

Nationwide House Energy Rating Scheme (NatHERS)

Administrative and governance arrangements

January 2011

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Glossary

AAO	Assessor Accrediting Organisations
ABCB	Australian Building Codes Board
AGO	Australian Greenhouse Office
ABSA	Association of Building Sustainability Assessors
BCA	Building Code of Australia
BESTEST	Building Energy Simulation Test
BIC	NFEE Buildings Implementation Committee
COAG	Council of Australian Governments
DCCEE	Commonwealth Department of Climate Change and Energy Efficiency
E2WG	MCE Energy Efficiency Working Group
MCE	COAG Ministerial Council on Energy
NatHERS	Nationwide House Energy Rating Scheme
NFEE	National Framework for Energy Efficiency
NSEE	National Strategy on Energy Efficiency

PURPOSE

This paper documents the administrative and governance arrangements in place for the Nationwide House Energy Rating Scheme (NatHERS) in January 2011 and a background to the Scheme's development.

THE NATIONWIDE HOUSE ENERGY RATING SCHEME (NatHERS)

The Nationwide House Energy Rating Scheme (NatHERS) supports efforts of Australian Governments to reduce the energy and greenhouse gas impact of residential buildings.

NatHERS encourages energy efficient building design and construction by providing a reliable way to estimate and rank the potential thermal performance of residential buildings in Australia.

NatHERS tools provide one method of demonstrating compliance with the minimum energy efficiency standards for new residential buildings outlined under the Building Code of Australia (BCA). Additionally, NatHERS software is a powerful tool for optimising energy efficient house designs for Australian climates.

BACKGROUND

NatHERS was initiated in 1993 by the Australian and New Zealand Minerals and Energy Council (later the Ministerial Council on Energy) to provide a standardised approach to rating the thermal performance of Australian homes. Identified at the time as the House Energy Rating Scheme (HERS), the intent of the Scheme was to:

...assist the public and the building industry in identifying the extent to which any house (new or existing) has the potential, through its design and construction, to be of high efficiency in its use of energy for heating and cooling purposes.¹

The Scheme was developed by the State and Territory energy agencies and the Australian Government, in conjunction with the CSIRO.

Originally used by industry to market energy efficient homes, NatHERS was gradually adopted to support regulation of new building standards by some State and Territory Governments, beginning with the introduction of a minimum four star requirement for new home designs in the ACT in 1995. The NSW Government's Energy Smart Homes Program, implemented from 1997-1999 also utilised the HERS star ratings.

The National Greenhouse Strategy was agreed by Commonwealth and all State and Territory Governments in 1998 as a comprehensive approach to tackling greenhouse issues. The Strategy noted that improvements to the design of commercial and residential buildings have the potential to

¹Source: Desante, A. *The Development of an Hourly Thermal Simulation Program for Use in the Australian Nationwide House Energy Rating Scheme*, CSIRO Division of Building, Construction and Engineering.

make an important contribution to limiting Australia's greenhouse gas emissions and committed governments to 'develop a minimum energy performance requirement for new houses and major extensions taking into account, as appropriate, opportunities offered by existing performance measures, or ratings, such as the Nationwide House Energy Rating Scheme (NatHERS)'².

The Australian Greenhouse Office (AGO) was formed that year and established a partnership with the Australian Building Codes Board (ABCB) to produce a flexible approach to mandatory energy efficiency standards for new housing that could be incorporated into the BCA.

Stage 1 (2004) and Stage 2 (2007) of the National Framework for Energy Efficiency (NREE) reiterated a national role for NatHERS by calling on agreed method(s) for rating building energy performance on a like-with-like basis to enable 'improving levels of minimum energy efficiency design standards'³ for new residential construction.

On 2 July 2009, the Council of Australian Governments (COAG) adopted a comprehensive 10-year strategy (the National Strategy on Energy Efficiency, NSEE) to accelerate energy efficiency improvements as a key component of the overall approach to combat climate change, including specific measures relating to the role of rating tools in improving the energy efficiency of Australia's buildings.

Although not specifically referenced in the NSEE, NatHERS underpins measures 1.2.2 (to improve Australia's capacity to assess building energy) and 3.3.1 (to increase the stringency of residential building energy efficiency standards through the BCA).

REGULATORY FRAMEWORK

The first minimum energy efficiency standards for residential dwellings were incorporated into the BCA in 2003. Subsequent updates increased the stringency of residential energy efficiency measures to a NatHERS five star rating using the BCA's thermal calculation verification method (in 2006) and then to six stars (in 2010).

The BCA performance requirements for energy efficiency can be achieved through several building solutions, one of which is computer simulation of the thermal performance of a building design. NatHERS software simplifies the calculation of complex thermal modelling for residential buildings.

The software tools are able to accommodate greater sensitivity in local topographical and climatic conditions and can produce a flexible, least cost approach to meet energy efficiency standards.

The *Protocol for House Energy Rating Software Version 2006.1*⁴ produced by the Australian Building Codes Board (ABCB), defines the testing regime for simulation software suitable for use to

²Source: Commonwealth of Australia (1998) *National Greenhouse Strategy*.

³ Source: Ministerial Council on Energy, (2004), *Statement on National Framework for Energy Efficiency Overview Plan of Stage One Measures 2005 – 2007*.

