

Feedback on Mandatory Disclosure

Hi

1. I fully support mandatory disclosure as a mechanism, provided it is formulated well.
2. It is absolutely imperative that mandatory disclosure is based on the BASE BUILDING performance in all cases, with whole building only being an option for buildings that can't measure base building. Getting this wrong would utterly undermine the credibility of the whole scheme.
3. Much as though I support mandatory disclosure, the economic analysis presented for the RIS looks a bit patchy. My comments on this are:
 - a. The mandatory upgrade option is evaluated on economic boundaries that include the costs of upgrade to owners, while the other options, which also assume a degree of upgrade activity, do not. This creates a fundamental lack of comparability between the options.
 - b. The \$35/m² upgrade cost – which some say is too low – would lead to a 10-15 year payback for an upgrade of 1 star. Our experience is that this is reasonable for a 4-5 star upgrade but does not reflect the costs or paybacks of upgrading average (2-3 star) buildings, which typically have paybacks more of the order of 3 years for 1 star. We have attached copies of papers supporting this.
 - c. A 1 star improvement in NSW is approximately 32 kg CO₂ per m². If this is all electric, at electricity costs of typically 7-12c/kWh, we get savings of \$2.40-\$3.00 per m² per star. If we assume that 20% of this saving is gas; which is not uncommon, as gas is generally inefficiently utilised, and gas typically costs \$8/GJ, then our savings are approximately \$2.80-\$3.80 in total. Costs in other states are generally higher, especially WA and SA.
 - d. Our costs for performing ratings range from \$2000-\$4500 for typical buildings. We are not aware of any regional variations in rating cost that could be supported by any sort of real investigation rather than rumour. This is a market issue not a fundamental issue.
4. The Low Energy High Rise Project conducted by the Warren Centre for Engineering at the University of Sydney has demonstrated that there is a strong correlation between the public reporting of NABERS performance and the performance of the building – those that report, do better. What cannot be established at this stage is whether this is because those that do better report or vice versa. The report from this work will be in the public domain in the next few weeks (I am one of the authors)
5. I have reservations about the effectiveness of the proposed energy efficiency assessments and the degree to which this will help or hinder the market. This is because the last thing we need is a flood of low quality energy audit information that confirms the worst suspicions of the market. The energy auditing industry is massively underskilled and under resourced, and already does as much harm as good through giving people half-baked reports. Of greatest concern here is the lack of skills to identify operational, commissioning and control measures for the improvement of efficiency rather than hardware. We are regularly confronted with buildings where the owner has been advised that they have to invest millions of dollars in hardware when almost the same saving can be obtained by getting their existing hardware to function properly. If the EEARs do not address operational/control and commissioning measures well, then they will sour the market by making owners believe (as many are ready to do) that it is all too hard and too expensive; but the industry is not in a position to deliver effective evaluation

of these issues presently. Our work indicates that control savings can typically provide 20% savingscoincidentally, about a star!

6. Related to the point above is the lifespan of an EEAR. The proposed 7 year lifespan is appropriate if hardware is the issue but is far too long with regards operational/control and commissioning issues. I note that the EEGO policy (used to have a requirement for auditing every 5 years – this would be the maximum time period I would recommend. In general, I would argue that an energy audit is past its use-by date after 2 years simply because the operation, needs and strategic issues for a building tend to move on.
7. The use of building simulation to project a building' performance needs to be treated with extreme caution, as simulations routinely predict almost all buildings to perform in the 4.5 star plus region. The number that actually function at this level however is much lower; we make very good business out of buildings that have 4.5 star simulations but are performing far worse; in one prominent case the building had a NABERS rating of zero! Again the importance of operational/control and commissioning savings dominates here. The difference between simulation and reality is typically driven at least 80% by failure to address these issues.

I am happy to discuss the above in more detail if required.

Regards

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