



Nationwide House Energy Rating Scheme (NatHERS)

Whole of Home Assessor Training and Accreditation Strategy

Copyright

© Commonwealth of Australia 2019

Ownership of intellectual property rights

Unless otherwise noted, copyright (and any other intellectual property rights, if any) in this publication is owned by the Commonwealth of Australia.

Creative Commons licence



Attribution

CC BY

All material in this publication is licensed under a Creative Commons Attribution 4.0 International Licence, save for content supplied by third parties, logos, any material protected by trademark or otherwise noted in this publication, and the Commonwealth Coat of Arms.

Creative Commons Attribution 4.0 International Licence is a standard form licence agreement that allows you to copy, distribute, transmit and adapt this publication provided you attribute the work. A summary of the licence terms is available from <https://creativecommons.org/licenses/by/4.0/>

The full licence terms are available from <https://creativecommons.org/licenses/by/4.0/legalcode>

Content contained herein should be attributed as *Report title, Australian Government Department of Industry, Science, Energy and Resources*.

Disclaimer

The Australian Government as represented by the Department of Industry, Science, Energy and Resources has exercised due care and skill in the preparation and compilation of the information and data in this publication. Notwithstanding, the Commonwealth of Australia, its officers, employees, or agents disclaim any liability, including liability for negligence, loss howsoever caused, damage, injury, expense or cost incurred by any person as a result of accessing, using or relying upon any of the information or data in this publication to the maximum extent permitted by law. No representation expressed or implied is made as to the currency, accuracy, reliability or completeness of the information contained in this publication. The reader should rely on their own inquiries to independently confirm the information and comment on which they intend to act. This publication does not indicate commitment by the Australian Government to a particular course of action.

Contents

1	Overview	3
1.1	Background	3
1.2	Current environment	3
1.3	Purpose of the training and accreditation strategy	4
1.4	Key Drivers	4
1.5	Existing homes	5
2	Approach	5
2.1	Current NatHERS Accredited Assessors	5
2.2	New NatHERS Accredited Assessors	5
2.3	Identifying Learning and Development Needs	6
2.4	Building off the existing approach	6
2.5	Assessor training and accreditation working group	6
3	3. Implementation	7
3.1	Indicative Timeline	7
3.2	Roles and Responsibilities	7
3.3	Communication	8
	Appendix 1	10
	Additional information about CPP41119 Certificate IV in Home Energy Efficiency and Sustainability Qualifications	10

1 Overview

1.1 Background

In February 2019, Energy Ministers agreed the Trajectory for Low Energy Buildings and its Addendum (the Trajectory), which is a national plan to reduce energy bills and carbon emissions from Australia's residential and commercial buildings sector.

The Trajectory identified that the Nationwide House Energy Rating Scheme (NatHERS) should be expanded to offer nationally accredited whole of home tools to enable verification of requirements in the National Construction Code (NCC). The Building Ministers' Forum subsequently agreed in July 2019 to the development of enhanced residential energy efficiency provisions in the NCC, informed by the Trajectory.

Currently NatHERS provides a rating of the home's thermal performance (building fabric) as a star rating (out of ten). Once expanded, NatHERS assessments will keep the current NatHERS thermal performance assessment and rating, but also provide the energy performance of the fixed appliances (heating and cooling, hot water, lighting, pool/spa pumps), on-site energy generation and storage, and the overall home (combining the appliances and renewable energy generation with the thermal assessment). NatHERS Whole of Home (WoH) may also provide the option of assessing cooking and plug-in appliances to support design decisions to move towards zero energy (and carbon) ready homes, as outlined in the Trajectory.

1.2 Current environment

Assessor Accrediting Organisations (AAOs) are accredited by the NatHERS Administrator and in turn have the responsibility for accrediting NatHERS Assessors. The NatHERS AAO Protocol provides the operational framework for AAOs, by setting out the expectations of AAOs and assessors, including assessor accreditation, quality assurance system and communication to assessors.

There are currently three accredited NatHERS AAOs:

- Australian Building Sustainability Association (ABSA)
- Design Matters National (DMN)
- House Energy Raters Association (HERA).