⁴ Source: Australian Building Codes Board, <http://www.abcb.gov.au/index.cfm?objectid=51FE0D50-6B85-11DE-9357001B2FB900AA>

demonstrate compliance with the thermal performance requirements. For regulatory purposes under the BCA, it is not essential for ratings software to be approved under NatHERS, but the ratings software must meet the standards described in the ABCB protocol. The ABCB protocol outlines the relationship with NatHERS and has consistent elements including the use of NatHERS climate data and star bands.

Table 1.0 describes the legislative and regulatory requirements applying to energy efficiency elements covered by thermal performance assessment in new buildings in each jurisdiction (current as at December 2010).

Table 1.0

Jurisdiction	Regulator	Act	Regulation	Codes
ACT	ACT Planning and Land Authority	Building Act 2004	Building (General) Regulation 2008	Building Code of Australia (BCA)
NSW⁵	Department of Planning	Environmental Planning and Assessment Act 1979	Environmental Planning and Assessment Regulation 2000	BCA
NT	Department of Lands and Planning - Lands Group	NT Building Act	NT Building Regulations	BCA
QLD	Department of Infrastructure and Planning – Building Codes Queensland	Building Act 1975	Building Regulation 2006	BCA, Queensland Development Code (QDC)
SA	Department of Planning and Local Government	Development Act 1993	Development Regulations 2008	BCA, South Australian Housing Code 2002
TAS	Department of Justice - Workplace Standards Tasmania	Building Act 2000	Building Regulations 2004	BCA
VIC	Building Commission Victoria	Building Act 1993	Building Regulations 2006	BCA
WA⁶	Building Commission	Local Government (Miscellaneous Provisions) Act 1960 Parts VIII, IX and XV	Building Regulations 1989	BCA

⁵ In NSW, BASIX is applied to dwellings through the Environmental Planning and Assessment Act and Regulation referenced in this Table.

⁶ In WA, major reforms to building laws are currently being progressed through the WA Parliament and are expected to commence operation in 2011. These bills are: Building Bill 2010, Building Services (Regulation) Bill 2010 and Building Services (Complaints Resolution and Administration) Bill 2010.

POLICY FRAMEWORK

NatHERS is encompassed within two whole of government policy frameworks. The first is the NFEE⁷; a comprehensive package of measures covering the residential, commercial and industrial sectors, designed to overcome the barriers and challenges that prevent the market delivering the actual economic potential of energy efficiency. The second is the NSEE⁸ which incorporates and builds on measures in the NFEE, aiming to substantially improve standards for energy efficiency and accelerate the introduction of new technologies through improving regulatory processes and addressing the barriers to the uptake of new energy efficient products and technologies. A more detailed outline of relevant measures is described in Table 2.0.

Table 2.0

Policy	Measure
National Framework for Energy Efficiency (NFEE) ⁷	
2004 - Stage 1	Nationally consistent minimum standards adopted and enhanced over time with nationally consistent 5-star standards for all homes adopted in all jurisdictions. To set improving levels of minimum energy efficiency design standards for new construction including alterations and additions for residential and commercial buildings, and ensure credible and meaningful information is publicly and readily available to potential purchasers and renters/lessees on the relative energy performance of buildings.
2007 - Stage 2	Continuation of NatHERS. Objective of the Buildings Implementation Committee (BIC) is to develop and implement appropriate software tools to rate the energy performance of buildings.
National Partnership Agreement on Energy Efficiency	
2009 ⁹	Higher energy efficiency standards to deliver substantial growth in the number of highly energy efficient homes and buildings, and provide a clear roadmap to assist Australia's residential and

⁷ Source: <http://www.ret.gov.au/Documents/mce/energy-eff/nfee/committees/buildings/default.html>

⁸ Source: http://www.coag.gov.au/coag_meeting_outcomes/2009-07-02/docs/Energy_efficiency_measures_table.pdf

⁹ Source: http://www.coag.gov.au/coag_meeting_outcomes/2009-07-02/docs/NP_energy_efficiency.pdf

	commercial building sector to adapt to a low carbon economy.
National Strategy on Energy Efficiency (NSEE)	
2009 ⁸	<p>The NSEE is constructed around 4 themes. NatHERS sits within the theme ‘Making buildings more energy efficient’ and is related to the following measures:</p> <p>1.2.2 – Strengthen national capability in energy auditing and assessment.</p> <p>3.1.1- All jurisdictions will work together to develop a consistent outcomes-based national building energy standard setting, assessment and rating framework for driving significant improvement in the energy efficiency of Australia’s building stock. To be implemented in 2011.</p> <p>3.3.1 - Significantly increase the stringency of energy efficiency provisions for all new residential buildings in the Building Code of Australia (BCA) and broaden coverage of efficiency requirements. Minimum energy efficiency standards will be upgraded nationally to 6-stars or equivalent in the 2010 update of the BCA – to be implemented by May 2011 and reviewed regularly for potential upgrade thereafter.</p>

MANAGEMENT OF THE SCHEME

Steering Committee

Policy direction on NatHERS is provided by the Energy Efficiency Working Group (E2WG) under the Ministerial Council on Energy (MCE) which includes representatives from all States and Territories as well as the Commonwealth.

