

Scoping Study: Skill and qualification requirements of NatHERS and RBMD assessors

October 2010



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Foreword

This report describes the outcomes of the scoping study of the skill and qualification requirements of the Nationwide House Energy Rating Scheme (NatHERS) and the proposed Residential Building Mandatory Disclosure (RBMD) assessors.

The report comprises seven key sections.

- Section one is an executive summary
- Section two outlines the background to the scoping study
- Section three sets out the objectives of the scoping study
- Section four details the project deliverables
- Section five describes the scoping study methodology
- Section six outlines the key findings of the scoping study
- Section seven identifies a set of recommendations based on the findings of the scoping study

1 Executive summary

In May 2010, the Department of Climate Change and Energy Efficiency (DCCEE), commissioned the Construction and Property Services Industry Skills Council (CPSISC) to undertake a scoping study on the skill and qualification requirements of individuals conducting energy related assessments under the existing Nationwide House Energy Rating Scheme (NatHERS) and the proposed Residential Building Mandatory Disclosure (RBMD) scheme.

At present, training for NatHERS assessors is provided through the NSW State accredited course titled, the *Course in Building Thermal Performance (Residential)*. This course is due for re-accreditation in September 2011.

Governments are currently discussing how to implement the Council of Australian Governments (COAG) agreement to require homes to disclose energy performance at the time of sale or lease. The methodology for how this measure will be delivered is still under discussion and there is currently no decision on the tools that will be used. Use of NatHERS is one of a number of possible options, which will be assessed on the basis of cost-effectively delivering the best information to consumers.

The scoping study, which was designed to lay the foundation for the development of new nationally recognised qualifications for both NatHERS and RBMD assessors, found that:

- The primary job function of NatHERS assessors is to conduct thermal performance assessments of planned residential buildings. However the scope of work of NatHERS assessors is broadening with some advanced practitioners, and those in jurisdictions with programs for existing buildings, using NatHERS software to assess the thermal performance of existing residential buildings and others providing builders, building designers and architects with analysis and options for improving the thermal performance of new buildings during the building design process.
- There is a strong case for two levels of qualifications for NatHERS assessors. One qualification that is focused on developing the technical and generic competencies required to conduct assessments of planned residential buildings and a qualification for advanced practitioners that addresses matters such as: assessing residential buildings with complex design features, assessing the thermal performance of existing buildings, and providing advice on thermal performance to other building professionals during the building design stage.
- There is a significant overlap in the competency requirements of NatHERS, RBMD and home sustainability assessors.
- There is scope for the development of an integrated set of qualifications for NatHERS, RBMD and home sustainability assessors.

The qualifications for NatHERS and RBMD assessors outlined in this report will:

- provide recognition for the skills possessed by NatHERS and RBMD assessors
- offer a level of quality assurance for organisations employing or contracting NatHERS and RBMD assessors
- provide a safeguard for the public who use the services of these assessors
- provide a basis for regulation of assessors if required by governments
- link with the recently developed *Certificate IV in Home Sustainability Assessment* so that a unified suite of qualifications is available for individuals working in the field

To this end this report sets out:

- the job functions of RBMD and NatHERS assessors
- the competencies and associated qualifications and skill sets for RBMD and NatHERS assessors
- a pathway forward for the development of nationally endorsed qualifications for RBMD and NatHERS assessors
- an examination of the links between the *Certificate IV in Home Sustainability Assessment* and the qualifications for RBMD and NatHERS qualifications
- a pathway for the transition of NatHERS assessors to the new qualification
- an interim qualification solution enabling assessors to be trained, if necessary, before the completion of the full RBMD qualification.

The report recommends that the DCCEE:

1. Notes the report of the scoping study on the skill and qualification requirements for NatHERS and RBMD assessors.
2. Proceeds with the qualification development for NatHERS assessors.
3. Proceeds with the development of the interim skill set for RBMD assessors.
4. Proceeds with the qualification development for RBMD assessors when the details of the scheme and the associated requirements for assessors are clarified.

2 Background

In May 2010, the Department of Climate Change and Energy Efficiency (DCCEE), commissioned the Construction and Property Services Industry Skills Council (CPSISC) to undertake a scoping study on the skill and qualification requirements of individuals conducting energy related assessments under the existing Nation-wide House Energy Rating Scheme (NatHERS) and the proposed Residential Building Mandatory Disclosure (RBMD) scheme.

The findings of this study will inform the development of nationally recognised qualifications for NatHERS and RBMD assessors.

NatHERS was developed cooperatively, endorsed by all Australian Governments and is designed to encourage improvements in the energy performance of buildings through the use of thermal performance assessments. Through this scheme, trained assessors use one of a range of NatHERS accredited software tools to calculate the theoretical heating and cooling energy load on planned new residential buildings and major extensions to residential buildings. This is done by modeling the effects of heat flow through the building fabric and air movement on internal comfort conditions. It is estimated that in NSW and Victoria combined over 40,000 residential building thermal performance assessments are conducted annually.

Training to become a NatHERS assessor is provided through a State accredited course. The *Course in Building Thermal Performance Assessment (Residential)* is accredited by the Vocational Education and Training Accreditation Board (VETAB) in NSW and is due for re-accreditation in September 2011. Satisfactory completion of this course is a requirement to become accredited with an Assessor Accrediting Organisation and to become a NatHERS assessor in most states and territories. The DCCEE is responsible for the implementation of certain measures outlined in the National Strategy on Energy Efficiency (NSEE) that was agreed by the Council of Australian Governments (COAG) in July 2009. Amongst other things, the NSEE includes provision for commercial and residential mandatory disclosure.

Governments are currently discussing how to implement the COAG agreement to require homes to disclose energy performance at the time of sale or lease. The methodology for how this measure will be delivered is still under discussion and there is currently no decision on the tools that will be used, noting that one current scheme (ACT) does use NatHERS assessments. Use of NatHERS is one of a number of possible options, which will be assessed on the basis of cost-effectively delivering the best information to consumers.

The introduction of mandatory disclosure, which is underpinned by a commitment to strengthening national capability in energy auditing and assessment (measure 1.2.2), will create demand for qualified and well trained assessors. However at this stage there is no nationally recognised training program for assessors undertaking RBMD assessments.

More recently, the DCCEE, through the former Department of the Environment, Water Heritage, and the Arts (DEWHA), sponsored the development of a nationally recognised qualification for Home Sustainability Assessors. This qualification, the *Certificate IV in Home Sustainability Assessment*, has recently been submitted to the National Quality Council (NQC) for endorsement. Once endorsed, the qualification will be placed on the National Training Information System (NTIS) and will be available for delivery through private and public Registered Training Organisations (RTOs). It was envisaged that some of the units of competency that comprise this nationally recognised qualification may be relevant for both NatHERS and RBMD and assessors.

