



Department of Education & Training

# **ENERGY**BUSTERS

SCHOOL PASSPORT



Energybusters is a program of workshops, awards and planning support helping schools to link curriculum and actions to improve energy efficiency in schools.

The school passport is a guide for schools on their journey towards energy efficiency, to contribute to the Victorian Government's energy efficiency objectives and reduce emissions of Greenhouse gas.

This passport is a tool to assist with:

- Energy management;
- Whole school planning;
- Professional development;
- Curriculum planning;
- Managing school facilities; and
- Improving energy efficiency.

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Further resources and information are available from [www.sofweb.vic.edu.au/enviro](http://www.sofweb.vic.edu.au/enviro)

# Where are you now?

Which of these happen/happened at your school?

|   | Not done                 | Sometimes do             | Do/have already          |
|---|--------------------------|--------------------------|--------------------------|
| Energy bill monitored                               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Energy audit carried out                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <i>save energy@school</i> self assessment used      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <i>School Energy Shutdown</i> Guide applied         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Energy Policy developed                             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Energy efficiency action plan in place              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Energy efficiency committee established             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Energy efficiency integrated into the curriculum    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <i>Sustainable Schools</i> Energy Module undertaken | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Energy efficient appliances installed               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Local community engaged                             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| School infrastructure improvements actioned         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |



# Energy efficiency profile

This profiling tool is designed to help identify areas of focus for your school.

Mark in BLACK the description for each category which best reflects your current situation.

Mark in RED the description for each category where you would like to be in  months.

Mark in BLUE the description for each category where you are at the end of  months.

|   | Beginner  | Intermediate  | Experienced  |
|---|---|---|--|
| <b>Understanding energy and current building capacity</b> | Know that energy efficiency and climate change are important and we want to get started | Analyse and monitor our energy bills.<br>Investigate resources and support such as:<br><ul style="list-style-type: none"><li>• Contractor energy audit;</li><li>• Self assessment with support of resources such as <i>save energy @ school</i> CD;</li><li>• Undertaking <i>Sustainable Schools</i> Initiative Core Module</li></ul> | Active and ongoing participation of teachers/business in external/internal PD or bought in coaching services such as <i>Sustainable Schools</i> Initiative – Energy Module and learning; Regular reports to stakeholders |
| <b>Provide management structure to ensure outcomes</b>    | Individual teacher/business manager taking some actions                                 | Principal support for developing wider energy efficiency program  | Energy efficiency objectives incorporated in school charter/policy, energy efficiency committee established, energy efficiency included in whole school planning for curriculum delivery and facilities operations       |
| <b>Provide curriculum structures to ensure outcomes</b>   | 'One off' or occasional energy related activities or events                             | Curriculum activities throughout the school with some coordination  | Whole school integrated approach linking curriculum, school energy management and application in homes and community   |
| <b>Develop an action/implementation plan</b>              | Some good ideas and ready to plan   | Implementation plan developed with actions prioritised  | Actions are being implemented and monitored.   |
| <b>Access resources and funds</b>                         | Interested in exploring funding options   | Funding currently being sought to support approved action plan  | Funding successfully obtained and actions implemented.   |
| <b>School infrastructure improvements</b>                 | Some improvement opportunities being considered   | Improvements planned and prioritised  | Improvements implemented and outcomes monitored  |
| <b>Investigate links with local community</b>             | Keen to build links with the community  | Established some community links  | Community engaged and outcomes evident – formal reporting to local supporters/ providers established   |

# Energy and services analysis

What services or functions (related to energy) are in your school?  
In what ways do the services use, save or waste energy?

| Services   | Use energy  | Waste energy   | Save energy  |
|--|---|--|--|
| <p><b>example:</b> comfort providing an acceptable building temperature for staff and students</p> | <ul style="list-style-type: none"> <li>• heating of the school buildings in winter</li> </ul> | <ul style="list-style-type: none"> <li>• buildings are poorly insulated</li> <li>• there are gaps around windows and doors</li> <li>• doors left open</li> </ul> | <ul style="list-style-type: none"> <li>• insulate ceilings and walls</li> <li>• sealing windows and doors</li> <li>• managing heating efficiently, for example only heating rooms when needed</li> </ul> |
|  |   |  |  |
|  |   |  |  |
|  |   |  |  |
|  |   |  |  |
|  |   |  |  |
|  |   |  |  |
|  |   |  |  |
|  |   |  |  |

# Understanding energy bills

Use your school's energy bills to answer the following questions relating to energy use.



| Questions   | Notes |
|---|-------|
| How frequent are the bills?                                       |       |
| What are the energy units used?                                   |       |
| What is the price/unit energy?                                    |       |
| Identify the greenhouse gas emissions.                            |       |
| Compare the most recent consumption to that of the previous year. |       |
| How does a summer reading compare to winter consumption?          |       |
| What about holiday versus term time?                              |       |
| What is the ratio between Peak and Off Peak? Can we explain why?  |       |
|   |       |

| Electricity |              |           |                           | Natural Gas |              |           |                        | Other Fuel  |              |           |                          |
|-------------|--------------|-----------|---------------------------|-------------|--------------|-----------|------------------------|-------------|--------------|-----------|--------------------------|
| Bill period | Days in bill | Cost (\$) | Quantity (kilowatt-hours) | Bill period | Days in bill | Cost (\$) | Quantity (Mega-joules) | Bill period | Days in bill | Cost (\$) | Quantity (specify units) |
|             |              |           |                           |             |              |           |                        |             |              |           |                          |
|             |              |           |                           |             |              |           |                        |             |              |           |                          |
|             |              |           |                           |             |              |           |                        |             |              |           |                          |
|             |              |           |                           |             |              |           |                        |             |              |           |                          |
|             |              |           |                           |             |              |           |                        |             |              |           |                          |
| TOTAL       |              |           |                           | TOTAL       |              |           |                        | TOTAL       |              |           |                          |

# Energy efficiency in the curriculum

This proforma maybe used to audit your current curriculum for energy efficiency learning and plan for the future learning.

| Level | Domain and Dimension | Description of activities |
|-------|----------------------|---------------------------|
|       | Now                  |                           |
|       | Future               |                           |
|       | Now                  |                           |
|       | Future               |                           |
|       | Now                  |                           |
|       | Future               |                           |
|       | Now                  |                           |
|       | Future               |                           |



# Energy Efficiency Action Plan

This proforma may be used to generate initial ideas for an energy efficiency action plan.



|  |   |  |
|--|---|--|
| <p><b>What is the energy efficiency action plan focus?</b></p> | <p><b>Who will be involved?</b></p>   | <p><b>What is the timeline?</b></p> <p>Start</p> <p>Finish</p> |
| <p><b>What strategies will be used?</b></p>                    | <p>What data and evidence will be collected?<br/>How will this be done?</p> |  |
|  | <p>What problems might be encountered?</p>                                  |  |