Key decisions are referred to E2WG including agreement on the national benchmark tool, star banding and the accreditation of software ([Attachment A](#)).

E2WG also provides policy advice for the Scheme and supports the work of the ABCB to develop and implement energy efficiency standards for buildings, including rating tools. The role of E2WG is outlined in its terms of reference ([Attachment B](#)).

Development and implementation of the NFEES work program is delivered by the NFEES Buildings Implementation Committee (BIC), a sub-committee of the E2WG.

The BIC is tasked by E2WG to develop and implement improvements to the Scheme to facilitate consistent and repeatable ratings of the energy performance of buildings suitable for regulatory purposes. Terms of reference of the BIC are at [Attachment C](#).

Technical Advisory Committee

The development of NatHERS, particularly second generation software tools, was informed by specialist advice provided by a NatHERS Technical Advisory Committee consisting of State and Territory officials, scientists, software developers and industry representatives. The role of the Committee has included the provision of guidance on a range of technical issues including software functionality, modelling procedures, work plan prioritisation and new technology and product evaluation. The National Administrator issued a call for members of the 2011/2012 software Technical Advisory Committee subject to an expression of interest in January/February 2011.

National Administrator

The role of NatHERS National Administrator was adopted by the Australian Greenhouse Office on behalf of the E2WG and has followed the transfer of functions from the AGO to the Department of Environment, Water, Heritage and the Arts in 2007 and to the Department of Climate Change and Energy Efficiency in 2010.

The role of National Administrator has varied over time and includes activities such as:

- Funding of activities (in addition to work funded through NFEE)
- Research and development
- Project management
- Communication to industry, government and consumer stakeholders
- Administration activities such as budget, government coordination, workshop coordination
- Industry liaison and public point-of-contact
- Protocol and procedure development and coordination
- Software accreditation procedures
- Website development and maintenance

STAKEHOLDERS

Table 3.0 shows the roles of key stakeholders in NatHERS, and a brief analysis of their areas of interest. These interests inform the priority outcomes of the Scheme.

Table 3.0

Stakeholder	Roles	Interests
Commonwealth Government	<ul style="list-style-type: none"> - National Administrator for NatHERS - National EE Policy - NSEE implementation 	<ul style="list-style-type: none"> - Flexibility for industry/consumers to achieve regulated minimum EE standards - Climate sensitive design - Integrity of Scheme - Use of tools to estimate impact of EE

		<ul style="list-style-type: none"> - policy on residential sector - Assessor acceptance of Scheme - Consumer acceptance of Scheme
State and Territory Governments	<ul style="list-style-type: none"> - Building energy regulation - EE policy - NSEE implementation 	<ul style="list-style-type: none"> - Consistent use of tools to achieve minimum EE standards in new building work - Integrity and responsiveness within the Scheme - Quality, reliability and validity of assessments and ratings - Suitability of rating tools for regulatory purposes - Climate sensitive design - Consumer understanding of ratings - Use of tools to estimate impact of EE policy on residential sector
Australian Building Codes Board	<ul style="list-style-type: none"> - Development of BCA 	<ul style="list-style-type: none"> - Flexibility for industry/consumers to achieve regulated minimum EE standards - Reliability of ratings and suitability of rating tools for regulatory purposes - Use of tools to estimate costs and benefits of future BCA measures
CSIRO	<ul style="list-style-type: none"> - Benchmark software development - Validation of benchmark tool - Thermal performance research - Expert advice on thermal performance 	<ul style="list-style-type: none"> - Reliability and validity of ratings - Integrity of benchmark software - Industry acceptance of the benchmark software - Responding to emerging products and industry needs
Product manufacturers	<ul style="list-style-type: none"> - Supply of products to building industry - Practical application of EE policy - 'Real world' testing of software - Provision of expert advice about product 	<ul style="list-style-type: none"> - Reliability and validity of ratings - Transparency of research and analysis - Accurate reflection of product in software
Research institutions	<ul style="list-style-type: none"> - Research and development - Thermal performance research 	<ul style="list-style-type: none"> - Competitive funding for research activities - Transparency of research and analysis - Validation of ratings - Use of tools to estimate impact of EE policy on residential sector
Software developers	<ul style="list-style-type: none"> - Software development - Expert advice on thermal performance 	<ul style="list-style-type: none"> - Transparency of research and analysis - Reliability and validation of ratings - Fair process for validation of software - Advance planning for changes to Scheme - Competitive funding for research

		activities
Assessors	<ul style="list-style-type: none"> - Undertake NatHERS ratings for new building work - Expert advice for building design to achieve good thermal performance - Education of consumers 	<ul style="list-style-type: none"> - Reliability and validation of ratings - Advance planning for changes to Scheme - Useability of software - Integrity of Scheme - Consumer acceptance of Scheme - Qualification and training of assessors - Quality assurance and auditing
Assessor Accrediting Organisations	<ul style="list-style-type: none"> - Assessor support - Access to continuing professional development 	<ul style="list-style-type: none"> - Quality assure assessments - Maintain a complaints handling procedure
Designers/Architects/Builders	<ul style="list-style-type: none"> - Work with assessors to produce the required/desired level of thermal performance 	<ul style="list-style-type: none"> - Reliability of ratings - Understanding to what degree design elements and materials change star ratings
Building certifiers	<ul style="list-style-type: none"> - Work with practitioners to assess the required level of performance - Assess compliance with building performance standards 	<ul style="list-style-type: none"> - Reliability of ratings - Interpretation/transparency of assessments - Understanding to what degree design elements and materials change star ratings
Consumers	<ul style="list-style-type: none"> - Purchase of new buildings - Influence new building design - Pay operating costs for new buildings - Provide feedback to governments 	<ul style="list-style-type: none"> - Reliability and validity of ratings - Cost impact of Scheme - Demonstration of EE benefits - Understanding intention of Scheme - Flexibility in options for home design