It is against this background that the DCCEE, in consultation with the National Framework for Energy Efficiency Training and Accreditation Committee (NFEE TAC), commissioned the CPSISC, to undertake a scoping study on the skill and qualification requirements of NatHERS and RBMD assessors.

It is envisaged that the outcomes of this study will inform the development of nationally recognised qualifications for NatHERS and RBMD assessors that will:

- provide recognition for the skills possessed by NatHERS and RBMD assessors
- offer a level of quality assurance for organisations employing or contracting NatHERS and RBMD assessors
- provide a safeguard for the public who use the services of these assessors
- link with the recently developed Certificate IV in Home Sustainability Assessment so that a unified suite of qualifications is available for individuals working in the industry.

3 Objectives of the scoping study

The objectives of the scoping study were to:

- identify the job functions of RBMD and NatHERS assessors
- identify the competencies and associated qualifications and skill sets for RBMD and NatHERS assessors
- determine a pathway forward for the development of nationally endorsed qualifications for RBMD and NatHERS assessors
- examine whether the *Certificate IV in Home Sustainability Assessment* may provide the basis for the development of RBMD and NatHERS qualifications
- recommend a pathway for the transition of NatHERS assessors to the new qualification
- recommend an interim qualification solution enabling assessors to be trained, if necessary, before the completion of the full RBMD qualification.

4 Deliverables

The deliverables from the scoping study were:

- initiation workshop, including commonwealth, state and territory governments to discuss scoping methodology in the proposal
- consultation with commonwealth, state and territory representatives, relevant industry bodies and stakeholders
- a draft report
- a final report outlining findings of the consultations, including:
 - recommendations of the methodology
 - work breakdown structure
 - timeframes
 - cost to develop the nationally endorsed qualification(s).

5 Scoping study methodology

The scoping study methodology developed by CPSISC involved six key stages:

- *Establish project.* The project team, which comprised the CPSISC project manager and the CPSISC consultant, met with representatives of the DCCEE and NFEETAC to confirm the project methodology in May 2010.
- *Conduct environmental scan of issues impacting on qualifications for NatHERS and RBMD assessors.* The project team then conducted an environmental scan of the issues impacting on the skill and qualification requirements of NatHERS and RBMD assessors. This included an examination of key documentation and a limited range of key respondent interviews (see Appendix 1). The information gathered through the environmental scan was used to develop an initial Discussion Paper (nathers.gov.au) which provided the focus for a national workshop that was held in Canberra on June 22.

This paper canvassed five key matters:

- scope of work of NatHERS and RBMD assessors
 - key work functions of NatHERS and RBMD assessors
 - critical knowledge requirement of NatHERS and RBMD assessors
 - competency framework for NatHERS and RBMD assessors
 - qualifications for NatHERS and RBMD assessors.
- *Conduct national workshop.* The DCCEE convened a one day national workshop in Canberra to consider the discussion paper. Participants at the workshop (see Appendix 2) included representatives from:
 - DCCEE
 - state and territory sustainability agencies
 - state and territory industry regulators and licensing agencies
 - NFEETAC
 - National Framework for Energy Efficiency Building Implementation Committee (NFEETAC BIC)
 - Housing Industry Association
 - Real Estate Institute of Australia
 - Building Designers Association of Australia
 - Australian Institute of Building Surveyors
 - Australian Valuers Institute
 - Australian Sustainable Built Environment Council
 - Association of Building Sustainability Assessors
 - Queensland, Australian Capital Territory and NSW assessor organisations
 - Industry Training Advisory Bodies

The CPSISC consultant facilitated the workshop and produced a report on the outcomes of the workshop (see Appendix 3).

- *Undertake follow up consultations.* The CPSISC consultant incorporated the outcomes of the national workshop into a revised version of the Discussion Paper. This paper was then used as the basis for a series of consultations with key stakeholders in each jurisdiction. These consultations, which took the form of one on one or small group discussions, were conducted in cooperation with either the NFEE TAC or NFEE BIC representative in each jurisdiction. A list of participants in these validation meetings is attached as Appendix 4.
- *Prepare draft report on the scoping study.* The CPSISC consultant processed the outcomes of the consultations and prepared the draft report. This report was forwarded to the DCCEE project manager for comment by the DCCEE and the members of NFEE TAC and NFEE BIC.
- *Prepare final report.* The CPSISC consultant received the feedback from DCCEE and the members of NFEE TAC and NFEE BIC on the draft report and incorporated this into the final version of the project report. The final report includes an outline of the methodology and costs associated with developing the proposed qualification framework for HERS assessors.

6 Key findings of the scoping study

The following is a summary of the key findings of the research and consultation undertaken through the scoping study.

6.1 Scope of work, job functions and knowledge requirements of NatHERS assessors

The core work of NatHERS assessors involves:

- Using house energy rating software tools, which comply with the NatHERS software accreditation protocol, to assess the predicted thermal performance of planned residential buildings and major extensions on a scale of zero to 10 stars.
- Gathering detailed information on the building shell required for the assessment from building drawings and other specifications at the design stage. This information relates to the physical properties of the roof, wall, window size, window position, window orientation, window shading, floor constructions, insulation levels, volumes, elevations and the orientation and zoning of the building.
- Providing reports which inform decisions about whether planned residential buildings comply with the energy efficiency requirements of the Building Code of Australia for the relevant classes of residential buildings.
- Offering advice to builders, building designers, architects, householders and others on ways of enhancing the thermal performance of planned residential buildings.

While there was general agreement in the consultations with this description of the core work of NatHERS assessors, four matters were raised which have implications for both the scope of work and future skill requirements of NatHERS assessors.

These are:

1 Rating of complex building designs

A number of participants argued that some building designs are more complex and require a higher level of skill and more sophisticated understanding of the software programs to rate accurately.

According to one participant some of the factors that add to the complexity of the rating task are situations where there are:

- more than one floor level per storey,
- more than one ceiling level per storey
- sloping ceiling
- complex floor plans in which there are more than six external walls
- external walls at angles other than right angles to each other
- curved external walls.

2 Demand for more complex advice on improving thermal performance

The consultations revealed that there is increasing demand for assessors to provide more sophisticated advice on ways of improving the thermal performance of buildings, especially as jurisdictions move to introduce the new 6-star requirement for new houses, townhouses and major renovations.

3 Increased involvement of assessors in the building design process

While most assessors work from completed building drawings and specifications, the consultations revealed that there is an emerging group of assessors who provide builders, building designers and architects with analysis and options for improving the thermal performance of new buildings during the building design process.

4 Rating of existing residential buildings

Under the existing regulatory arrangements, NatHERS assessors provide a rating on the potential thermal performance of residential buildings at the design stage. However, a number of participants in the national workshop and the follow up consultations noted that there is emerging demand for assessments of existing buildings. In many cases there are no drawings or specifications for these buildings and assessors may need to conduct site inspections to gather the required information. This has implications for both the scope of work and the range of skills required by assessors, particularly in areas such as occupational health and safety, client interaction and the preparation of basic building drawings.

