

# A NATIONAL FRAMEWORK FOR RESIDENTIAL RATINGS

## Discussion Paper

January 2016



# A National Framework for Residential Ratings: Discussion paper

## The Current Situation

The Nationwide House Energy Rating Scheme (NatHERS) is a national thermal performance rating framework for Australian homes, which provides a flexible design tool for satisfying regulatory requirements. It has been shown to reduce the cost of compliance compared with deemed-to-satisfy provisions of the National Construction Code<sup>3</sup>, and use of NatHERS has enabled increasing regulatory stringency to be achieved without increasing the cost of homes<sup>4</sup>. Consumers are getting more comfortable houses, with the potential for lower energy consumption, at lower cost. ASBEC supports NatHERS for application in the National Construction Code.

However, substantial changes are required both (i) to achieve consistent implementation of existing regulation and (ii) to realise the ASBEC objective of an influential market based benchmarking system for best practice homes. Some issues to be addressed include

Inconsistent design flow through into compliance<sup>5</sup>

- There is a lack of consistency across NatHERS assessors
- There are conflicts of interest in the ratings industry, whereby there is often an incentive for energy raters to provide results that a builder wants, rather than represent the interests of the prospective home owner

Inconsistency with the desire for encouraging voluntary best practice

- Consumers do not understand NatHERS and it is mainly used as a binary pass/fail compliance tool.
- It looks at the building shell (thermal shelter) but does not include other sustainability elements.

### Possible Actions:

- Continue to enable design flexibility for regulatory compliance
- Develop standardised inspection checklist documentation and procedures to simplify the task of building inspection
  - Consider NEEBP<sup>5</sup> recommendations
  - Conduct trials of an 'electronic building passport'/ document management system
  - Adopt a national requirement for accreditation and continuous professional development for all building professions
- Work with relevant authorities to develop an effective regime for a) monitoring and b) enforcing compliance with Code energy performance requirements
- Work with finance and insurance industry stakeholders and government to develop market incentives for motivating voluntary compliance
- Work with industry to identify preferred mechanisms for increasing the independence of building inspectors
- Adopt a framework for rating residential performance against best practice across a range of sustainability measures, including energy/greenhouse, water, waste, accessibility, resilience, affordability, and IEQ. Ensure that this consumer

There are a number of new tool developments within NatHERS, NABERS, Green Star, BASIX, BESS and other industry efforts including Liveability, Building Verification Forum, Energy Inspection etc. Many of these tools cover the broader range of sustainability elements. ASBEC is optimistic that these developments provide a palette of options for a suitable best practice scheme. Given the existence of these tools, and others, future work should not focus on new tool development.

Some additional tool issues to be considered include

- Most residential consumers do not respond well to technical information. Focus group research has shown that energy efficiency messages can be misinterpreted as a call for sacrifice (go without)<sup>6</sup>
- Multiple tools add confusion in the market.

### Possible Actions:

- Develop and deliver consumer marketing to communicate benefits through social media and mainstream media
- Select a single rating framework with a minimum number of tools, that is owned and branded by a trusted source, and is integrated with relevant standards

<sup>3</sup> Sustainability House, "Identifying cost savings through building redesign for achieving residential building energy efficiency standards", Commonwealth Department of Climate Change and Energy Efficiency, 2012

<sup>4</sup> CSIRO, "The Evaluation of the 5-Star Energy Efficiency Standard for Residential Buildings", Commonwealth Department of Industry, 2013

<sup>5</sup> Pitt & Sherry, "National energy efficient building project", South Australian Department of State Development, 2014

<sup>6</sup> Instinct and Reason, "Sustainable households: Survey of homeowners for the NSW Office of Environment and Heritage", 2014

## The Opportunity

Beyond the existing regulatory measures, a nationally consistent rating framework is required that can provide a market-based communication tool for (i) overcoming information asymmetries in the market, (ii) providing a means for valuing sustainability, and (iii) providing a quantitative basis for the application of possible policy mechanisms.

Historically, rating schemes have been shown to facilitate significant transformational impact. The International Partnership for Energy Efficiency Cooperation (IPEEC)<sup>7</sup> notes that “virtually all studies indicate a positive relationship between better energy performance and increased [property] value”.

### **Possible Action:**

Phase in an industry agreed approach for mandatory disclosure at point of sale and lease

However, the IPEEC also notes that “Building rating programs have the greatest impact when they are integrated into a coordinated energy efficiency policy framework including other key elements such as code enforcement, financial incentives, and a robust outreach and communications effort”.

While a key component of any comprehensive framework, a rating tool/scheme by itself, is unlikely to achieve optimum outcomes. This ASBEC rating framework aims to be more comprehensive than simply introducing or endorsing a rating tool.

If a market-based solution is to be achieved, then the rating framework must take a consumer perspective. When home owners were asked “If you were buying a new home to live in, which of these factors would you take into account when finally deciding which property to buy”, a wide range of sustainability features rated highly<sup>8</sup>. Indeed, thermal comfort (which is highly correlated with sustainable design, but very difficult for homeowners to compare) was one of the critical preferences.

