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NABERS Energy
 Built Environment Section
 Office of Environment and Heritage
 PO Box A290
 Sydney South NSW 1232

Via email: nabers.energy@environment.nsw.gov.au

Dear NABERS National Administrator,

Submission – Review of the NABERS ruling ‘Proportioning of Energy used by Cogeneration or Trigeration Systems

We appreciate this opportunity to provide our feedback on the Consultation Position Paper issued by NABERS to seek comment from industry on the review of the NABERS ruling ‘Proportioning of Energy used by Cogeneration or Trigeration Systems’, issued on 7 July 2010 (July Ruling). We commend the NABERS team and its commitment to continual improvement of NABERS and for the effort made to involve all stakeholders in an open and collaborative consultation process. We agree that changes to the July Ruling are required to provide clarity and certainty to the market.

As a company we are actively involved in helping our clients create greener buildings and, increasingly, greener precincts. NABERS ratings have been instrumental in communicating the value of high performance buildings to the market and transforming our industry. We are concerned that some of the proposed changes to the July Ruling will significantly impede and undermine the use of centralised energy systems within sustainable communities. For many environmental, economic and practical reasons we are seeing increasing interest by our clients in the use of precinct wide cogeneration and trigeration systems. The proposed changes create an artificial distinction between on-site and off-site energy systems which will penalise this promising form of low carbon generation. At the same time the changes don’t go far enough in that there is still considerable ambiguity and uncertainty as to how emissions from off-site energy systems will be treated.

Our comments on the proposed changes are as follows:

<p>Issue 1: Potential double counting of emissions and corresponding double benefit under NABERS when the co/trigerated electricity is delivered via the grid.</p> <p>NABERS Position: Currently, no double counting occurs when electricity generated by co/trigeration systems (low emissions electricity) is delivered to other buildings via the grid. No change is required to the July Ruling in this regard.</p>	<p>No comment</p>
<p>Issue 2: How should on-site energy generation be treated within a NABERS rating?</p> <p>NABERS Position: Retain the current July Ruling position that allows for all the energy supplied to an onsite co/trigeration system to be allocated to the electricity generated for the building/and its tenants (where applicable).</p>	<p>We agree that this approach provides a clear and workable solution for on-site energy systems however we seek no distinction between the allocation of energy within a multi-tenanted building and within a multi-building precinct. We recommend that NABERS expand the definition of on-site to include physically distinct and connected energy precincts.</p>

<p>Issue 3: How should usable energy generated by co/trigeneration systems and exported off-site be treated within a NABERS Energy rating?</p> <p>NABERS Position: Under NABERS, treatment of exported energy from building co/trigeneration systems, whether this is electricity or thermal energy, is to be accounted for in the NABERS rating, irrespective of whether it is exported via public or private networks. Therefore, all useful energy exported off-site from a building, (including electricity, hot water or chilled water), for the purposes of supplying energy to a third party end user, will be proportionately allocated a generation emissions value.</p>	<p>We agree that exported energy should be accounted for in NABERS Base Building energy rating of the exporting and receiving building through the allocation of emissions to each energy stream, including usable thermal energy. We are concerned that the apportioning calculation methodology is not defined. We recommend that parties to the energy transfer have the flexibility to develop a consistent project specific apportionment of the carbon emissions to electricity, heating and cooling from co/trigeneration. The range of technologies and configurations for co/trigeneration will make it difficult to develop a “one size fits all” approach to emissions allocation. Furthermore we are concerned that further industry consultation on this issue will create prolonged uncertainty on how these emissions are to be addressed.</p>
<p>Issue 4: How should low/zero emissions energy externally supplied to a building be treated in a NABERS Energy rating?</p> <p>NABERS Position: NABERS supports the creation of an industry/government accreditation standard to account for the apportioning of generation and network supply emission values to thermal energy products and electricity. Once third party verifiable invoices/bills are available that clearly show the energy purchased and its emission value, this low emissions externally supplied energy can be included within a NABERS Energy rating. The amount of low emissions electricity will be identified in the NABERS Energy Rating Certificate and accompanying Rating Report (similar to GreenPower). Until such a standard is developed co/trigeneration electricity supplied via the grid/network will be allocated standard grid emission values. Imported thermal energy will be considered by the NABERS National Administrator on a case-by-case basis.</p>	<p>We disagree that a separate accreditation standard is required to verify externally supplied energy. The allocation of emission values has worked for multi-tenanted buildings and can work for energy precincts which are based on public or private energy distribution networks. Unlike GreenPower, co/trigeneration systems require significant physical infrastructure within buildings and precincts, can't be purchased retrospectively and are based on long term commitments by building owners and energy providers. The development of these systems is already challenged by a range of regulatory and cost hurdles and the establishment of a separate standard will further discourage investment in these systems. We recommend instead that NABERS institute an auditing system similar to that already in place for NABERS ratings for overseeing the correct apportionment of emissions. We disagree that co/trigeneration systems should be allocated standard grid emissions values – these should be based on an apportionment of actual emission to avoid penalising these systems.</p>
<p>Issue 5: How should NABERS communicate the use of low/zero emissions electricity in a rating to assist industry in understanding both the environmental performance and energy efficiency of a building?</p> <p>NABERS Position: NABERS will continue to communicate both the environmental performance and the energy efficiency of a building through its website, star Rating Certificate and accompanying Rating Report. Once an acceptable audit and verification system is in place to account for low emissions electricity externally supplied, these purchases can be considered in a NABERS Energy rating. Consistent with the treatment of GreenPower, the percentage of low/zero emissions electricity used by a building will be displayed on the Rating Certificate and Rating Report.</p>	<p>Treating off-site co/trigeneration in the same way to GreenPower will have a marked negative impact on the market demand for this form of low carbon generation. Based on this approach many of our clients who are seeking a targeted NABERS rating under the CBD program would have little incentive for connecting buildings to off-site energy systems. Market confusion would arise from the treatment of off-site versus on-site co/trigeneration systems. It would be unfortunate if NABERS were to penalise the development of off-site energy systems given the many technical, efficiency and economic advantages over on-site systems.</p>

While we recognise that NABERS is intended to be a measure of a buildings performance we disagree that the NABERS rating as communicated through the CBD should be limited to on-site co/trigeneration systems. There are significant challenges to integrating co/generation systems within single building installations. We are actively working with a range of clients who recognise and are committed to precinct wide solutions as a step along the pathway towards zero carbon buildings and precincts. The proposed changes will undermine investment in this nascent but growing technology.

We recommend that NABERS does not attempt to pick winners by creating distinctions between competing technologies. On and off-site co/trigeneration systems should be on a level playing field that allows the market to deliver the highest carbon reductions at the lowest cost. Similarly there should be no distinction between electrical and thermal energy in terms of building energy efficiency. The production of thermal energy is a function of the type of co/trigeneration system and should be treated holistically with respect to the apportionment of emissions between electrical and thermal energy.

Thank you for the opportunity to provide these comments. We are available for further consultation on these issues should this be of value to the NABERS National Administrator.

Yours Sincerely

A handwritten signature in black ink that reads 'Jeffrey Robinson'.

Jeff Robinson

Sustainable Buildings Leader

Aurecon Australia Pty Ltd