While there were different opinions on the impact of these trends, there was a general view that:

- the scope of work of NatHERS assessors should be broadened to include both new and existing buildings, and
- assessors require higher level skills in:
 - rating complex building designs
 - providing analysis and options for improving building thermal performance.

Given this broader scope of work, the main job functions of NatHERS assessors appear to involve:

- interpreting building drawings and specifications and / or conducting site inspections of planned and/or existing residential buildings to gather information required for the assessment
- applying NatHERS compliant house energy rating software tools to rate the potential thermal performance of the full range of residential buildings
- implementing post-assessment follow-up procedures, including issuing relevant reports and communication with clients and relevant authorities
- contributing to the building design process by modelling, analysing and providing options for enhancing the thermal performance of residential buildings

- providing information on options, environmental benefits and cost implications of measures for improving the thermal performance of residential buildings
- producing and explaining reports and certification associated with rating the thermal performance of residential buildings.

In addition to these job specific functions, the consultations confirmed that the work of NatHERS assessors also involves:

- complying with legislative, regulatory and industry Codes of Practice
- maintaining the safety and security of self, other people and property
- engaging in continuing professional development
- providing customer service
- reading and interpreting building drawings and specifications
- practising ethical behaviour in relation to the provision of assessment services
- using and maintaining computing software, hardware and data storage and retrieval systems.

The consultations confirmed that many NatHERS assessors are individual contractors or small to medium sized business operators. As a consequence they perform a range of small business work functions, including: business planning, marketing and promotion of assessment services; staff recruitment, training and management; financial administration and managing legal compliance.

In order to perform the full range of job functions, the participants in the consultations confirmed that NatHERS assessors require knowledge of:

1. NatHERS assessor's role and responsibilities, including the accreditation process and Code of Conduct.
2. Australian climatic zones, including the climate data used in thermal performance assessment and climatic zones and characteristics.
3. Basic building and construction processes and terminology.
4. Building materials, including the types of materials, constraints on choice of building materials and construction techniques and the thermal performance properties of common building materials.
5. Building thermal performance, including the benefits of thermal performance assessment, the impact of building design and building materials on building thermal performance, the relationship between building thermal performance and thermal comfort, thermal performance principles, thermal performance ratings, and ways of improving thermal performance of planned and existing residential buildings.
6. Commonwealth, state or territory, and local government legislation and regulations impacting on thermal performance assessment.
7. The aspects of the Building Code of Australia relevant to thermal performance assessment, including the Deemed to Satisfy provisions.

8. Energy and power, including terminology, alternative generation, units of measurement, and uses, cost and environmental impact of energy in residential buildings.
9. Greenhouse gas emissions, including the relationship between building design, energy consumption and greenhouse gas emissions, and ways of reducing greenhouse gas emissions through building design.
10. HERS software tools, including the assumptions inherent in HERS software protocol, criteria for selection of particular HERS software tools, NatHERS and Australian Building Codes Board protocol for HERS software, properties of building materials, such as U-value, R-value, reflectivity, absorptance and emissivity, and types of HERS software tools.
11. Passive energy design, including the benefits of passive design, the principles of passive design and the relationship between passive design and greenhouse gas emissions.
12. Thermal comfort, including the definition of thermal comfort, the physical factors that influence thermal comfort, the requirement for thermal comfort and the role of thermal comfort in building thermal performance assessments.
13. Computing, including basic computing processes, data security and protection, data storage and retrieval.

In addition, NatHERS assessors require knowledge of:

- occupational health and safety principles
- customer service principles
- effective communication principles
- ethical behaviour
- principles of cost estimation.

6.2 Scope of work, job functions and knowledge requirements of RBMD assessors

The following description of the scope of work was presented to the participants at the national work shop and the validation workshop conducted in each State and Territory.

“Assessors involved in undertaking the proposed Residential Building Mandatory Disclosure (RBMD) assessments may be engaged in collecting and processing data on the energy, greenhouse and water performance of residential buildings at the point of sale or lease. Assessors may be required to undertake a full site inspection of the residence using an evaluative tool, which may range from a checklist through to a software program depending on jurisdictional requirements. The assessment would initially focus on the thermal performance of the building form, the energy efficiency of fixed appliances and provide limited information about other water use. The assessment would not consider individual resident behaviour in relation to energy and water use. The

assessment report may include upgrade recommendations based on the elements that have been assessed.”

While there was general agreement with this statement, the consultations revealed that there are marked differences in the ways in which the jurisdictions intend to implement the RBMD measures, such as:

- the need for an assessor in the RBMD process
- the nature and extent of thermal performance information gathered in RBMD assessments.

There are also areas amongst states and territories yet to be decided, such as:

- the nature and extent of information to be gathered on energy, water and greenhouse emissions in a RBMD assessment
- the assessment tool(s) to be used
- the place of upgrade recommendations as part of the assessment
- the role of the assessor in making upgrade recommendations.

This has important implications for the scope of work and skills requirements of RBMD assessors. At this stage, there are considerable differences in the way that RBMD assessments are likely to be implemented across the jurisdictions. Nevertheless it appears that the main job functions of RBMD assessors will involve:

- conducting site visits to collect information on the thermal performance of the building form, the energy efficiency of fixed appliances and limited information on water use in residential buildings using an appropriate RBMD assessment tool
- applying appropriate assessment tools to conduct RBMD assessments of residential buildings
- providing information about upgrade recommendations generated through the RBMD assessment
- implementing post assessment follow up procedures, including reporting and communication with clients and relevant authorities
- providing information on options, environmental benefits and cost implications of upgrade measures stemming from RBMD assessments of existing residential buildings
- producing and explaining reports associated with RBMD assessments.

In addition to these job-specific functions, the consultations confirmed that the work of RBMD assessors also involves:

- complying with legislative, regulatory and industry Codes of Practice
- maintaining the safety and security of self, other people and property
- engaging in continuing professional development
- providing customer service
- practising ethical behaviour in relation to the provision of assessment services
- using and maintaining computing software, hardware and data storage and retrieval systems.

The consultations confirmed that RBMD assessors may be individual contractors or small to medium sized business operators. As a consequence they may also perform a range of small business work functions, including: business planning, marketing and promotion of assessment services; staff recruitment, training and management; financial administration and managing legal compliance.

