



# DATA COLLECTION SHEETS

*These sheets will help you record information on use of different energy forms in your school. Knowing how much of these forms of energy your school uses and how much it costs will help your school to improve its efficiency and become better stewards of limited forms of energy. It is a crucial first step to understanding what changes can be made. Data collection sheets will work best where students and staff work together to investigate where to find this information and how to record it over a school year.*

## Electricity:

On this template record the total units of electricity used this month. See Activity - **Reading an Electricity or Gas Account** for more information on how to read an electricity or gas bill from your provider. Record the **total electricity charges** per month including all line charges, fixed and anytime costs, inclusive of GST.

Gather up your accounts for the one-year period up to your data collection day. Record the actual dates for each billing period on the template. When completed, these billing periods should add up to an entire year.

*For example, the data collection date is the 14<sup>th</sup> August 2008. You only have access to accounts that measure up to the 1<sup>st</sup> August 2008. Go back through your accounts until you have accounts starting from 31<sup>st</sup> July 2007 – 1<sup>st</sup> August 2008.*

Data Collection Date:		
Actual Billing Period eg. 14 Aug – 15 Sep 2008	Electricity Bill	
	Units Used kWh	Total electricity charges - <b>What You Pay \$</b>
<b>TOTAL</b>	<b>kWh /yr</b>	<b>\$ / yr</b>

**Transfer these TOTALS to the ENERGY! ANNUAL SUMMARY**



**Gas:**

On this template record the total amount of gas used at your school this month. You may have gas on reticulated supply and will be billed through a gas supplier. Or, you may purchase gas in bottles and refill these. Include all gas use on this template.

Your gas bill may give your reading in kWh or m<sup>3</sup>. If kWh are given, record these otherwise record as m<sup>3</sup> (circling these units on the table). Make sure that you transfer this information to the correct box on the Summary Sheet.

Record the total gas charges per month including all line charges, fixed and anytime costs. Your billing period may not be for an exact month. Record the dates for your billing period on the template. When completed these billing periods should add up to an entire year.

If you purchase gas bottles, record the size of the bottle in the month refilled and how much this cost.

Data Collection Date:				
Actual Billing Period eg. 14 Aug – 15 Sep 2008	Gas Bill		Gas Bottles	
	Units used kWh or m <sup>3</sup>	Total gas charges - What You Pay \$	Size of bottle kg	Cost of refill \$
TOTAL	kWh /yr	\$ / yr	kg /yr	\$ / yr

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## Diesel and Coal:

Your school may still use traditional forms of heating such as diesel or coal in boilers and generators.

Find where your school records are kept for Diesel or Coal purchases. Use the template to record how much of each of these fuel types you use and how much it costs. Your billing period may run across months so adjust the template to suit you.

<b>Data Collection Date:</b>				
<b>Actual Billing Period</b> eg. 14 Aug – 25 Oct 2008	<b>Diesel Used</b>		<b>Coal Used</b>	
	Litres <b>L</b>	Total cost <b>\$</b>	Kilograms <b>kg</b>	Total cost <b>\$</b>
<b>TOTAL</b>	<b>L / yr</b>	<b>\$ / yr</b>	<b>kg / yr</b>	<b>\$ / yr</b>

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## Firewood and Biofuels:

Your school may use firewood for heating or may have upgraded boilers and heaters to a system using biofuels such as wood pellets, wood chips or even tallow and grease from the food industry.

Find where your school records are kept for firewood or biofuel purchases. Use the template to record how much of each of these fuel types you use and how much it costs. Your billing period may run across months so adjust the template to suit you.

Data Collection Date:				
Actual Billing Period eg. 14 Aug – 25 Oct 2008	Firewood Used		Biofuels Used -wood chips/ pellets -other describe below	
	Cubic metres m <sup>3</sup>	Total cost \$	Cubic metres m <sup>3</sup>	Total cost \$
TOTAL	m <sup>3</sup> / yr	\$ / yr	m <sup>3</sup> / yr	\$ / yr

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<b>Biofuels</b>	<ul style="list-style-type: none"> <li>• What type of biofuel does your school use?</li> <li>• What system is used to convert it to useable energy form for the school?</li> </ul>	
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**Transfer this information to the ENERGY! ANNUAL SUMMARY**



## ON-SITE GENERATION AND SOLAR HEAT TECHNOLOGY

Many schools are installing on-site electricity generation and solar heat capture with photovoltaic panels, wind turbines and solar heating panels.

### Photovoltaic and Wind Electricity:

Your photovoltaic panels and wind turbine will be generating electricity and you will probably have meters in place to record this information. Set up a system to monitor generation each month and transfer the data to this template. If you don't have meters you will need to look at installing them to gather this information.

Measurement Period		Photovoltaic Electricity	Wind Electricity
Base Period (month)	Measurement Period (actual measurement dates)	Units Generated  kWh	Units Generated  kWh
<b>TOTAL</b>		<b>kWh / yr</b>	<b>kWh / yr</b>

**Transfer these TOTALS to the ENERGY! ANNUAL SUMMARY**

### Solar Heating:

Your school may have installed solar panels for heating hot water or other solar technologies for heating space. Measure the area of the solar panels and piping for heating water and the area of other panels for heating space and record below.

<b>Solar Water Heating</b>	How many square metres of solar water heating panels are installed?	<b>Area m<sup>2</sup></b>	
	How many square metres are covered with black polyethylene piping (solid or in mat form) for heating the school swimming pool.	<b>Area m<sup>2</sup></b>	
<b>Solar Heating of Space</b>	How many square metres of solar panels for heating space are installed?	<b>Area m<sup>2</sup></b>	

**Transfer Area to the ENERGY! ANNUAL SUMMARY**