All NatHERS Accredited Assessors must hold a Certificate IV in one of the following qualifications:

- Certificate IV in NatHERS Assessment - CPP41212¹
- Certificate IV in Home Energy Efficiency and Sustainability (Thermal Performance Assessment) - CPP41119
- Certificate IV in Home Energy Efficiency and Sustainability (Home Sustainability Assessment and Thermal Performance Assessment) - CPP41119.

These qualifications provide assessors with the skills to undertake thermal performance assessments and rate the energy efficiency of a home based on its design, using NatHERS accredited software and information obtained from residential building plans and drawings.

Registered Training Organisations (RTOs), both private and TAFE based, deliver training packages in NatHERS accredited tools (AccuRate, FirstRate5, BERsPro) alongside the Certificate IV course

¹ This course was superseded by CPP41119 Certificate IV in Home Energy Efficiency and Sustainability in September 2019.

training. The training and testing of competencies in these tools is relatively straight forward and entirely online. Home Energy Ratings & Optimisation (HERO), a newly accredited NatHERS software tool, offers online training in their tool for current NatHERS Accredited Assessors.

In addition to the formal training required to become a NatHERS Accredited Assessor, AAOs also deliver continuing professional development (CPD) training to assessors accredited by their organisation.

The AAO Protocol stipulates that AAOs provide ongoing technical support to their assessors in relation to accuracy, consistency and repeatability of assessments and advice on changing requirements due to Technical Note updates and relevant building regulations, including any state or territory-specific requirements.

The AAO Protocol requires that NatHERS Accredited Assessors need to acquire a minimum of 12 CPD points each year. Currently six of the 12 required CPD points can be from non-technical development.

1.3 Purpose of the training and accreditation strategy

The purpose of this strategy is to ensure that appropriate NatHERS assessor accreditation processes, training courses and materials are in place and available to support the implementation of NatHERS WoH alongside potential National Construction Code 2022 (NCC 2022) updates. The strategy outlines the approach and key actions required to achieve this.

For the purposes of this strategy, the scope is accreditation and training of assessors (current and new) undertaking future NatHERS WoH assessments of new homes using architectural plans and building specifications.

The below list outlines some of the key considerations required to ensure there are NatHERS Accredited Assessors qualified to undertake NatHERS WoH assessments.

- Review and update the NatHERS Handbook for changes and new content required for NatHERS WoH.
- Review existing Competency Standards and identify what additional skills and knowledge will be required by a NatHERS Accredited Assessors to undertake a NatHERS WoH assessment.
- Develop new Competency Standards for NatHERS WoH assessments, including factsheets on these.
- Establish a timeline for the implementation of new training that meets the NatHERS WoH implementation timeframe.
- Review and update the NatHERS Assessor Accreditation Protocol for inclusion of NatHERS WoH requirements, if required.

1.4 Key Drivers

The NatHERS administrator is working towards having NatHERS accredited Whole of Home tools ready in time to support the implementation of NCC 2022, currently being progressed by the Australian Building Codes Board (ABCB). In addition, NatHERS WoH will also:

- Help consumers to have lower energy bills, and a home that is more comfortable and resilient.
- Support industry and consumers to design beyond minimum standards and achieve a zero energy (and carbon) ready home.

- Support a range of different initiatives, such as the finance sector being able to use NatHERS to underpin their products.

1.5 Existing homes

Work is currently underway to expand NatHERS to existing homes, including work considering the accreditation and training of assessors who are undertaking in-home assessments.

The expansion of NatHERS to existing homes is out of scope for this strategy, however is being considered alongside this strategy.

2 Approach

This strategy is intended to cater for the different needs of both current NatHERS Accredited Assessors and new assessors that have not yet started their formal training. The needs of these two groups, and the recommended training delivery are different, and are focussed to minimise disruption and burden while maximising the benefits.

Further, it is proposed that NatHERS WoH assessor accreditation and training should build off the existing thermal performance assessment approach for assessor accreditation and training.

2.1 Current NatHERS Accredited Assessors

Current NatHERS Accredited Assessors who already hold a relevant Certificate IV qualification (refer to Appendix 1 for additional information), will be able to undertake CPD to receive a Statement of Attainment recognising competency in NatHERS WoH assessments. It is proposed that this training is delivered through AAOs, but the issuing of the Statement of Attainment would be determined by the NatHERS Administrator.

