

ResourceSmart Schools Sustainability Certification Energy Checklist



How energy smart is your school? This checklist is useful if your school is working on the Energy Module as part of ResourceSmart Schools Sustainability Certification. It will help provide an audit of what your school is doing and where there are opportunities for further action.

To complete the Energy Module, your school needs to **complete a minimum of 26 actions** from the list below (65 actions in total), including **ALL the actions in section A1 Current status and research**.

A Workplace/operational

This section is about how your school can save energy by assessing the way energy is used in your school through audits, creating an energy plan, managing energy usage in your grounds and school yard, retrofitting and new technology and maintenance.

A1 Current status and research

All actions in section A1 are compulsory

- A1.1** Have you completed an audit to assess energy usage around your school?
- A1.2** Have you collected data on past energy usage for at least two years?
- A1.3** Has this data been entered as your baseline data, and any anomalies explained?

A2 Preparation and Planning

- A2.1** Do you have a whole-school plan in place for energy reduction or energy conservation?
- A2.2** Have your energy policies, targets and action plan been approved by your school council and/or planning committee?
- A2.3** Is there professional development for staff on energy, air quality, passive solar design and/or renewable energy technologies or associated themes?
- A2.4** Has your school applied for energy-related grants and/or entered into any environmental awards or competitions (e.g. ResourceSmart Schools Awards, previous National Solar Schools Program or Victorian Solar in Schools or Home Energy competition)?
- A2.5** Do you have interpretive signage about energy conservation practices in staffrooms, toilets, bathrooms, canteen, art rooms and general classrooms?
- A2.6** Have you implemented a maintenance regime (e.g. for cleaning light fittings, reflectors, heaters and air conditioners)?
- A2.7** Has your school implemented a switch-off regime?
- A2.8** Has your school implemented a heating/cooling regime?
- A2.9** Has your school implemented a computer monitor sleep time regime?
- A2.10** Has your school implemented a standby and shutdown regime?
- A2.11** Has your school implemented a natural air flow (cross ventilation) system or regime?
- A2.12** Are appliances used on timer systems where

appropriate?

A3 Monitoring

- A3.1** Do you have energy monitoring systems and equipment (e.g. data loggers) in place to collect energy data? Has this data been recorded?

A4 Lighting

- A4.1** Has your school implemented de-lamping and re-lamping programs?
- A4.2** Has your school replaced or added light fitting reflector panels and/or painted surfaces for light refraction or reflection?
- A4.3** Does your school use solar powered lighting?
- Has your school installed movement-sensored lighting?
- A4.4** Has your school installed timer switches or switched lighting?
- A4.5** Does your school open curtains and blinds during the day and use natural lighting (including skylights) wherever possible?
- A4.6** Has your school got security lighting timing set to operate effectively (e.g. only during hours of darkness)?
- A4.7** Has your school installed external shading devices or planted trees to keep the sun off the north, east and west facing windows?

A5 Heating and Cooling

- A5.1** Does your school use green or passive heating and cooling systems?
- A5.2** Does your school use solar thermal collection systems, including glasshouses, for heating or solar hot water?
- A5.3** Has your school installed any weather stripping, draught proofing and/or double glazing where appropriate?
- A5.4** Does your school have a plan to become carbon neutral and include the use of passive solar design principles?
- A5.5** Does your school use ceiling fans correctly (e.g. reversible) if they are installed?
- A5.6** Has your school installed and/or improved insulation (e.g. wall, ceiling and/or floor)?
- A5.7** Has your school installed more efficient windows and/or window films?

A6 Other equipment

- A6.1** Has your school installed 4, 5 or 6 star energy-rated appliances where appropriate (e.g. dishwashers, fridges etc.).
- A6.2** Does your school have a Smart Meter?