ASSESSORS

NatHERS assessors use house energy rating tools, which comply with the NatHERS software accreditation protocol, to assess the predicted thermal performance of planned residential buildings and major extensions as part of a whole of house rating, on a scale of zero to ten stars. Information is gathered about the building shell from building plans/drawings and other specifications at the design stage. As the public is becoming increasingly more interested in making their houses energy efficient, NatHERS assessors can also be called on to provide ratings of existing building stock and advise on improvement possibilities to the existing building shell.

NatHERS assessors need to have sufficient knowledge and expertise of residential buildings and materials that make up the building shell to be able to provide analysis and options for improving building thermal performance to householders, designers, architects and builders. Other skills and knowledge identified as important for the NatHERS assessor include compliance with regulation, customer service, computer literacy, Occupational Health and Safety and ethical behaviour.

Qualifications

The only recognised course for NatHERS assessors is the NSW accredited Vocational Education and Training Accreditation Board (VETAB) Short Course in Building Thermal Performance Assessment (Residential).

This course is currently being taught by Registered Training Organisations and takes approximately four days; two days for theory and two days for software application (BersPro, FirstRate 5 or AccuRate). Course materials for the theory component, and in training for the benchmark software were funded and are owned by the Australian Government. RTOs are licensed (free of charge) by the National Administrator to deliver the course ([Attachment D](#)).

The Course in Building Thermal Performance (Residential) is due for re-accreditation on 25 September 2011. In advance of the date of re-accreditation, the National Administrator funded a scoping study by the Construction and Property Services Industry Skills Council to investigate the skills and qualification requirements for NatHERS assessors. The scoping study was completed in September 2010 and BIC subsequently agreed to proceed with the development of a national qualification for NatHERS assessors. This process is expected to be completed at the end of 2011.

Accreditation

Accreditation or licensing requirements for assessors are determined by State and Territory Governments and vary across jurisdictions. There are approximately 2000 assessors that use NatHERS in Australia and approximately 450 are nationally accredited through an Assessor Accrediting Organisation (AAO). Table 4.0 describes assessor accreditation requirements.

Table 4.0

Jurisdiction	Accreditation
NSW	ABSA is accredited by Department of Planning through BASIX
VIC	Building Designers Association of Victoria (Victorian AAO) or ABSA
TAS	None required
ACT	Licensing (commencing March 2011 to replace current registration system)
NT	Refers to Protocol for AAO as good practice guideline
QLD	Refers to Protocol for AAO as good practice guideline
WA	ABSA
SA	Registration only required (based on software training certificate completion)

Assessor Accrediting Organisations

Requirements of national AAOs are outlined in the NatHERS Protocol for Assessor Accrediting Organisations¹⁰ Formal roles and responsibilities of AAOs under the Scheme include:

- Assessor support
- Providing access to Continuing Professional Development (CPD)
- Maintaining a quality assurance process for assessments

¹⁰ Source: nathers.gov.au

- Maintaining a complaints handling procedure
- Delivery of an annual report outlining:
 - Up to date list of accredited assessors
 - Summary of Quality Assurance processes undertaken
 - Financial statement
 - Changes to the accreditation process
 - Changes to the structure of the organisation (AAO)
 - A statement of compliance with the Protocol

Organisations may apply to become a nationally accredited NatHERS AAO in accordance with the agreed protocol published on the NatHERS website. The process of accrediting AAOs is shown at [Attachment E](#). To date, the Association of Building Sustainability Assessors (ABSA) is the only nationally accredited AAO for NatHERS.

Victoria has developed its own Protocol for accrediting AAOs, with strong similarities to the NatHERS AAO Protocol, but with differing requirements in relation to the automatic screening of certificates for auditing purposes. To date, the Building Designers Association of Victoria (BDAV) is the only Victorian accredited AAO (in addition to ABSA operating as a nationally approved AAO in Victoria).

SOFTWARE

First Generation NatHERS software

The development of the first generation of NatHERS by CSIRO began in the early 1990s, based on years of previous research in simulating heat flows in residential buildings. The original software tool (which was also known as NatHERS) formed the basis of the national rating scheme and was adopted in 2003 as the benchmark simulation tool for compliance to newly established BCA energy efficiency regulations.

Sustainability Victoria (then known as Energy Victoria) developed and released the initial version of FirstRate in 1993, based on simulations performed in CHEETAH, CSIRO's precursor to the NatHERS tool. In 1999, FirstRate was modified to use the settings and assumptions in the NatHERS Scheme.

BERS was initially developed in the early 1990s based on the CHEETAH and then NatHERS calculation engines.

