



**Australian Government**

**CPPHES4004 Conduct thermal  
performance assessment of residential  
buildings**

**Release: 2**

# CPPHES4004 Conduct thermal performance assessment of residential buildings

## Modification History

Release 2 This version first released with CPP Property Services Training Package Release 14.0.

Updated reference to reflect correction in Modification History from CPC Property Services 5.0 to CPP Property Services 9.0.

Release 1 This version first released with CPC Property Services Training Package Release 5.0.

Supersedes and equivalent to CPPHSA4012A Conduct NatHERS assessment of planned residential buildings. Updated to meet the Standards for Training Packages.

## Application

This unit specifies the skills and knowledge required to analyse information to assess the thermal potential of the building envelope of planned residential buildings, and the thermal performance of existing residential buildings, including alterations and additions. Assessments involve a variety of building designs and materials across all jurisdictions using the regulatory mode of software accredited under the Nationwide House Energy Rating Scheme (NatHERS).

This unit is for individuals who work independently using specialised knowledge and skills to complete thermal performance assessments. It involves completing routine and non-routine tasks and dealing with predictable and sometimes unpredictable problems.

This unit forms part of the licensing requirements for thermal performance assessments. For further information, check with the relevant regulatory authority.

## Pre-requisite Unit

CPPCMN4008 Read plans, drawings and specifications for residential buildings

CPPHES4003 Operate and maintain computer system to support thermal performance assessments

## Unit Sector

Home Sustainability.

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe what needs to be done to demonstrate achievement of the element.

- |   |  |
|---|--|
| 1 Prepare for thermal performance assessment.               | 1.1 Consult with client to confirm scope and purpose of assessment and respond to questions to clarify issues and concerns.  |
|   | 1.2 Research and apply jurisdictional regulatory and NatHERS requirements to planned thermal performance assessment.   |
|   | 1.3 Obtain documentation and drawings for the assessment and review to verify consistency and sufficiency to meet software, NatHERS technical notes and regulatory requirements. |
|   | 1.4 Refer inconsistencies in documentation or drawings back to client for clarification and amendment.   |
|   | 1.5 Request additional information required to conduct assessment to meet client and regulatory requirements.  |
|   | 1.6 Check computer equipment to ensure correct operation and confirm that software version and libraries are up to date according to regulatory requirements.                    |
| 2 Collate and input information into NatHERS software tool. | 2.1 Extract information required for input into software tool from building documentation and NatHERS technical notes.   |
|   | 2.2 Enter extracted information into software tool according to regulatory requirements for the building.  |
|   | 2.3 Enter information on non-standard building materials and designs, alterations and additions correctly according to software and regulatory requirements.                     |
|   | 2.4 Check inputted data and make necessary adjustments to ensure accuracy and compliance with regulatory requirements.   |
| 3 Model thermal performance of                              | 3.1 Apply software tool functions to model thermal performance of building.  |

- building.
- 3.2 Run simulation to determine if the building's potential thermal performance complies with regulatory requirements.
  - 3.3 Check simulation against latest documentation set and amend identified discrepancies.
  - 3.4 Analyse software tool outputs to clarify assumptions, identify limitations and correct errors in data entry.
  - 3.5 Interpret software tool outputs and profile building's thermal performance.
- 4 Identify options to improve thermal performance of building.
- 4.1 Analyse strengths and weaknesses in thermal performance of building.
  - 4.2 Access technical advice and identify cost effective options for improving thermal performance considering outputs of thermal performance assessment, practicality and type of building.
  - 4.3 Identify interactions of identified improvements on other aspects of building performance.
  - 4.4 Use software tool to reassess building and impact of identified options on thermal performance.
- 5 Report and certify thermal performance assessment outcomes.
- 5.1 Finalise thermal performance assessment and collate design and assessment documentation in line with regulatory requirements in relevant jurisdictions and for auditing and quality assurance.
  - 5.2 Write up options and recommendations for achieving required energy efficiency rating according to regulatory requirements.
  - 5.3 Discuss assessment outcomes with relevant persons and obtain approval to proceed with certification according to organisational requirements.
  - 5.4 Submit NatHERS report through required portal to generate universal certificate.
  - 5.5 Confirm stamping is complete and secure documentation according to regulatory requirements.

- 5.6 Store assessment documentation in accordance with regulatory requirements to enable recovery for audit and quality assurance purposes.

## Foundation Skills

As well as the foundation skills explicit in the performance criteria of this unit, candidates require:

- numeracy skills to interpret thermal performance outputs including U-values and R-values
- reading skills to interpret a variety of texts including regulations, codes, technical notes and building plans and specifications
- writing skills to complete standard forms and generate business correspondence and reports
- problem-solving skills to:
  - make recommendations based on the outputs of NatHERS software tools
  - determine optional improvements to thermal performance.

## Unit Mapping Information

Supersedes and equivalent to CPPHSA4012A Conduct NatHERS assessment of planned residential buildings.

## Links

Companion volumes to this training package are available at the VETNet website - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6f3f9672-30e8-4835-b348-205dfcf13d9b>