Submission from Carbon Blue – Note Mr Lindewald provided the submission within the Consultation Paper. His response to individual questions has been extracted from the Consultation Paper and reproduced here in its entirety.

Question 1

What types of supporting evidence and explanatory reasoning should be included in the Preliminary M&V Professional Report?

A high-level analysis of all the non-filtered interval data from as far back as available from the retailer until at least the end of the operating period. This should be required also when relying on submetering. Any irregularities should be explained by the ACP and verified as plausible by the AMVP. A few simple year on year graphs should be produced to verify the energy saving. If energy saving only on the submeter but not on the interval data this should then be explained what has happened elsewhere noting that this can still be eligible energy savings.

Question 1 presumes that a preliminary M&V Professional Report must be made. This will increase cost (especially if no internal MVP) and red tape. Any frontloading of work will increase hurdle for already difficult method.

Quite a few projects don't generate enough savings to warrant the expense of completing for PIAMV. Currently it is possible to mitigate some risk by minimal front loading of work and do rough calculation on savings before investing more heavily in details calculations and expenses to finalise projects.

As an MVP and a ACP I always stress the importance of first doing a quick review of the whole of site baseline to understand the eligibility risk before deciding to commit significant resources. I don't see IPART being responsible for these business risk decisions and adding further very generic hoops to jump through for every project, whether or not the ACP already have plenty of experience with similar upgrades, is only adding further compliance to an already resource and costly method. Some projects are relatively straight forward and/ or have been done multiple times before. Prelim MVP then not only increases expense but also no added value.

M&V plan should already allow for potential MVP involvement if judged necessary.

Finally, while disagreeing with frontloading further expenses for already extremely expensive method, if still going ahead, appropriate transition arrangements need to be made. It is impossible for projects already underway to meet retrospective requirements. Simply using the Implementation Date (i.e. implementation finish date) is not sufficient for transition arrangements as some upgrades may take more than one year to implement.

Question 2

What types of evidence and justification can be provided to demonstrate that a proposed Measurement Period covers the full operating cycle for implementations where energy consumption is affected by weather?

Please understand that the effective range and data points to variables limitations and precision discounts already take care of any risk of measurement periods being inadequate. NO further limitations on a PIAM&V project is justified. What should happen, which I have brought up with OEH repeatedly, is that the effective range clause should change to not apply to ambient weather variables when a full winter and summer period has been captured both during baseline and operating periods. Currently projects are sometimes penalized from the effects of climate change. [redacted].

Instead the interval data per my response to Question 1 should be used to understand the normal cycles and extremes of the site consumption and guide the adequacy measurement period.

Furthermore, the length of Baseline and Operating measurement periods do not have to be the same. For example, consider VSD project with 24/7 operation before and temperature controlled after. Similarly, a lighting project with no motion or daylight sensor control before but both after. This is basic IPMVP concepts and one which MVPs should be trained in.

Finally, while disagreeing with this proposed requirement, if still going ahead, appropriate transition arrangements need to be made. For example, multiple projects are underway with sub-metering installed on the basis of Effective Range (instead of now proposed trumping language "*includes any time periods during which Independent Variables may reasonably be expected to lead to the Implementation increasing electricity consumption or Gas consumption or both*"). Some of these projects had sub-metering installed (at decent expense of project owners) to isolate savings on the basis that the ESC return would more than pay for the sub-metering. Sub-metering was installed because we were not certain savings could be isolate from whole of building NMI data. While it was understood by all that Effective Range discounts may have to be taken down the line, the intent for a lot of project owners/ ACPs was never to install sub-metering for 12 months. Its already difficult to convince project owners to wait 3 months. To apply retrospective requirements is unreasonable for projects with submetering already installed

Question 3

What other factors should be considered when defining normal operating conditions?

Again, the PIAM&V methodology already defines the criteria that determines whether the data is sufficiently consistent. The existing 20% removal of data is all that is required.

For IPART to add further compliance whether “the EUE is properly installed, maintained and used in accordance with the original equipment manufacturer’s instructions;” indicates that IPART do not understand and trust the verification part of IPMVP and therefore want to add deemed scheme compliance on top of the M&V scheme.

Part of the reason that energy savings are achieved are sometimes because EUE is not operating as originally designed. Energy audits often identify these inefficiencies and then upgrades ensure savings are achieved.

For example, it can be that an HVAC system operates 24/7 because a controller is broken. The meter data will show how a site actually operates as opposed to how it was originally designed/ intended to operate (not many sites are specifically designed to operate inefficiently/ cost equipment owner money).