Second Generation NatHERS software

In 2006, NatHERS was improved to require more powerful second generation of software tools to enable better modelling of thermal comfort across all Australian climates. Improvements to the software included more realistic modelling of the benefits of natural ventilation and the cooling effects of ceiling fans, heat flows in underfloor and roof spaces and between attached dwellings, and the inclusion of a greatly expanded base of climate data. The older and more limited software tools were phased out from 2007, and were superseded by second generation software in the 2009 BCA.

Chenath Engine

Chenath is the endorsed calculation engine used by the national benchmark software tool (AccuRate) to model thermal flows within residential buildings. This model has been developed over decades of research by CSIRO and the Australian Government. CSIRO own the intellectual property

to Chenath, but was required to provide a license to all Australian Governments, and to third party software developers for its use.

In 2005, the calculation engine was substantially upgraded to incorporate modelling calculations that reflect the increased computing capacity of modern computers, enabling improved modelling of heat flows and human comfort. The revised engine was incorporated into the first commercial release of the approved benchmark software, AccuRate, in 2006.

Benchmark software

AccuRate is the NatHERS benchmark software for energy rating in Australia. The software was developed by the CSIRO and funded by Australian Governments through NFEF. CSIRO own the intellectual property to both the Chenath calculation engine and the AccuRate interface.

The annual energy loads¹¹ and associated star bands¹² contained within AccuRate were approved by the E2WG. Unique star bands are set for each climate zone to allow comparison of the typical heating and cooling energy demand of buildings within Australia's diverse climatic regions. The heating and cooling energy demand, or energy load, is expressed as the maximum energy consumption per unit area per annum (MJ/m².annum) for each half star level. These star band settings apply to all software tools approved under the Scheme¹².

Accreditation of alternative software

NatHERS allows for competing software products to be accredited for use in the Scheme by providing a fair and transparent process for commercial software tools to be assessed (Attachment F). This process is based upon a comparison of results against the benchmark figures. All software tools are required to assess the same minimum set of design features, and must produce ratings consistent with the benchmark tool.

Two additional software tools are currently used within NatHERS – FirstRate 5 and BERS Professional. Both tools provide alternative user interfaces to enable user-oriented input of building design data into the Chenath engine.

Accredited versions of NatHERS software

Table 5.0

Software	Version	Accreditation
AccuRate	Version 1.1.4.1	Accredited May 2006
BERS Professional	Version 4.1	Provisional accreditation, granted 8 November 2007, due to expire 31 March 2011
FirstRate 5	Version 5.0 Build 215	Provisional accreditation, granted 31 August 2007, due to expire 31 March 2011

¹¹ The energy demand for heating and cooling per square metre per annum.

¹² Source: <http://nathers.gov.au/about/settings.html>

Software approved for regulatory use

Allowable software for rating new building work in accordance with the BCA varies across jurisdictions. Table 6.0 lists the NatHERS software tools currently used.

Table 6.0

Jurisdiction	Tools approved for use
NSW	AccuRate, FirstRate 5, BERS Pro + BASIX (FR5 not used for apartments)
VIC	AccuRate, FirstRate 5, BERS Pro
TAS	AccuRate, FirstRate 5, BERS Pro
ACT	AccuRate, FirstRate 5, BERS Pro
NT	AccuRate
QLD	AccuRate, FirstRate 5, BERS Pro
WA	AccuRate, FirstRate 5, BERS Pro
SA	AccuRate, FirstRate 5, BERS Pro

COMMUNICATION

The main form of communication with stakeholders is through the NatHERS website (www.nathers.gov.au) which is currently maintained by the National Administrator. The Scheme is referenced on other websites including those of State and Territory Governments, industry organisations, assessors and building regulatory authorities.

Information about NatHERS is also communicated through fact sheets¹³, in response to requests for information, through conference presentations and journal articles.

AGREED PROTOCOLS

Existing protocols and procedures of the Scheme are:

- Protocol for Assessor Accrediting Organisations (DCCEE)¹⁴
- Procedure for accrediting software under the NatHERS (DCCEE)¹⁴
- NatHERS Software User's Guide Version 10.3 (under development for completion in 2011)
- Protocol for House Energy Rating Software Version 2006.1 (ABCB)¹⁵

¹³ See: www.climatechange.gov.au/en/what-you-need-to-know/buildings/homes/~/media/publications/buildings/nationwide-home-energy-rating-scheme.ashx