Under this model the NatHERS Administrator would update existing NatHERS Technical Notes to include NatHERS WoH modules, allowing for delivery of NatHERS WoH content to current NatHERS Accredited Assessors as part of continuing professional development (CPD) by AAOs.

AAOs who wish to undertake the training and assessment will be required to have a suitably qualified trainer and assessor to do this.

2.2 New NatHERS Accredited Assessors

People who are not already NatHERS Accredited Assessors and who have not yet enrolled in a relevant Certificate IV qualification will receive training in NatHERS WoH assessments through an updated training package delivered by RTOs.

The department is engaging with Artibus Innovation, who are responsible for setting the curriculum including units and competencies, to expand or modify (as required) the current Home Energy Efficiency and Sustainability qualifications to include training on NatHERS Whole of Home assessments.

Working with Artibus will help determine the scope of the change required to the existing qualification. This could include a minor change of adjusting an existing unit or adding a new unit to the existing course or it may be determined that a major change is required. A major change would require a full qualification review process, including a case for change for the Department of Education, Skills and Employment (DESE), national consultation and sign off by states and territories.

Once decisions are made by authorising bodies on the scope of change (minor or major) the strategy and timelines will be updated to reflect the appropriate steps, roles and responsibilities.

2.3 Identifying Learning and Development Needs

Regardless of the approach for current or new NatHERS Accredited Assessors, additional whole of home assessment learning and development needs must be identified to assist with the development of CPD and the extent of the change required for the Certificate IV qualification.

All NatHERS Accredited Assessors are required to have completed a relevant Certificate IV. Assessors typically also undertake training in one or more of the NatHERS accredited software tools. This training provides assessors with the skills and knowledge to carry out a thermal assessment of a home from architectural plans and building specifications. The expansion of NatHERS to Whole of Home assessments will require assessors to have additional skills and knowledge, including:

- Awareness of the purpose of NatHERS WoH
- Understanding of the NatHERS WoH methodology, and how energy uses are calculated and combined
- Ability to calculate and balance the energy budget
- Conducting a cost / benefit analysis
- Knowledge of the required inputs for NatHERS WoH modules
- Understanding of appliance capacity and appliance energy efficiency
- Ability to account for homes with mixed fuel types and appliances
- Appropriate selection of appliances to improve the overall energy efficiency of a home
- Understanding of the potential trade-off between appliance energy efficiency and improved thermal shell
- Accurately specify appliances, and the required NatHERS WoH certificate inputs
- Estimate tool outputs, generally know what outputs to expect and conduct error checking.

These additional skills and knowledge will need to be covered as appropriate in the CPD or the Certificate IV qualification.

2.4 Building off the existing approach

Where possible it is proposed that the expansion of assessor accreditation and training for current and new NatHERS Accredited Assessors, builds off the existing approach.

This could include building off existing units available in the Home Energy Efficiency and Sustainability course. For example, currently unit CPPHES4004, *Conduct thermal performance assessment of residential buildings*, includes assessments of six residential building plans across a range of climate zones, building classes and other features. The expansion of assessor accreditation and training to WoH could build off this existing unit by using the same six plans to demonstrate competency in NatHERS WoH assessment. This approach would lessen the burden on current and future NatHERS Accredited Assessors as well as provide a practical approach for assessing competency.

2.5 Assessor training and accreditation working group

The department has established an informal assessor training and accreditation working group to provide industry and professional advice on the development of the training and communications for current and new assessors for NatHERS Whole of Home. Membership for the group is voluntary.

Input from the group will help guide the expansion of assessor accreditation and training for current and new NatHERS Accredited Assessors.

3 3. Implementation

3.1 Indicative Timeline

The below indicative timeframes outline key milestones for the development and implementation of NatHERS WoH assessor training and accreditation against the key timeframes for the developed and implementation of NatHERS WoH more broadly.

Mid 2021

- Development of CPD overview module for existing NatHERS assessors.
- Commence review and update (if required) of Certificate IV, in collaboration with Artibus.

Late 2021 – Mid 2022

- Engagement with Artibus on Certificate IV changes continues (if required).
- Commence roll-out of CPD overview module for existing NatHERS assessors.
- Commence development and then roll-out of CPD appliance modules for existing assessors.
- Development and release of factsheets, communication materials and updates to NatHERS Assessor Handbook.