In order to perform the full range of job functions, the consultations confirmed that RBMD assessors are likely to require knowledge of:

- 1 Energy, including fuel switching, greenhouse coefficient, sources of energy and their relative greenhouse emissions, and units of measurement.
- 2 Fixed appliances including the physical location and configuration of appliances, fuel type, compliance plates, energy/water labels, options for improving the energy, water and greenhouse efficiency of fixed domestic appliances, and rain water harvesting, grey water technologies and third pipe.
- 3 Building and construction processes, including basic terminology, insulation, building materials, construction types, ceiling/floor/wall insulation R values, buildings materials and construction techniques which impact on thermal performance, how to determine and measure the relative draughtiness of a dwelling, the relationship between building design, energy consumption and greenhouse gas emissions, and ways of improving energy and water performance and reducing greenhouse gas emissions through building design.
- 4 Residential energy production including renewable energy technology options.
- 5 Commonwealth, state or territory, legislation and regulations impacting on RBMD assessments.
- 6 RBMD assessors' role and responsibilities.
- 7 Building thermal performance, including the benefits of thermal performance assessment, the impact of building design and building materials on building thermal performance, the relationship between building thermal performance and thermal comfort, thermal performance principles, thermal performance ratings, and ways of improving thermal performance of planned and existing residential buildings.
- 8 Greenhouse gas emissions, including the relationship between building design, energy consumption and greenhouse gas emissions, and ways of reducing greenhouse gas emissions through building design.

- 9 Passive energy design, including the benefits of passive design, the principles of passive design and the relationship between passive design, energy consumption and greenhouse gas emissions.
- 10 Thermal comfort, including the definition of thermal comfort, the physical factors that influence thermal comfort, the requirement for thermal comfort and the role of thermal comfort in building thermal performance assessments.
- 11 Computing, including basic computing processes, data security and protection, data storage and retrieval.

In addition, RBMD assessors will also require knowledge of:

- occupational health and safety principles,
- customer service principles,
- effective communication principles, and
- ethical behaviour principles.

6.3 Competency requirements of NatHERS and RBMD assessors

The consultations confirmed that the competency requirements of NatHERS and RBMD assessors may be grouped into the following ten broad areas or domains.

- NatHERS assessment – these are the competencies required to plan, carry out and report on the outcomes of an assessment using house energy rating software tools, which comply with the NatHERS software accreditation protocol.
- RBMD assessment – these are the competencies required to plan, carry out and report on the outcomes of a RBMD assessment using the appropriate assessment tool.
- Building design – these are the competencies required to identify and assess aspects of building design and construction that impact on the energy efficiency of residential buildings.
- Building plans and specifications – these are the competencies required to read and interpret building plan and specifications used in planning and conducting residential building energy assessment.
- Options, benefits and cost implications of energy efficiency measures for residential buildings – these are the competencies required to assess the options as well as the benefits, limitations and indicative costs of energy efficiency measures.

- Management of own work, professional development and ethical behaviour – these are the personal competencies required to work effectively and ethically as an RBMD or NatHERS assessor.
- Communication and customer service – these are the competencies required to communicate with colleagues and clients and provide high quality customer service.
- Risk, safety and security – these are the competencies required to assess risks and ensure the safety of self, others and property while planning and conducting residential building energy assessment.
- Small business administration – these are competencies required by assessors who are individual contractors or small to medium sized business operators.
- Information and communications technology – these are the competencies required to use and maintain computing and other technologies to communicate and store and retrieve information.

As indicated in the following chart there is a range of specific competencies required by both NatHERS and RBMD assessors within each of these domains. The competencies with codes already exist, whereas those without codes will need to be developed.

Figure 1: Competency requirements of NatHERS and RBMD assessors

Domain	NatHERS Assessors	RBMD Assessors
NatHERS assessment	<ul style="list-style-type: none"> ▪ Plan and conduct thermal performance assessment residential buildings using HERS software tools ▪ Plan and conduct thermal performance assessment of existing residential buildings using HERS software tools ▪ Plan and conduct thermal performance assessment of complex residential building designs using HERS software tools ▪ Model alternate thermal performance solutions for residential buildings using HERS software tools 	
RBMD assessment		<ul style="list-style-type: none"> ▪ Plan and conduct RBMD assessments (Note: includes assessment of energy impact of appliance use on home energy use)

Domain	NatHERS Assessors	RBMD Assessors
Building design	<ul style="list-style-type: none"> Assess impact of building design on thermal performance of residential buildings at the design stage 	<ul style="list-style-type: none"> Assess impact of building design and construction on energy efficiency of residential buildings Collect information on building design and construction through the measurement and assessment of existing buildings.
Building plans and specifications	<ul style="list-style-type: none"> CPPHSA4011A Read and extract information from plans, drawings and specifications for residential buildings 	<ul style="list-style-type: none"> CPPHSA4011A Read and extract information from plans, drawings and specifications for residential buildings
Options, benefits and cost implications of energy efficiency measures for residential buildings	<ul style="list-style-type: none"> Assess options for enhancing thermal performance of residential buildings. 	<ul style="list-style-type: none"> Explain upgrade options generated by RBMD assessment outcomes.
Manage own work, professional development and ethical behaviour	<ul style="list-style-type: none"> CPPHSA4006A Manage own work, professional development and ethical behaviour 	<ul style="list-style-type: none"> CPPHSA4006A Manage own work, professional development and ethical behaviour
Communication and customer service	<ul style="list-style-type: none"> CPPCMN4004A Facilitate effective client relationships CPPCMN3004A Respond to enquiries and complaints 	<ul style="list-style-type: none"> CPPCMN4004A Facilitate effective client relationships CPPCMN3004A Respond to enquiries and complaints
Risk, safety and security	<ul style="list-style-type: none"> CPPHSA4005A Maintain the safety and security of people and property when undertaking assessments of residential buildings. 	<ul style="list-style-type: none"> CPPHSA4005A Maintain the safety and security of people and property when undertaking assessments of residential buildings.
Small business administration	<ul style="list-style-type: none"> BSBSMB401A Establish legal and risk management requirements of small business BSBSMB402A Plan small business finances BSBSMB403A Market the small business BSBSMB404A Undertake small business planning 	<ul style="list-style-type: none"> BSBSMB401A Establish legal and risk management requirements of small business BSBSMB402A Plan small business finances BSBSMB403A Market the small business BSBSMB404A Undertake small business planning
Information and communications technology	<ul style="list-style-type: none"> Use and maintain computing software, hardware and data storage and retrieval systems 	<ul style="list-style-type: none"> Use and maintain computing software, hardware and data storage and retrieval systems

6.4 Relationship between *Certificate IV in Home Sustainability Assessment* and competency requirements of RBMD and NatHERS qualifications

NatHERS, RBMD and Home Sustainability Assessors have distinct job roles and a range of specific competency requirements. However, as illustrated in Figure 2, there are four key domains in which there are common competency requirements across the three occupations.

Figure 2: Common competency requirements of NatHERS, RBMD and HSA assessors

Domain	Common competency requirements for NatHERS, RBMD and HSA assessors
Building plans and specifications	<ul style="list-style-type: none"> CPPHSA4011A Read and extract information from plans, drawings and specifications for residential buildings
Manage own work, professional development and ethical behaviour	<ul style="list-style-type: none"> CPPHSA4006A Manage own work, professional development and ethical behaviour
Communication and customer service	<ul style="list-style-type: none"> CPPCMN4004A Facilitate effective client relationships CPPCMN3004A Respond to enquiries and complaints
Risk, safety and security	<ul style="list-style-type: none"> CPPHSA4005A Maintain the safety and security of people and property when undertaking assessments of residential buildings

6.5 Qualifications framework for NatHERS, RBMD and HSA assessors

There is considerable potential to develop an integrated qualifications framework for the residential building sustainability area.