¹⁴ Source: nathers.gov.au

¹⁵ Source: abcb.gov.au

FUNDING ARRANGEMENTS

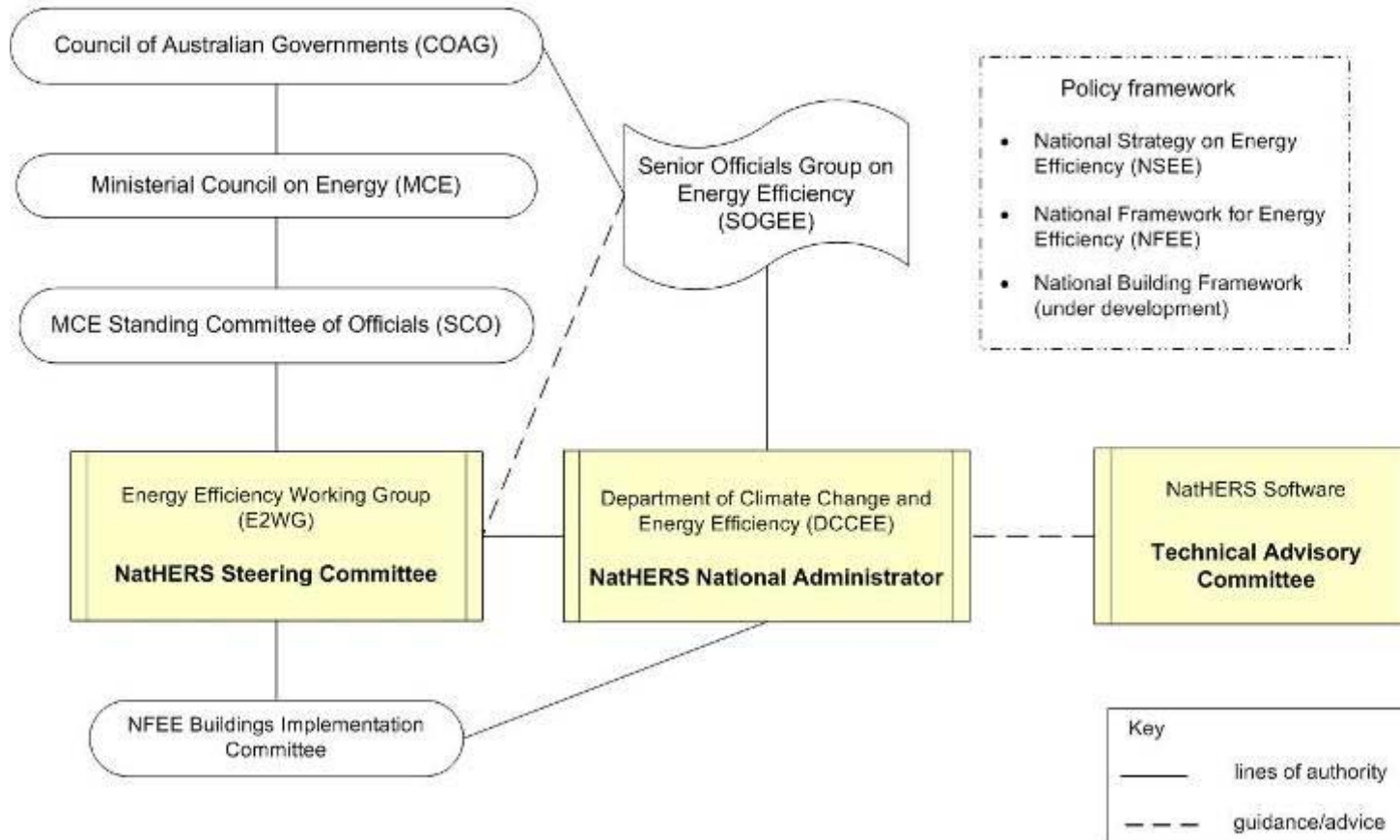
Funding for ongoing support and maintenance of both the Scheme and the benchmark software is currently obtained from the following sources:

- Departmental funding from DCCEE. Allocation of resources for NatHERS is subject to annual appropriation and budget priorities throughout the Department.
- Funding from NFEE to support the delivery of relevant NSEE measures. BIC develops annual work plans and budgets for approval by E2WG and the Ministerial Council on Energy's Standing Committee of Officials.
- Software licensing. Royalties from sales of the benchmark software are returned to CSIRO for re-investment in NatHERS related work.
- CSIRO investment. Research in developing building thermal performance analysis tools have been funded by the CSIRO. CSIRO has also absorbed additional costs associated with ad-hoc software support and maintenance tasks.

Direct industry investment is not currently permitted for the benchmark software or Scheme to ensure that the software is developed and maintained free from commercial influence.

Modifications to software are made where robust evidence supports such a change. In some instances these modifications are made in response to evidence from research studies funded by industry investment.

NatHERS Management Arrangements



ENERGY EFFICIENCY WORKING GROUP (E2WG)

Terms of Reference*

Objectives/Outcomes

The Energy Efficiency Working Group is to provide strategic advice through the Standing Committee of Officials to the Ministerial Council on Energy regarding energy efficiency policy and program delivery. The objective of these policies and programs is to significantly enhance end-use energy efficiency in the Australian economy and improve the information available to consumers to support their decision-making processes. This will be achieved through coordinated action by Commonwealth, State, and Territory Government agencies. The Group will also monitor and provide advice on the economic and greenhouse benefits of reducing energy consumption.

Tasks

Each task undertaken by E2WG will be managed on a project basis, with objectives, outcomes, outputs and timeframes clearly identified.

Specifically, the Group will undertake the following priority tasks:

- Provide strategic advice on energy efficiency policy and program delivery to enhance energy efficiency and the provision of consumer information. Tasks will include:

Development of a National Framework on Energy Efficiency to achieve a sustained, measurable improvement in Australia's energy efficiency.

Oversight the policy direction and support implementation of energy efficiency standards for buildings including rating tools (eg AccuRate and ABGRS).

Oversight the exchange of information on government energy management programs.