Mid 2022 – Late 2022

- Commence roll-out of Certificate IV training and accreditation of new NatHERS assessors.
- A cohort of assessors are qualified and accredited to undertake NatHERS WoH assessments using NatHERS accredited WoH tools
- NatHERS accredited WoH tools available (the accreditation of WoH tools cannot commence until final decisions on NCC 2022 energy efficiency provisions are confirmed).
- Update AAO Protocol to include WoH requirements.

September 2022

- NCC 2022 comes into effect

3.2 Roles and Responsibilities

NatHERS Administrator

The NatHERS Administrator is responsible for ensuring that there is training and accreditation pathways available for people wishing to become accredited for NatHERS WoH assessments. The NatHERS Administrator will work with all relevant stakeholders to achieve this.

Decision making bodies

Australian Industry Skills Committee's (AISC) is made up of Industry leaders from across Australia who are responsible for national training package product development under Australia's vocational education and training (VET) sector. Their role is to ensure that directions taken by the Skills Council are informed by an industry-based perspective focused on the quality and relevance of the national training system. The AISC recommends national training package products to the Skills Council for endorsement.

Skills Service Organisation

Skills Service Organisations (SSOs) are independent, professional service organisations that support Industry Reference Committees (IRCs) in their work developing and reviewing training packages. SSOs support industry engagement while remaining independent from both industry and the training sector.

Each SSO provides agreed services to several IRCs. This includes providing secretariat services and travel and accommodation support, preparing documents such as the skills forecast and proposed schedule of work, and assisting with developing and reviewing training packages.

SSOs are also a key access point for other industry stakeholders who want to play a part in the development of training packages.

There are six SSOs funded by the DESE, including Artibus Innovation.

Artibus Innovation is the SSO for the Property Services IRC, which is responsible for the national training package qualification for Home Energy Efficiency and Sustainability. Their role includes facilitating the preparation of business cases, and managing, developing and reviewing training packages to match industry needs. This includes reviewing qualifications and competency standards.

Registered Training Organisations

Registered Training Organisations (RTOs) provide and assess nationally recognised vocational education and training. They offer students training and qualifications or statements of attainment that are recognised across Australia, and are accepted by industry and other educational institutions. RTOs are responsible for developing content that meets the requirements of national training packages. For the expanded NatHERS WoH, RTOs will need to develop new course material and deliver training to students.

Assessor Accrediting Organisations

Assessor Accrediting Organisations (AAOs) are professional organisations with responsibility for accrediting NatHERS assessors and ensuring they deliver reliable and consistent energy ratings. AAOs provide ongoing support and technical assistance, and conduct CPD support and training, and quality control and assurance processes of NatHERS Accredited Assessors. AAOs operate in accordance with the NatHERS Protocol for Assessor Accrediting Organisations.

Australian Building Codes Board

The Australian Building Codes Board (ABCB) is a standards writing body that is responsible for the development of the NCC, comprised of the Building Code of Australia (BCA) and the Plumbing Code of Australia (PCA). The ABCB is a joint initiative of all three levels of government in Australia. It was established by an Intergovernmental Agreement (IGA) that was first signed by the Commonwealth, States and Territories on 1 March 1994, and has been updated from time to time since. The ABCB is also a regulatory reform vehicle, and reports to the Australian Government Minister and State and Territory Ministers responsible for building and plumbing regulatory matters, also known as the Building Ministers' Forum (BMF).

3.3 Communication

The NatHERS Administrator will develop a communications and stakeholder engagement strategy to support the roll out of the expanded scheme. The strategy will aim to ensure:

- improved understanding of what NatHERS is, how it is changing and its benefits across the building and construction industry;

- better understanding of the roles and responsibilities of various decision makers associated with the scheme;
- better harmonisation of scheme implementation across different states and territories;
- clearer understanding of the delineation between regulatory and non-regulatory activities associated with the scheme;
- improved assessor training and building industry compliance with the scheme; and
- greater transparency and consultation regarding scheme administration.

In implementing the strategy, the NatHERS Administrator will review and update the below suite of communication materials to support the expansion of the scheme to WoH assessments.

- NatHERS Certificate
- Assessor Handbook
- Technical notes
- Videos
- Website
- Factsheets.