Recent research from the Low Carbon Living CRC<sup>9</sup> found that the desirability of a home, with alternative energy efficiency labels, compared well with that of homes with other attractive (but not specifically energy efficiency) home features. The appeal of energy efficient homes was shown to increase when the label was accompanied by explanatory text.

### **Possible Action:**

Provide a repository of rating information (compliance and performance) for rating re-use, analysis and communication of value  
 Publish annual valuation studies

It is clear that people value sustainability but, without a credible and widely accepted rating framework, there is an information barrier that denies them the ability to incorporate sustainability into their decisions.

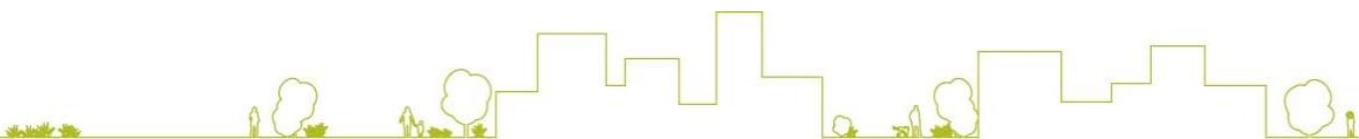
In summary, a rating framework is required that has relevance across the full range of possible policy applications, while still including elements that are understandable for consumers.

Support the real estate sector to adopt and be trained in a features-based property value framework

<sup>7</sup> International Partnership for Energy Efficiency Cooperation, Building Energy Efficiency Task-Group Report “Building Energy Rating Schemes: Assessing Issues and Impacts”, 2014

<sup>8</sup> Instinct and Reason, “Sustainable Households: Survey of homeowners for the NSW Office of Environment and Heritage”, 2014

<sup>9</sup> Leviston Z., Malkin S., Green M. & Gardner J., “The EnergyFit Homes Initiative: Message Frame Testing”, 2015



## A Three-Layered Approach to Residential Rating and Information Provision

Based on the breadth of rating applications, ASBEC proposes a three-layered approach to rating and information provision, as illustrated below.

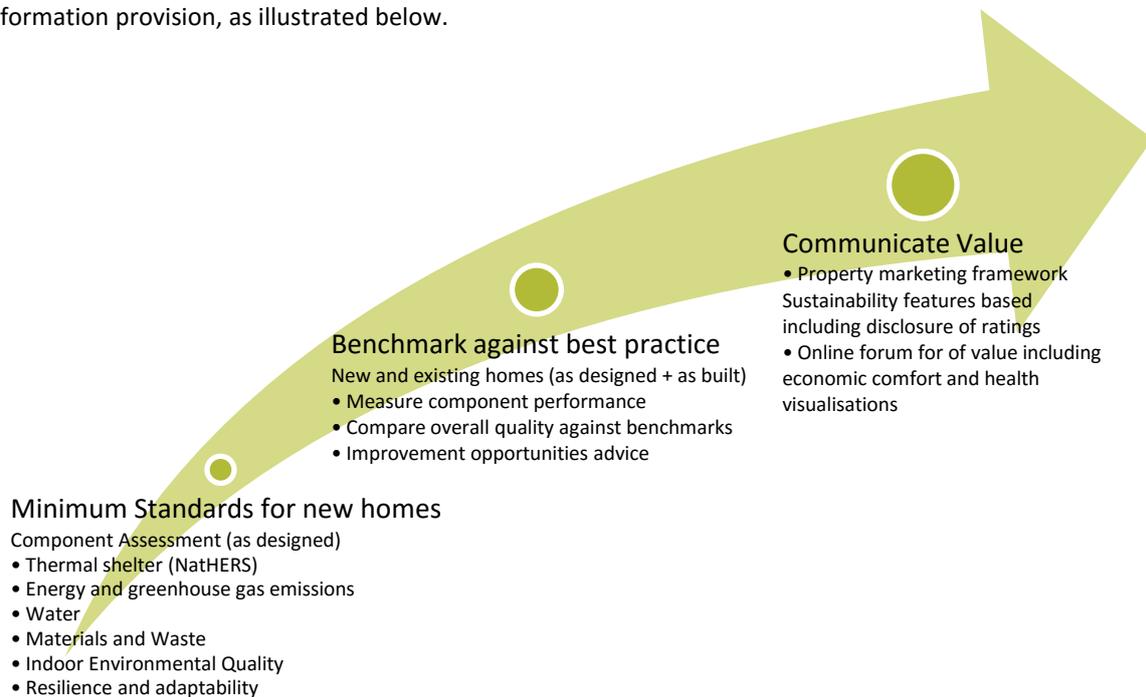


Figure 1: Three-layered approach to rating and information provision

In the first layer, a single assessment method is selected for each of the key sustainability elements, incorporating national standards where relevant.

These assessment methods are used in the National Construction Code and/or development covenants and are targeted at the construction industry. In these regulatory applications, the components are dealt with separately, so that unacceptable practices are avoided across all categories.