Strategic oversight of the National Appliance and Equipment Energy Efficiency Program to deliver cost effective energy efficiency and greenhouse emissions savings through MEPS and labelling programs.

Oversight implementation of the MCE Indigenous Action Plan to meet the objectives of COAG's indigenous reconciliation framework.

Co-ordinate relevant Australian and New Zealand energy efficiency policies and programmes affecting trans Tasman trade in energy goods and services.

Reporting

The Working Group reports to the Ministerial Council on Energy through the Standing Committee of Officials. It will furnish reports at least annually, and more often as required, to SCO on its tasks and general operations. Reports are to include the status of activities and expenditure, an assessment of whether further work is required and, if so, proposed work programs and budgets.

Consultation

The E2WG will consult with other working groups as needed in the performance of its tasks. It will also develop and implement arrangements for consultation with and involvement of other government agencies, business and consumer interests as required in carrying out its work.

Composition

The E2WG will comprise senior officials from each Australian jurisdiction and New Zealand who have policy and national program responsibility for energy efficiency.

Each jurisdiction will determine its own representation consistent with meeting the needs of the Standing Committee of Officials

* to be revised in 2011

Attachment C

Energy Efficiency Working Group NFEE Stage One Implementation Group – Terms of Reference

Buildings Implementation Group

Approved by E2WG, February 2005.

Purpose

The purpose of this Terms of Reference document is to set out the function, membership, operation and reporting requirements of the Buildings Implementation Group.

Background

The Energy Efficiency Working Group (E2WG) is responsible for providing strategic advice on energy efficiency policy and program delivery through the Standing Committee of Officials (SCO) to the Ministerial Council on Energy (MCE).

In November 2002, the Ministerial Council on Energy (MCE) agreed to development of a National Framework for Energy Efficiency (NFEE) to define future directions for energy efficiency policy and programs in Australia by unlocking the significant but untapped economic potential associated with the increased uptake of energy efficient technologies and processes across the Australian economy. In August 2004, MCE agreed to a comprehensive package of measures constituting Stage One of NFEE. Detailed Implementation Plans for these eight measures, for the period 2005-07, were agreed by MCE in December 2004. In August 2004, MCE also noted that Stage Two policy measures will be presented for consideration after the Productivity Commission has completed its inquiry into energy efficiency in mid-2005.

E2WG is responsible for implementing NFEE, and has established 6 groups with representatives across all jurisdictions for that purpose. The groups are responsible for delivery of MCE agreed Implementation Plans:

- Buildings Group – responsible for the Residential and Commercial buildings policy packages;
- Energy Efficient Appliances and Equipment Group - responsible for electrical and gas products;
- Industrial and Commercial Group – energy efficiency opportunities assessment and sector capacity building;
- Government Energy Management Group – responsible for demonstrating government leadership in energy efficiency practices and initiatives;

- General Capacity Building Group – responsible for general consumer capacity building, trade and professional training and accreditation, and finance sector awareness; and
- NFEE Steering Committee – responsible for monitoring, reporting and communicating the overall progress of NFEE Stage One and the development of options for NFEE Stage Two.

Work Program, Establishment and Cessation

The work program and duration of the Buildings Group are outlined in the attached Implementation plan.

Functions and Responsibilities

The function of the Buildings Group is to:

- Coordinate the national implementation of the Residential and Commercial Building Package – see **Attachment A**;
- Develop annual work plans & budget for approval by E2WG, in accordance with the policy package;
- Control expenditure within the allocated budget & financial reporting;
- Appoint contractors or consultants to undertake elements of the implementation plan as required;
- Provide progress reports for E2WG, SCO & MCE, as required;
- Identify issues that require a decision by E2WG, SCO & MCE and refer these upwards for action.

The objective of this NFEE implementation plan is to: set improving levels of minimum energy efficiency design standards for new construction including alterations and additions for residential and commercial buildings, and ensure credible and meaningful information is publicly and readily available to potential purchasers and renters/lessees on the relative energy performance of buildings. Refer to the attached Implementation plan for more detail.

Membership (see Attachment B)

The Australian Greenhouse Office will provide the Chair and Secretariat for the Buildings Group.

Membership of the Buildings Group is open to government officials from energy or greenhouse agencies and building regulators or their nominated representative, and will include a representative from the NFEE Steering Committee. Membership is to be drawn from all jurisdictions.

Members of E2WG or the NFEE Steering Committee are entitled to participate at meetings of the Buildings Group.

The Chair may invite the participation of other relevant government stakeholders or advisers as needed to meet the Group's Terms of Reference. Such participants will have observer status in the Group.

All organisations participating in the Buildings Group will do so at their own expense.

Role of the Chair / Secretariat

The role of the Chair and Secretariat of this group is to:

1. Invite all jurisdictions to nominate for membership of the Buildings Group;
2. Maintain a list of the current members of the Buildings Group and their contact details;
3. Arrange and run meetings of the Buildings Group and any associated working groups, and produce meeting notes for circulation to members;
4. Project manage the implementation of the Residential and Commercial Building Package;
5. Project manage any contractors or consultants that are commissioned to implement elements of the work plan;
6. Administer the budget and provide financial reports, including expenditure and forecasts of spending, into E2WG's quarterly Budget Report for the Central Fund;
7. Provide timely input into E2WG's quarterly Implementation Progress ('traffic light') reports;
8. Prepare Agenda Papers relating to the work of the Group for E2WG, SCO or MCE, as required;
9. Attend E2WG meetings when requested to provide verbal reports and discuss strategic direction with E2WG.