Additional communication materials will be developed to ensure that industry and the broader community are aware of the expansion of NatHERS to Whole of Home assessments. This will include targeted information for current NatHERS Accredited Assessors to encourage them to transition to Whole of Home accreditation and assessments.

Appendix 1

Additional information about CPP41119 Certificate IV in Home Energy Efficiency and Sustainability Qualifications

(<https://training.gov.au/Training/Details/ CPP41119>)

Certificate IV in Home Energy Efficiency and Sustainability (Thermal Performance Assessment) - CPP41119

Packaging Rules

To achieve this qualification, competency must be demonstrated in:

- 15 units of competency:
 - 4 core units
 - 11 elective units

Elective units can be selected to provide specialisations in thermal performance assessment or home sustainability assessment, or both.

For the award of the **CPP41119 Certificate IV in Home Energy Efficiency and Sustainability (Thermal Performance Assessment)** electives are to be selected as follows:

- all 4 units from Group A
- up to 7 units from Group B and/or Group C
- 1 unit may be selected from any current training package or accredited course as long as it contributes to a valid, industry-supported vocational outcome and maintains the AQF level of this qualification.

For the award of the **CPP41119 Certificate IV in Home Energy Efficiency and Sustainability (Home Sustainability Assessment)** electives are to be selected as follows:

- all 4 units from Group B
- up to 7 units from Group A and/or Group C
- 1 unit may be selected from any current training package or accredited course as long as it contributes to a valid, industry-supported vocational outcome and maintains the AQF level of this qualification.

For the award of the **CPP41119 Certificate IV in Home Energy Efficiency and Sustainability (HSA and Thermal Performance Assessment)** electives are to be selected as follows:

- all 4 units from Group A
- all 4 units from Group B
- up to 3 units from Group C
- 1 unit may be selected from any current training package or accredited course as long as it contributes to a valid, industry-supported vocational outcome and maintains the AQF level of this qualification.

Prerequisite units

Units with asterisks have these prerequisites.

- CPPCMN4008 * Read plans, drawings and specifications for residential buildings
- CPPHES4003 * Operate and maintain computer system to support thermal performance assessments
- CPPHES4004 ** Conduct thermal performance assessment of residential buildings.

Core Units

- BSBRK401 Identify risk and apply risk management processes
- CPPCOM4001 Manage own work, professional development and ethical behaviour
- CPPHES4001 Research and assess impact of building elements on thermal performance of residential buildings
- CPP41119 Certificate IV in Home Energy Efficiency and Sustainability
- CPPHES4002 Advise clients on thermal performance of residential buildings

Electives

Group A: Thermal Performance Assessment Electives

- CPPCMN4008 Read plans, drawings and specifications for residential buildings
- CPPHES4003 Operate and maintain computer system to support thermal performance assessments
- CPPHES4004* Conduct thermal performance assessment of residential buildings
- CPPHES5001** Conduct thermal performance assessment of complex residential buildings

Group B: Home Sustainability Assessment Electives

- CPPCOM4002 Implement safe work practices in the property industry
- CPPHES4005 Assess household energy use and efficiency improvements
- CPPHES4006 Assess household water use and efficiency improvements
- CPPHES4007 Assess thermal performance of existing residential buildings

Group C: Additional Electives

- BSBAUD402 Participate in a quality audit
- BSBAUD501 Initiate a quality audit
- BSBAUD503 Lead a quality audit
- BSBAUD504 Report on a quality audit
- BSBCUS402 Address customer needs
- BSBSMB305 Comply with regulatory, taxation and insurance requirements for the micro business
- BSBSMB401 Establish legal and risk management requirements of small business
- BSBSMB405 Monitor and manage small business operations
- BSBSUS401 Implement and monitor environmentally sustainable work practices
- BSBSUS406 Identify and apply sustainability rating tools
- BSBWRT401 Write complex documents
- CPCCBC4014A Prepare simple building sketches and drawings
- CPCCSV5011A Apply building codes and standards to residential buildings
- CPCCWHS1001 Prepare to work safely in the construction industry
- CPPCMN3004 Respond to enquiries and complaints
- CPPCMN4012A Contribute to sustainable solutions throughout a building's life cycle
- CPPHES4008 Assess household waste generation and waste management improvements
- CPPHES4009 Promote the adoption of home sustainability practices