

Focus on the important management issues

Now is the time to act!

Mistakenly, some businesses regard energy costs as invariable overheads. However an organisation's energy costs are perhaps the most controllable.

Therefore it is often easier to increase the profitability of an organisation by reducing energy costs than by increasing sales or turnover.

Also, successful energy management is usually undertaken by organisations that integrate an energy reduction strategy within the total business operation, or at least within the organisation's quality management program.

We will now examine how to successfully manage your organisation's energy resources. Remember, the key to energy efficiency and reduced costs is good business and human resource management, and the setting and implementation of strategies as well as technology improvements is also vital. The savings you make by more efficient management of energy use will contribute to the increased profitability and competitiveness of your organisation, not to mention the improvement in productivity that comes from good business practices. These actions should form part of a comprehensive strategy to help your organisation reduce its energy costs.

21 opportunities to improve your energy efficiency have been identified in the table on the following pages. Each opportunity is presented as a question, which is followed by one or more reasons for changing the way your organisation thinks about energy. These are followed by a number of suggestions for practical actions that should help you reduce your energy bill. The final column is left blank so that you enter your own plan of action.

In nearly all cases, you do not have to make any capital investment to save money. However, all the actions involve people and, in order to be successful, you must make certain that your staff are committed to your energy management program.

If you carefully examine the list of opportunities, and act on the suggestions, the rewards will come in the form of reduced energy costs.

'Industry, commerce and the public sector can start today to reduce their energy costs by 10–25% through improved energy management.'



opportunity	reason	action	plan
Q1. Does your company have an energy efficiency policy?	<p>A simple statement of policy objectives will show management's commitment to energy efficiency. The most cost effective energy efficiency programs are led by management's example.</p> <p>Effective energy efficiency programs can produce significant cost savings</p>	<p>Formulate a policy for energy efficiency and ensure management is committed to it.</p> <p>Produce a statement of objectives showing management's commitment to reducing energy use and protecting the environment.</p> <p>Make sure that every member of staff has a copy in a position where it can be seen.</p> <p>Use staff meetings as a means of raising awareness of the high cost of energy.</p>	
Q2. Does your company include energy efficiency in all specifications for buying new plant and equipment?	<p>Cost savings achieved through lower running costs can significantly outweigh higher initial purchase costs.</p>	<p>Ensure plant and equipment specifications include energy efficiency.</p> <p>Ensure staff responsible for purchasing or hiring new plant and equipment receive training in energy efficiency awareness.</p> <p>Evaluate the purchase of plant and equipment by undertaking a life cycle cost analysis.</p>	
Q3. Is energy efficiency the responsibility of a specific person in your organisation?	<p>Making a specific member of staff responsible for energy efficiency gives it a higher profile.</p> <p>Someone should be accountable for the results.</p>	<p>Make one member of staff responsible for energy efficiency including monitoring the cost of all energy.</p> <p>Ensure the person responsible has the full backing of management.</p> <p>Ensure the person has sufficient time and the ability to do the job.</p> <p>Ensure the person has a well-defined reporting function.</p>	
Q4. Do you understand and make full use of all the information on your energy bills?	<p>Energy bills provide information essential to help you monitor the efficiency of your operation.</p> <p>Keeping accurate records of consumption and costs will enable consumption to be monitored and alternative tariffs and suppliers to be evaluated.</p>	<p>Establish a system for recording relevant information from energy bills.</p> <p>Record as much information as possible such as units used, cost, maximum demand, and supply capacity.</p> <p>If night-time use is metered, check that this agrees with known usage.</p> <p>If other billing times are identified, check that usage can be accounted for.</p> <p>If maximum demand tariff is being used, make sure you can account for the demand incurred.</p>	
Q5. Do you compare energy bills with the previous equivalent month or quarter?	<p>This is an easy way to monitor expenditure on energy. Careful comparisons of consumption will identify changes in use and help to identify possible areas where money is being wasted.</p>	<p>For sites with smart meters ensure data is obtained and reviewed</p> <p>Compare consumption and costs against equivalent periods from the previous year.</p> <p>Investigate any unexplained increases.</p>	
Q6. Do you read and record your energy meters every month? (This is relevant for sites where meter readings are infrequent or are estimated.)	<p>Regular monthly meter readings will show a pattern of use. This information will be particularly useful when billing periods are irregular or when bills are frequently estimated.</p>	<p>Establish a routine for making and recording monthly readings.</p>	