Role of Sub-group and Convenor

A sub-group may be established to ensure timely implementation of specific components of the Group's activities. The sub-group will be led by a Convenor who will be responsible for implementing tasks and responsibilities agreed with the Chair of the Buildings Group.

Meetings and Reporting

The Buildings Group reports to the Energy Efficiency Working Group (E2WG), which in turn reports to the MCE via the Standing Committee of Officials (SCO).

The Buildings Group will convene at least twice per year, and as required to discharge its terms of reference.

An Agenda and Agenda Papers will be prepared prior to each meeting, and circulated to all members at least 1-week prior to a scheduled meeting.

Decisions made by the Group will be on the basis of consensus.

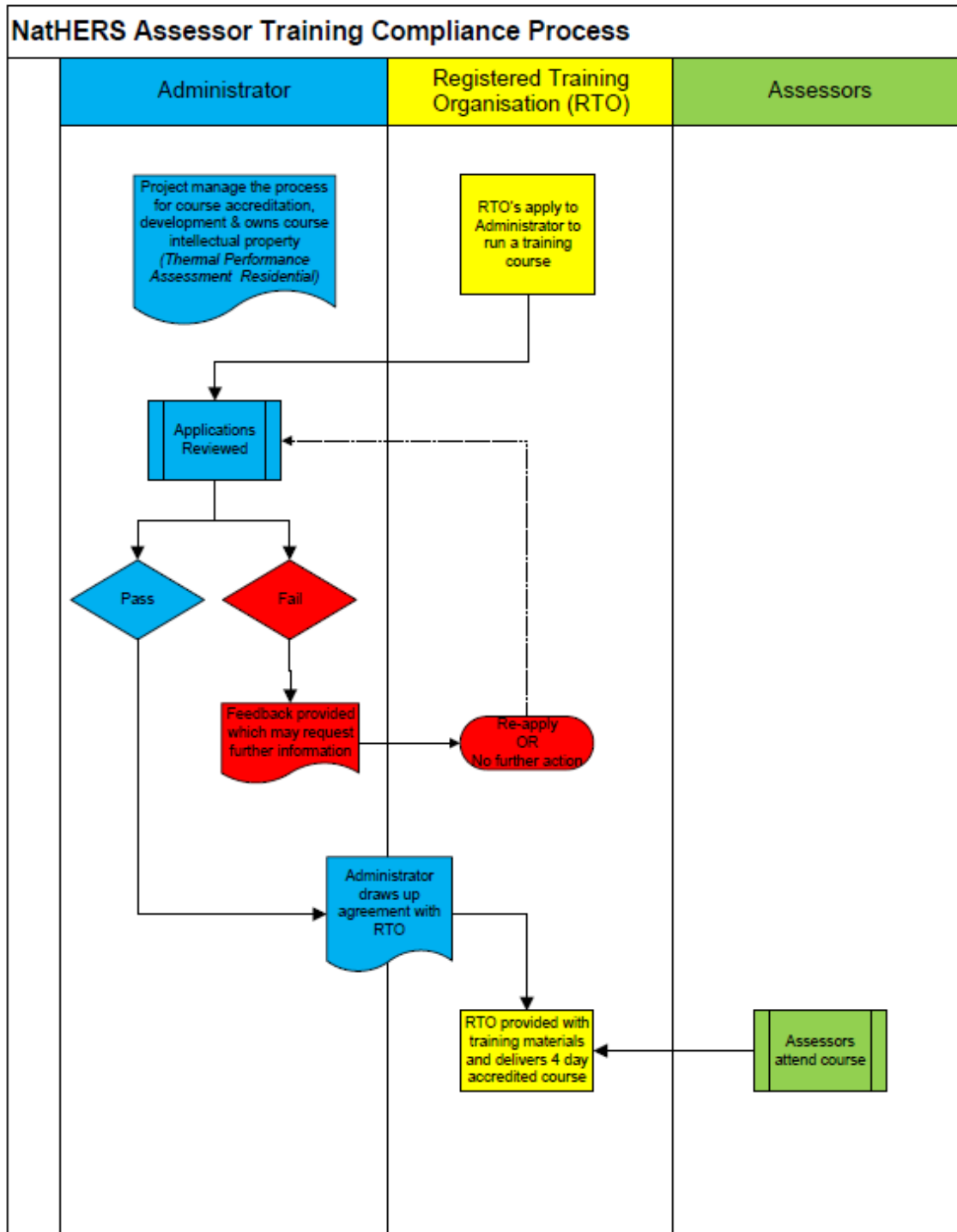
The Secretary will prepare Minutes from each meeting – setting out main issues discussed, decisions and action items – and circulate to all members within two weeks of each meeting.

Outcomes and Performance Review

Progress on evaluation activities under the Implementation Plan will be reported annually to E2WG.

Attachments

- A: Implementation Plan (Refer to latest Work Plan and Project Plans)
- B: Membership List (Refer to latest contact list)



Legend

