

Unit of Competency CPPHES4005

Assess household energy use and efficiency improvements

Application

This unit specifies the skills and knowledge required to source and analyse information on household energy use and to advise on ways to improve energy efficiency and reduce energy costs in the home.

This unit is for individuals who work independently as home sustainability assessors using specialised knowledge to complete household energy assessments. It involves completing routine and non-routine tasks and dealing with predictable and sometimes unpredictable problems.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Prerequisite Unit

None

Competency Field

Home Sustainability.

Elements and Performance Criteria

1. Plan and organise energy assessment.	<ul style="list-style-type: none">1.1 Consult with client to clarify purpose of energy use assessment and respond to questions and concerns.1.2 Confirm assessment requirements in line with client needs, legislation, regulations, standards, codes and government incentive programs for energy efficiency.1.3 Plan energy use assessment in consultation with client and according to work health and safety (WHS) procedures.1.4 Prepare energy use assessment documentation.1.5 Confirm that required tools and equipment are available and in working order.
2. Compile information on household energy generation, use, and costs.	<ul style="list-style-type: none">2.1 Gather information on energy use, onsite energy production and storage and energy costs.2.2 Access and interpret energy bills and metering data.2.3 Identify main sources of energy use.2.4 Carry out measurements and observations safely during on-site inspection to estimate energy usage for key energy using appliances.2.5 Gather information on household occupant behaviours and preferences that impact energy use.2.6 Record gathered information using suitable data collection tool.
3. Analyse data on household energy use.	<ul style="list-style-type: none">3.1 Identify key features of household energy usage and estimate costs and greenhouse gas emissions for key appliances.3.2 Reconcile energy use with energy billing data.3.3 Identify cost effective measures and behavioural opportunities for improving energy efficiency.

	3.4	Identify government rebates and other assistance programs for improving household energy efficiency.
	3.5	Estimate energy, emissions and cost savings to be gained by implementing measures for improving energy efficiency.
4. Provide information on residential renewable energy.	4.1	Source technical information on renewal energy production and storage technologies and inform client.
	4.2	Evaluate suitability of using residential property for renewable energy systems and discuss with client.
	4.3	Identify feed in tariffs, government rebates and other assistance programs for installing energy production and storage technologies.
5. Report findings of household energy assessment.	5.1	Collate results, recommendations and supporting evidence of energy use assessment.
	5.2	Document options and potential savings and prioritise recommendations for energy efficiency measures in line with client needs.
	5.3	Explain report, indicative costs and improvements in household energy efficiency to client.

Foundation Skills

Candidates require:

- oral communication skills to interact with clients from diverse social, economic and cultural backgrounds
- numeracy skills to interpret data from gas and electricity meters and accounts and calculate costs and greenhouse gas emissions
- reading skills to interpret data from gas and electricity meters and the outputs of energy measuring tools, technical data from product specifications
- technology skills to use basic computer functions, calculators and measuring tools.

Unit Mapping Information

Supersedes and equivalent to CPPHSA4001A Assess household energy use.

Links

Companion Volume Implementation Guide:

<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=6f3f9672-30e8-4835-b348-205dfcf13d9b>

Assessment Requirements for CPPHES4005

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Performance Evidence

To demonstrate competency, a candidate must meet the performance criteria of this unit by safely conducting energy use assessments and identifying efficiency improvements for three different households.

Knowledge Evidence

To be competent in this unit, a candidate must demonstrate knowledge of:

- alternative energy production and storage technologies applicable to residential buildings
- energy ratings and power consumption of common household appliances
- energy types and units of measurement
- hazards and risks and types of personal protective equipment (PPE) to be used when conducting on-site assessments of household energy use
- key requirements of relevant codes, standards, regulations and government incentive programs for household energy efficiency
- major systems and other sources of household energy use:
 - cooking
 - refrigeration
 - washing and drying
 - home entertainment and home office equipment
 - heating and cooling
 - internal and external appliances
 - lighting
 - swimming pools and spas
 - water heating
 - water pumps
- methods for interpreting household energy bills:
 - actual and estimated bills
 - plans
 - tariffs
- strategies for improving household energy efficiency including impact of building shell on heating/cooling energy use, upgrade options and behavioural changes
- trends in energy use and emissions
- types and uses of energy measuring tools.

Assessment Conditions

Assessors must meet the requirements for assessors contained in the Standards for Registered Training Organisations.

This unit must be assessed in the workplace or a close simulation using realistic workplace conditions, materials, activities, responsibilities, procedures, safety requirements and environmental considerations.

Candidates must have access to:

- residential buildings to allow achievement of the performance evidence
- codes, standards, legislation and government programs relevant to energy efficiency
- manufacturers' product information on domestic appliances, water heating systems, heating and cooling systems, lighting and electronic products
- technical information on energy production and storage technologies
- personal protective equipment and energy measurement and data collection tools and documentation.

Links

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