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Q7. Do you look for reasons for all increases in consumption?	<p>You can only deal with energy waste if you can accurately identify and account for all change in usage.</p> <p>Increases may be due to faulty equipment, which might also affect production or unplanned changes in work practices.</p>	<p>Check all operating procedures if energy consumption increases.</p> <p>Check that control devices, such as time switches, valves and thermostats, are operating correctly.</p> <p>Check whether increases in energy use are due to modifications to work procedures.</p>	
Q8. Do you compare the energy use of your company with that of other companies in the same sector of activity?	<p>If you compare your energy use with similar companies you will get a good indication of the current level of efficiency and potential for improvement.</p>	<p>Compare your energy use per square metre of floor area, or another parameter, against national performance benchmarks.</p> <p>Encourage your industry association to develop the benchmarks if these are not available.</p>	
Q9. Do you set regular targets for reductions in energy consumption?	<p>Setting regular realistic targets for energy reductions will help focus attention on inefficient activities and raise the general profile of energy efficiency.</p>	<p>Obtain data for comparable activities in your sector.</p> <p>Identify the two or three months with the best energy performance by your organisation.</p> <p>Set regular and achievable targets based on external and internal data.</p>	
Q10. Do you check energy use against production levels?	<p>Relating energy use to production will provide an internal benchmark of energy efficiency.</p>	<p>Establish a procedure to calculate energy performance—for example kWh per tonne of product.</p> <p>Monitor trends in performance to identify efficient and inefficient working practices.</p>	
Q11. Have you fitted sub-meters to energy intensive plant and equipment?	<p>Individual monitoring of the energy consumption of energy intensive plant and equipment will provide useful data to track changes in energy use.</p>	<p>Identify those items that have an energy consumption of more than \$10 000 per year and consider fitting sub-meters to them.</p> <p>Record energy consumption from the individual sub-meters and review against performance/production data.</p>	
Q12. Have you identified the key personnel who can help you save energy?	<p>In most companies there is limited time available for energy efficiency activities.</p> <p>For the most effectiveness identify the people who can play a key role in saving energy. Obvious targets are those responsible for plant, equipment and buildings.</p>	<p>Identify those members of staff who can play a key role in saving energy.</p> <p>Make the involvement of key personnel in energy efficiency activities a priority.</p> <p>Use techniques such as team building to develop awareness and involvement.</p> <p>Make line managers responsible for energy use.</p>	
Q13. Do you provide training in energy efficiency for key members of staff?	<p>Don't expect staff to be aware of energy efficiency techniques if appropriate training is not provided.</p>	<p>Identify key members of staff.</p> <p>Identify organisational and individual training needs and schedule training programs.</p> <p>Conduct initial training and regular refresher training.</p> <p>Review the effects of training against your organisation's energy monitoring.</p>	
Q14. Do you continuously promote the benefits of energy efficiency to all personnel?	<p>Energy efficiency programs must involve all members of staff.</p> <p>You cannot expect to achieve high levels of energy efficiency and cost savings unless you continuously involve all members of staff in the activity.</p> <p>Regular feedback on the energy performance of your organisation gives staff a sense of involvement and inspires greater interest in energy efficiency.</p> <p>Staff are often more interested in environmental benefits than company profits.</p>	<p>Ensure all staff are aware of the benefits of energy efficiency.</p> <p>Use staff meetings and similar activities to convey simple good housekeeping practices such as switching off unnecessary lights etc.</p> <p>Provide information to staff in the most appropriate way for their needs and use.</p> <p>Use a range of activities to promote energy efficiency.</p>	

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Q15. Do you make full use of all available energy efficiency literature and videos?	<p>There is plenty of free educational and promotional material available.</p> <p>Promotional materials such as posters are also available.</p>	<p>Determine sources of information that would be useful to staff.</p> <p>Obtain copies and use the information.</p>	
Q16. Has your organisation tried running a staff suggestion scheme for energy saving ideas?	<p>Encouraging staff to suggest ways of reducing energy costs can often produce good ideas.</p>	<p>Establish up a staff suggestion scheme.</p> <p>Discuss ideas with individual staff members concerned.</p> <p>Ensure you use the best suggestions to avoid staff becoming disillusioned.</p>	
Q17. Are any incentives given to staff to encourage good housekeeping practices?	<p>Staff are more likely to carry out good housekeeping measures if they themselves are benefiting.</p>	<p>Establish a scheme to maintain staff interest in energy efficiency.</p> <p>Establish a personal award program. Incentives could include improving staff facilities or giving donations to charities as nominated by staff.</p>	
Q18. Are new members of staff informed about existing energy policies?	<p>It is essential that new staff are informed about your organisation's commitment to energy management.</p>	<p>Ensure that all energy efficient practices are included in staff induction processes.</p> <p>Ensure new members of staff receive and read a copy of the organisation's policy on energy efficiency.</p>	
Q19. Does your organisation publicise its energy saving successes both internally and externally?	<p>External publicity on energy efficiency activities can enhance the image of your organisation.</p> <p>Internal publicity maintains the high profile required to sustain effort by staff.</p>	<p>Provide stories to local papers, radio and television, and write articles for trade journals etc. This is a cost-effective way of publicising your company's commitment.</p> <p>Provide feedback to staff through regular meetings, internal publications, posters and billboards.</p>	
Q20. If your energy bill exceeds \$20 000, has a formal energy audit been carried out?	<p>An in-depth review of energy use will identify where cost savings can be made.</p> <p>The review will help to implement an integrated energy policy.</p>	<p>Conduct an extensive review, either in-house or using an external consultant, every five years.</p>	
Q21. Is a percentage of the savings made through energy efficiency reinvested in future efficiency methods?	<p>Reinvesting a portion of the savings in additional energy efficiency measures will generate further savings and show the commitment of your organisation to energy efficiency.</p>	<p>When planning your energy efficiency program, ensure that a percentage of the planned savings are reserved for investment in future energy efficiency programs.</p> <p>Contestable site negotiations provide savings which can be reinvested in efficiency.</p>	



As you can see, energy management is a process of continuous improvement.

Senior management's commitment is required if your organisation is to develop and successfully implement an effective energy management strategy. While a great deal is expected of energy managers, energy management may be under-resourced if your senior manager is not committed. Therefore, concentrate your efforts at this level, and publicise your successes to get the recognition needed to galvanise energy management and investment in energy efficiency.

Remember that effective energy management does more than reduce costs and increase profitability. Energy management can drive the whole business to improved performance through its effect on production, operations, maintenance and environmental issues. So now is the time to act on developing and implementing an effective energy management strategy.

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