By incorporating units from the new *Certificate IV in Home Sustainability* in the proposed new qualifications for NatHERS and RBMD assessors, clear pathways will be established between the qualifications. This means that individuals who hold the *Certificate IV in Home Sustainability* will be able to gain credit towards the proposed qualifications for RBMD and NatHERS assessors and vice a versa. Potentially this could lead to a situation where an individual is qualified to undertake any of the three types of assessment.

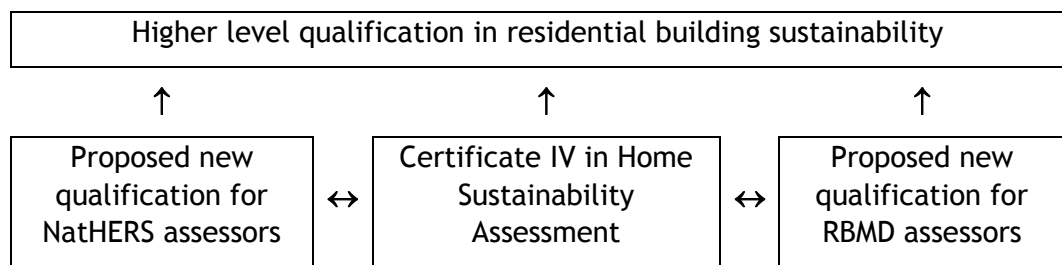
As well as establishing horizontal connections between qualifications in the field, there also seems to be potential to develop vertical connections (see Figure 3).

The consultations confirmed that there is potential to develop a higher level qualification for NatHERS assessors. Within this occupation there is a group of advanced practitioners who often run their own consultancy companies and have particular expertise in areas such as rating complex building designs, modelling alternative thermal performance solutions and providing advice to building design professionals on thermal performance. The creation of a higher level qualification would provide a way of recognising the skills of these individuals and create a training pathway that would assist more NatHERS assessors to develop higher level skills and be recognised for them.

In addition, questions about the need for a lower level qualification for individuals who assist with the gathering, processing and entry of data used by NatHERS assessors. While there was limited support for this option it could be explored during any subsequent qualifications development exercise.

Figure 3 illustrates the proposed integrated qualifications framework for the residential building sustainability assessors.

Figure 3 Proposed qualifications framework for residential building sustainability assessors



6.6 Transitional arrangements for NatHERS assessors holding the Course in Thermal Performance (Residential Buildings)

The *Course in Thermal Performance (Residential Buildings)* is due for re-accreditation in September 2011 and it is envisaged that it will be replaced by a new Training Package qualification.

The *Course in Building Thermal Performance Assessment (Residential)* is a NSW State accredited program that is nationally recognised under the Australian Qualifications Framework. The course consists of one unit of competency titled *Undertake a thermal performance assessment of a residential building*. It is envisaged that individuals who have successfully completed the *Course in Building Thermal Performance Assessment (Residential)* will be able to gain credit for this unit within the new qualification. At this stage, it is not possible to identify the level of credit that will be provided. However the level of credit will be formally identified when the new qualification is developed and this will apply on a national basis.

It is also likely that individuals who hold the *Course in Building Thermal Performance Assessment (Residential)* will have been practicing in the industry and will be eligible to gain recognition for their skills against other units of competency in the new qualification through the Recognition of Prior Learning provisions in the qualification. For example, existing assessors should be able to provide evidence of possessing skills in areas such as maintaining client relations, workplace safety and management of own work. The level of recognition or credit provided will depend on the experience of the applicant and the quality of evidence which he or she is able to provide. In some cases, where applicants are not able to supply appropriate evidence they may elect to gain recognition against the new qualification through a skills recognition or assessment process provided by the relevant RTO.

6.7 Proposed interim qualification solution for RBMD assessors

Governments are currently discussing how to implement the COAG agreement to require homes to disclose energy performance at the time of sale or lease. The methodology for how this measure will be delivered is still under discussion and there is currently no decision on the tools that will be used. Use of NatHERS is one of a number of possible options, which will be assessed on the basis of cost-effectively delivering the best information to consumers.

It will therefore take time to have a new qualification for RBMD assessors endorsed. As such, it is possible that assessors will need to be trained before any new qualification is developed and endorsed by the NQC.

Given this situation, the DCCEE requested CPSISC to give consideration to identifying an interim qualification arrangement for RBMD assessors based on the recently developed *Certificate IV in Home Sustainability Assessment*.

This new qualification is flexibly structured and allows for the importation of units of competency from other Training Package qualifications as well as modules from accredited courses. While it would not be possible to develop a full qualification for RBMD assessors based on the *Certificate IV in Home Sustainability Assessment*, it appears to be possible to identify a skill set that draws on the units of competency in the qualification that will address the skill requirements of RBMD assessors. The major impediment to designing a full qualification for RBMD assessors based on *Certificate IV in Home Sustainability Assessment* is the inclusion in the core of two units of competency which are well outside of the scope of work of RBMD assessors. These are *CPPHSA4007A Promote the adoption of home sustainability practices by residents* and *CPPHSA4002A Assess household waste generation and management*.

Figure 4, outlines a skill set based on the units of competency in the *Certificate IV in Home Sustainability Assessment* that should address the immediate skill requirements of RBMD assessors. Under this arrangement, RBMD assessors would be required to attain eight units of competency.

In considering this skill set the following matters should be considered.

- The skill set comprises units of competency drawn from the Certificate IV in Home Sustainability Assessment, the Construction, Plumbing and Services Training package and the Course in Thermal Performance (Residential Buildings).
- Once the Certificate IV in Home Sustainability is endorsed by the National Quality Council (NQC) all of the units in the skill set will be nationally recognised.
- Following NQC endorsement of the Certificate IV in Home Sustainability, Registered Training Organisations will be able to apply to have the qualification added to their scope of registration, deliver the skill set and issue students with a nationally recognised Statement of Attainment that identifies the units achieved. A Statement of Attainment provides national recognition at sub qualification level and is recognised within the Australian Qualifications Framework. Registered Training Organisations delivering the skill set will be subject to the quality requirements of the Australian Quality Training Framework.

