ distribution systems**	**Fluid transport and materials handling**	**Industrial processes (other)**	**Information and communication technology**	**Lighting**
EXAMPLES OF EQUIPMENT	▼ Building design ▼ Insulation ▼ Window glazing ▼ Reflective painting ▼ Lifts ▼ Building management systems (BMS) (security, access control, fire systems, lifts)	▼ HVAC (boilers, air handling units, chillers, humidifiers) ▼ Commercial freezers ▼ Cold rooms ▼ Hot water systems (cleaning, amenities) ▼ Commercial ovens ▼ Commercial heaters ▼ Cookers ▼ BMS (HVAC)	▼ Refrigeration plants (compressors, condensers, evaporators, expansion valves) ▼ Steam systems ▼ Hot water systems ▼ Boilers ▼ Industrial freezers ▼ Cooling systems (glycol, chilled water) ▼ Heat exchangers / heat recovery ▼ Industrial ovens / kilns ▼ Furnaces / Smelters ▼ Dryers ▼ Autoclaves	▼ Gensets ▼ Cogeneration ▼ Trigeneration ▼ Steam / gas turbines	▼ Voltage optimisation ▼ Power factor correction ▼ Uninterruptible Power Supplies (UPS) ▼ Rectifiers ▼ Transformers ▼ BMS (electric power control)	▼ Pumping systems ▼ Fans (eg, ventilation systems) ▼ Compressed air systems ▼ Blowers (eg, aeration systems) ▼ Vacuum systems ▼ Mixers ▼ Conveyors ▼ Packaging systems ▼ Bottling systems ▼ Storage ▼ Electrical drives/motors	▼ Separation processes (filtering, screening, refining) ▼ Chemical processes (reactors, etc) ▼ Mining processes (crushing, grinding, mineral processing) ▼ Food processing (not covered under industrial heating & cooling)	▼ Telecommunications equipment and applications ▼ Data centres ▼ Computer room air conditioning (CRAC) ▼ Broadcast transmitters, receivers & transceivers ▼ PABX & phone system equipment, specialist communications servers ▼ Multiplexers and demultiplexers	▼ Commercial & industrial lighting ▼ Lighting control systems (eg, BMS)

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EXISTING EUE CATEGORIES FOR M&V PROFESSIONALS	▼ To date this has not been a category for M&V Professionals	▼ Commercial refrigeration ▼ Commercial heating, ventilation and air conditioning	▼ Industrial refrigeration ▼ Industrial heating, ventilation and cooling ▼ Boiler, steam and hot water applications	▼ Cogeneration / trigeneration	▼ Other – Voltage optimisation	▼ Compressed air ▼ Motor, pump and fan applications	▼ Other – Electric arc furnaces ▼ Other – Molten material processing and casting systems	▼ Other – Data centres ▼ Other – IT equipment optimisation ▼ Other – Telecommunications equipment and applications	▼ Lighting