### **Possible Action:**

Identify a framework for assessing relevant additional sustainability elements

In the second layer, the individual assessments (from layer one) are combined into a single point based label that can be used for benchmarking overall sustainability against best practice. This can be used by consumers to compare homes, and to ascribe value to those homes that achieve higher scores.

### **Possible Action:**

Adopt a framework for benchmarking residential performance against best practice across a range of sustainability measures, including energy/greenhouse, water, waste, accessibility and IEQ. Ensure that this consumer rating information is simple

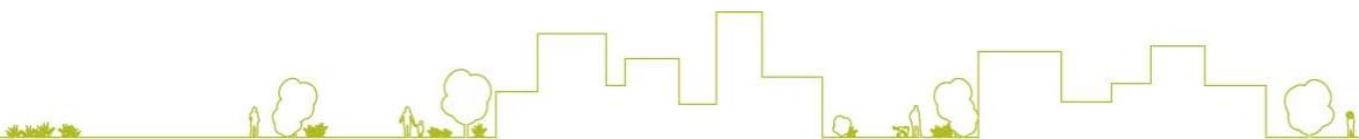
The label should be designed such that it is suitable for disclosure and can be used to underpin possible future market incentives for encouraging best practice. It should also provide advice on how to improve the sustainability of the home with indicative payback information.

The component level and overall performance level assessments are further integrated with a third layer of more interpretive information that is relevant to consumers at point of sale. A framework, that focuses on observable sustainability features present in a house (such as the Liveability 17 Things), is proposed as a property-marketing tool to enable real estate agents to rapidly promote the potential of a house.

### **Possible Action:**

Support the real estate sector to adopt a features-based property value framework

For each of these layers there are existing tools. Where necessary these tools should be adapted rather than resorting to developing all new tools that are unfamiliar to industry.



Research<sup>10</sup> has shown that visual media is very important for conveying inspiration and ideas, rather than text-based types of communication. New approaches should be explored, for visualising the benefits of sustainable housing, particularly aspects of comfort and health.

A cost effective operating system is required for delivering these layers of information. The cost of assessing homes at point of sale has been explored<sup>11</sup> and found to give a net benefit to cost ratio as high as 2.7 to 1.

Further cost reduction, over that assumed in the RIS, is possible through modern digital technology and with a streamlined assessment industry.

**Possible Action:**

Develop and deliver consumer marketing to communicate benefits

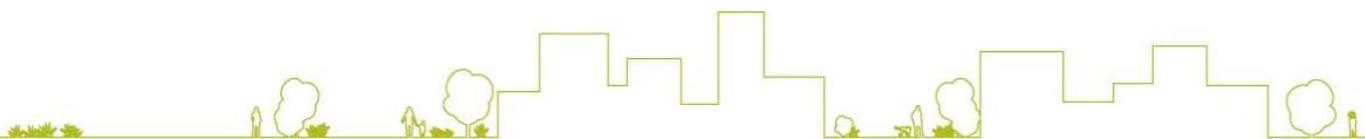
**Possible Actions:**

- Avoid duplication and ensure transferability by developing an 'electronic building passport' / document management system
- Facilitate the integration of sustainability assessments with other building inspection services

---

<sup>10</sup> Hulse K., Podkalicka A., Milne E., Winfree T and Melles G., "I'd just Google it': media and home renovation practices in Australia", CRC for Low Carbon Living, October 2015

<sup>11</sup> Allen Consulting Group, "Mandatory disclosure of residential building energy, greenhouse and water performance: Consultation Regulation Impact Statement", Report to the National Framework for Energy Efficiency Building Implementation Committee, July 2011



## About ASBEC

ASBEC is the peak body of key organisations committed to a sustainable built environment in Australia.

ASBEC's membership consists of industry and professional associations, non-government organisations and government observers who are involved in the planning, design, delivery and operation of our built environment, and are concerned with the social and environmental impacts of this sector.

ASBEC provides a forum for diverse groups involved in the built environment to gather, find common ground and intelligently discuss contentious issues as well as advocate their own sustainability products, policies and initiatives.

ASBEC is a non-profit volunteer organisation. Members commit their time, resources and energy to developing practical opportunities for a more sustainable built environment.

## Members

Air Conditioning & Mechanical Contractors' Association	Green Building Council of Australia
Australian Institute of Architects	Heart Foundation
Australian Institute of Landscape Architects	Infrastructure Sustainability Council of Australia
Australian Institute of Quantity Surveyors	Insulation Australasia
Australian Institute of Refrigeration, Airconditioning and Heating	Insulation Council of Australia and New Zealand
Building Designers Australia	Planning Institute of Australia
Building Products Innovation Council	Property Council of Australia
Chartered Institute of Building Australasia	Royal Institution of Chartered Surveyors (RICS) Oceania
Consult Australia	Standards Australia
Energy Efficiency Council	Steel Stewardship Forum
Engineers Australia	Water Services Association of Australia
Facility Management Association of Australia	WWF
Good Environmental Choice Australia	