- The skill set is based on the competency domains for RBMD and NatHERS assessors that were identified earlier in this report. It should be noted that the computing and small business domains have not been included as these are likely to be electives in a full qualification.
- Similarly the building and construction domain has been included as an option for those jurisdictions which require RBMD assessors to have skills in this field. The units identified in this domain are drawn from the Construction, Plumbing and Services Training Package.
- The RBMD assessment domain comprises three units drawn from the Certificate IV in Home Sustainability Assessment. The first of these is CPPHSA4004A Assess thermal performance of existing residence using non-rating tools and techniques. It is envisaged that this unit will address the skill requirements of RBMD assessors in those jurisdictions where a full NatHERS assessment is not required for mandatory disclosure purposes. In those jurisdictions where a full NATHERS assessment is required, it is recommended that Course in Thermal Performance (Residential Buildings) is provided as an alternative. This consists of one unit of competency: Undertake a thermal performance assessment of a residential building. The other two units in the RBMD domain are CPPHSA4003A Assess household water use and CPPHSA4001A Assess household energy use. These units appear to address the knowledge and skill requirements of RBMD assessors in relation to water and energy and may in fact exceed the skill requirements of RBMD assessors. For example, these units require assessors to analyse household energy and water accounts.

Figure 4 Proposed interim skill set for RBMD assessors

Domain	Units of competency	
	Code	Code
RBMD assessment	CPPHSA4001A	Assess household energy use
	CPPHSA4003A	Assess household water use
	CPPHSA4004A	Assess thermal performance of existing residence using non-rating tools and techniques. Alternatively in those jurisdictions where a full NatHERS assessment is required for a RBMD assessment the <i>Course in Building Thermal Performance Assessment (Residential)</i> would be provided. This consists of one unit of competency <i>Undertake a thermal performance assessment of a residential building</i> .
Building plans and specifications	CPPHSA4011A	Read and extract information from plans, drawings and specifications for residential buildings
Management of own work, professional development and ethical behaviour	CPPHSA4006A	Manage own work, professional development and ethical behaviour
Communication and customer service	CPPCMN4004A	Facilitate effective client relationships
	CPPCMN3004A	Respond to enquiries and complaints

Domain	Units of competency	
	Code	Code
Risk, safety and security	CPPHSA4005A	Maintain the safety and security of people and property when undertaking assessments of residential buildings.
Optional units of competency that may be added to the skill set based on jurisdictional requirements.		
Building design	CPCCSV5001A	Assess the construction of domestic scale buildings
	CPCCSV5006A	Assess construction faults in residential buildings
	CPCCSV5015A	Assess structural requirements of domestic scale buildings

6.8 Recommended approach to the development of nationally recognised qualifications framework for NATHERS assessors

The development of the proposed qualification framework for HERS assessors would involve six key stages. These are:

- 1 Establish project and prepare draft HERS qualification structure.

This will involve establishing the project team, and the project steering committee, confirming the project objectives with DCCEE and establishing the initial structure for the qualifications for HERS assessors. The scoping study, which was conducted by CPSISC in 2010 on the skills needs of HERS assessors, identified a possible three level qualification framework. This could comprise an entry level qualification, an assessor level qualification and a qualification for advanced practitioners. The project team will confirm the need for this qualification structure and prepare a draft outline of the qualification structure. The draft qualification structure will be approved by the Project Steering Committee.

- 2 Prepare draft HERS units competency and qualifications

The project team will identify and where necessary prepare draft units of competency based on the qualification structure agreed in the preceding stage of the project. The draft units of competency and qualification structure will be approved by the Project Steering Committee for consultation purposes.

- 3 Conduct national consultation on draft HERS units of competency and qualifications

The project team will implement a national consultation process, which will include conducting workshops in each jurisdictions, to gather stakeholder views on the draft units of competency and HERS qualification framework.

4 Validate draft units of competency and qualifications for household sustainability

The project team will develop a second draft of the units of competency and HERS qualification framework, which incorporates the feedback gathered through the consultation workshops. The second draft of the units of competency and qualification structure will be approved by the Project Steering Committee prior to being posted on the DCCEE and CPSISC web sites for validation by key stakeholders.

5 Finalise project products

The project team will collate and analyse materials gathered through the validation stage and prepare the final version of the units of competency and qualification framework for HERS assessors. These materials will be approved by the Project Steering Committee for submission to the NQC. The project team will also prepare the Case of Endorsement and ensure that the draft materials comply with all NQC quality criteria.

6 Provide support for NQC endorsement of units of competency and qualifications

The project team will arrange for the units of competency and qualifications for HERS assessors to be submitted to the National Quality Council for endorsement and listing on the National Training Information Services.

It is estimated that the development of the qualification framework will take approximately 12 months.

7 Recommendations

That the DCCEE:

- 1 Note the report of the scoping study on the skill and qualification requirements for NatHERS and RBMD assessors.
- 2 Proceed with the qualification development for NatHERS assessors.
- 3 Proceed with the development of the interim skill set for RBMD assessors.
- 4 Proceed with the qualification development for RBMD assessors when the details of the scheme and the associated requirements for assessors are clarified.

Appendices

Appendix 1 Participants in key respondent interviews for environmental scan

Name of Organisation
ACT Planning and Land Authority
Association of Building Sustainability Assessors
Australian Building Codes Board
Department of Climate Change and Energy Efficiency
Energy Skills Queensland
Sustainability Victoria

Appendix 2 Participants in national workshop

Organisation
ACT Assessors Network
Association of Building Sustainability Assessors
Australian Building Codes Board
Australian Institute of Building Surveyors
Australian Sustainable Built Environment Council (ASBEC)
Building Code Advisory Services Pty Ltd
Building Commission, Victoria
Business Services Victoria
Construction and Property Services Industry Skills Council
Construction Industry Training Board, South Australia
Department of Climate Change and Energy Efficiency
Department of Education and Training, NSW
Department of Environment, Climate Change and Water, NSW
Home Energy Rating Services
Housing Industry Association
Learning Australia Pty Ltd
National Framework for Energy Efficiency Buildings Implementation Committee
Property Council of Australia
Real Estate Institute of Australia
Smartrate, QLD
Sustainability Victoria

Appendix 3 Report on outcomes of national workshop

Canberra on 22 June 2010

1. Purpose

To brief members of NFREE TAC and NFREE BIC on the outcomes of a national workshop convened by the Department of Climate Change and Energy Efficiency (DCCEE), which was held in Canberra on 22 June 2010, to consider the skill and qualifications requirements of Nationwide House Energy Rating Scheme (NatHERS) and Residential Building Mandatory Disclosure (RBMD) assessors.

2. Background

The Department of Climate Change and Energy Efficiency (DCCEE) is responsible for the implementation of the National Strategy on Energy Efficiency (NSEE) that was agreed by the Council of Australian Governments (COAG) in July 2009.

Among other things, the NSEE includes provision for commercial building and residential building mandatory disclosure measures. Under the NSEE, Governments have proposed to phase in mandatory disclosure of residential building energy, greenhouse and water performance at the time of sale or lease, commencing with energy efficiency by May 2011. This policy measure is currently being developed and is subject to a Regulation Impact Analysis process. Public consultation will be undertaken as part of this process in the second half of 2010.