One critical reason I believed M&V was decided to be incentivised through the PIAM&V scheme is the understanding of how energy efficient the energy savers overall facility or factory is running. All these proposals are trying to make it harder to participate in practice killing the scheme and all the benefits that come from energy user being practically sponsored to get an M&V done their operations. All these proposal should come out of a risk register similar to the ones IPART asks ACPs to practice. I do not understand what risk is being addressed by this proposal and how any positive effects on the unexplained risk can justify the obvious increase in uncertainty of outcome it leads to for ACPs, energy savers and equipment suppliers.

Question 4

What should be addressed by the explanatory reasoning in the Preliminary M&V Professional Report to demonstrate the appropriateness of factors related to the baseline Measurement Period?

A couple of year on year (or other applicable cycle) of before and after implementation energy consumption and independent variables, including avg, min and max pivot. These should go as far back as is reasonably available from the retailer or metering. A discussion of any irregularities, outliers etc and selection of baseline period is all that is required to then demonstrate appropriateness of factors.

As suggested at the end, the MVP should be part of the project from day one, this preliminary report then becomes completely non-value add. It is when an ACP reviews a potential project and decides if it is worthwhile to progress that the most experienced M&V resource must be present and leading or at least supervising that review. This is however not IPARTs responsibility to make sure. But insisting that the MVP is independent to the project clearly forces many ACPs to forego their best resource when they most need it. This risks the confidence in the whole scheme because the result is that the project is set up to fail and energy savers, equipment suppliers and ACPs will opt out of the scheme.

Question 5

What options (other than sub-metering), that can be supported by acceptable evidence, are available to ACPs to define the measurement boundary?

Again, this is adding deemed scheme compliance to an M&V scheme: “5.1 The M&V Plan must document all items of EUE that are included in the Implementation within the measurement boundary.” – This is the definition of unnecessary red tape. Sometimes it may make sense to better understand what else is going on inside the boundary at a high level. But please let the data guide what details are necessary.

Again, what actually should happen is that the initial whole of site interval data over maximum available period should guide the measurement boundary also when the ACP has opted for submetering.

Installing sub-metering and collecting data for more than 3 months is already extremely hard to achieve as it holds up the commercial process (solution provider wants to sell) and savings (customer wants energy/bill savings).

Documenting all equipment within a boundary would often be prohibitive. Consider for example a shopping centre where whole-of-site measurement boundary issued.

And what is the risk with not understanding exactly what has been going on elsewhere inside the boundary? If the whole of site analysis verifies a reduction and part of that turns out to be that staff became more energy conscious and got better at shutting of lights and turning off their computers? IPART really have to tell us what they are trying to achieve with these changes. I know I am not the only one completely confused and now spending precious hours trying to prevent the scheme from being all but destroyed.

Question 6

What other modelling criteria and corresponding thresholds should be considered?

Again this demonstrates that IPART does not understand M&V: “the electricity consumption of lighting is not affected by temperature, therefore temperature would not be an appropriate Independent Variable for a lighting project” A lighting reduction can absolutely be verified by doing whole of site boundary by temperature variables. It’s the saving that is being verified, not the correlation of selected variables to the EUE!

There is no argument provided that the existing regulations, criteria and guidelines need tightening. A good M&V professional will make sure the savings verified is reasonable and eligible. IPART need to start to understand and trust the PIAM&V method!

Question 7

Is there supporting evidence that can justify different thresholds than those provided in Table 1 and, if yes, what is that evidence?

Those thresholds may be easy to satisfy or sometimes they will be impossible even though the savings are absolutely generated. This is a question of noise versus signal ratio of the data. This is outside the control of the ACP. Generally the noise/signal ratio will be stronger for the baseline than the operating period. To make an absolute ruling without looking at the already hard discounts of precision etc is strongly objected against.

Note that statistical thresholds were originally included in the Rule and were removed after consultation by OEH. This would effectively re-introduce legislation by IPART. IPART must demonstrate that the original removal by OEH was flawed and now shown to risk the integrity of the scheme.

Question 8

What additional guidance or tools may provide support for the calculation of data uncertainty?

Please understand that to a large degree the measurement uncertainty is to a large degree cancelled as it is the savings we are verifying, not the absolute energy consumption. Data uncertainty is also already covered by the effective period and accuracy/precision discount.

Please note that the existing method is somewhat confusing in that effective range etc is meant to be applied to the raw measurement but for example the OEH tool actually applies it to the derived variables such as HDD and CDD. This is not correct. This should be cleaned up and clarified before any other restrictions are added. I have also put this to OEH [redacted]