A7 Renewable energy generation, purchasing and offset

- A7.1** Does your school use solar-powered water pumps or air movement systems?
- A7.2** Does your school use PV panels, a wind generator or a biomass energy generator?
- A7.3** Has your school put a plan in place to purchase green electricity?
- A7.4** Does green purchasing take place regularly and is there a plan to phase in green energy supply over the next two years?
- A7.5** Does your school have protection of existing trees in the school masterplan?
- A7.6** Has your school planted or been involved in maintaining indigenous and/or native trees as a carbon sink (on school property or in your local area)?
- A7.7** Has your school purchased carbon offsets from accredited providers for travel-based school carbon emissions (e.g. air and car travel offsets)?

B Learning and teaching

This section is about what activities your school has built into your curriculum so students are directly engaged in learning and taking action to be more sustainable users of energy.

B1 Energy, global warming and climate change

- B1.1** Do you have an action plan that clearly targets classroom activities across the school to address energy use, renewable energy, global warming or climate change?
- B1.2** Are your classroom activities in energy clearly linked to the AusVELS cross-curriculum priority of Sustainability?
- B1.3** Are your classroom programs linked to practical, hands-on activities that encourage:
 - > The use of the school premises and infrastructure as an authentic learning space?
 - > Excursions to provide students with first-hand experience of energy conservation, renewable technologies and energy education centres?
 - > Links to home-based projects and behaviour change in energy and air quality or Greenhouse reduction (e.g. monitoring home and personal usage, using the Save Energy, EPA Ecological Footprint and the Australian Greenhouse calculators)?
- B1.4** Does your school program provide students with the opportunity to take responsibility for classroom activities and programs in energy, air quality and greenhouse issues?
- B1.5** Does your school engage Aboriginal and Torres Strait Islander learning perspectives in curriculum development and relate this to energy?
- B1.6** Do you have visitors to school to provide students and teachers with knowledge and motivation around energy conservation?

- B1.7** Are you using the energy data you collect as a curriculum activity to monitor progress in energy reduction in the school?

C Whole school community engagement

This section is about how your school is going with a whole school community approach to being energy smart rather than a single teacher, parent or group of students leading on this.

C1 Policy and reporting

- C1.1** Is the whole school provided with regular information about energy, air quality, ecological footprint and greenhouse activities and programs?
- C1.2** Do you seek regular feedback from the whole school and community on the energy, air quality, ecological footprint and greenhouse activities and programs?
- C1.3** Have you completed and uploaded at least one learning story that celebrates your achievements in energy, air quality, ecological footprint, or greenhouse issues onto school, departmental or sustainability websites?
- C1.4** Is energy efficiency included as a priority or focus area or emphasis in your school goals (e.g. in your school plan, policy, administration and/or curriculum charts)?
- C1.5** Do your school events keep energy use to a minimum?

C2 Student and parent leadership

- C2.1** Are students involved in planning and managing the energy and air quality programs?
- C2.2** Do you institute school environment leadership through students in the school?
- C2.3** Do you have an active School Environment Club or Student Action Team?
- C2.4** Do parents and other members of the school community assist in the planning, implementation and management of the energy plan?

C3 Community and communication links

- C3.1** Does your school liaise and/or work with local government or regional energy authorities and community groups to develop school-based and joint projects?
- C3.2** Have staff and students participated in local environment network meetings?
- C3.3** Do staff and/or students participate in local activities to reduce personal car-based transport (e.g. Walking, School Bus, Ride2School, car pooling or bike riding encouragement programs)?
- C3.4** Are questions about the attitudes and changes in energy efficiency behaviour at home included in annual parent surveys and wider school community surveys?
- C3.5** Do you include ideas and activities in school newsletters to families about being more energy smart at home?
- C3.6** Do staff and/or students mentor other schools?

- C3.7** Do students and staff communicate about energy-related issues with other schools across the state, nation and globe?
- C3.8** Do staff and/or students give presentations on their school energy and air quality programs to other schools?
- C3.9** Does your school liaise with political representatives from local, state and federal governments, local business and local 'friends of' groups for support of projects?