Although systems for mandatory disclosure may differ in each State and Territory, there will be skills required by all assessors to a national standard.

At present there is no nationally recognised training program for assessors undertaking RBMD assessments.

One option that is currently being canvassed is that the NatHERS software tools, such as AccuRate, FirstRate 5 and Bers Pro, may be used for mandatory disclosure purposes. However no agreement has been reached on this matter.

At present, there is a State accredited course for individuals wishing to undertake training on these software tools. This is the *Course in Thermal Performance (Residential Buildings)* which was accredited by VETAB in NSW and is due for re-accreditation in September 2011. This course is currently used by ABSA for accrediting HERS assessors but is not used in all jurisdictions.

More recently, DCCEE / DEWHA - has sponsored the development of a nationally recognised qualification for Home Sustainability Assessors, the proposed *Certificate IV in Home Sustainability Assessment*. Aspects of this nationally recognised qualification may align with the skill requirements for both RBMD and NatHERS assessors.

DCCEE has recognised the need for a nationally recognised qualification framework which: (1) provides recognition for the skills possessed by NatHERS and RBMD assessors; (2) offers a level of quality assurance for organisations employing or contracting NatHERS and RBMD assessors; (3) provides a safeguard for the public who use the services of these assessors; and (4) aligns with the recently developed *Certificate IV in Home Sustainability Assessment*.

In response to this situation, the DCCEE, in consultation with NFEE TAC, commissioned the Construction and Property Services Industry Skills Council, to undertake a scoping study on the skill and qualification requirements of NatHERS and RBMD assessors.

3. Objectives of the scoping study

It is intended that the scoping study will:

1. Identify the job functions for the RBMD and NatHERS assessors,
2. Identify the competencies and associated qualifications / skill sets for RBMD and NatHERS assessors,
3. Determine a pathway forward for the development of nationally endorsed qualifications for RBMD and NatHERS assessors.
4. Examine whether the Certificate IV in Home Sustainability Assessment may provide the basis for the development of RBMD and NatHERS qualifications.
5. Recommend:
 - a. A pathway for the transition of NatHERS assessors to a new qualification,
 - b. An interim qualification solution enabling assessors to be trained, if necessary, before the completion of the full RBMD qualification.

4. Work undertaken to date on the scoping study

CPSISC has appointed a project team comprising David Magee (Project Manager) and Rob Stowell (Consultant) to undertake the scoping study.

The project team met with representatives of DCCEE and NFEE TAC to confirm the project methodology in early June. The project team then undertook a review of the issues impacting on the skill and qualification requirements of NatHERS and RBMD assessors. This review included an examination of key documentation and a limited range of key respondent interviews.

The information gathered through this review was used to develop an initial Discussion Paper which provided the focus for the national workshop held in Canberra on June 22. This paper canvassed five key matters, namely: (1) the scope of work of NatHERS and RBMD assessors; (2) the job functions of NatHERS and RBMD assessors; (3) the knowledge requirements of NatHERS and RBMD assessors ; (4) the competencies required by NatHERS and RBMD assessors; and (5) qualification requirements for NatHERS and RBMD assessors.

Outcomes of the national workshop and the findings of the initial review will be tested in a series of validation workshops to be conducted in each jurisdiction in late July 2010.

5. Key issues emerging from the national workshop

Participants at the national workshop were asked to consider the five matters identified in the Discussion Paper. During these discussions, eight key issues emerged that have implications for the skill and qualification requirements of NatHERS and RBMD assessors. These issues are outlined below.

5.1. *Scope of work of NatHERS assessors*

Under existing regulatory arrangements NatHERS assessors provide a rating on the potential thermal performance of residential buildings at the design stage. This rating is based on information gathered from building drawings and the rating is determined using house energy rating software tools, which comply with the National House Energy Rating Scheme (NatHERS) software accreditation protocol. As most assessments are done in the design stage, assessors generally do not undertake a site inspection. Participants at the national workshop noted that there is growing demand for assessments to be conducted of existing buildings and that in many cases there are no drawings available for these buildings. As a result, the assessor may need to conduct a site inspection to gather the information required for the assessment. This has implications for both the scope of work and the range of skills required by assessors, particularly in areas such as occupational health and safety, client interaction and the preparation of basic building drawings. At the national workshop, participants agreed that the scope of work of NatHERS assessors should be broadened to include conducting assessments of both planned and existing residential buildings and that the conduct of site inspections is included in the possible work functions of NatHERS assessors.

5.2 *Scope of work of RBMD assessors*

There was general agreement with the scope of work statement for RBMD assessors that was provided in the Discussion Paper. Participants noted that RBMD assessors will be required to produce a report on the outcomes of each RBMD assessment. A number of participants noted that this should be referred to as a 'report' rather than a 'certificate'. There was considerable discussion about whether the reports provided by assessors would include recommendations for upgrading the energy efficiency of buildings and fixed appliances. It was agreed that this was a possible function of RBMD assessors and should be included in the range of possible job functions of RBMD assessors at this stage.

5.3 *Occupational health, safety and security training needs of NatHERS and RBMD assessors*

Participants noted that both NatHERS and RBMD assessors may be involved in undertaking site inspections. This raises a range of occupational health and safety issues, such as the risks associated with accessing confined spaces particularly roof and under floor areas, working at heights and potential contact with toxic substances. It also raises issues to do with ensuring the security of people and property whilst the site inspection is being conducted. Participants argued that both groups of assessors should be required to hold occupational health, safety and security competencies needed for safely undertaking such work.

5.4 *Role of NatHERS and RBMD assessors in providing information on the cost of energy efficient measures*

Participants argued that providing quantified costing information on measures designed to improve the energy efficiency of residential buildings is outside the scope of work of both NatHERS and RBMD assessors. Nevertheless the participants did agree that both groups of assessors should be able to (1) identify different options for improving the energy efficiency of residential building and (2) provide information on the benefits, including indicative energy and cost savings, associated with implementing such measures.

5.5 *Computing skill requirements of NatHERS and RBMD assessors*

All NatHERS assessors require computing skills to operate the various house energy rating software tools. Participants noted that many new entrants to the field lack basic computing skills and this becomes a major impediment to them successfully applying the software tools, managing data and preparing reports. As such, it was agreed that the job functions of NatHERS assessors should include the use and maintenance of personal computing systems required for undertaking energy efficiency assessments of residential buildings.

While it was recognised that some jurisdictions may not require RBMD assessors to use a software product, it was generally accepted at the national workshop that RBMD should possess basic computing skills.

5.6 *Small business skill requirements of NatHERS and RBMD assessors*

Many NatHERS assessors are individual contractors or small to medium sized business operators. It is likely that this will also be the case for RBMD assessors. As a consequence a key work function of many assessors involves managing the legal, financial and operational elements of a small or medium sized business. This includes work functions, such as: business planning, marketing and promotion of assessment services; staff recruitment, training and management; financial administration and managing legal compliance. It was agreed at the national workshop that some NatHERS and RBMD assessors will require small business skills and that these could be included as options or electives within any national qualifications framework.

5.7 *Qualifications for entry and advanced level NatHERS assessors*

While no firm decision was reached at the national workshop, participants noted that there are different levels of complexity in the work undertaken by NatHERS assessors and that this could be recognised through establishing different levels of qualification. For example, a number of participants noted that rating non-standard or non-conventional residential buildings and providing advice to building designers and other building professionals on the potential thermal performance of different materials and aspects of building design are more complex operations. This raised the possibility of establishing an entry level qualification for NatHERS and a higher level qualification for advanced practitioners. A further option that was canvassed at the workshop was the development of a lower level qualification or skill set for people who are engaged in administrative and information gathering tasks for NatHERS assessors. These people would gather information but would not make the

rating decision or offer advice of ways of enhancing the thermal performance of residential buildings. It was agreed that further views on these matters should be sought during the State and Territory consultations.

5.8 *Knowledge requirements of NatHERS and RBMD assessors in relation to construction methods and materials and common building faults*

There was considerable discussion at the national workshop about the level of knowledge which both groups of assessors require about construction methods and materials and common building faults and their impact on the energy efficiency of residential buildings. The participants generally agreed that both groups of assessors benefit from having knowledge of basic building materials and particularly how they relate to the energy efficiency of the building. There was less agreement about the need for both groups of assessors to have knowledge of common construction faults. Given the level of uncertainty about this issue, particularly with regard to knowledge of common building faults, it is recommended that this matter be tested during the proposed State and Territory consultations.

Proposed follow up to the national workshop

The project team has organised, in conjunction with the relevant NEE TAC representative, a series of validation workshops. These will be conducted in each State and Territory. The purpose of these meetings is to gather further information on the five matters raised in the Discussion Paper and in relation to the issue identified at the national workshop. These consultations are being undertaken according to the following schedule.

Jurisdiction	Date
Victoria	12-13 July 2010
South Australia	14 July 2010
ACT	15 July 2010
Western Australia	21 July 2010
Queensland	23 July 2010
New South Wales	26 - 27 July 2010
Tasmania	28 July 2010
Northern Territory	30 July 2010

To facilitate these discussions the project team has updated the Discussion Paper to take into account the matters raised at the national workshop. It is intended that the outcomes of the validation workshops will be used to inform the draft version of the report of the scoping study. This paper will be available by the end of August.

Rob Stowell

David Magee

8 July 2010

Appendix 4 Participants in validation meetings

Australian Capital Territory
ACT Planning and Land Authority
Canberra Institute of Technology
Energy Partners
Envirohome
Master Builders Association of Australia
Tasmania
Department of Infrastructure, Energy and Resources
Department of Justice
Department of Premier and Cabinet
Northern Territory
Department of Lands and Planning
New South Wales
Association of Building Sustainability Assessors
Department of Education and Training
Department of Environment, Climate Change and Water
South Australia
Build Adelaide
Department for Transport, Energy and Infrastructure
Master Builders Association of South Australia
Sustainability House
TAFE SA
Queensland
Building Services Authority
Clyde Anderson Pty Ltd
Department of Infrastructure and Planning
Ecolateral
Energy Rating Consulting
Energy Skills Queensland
Ensign
Housing Industry Association
Master Builders Queensland

SmartRate
Solaris Solar Powered Home
Victoria
Building Commission
Department of Sustainability and Environment
RMIT
Sustainability Victoria
Ticonsulting
Western Australia
Department of Commerce
Department of Housing
Sustainable Energy Development Office

Appendix 5 Glossary

The following terms are used in this report. Each term is followed by a definition and, where appropriate, further explanation. If the definition of a word or phrase listed below is inconsistent with the definition of the same word or phrase used in particular legislation, the definition provided in that legislation takes precedence.

Accredited course - A structured sequence of vocational education and training that has been accredited by a state or territory course accrediting body and leads to an Australian Qualifications Framework (AQF) qualification or statement of attainment.

Australian Qualifications Framework (AQF) - The policy framework that defines all qualifications recognised nationally in post-compulsory education and training in Australia. The AQF comprises titles and guidelines that define each qualification, as well as the principles and protocols covering cross-sectoral qualification links and the issuing of qualifications and statements of attainment.

Competency - the ability to perform tasks and duties to the standard expected in employment.

Domain - a broad area or field of competency.

Module - A group of learning outcomes in an accredited course where the copyright owner can establish that it is not possible to develop an appropriate unit of competency.

National Recognition - Recognition by an RTO of the AQF qualifications and statements of attainment issued by all other RTOs, thereby enabling national recognition of the qualifications and statements of attainment issued to any person.

National Training Information Service (NTIS) - The national register for recording information about RTOs, Training Packages and accredited courses. NTIS is part of the National Skills Framework.

NatHERS - The Nationwide House Energy Rating Scheme is a framework that allows various computer software tools to rate the potential thermal efficiency of Australian dwelling envelopes. The Scheme defines the minimum scope of assessment coverage, mandatory settings, and assessment rules that must be used by all software tools accredited to the Nationwide House Energy Rating Scheme

Qualification - Qualification is defined as follows: formal certification, issued by a relevant approved body, in recognition that a person has achieved learning outcomes or competencies relevant to identified individual, professional, industry or community needs.

Registered training organisation (RTO) - A training organisation registered by a state or territory registering body in accordance with the AQTF Essential Conditions and provide. The RTO's scope defines the specific AQF qualifications, units of competency and accredited courses it is registered to provide, and whether it is registered to provide:

- Both training delivery and assessment services, and to issue the relevant AQF qualifications and statements of attainment, or
- Only assessment services, and to issue AQF qualifications and statements of attainment.

Statement of Attainment - A statement of attainment is issued by a registered training organisation when an individual has completed one or more units of competency/modules from nationally recognised qualification(s)/course(s).

Training Package - A nationally endorsed, integrated set of competency standards, assessment guidelines and AQF qualifications for a specific industry, industry sector or enterprise.

Unit of competency - Specification of industry knowledge and skill and the application of that knowledge and skill to the standard of performance expected in the workplace.

Appendix 6 Acronyms

ASBEC Australian Sustainable Built Environment Council

COAG Council of Australian Governments

CPSISC Construction and Property Services Industry Skills Council

DCCEE Department of Climate Change and Energy Efficiency

DEWHA Department of the Environment, Water Heritage, and the Arts

NatHERS Nationwide House Energy Rating Scheme

NFEE BIC National Framework for Energy Efficiency Building Implementation Committee

NFEE TAC National Framework for Energy Efficiency Training and Accreditation Committee

NSEE National Strategy on Energy Efficiency

NQC National Quality Council

NTIS National Training Information System

RBMD Residential Building Mandatory Disclosure

RTO Registered training organisation

VETAB Vocational Education and Training Accreditation Board