

Energy Management

A Guide for Small Business

Workbook

Step 1 - Preparation

Company details

Fill in your details below to personalise your workbook, which will serve as your company's energy management file. You may not have all the details now, so just fill in what you can at the beginning.

Name					
Position					
Company					
Branch (if applicable)					
Business activity					
Contact number					
Contact address					
Email (optional)					
Start date			Finish date		
Number of employees				Floor sp	bace area
Full-time		Part-time			
Current energy supplier(s)				
Energy type	Supplie	r	Account manager		Contact number
Electricity					
Heating					

Other (please specify)

Annual energy costs (€/yr)

Annual energy usage (kWh/yr)

Floor space area

Account manager	Contact number

Energy management diagnostic questionnaire

ACTION 1 What is your current energy management situation? Fill out this energy management diagnostic questionnaire to help you assess this. This form should be filled in again in 12 months' time and the answers compared.

(If a good energy management system is in place, most of your answers will be the third and fourth boxes.)

Has a coordinator been appointe	d to manage the energy action p	lan?	
No	Informal appointment	Formal appointment but low priority	Formal appointment
Additional comments			
Do you have an energy statemen	it?		
No	Informal statement	Incomplete statement	Complete formal statement
Additional comments			
Have you identified significant er	nergy users or factors that influen	ce energy consumption?	
No	Informally	Informally	Yes
	(no quantification)	(some quantification)	(quantified assessment)
Additional comments			
Is there an energy action plan in	place?		
No (none)	Informal unwritten plan	Informal written plan	Formal plan
Additional comments			
Are energy efficient practices and	d energy awareness promoted am	nongst employees?	
Not at all	Informally and infrequently	Informally but regularly	Formally and regularly
Additional comments			
Is there an energy measurement	and monitoring system in place?		
No (none)	Informal	Incomplete system	Formal system
Additional comments			
Conclusions from diagnostic:			

The business case for energy management

ACTION 2 What is your business case for energy management? afford to spend tackling energy management.

How to fill in this table:

- 1. Record your annual operating costs for the previous year.
- 2. Record your total energy costs (from previous year's bills).
- 3. Calculate your total energy costs as a percentage of your annual operating costs.
- 4. Record your annual profits for the previous year.
- 5. Calculate your energy costs as a percentage of your profits.
- 6. Calculate 10% of your energy costs and express this as a percentage of your profits to see how much can be saved.

Financial indicators

1. Annual operating costs
2. Total energy cost
3. Energy as % of annual operating costs
4. Annual profits
5. Energy as % of profits
6. % increase in profits by a 10% decrease in energy costs
Conclusions
ACTION 3 List the issues that are driving your en
1.
2.
3.
4.

Fill out your own business case table below and estimate what resources and effort you can

nergy management programme.

Step 2 - Commit

ACTION 4	Assign an energy coordinator for your	business.
Name of energy co	ordinator	Position in company
ACTION 5	Write an energy statement for your bu	isiness.
Company energy s	tatement	

Step 3 - Identify

Energy costs

ACTION 6

Gather your previous year's energy bills and fill these in below

As you implement your energy management programme, from now on fill in your current year's bills as you receive them. Compare these costs with the previous year's data to see how much your company has saved.

Try to record all your energy bills in kWh to keep it consistent.

Your electricity bills

Previous year:					
Billing period	Quantity billed (units) kWh	Total cost (€)			
Total					
iotai					

Tips

• Don't hide away your energy statement — communicate it to staff at meetings or train staff on the statement.

• Use existing systems to integrate your energy statement rather than creating a new system, i.e. HACCP, ISO 9001 or ISO 14001.

Current year: ____

Billing period	Quantity billed (units) kWh	Total cost (€)
Total		

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Your heating bills Previous year: ____ Current year: ____ Billing period Quantity billed Total cost (€) **Billing period** Quantity billed (units) kWh (units) kWh

Total		Total	

Your other bills (e.g. diesel, LPG, solid fuel)

Previous year: ____

Current year: ____

Total cost (€)

Billing period	Quantity billed (units)	(Optional) kWh*	Total cost (€)	Billing period	Quantity billed (units)	(Optional) kWh*	Total cost (€)
Total				Total			

ACTION 7 Take meter readings for electricity and gas once a month and record below. First, find out where your meter is located. It may be located in another building. You might need to contact your building maintenance company.					
Meter readings —	electricity				
Date	Reading	Units used since previous reading	Multiplier*	kWh used	
Total					

Meter readings — gas

5				
Date	Reading	Units used since previous reading	Multiplier*	kWh used
Total				

*Sometimes meters are unable to record the actual amount of energy that you use. In this case, a certain percentage of usage is passed through your meter and the actual usage is calculated by multiplying by a factor, i.e. a multiplier. Check your bill to see if a multiplier applies to your account. If no multiplier applies, the units used = kWh used.

Energy management diagnostic questionnaire

ACTION 8

Fill out the table below, identifying energy-using equipment, influential factors and people and if there is a potential energy saving.

Use the example in the completed sample workbook to help you. The best way to fill in this chart is to do a walk around your facility and identify your energy users and influences.

Location	Appliance	Quantity	Hours of usage (hrs / day)	Influential factors

In the table below will give you an overall idea of the biggest on-site users. Not every piece of equipment needs to be entered. At this stage you could also identify certain people you might nominate to look after certain sectors, technologies or factors that can influence your energy demand and whether there is a potential to make any energy savings with each piece of equipment listed.

Influential people	Is there a potential energy- saving opportunity here? If yes, add to register of opportunities

Conclusions

(Optional) Energy rating (kW) You will find this on nameplate on appliance	(Optional) Energy value (kWh) for 1 day Energy rating x quantity x hours of usage

Energy management diagnostic questionnaire

ACTION 9 Start to fill out your register of o	oportunities.
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Some common opportunities are outlined in the completed sample workbook.

Aspect (e.g lighting) or area (e.g. zone 1, office or canteen)	Opportunity

This table allows you to list opportunities in various areas. This document can be added to at any stage during the process. Any ideas or suggestions should be captured here.

Comment	Cost

Step 4 - Plan

Energy action plan

ACTION 10		rgy action plan below. In this to show commitme	ent.		
Target or plan				Cost	Priority
Management sigr	n off	Name		Position	

Ideally, the plan shown below should be for a period of one year

Person responsible	Target or expected result	Target date	Achieved (yes or no)
			_
Signature	Date		

Step 5 - Act

ACTION 11

Establish your operations and maintenance checklist below. Use the example in the completed sample workbook to help you complete this step.

Area	Task	Check frequency	Person responsible	Training required	~

Area	Task	Check frequency	Person responsible	Training required	~

Action 12 and 13 — these are completed by putting environmental awareness and training programmes in place. There are no workbook components to these steps.

Step 6 - Review

Performance comparison progress table

	l in the table below to c is should be done on a cc	-
Date (Try to do this to tie in with your energy bills)	Comparison 1 Electricity use kWh /m ²	Comparison 2 Gas use kWh /

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enchmark	x your performance.	
2 ′m²	Comparison 3	Comparison 4

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Energy management diagnostic questionnaire

ACTION 15 Con	nplete review checklist below.		
1. Have you filled in your co	ompany details?	7. Of these targets, how their timeframe?	w many have been achieved within
Yes	No		
2. Have you recorded saving energy management gui	gs in energy cost since using this de?	8. Have you started rur	nning an energy awareness campaig
Yes	No	Yes	No
If yes, please detail		If yes, please detail	
3. Does your energy coordi	nator have your full support?	9. Have you noticed a o	change in staff attitude to energy?
4. Have you communicated staff members? Yes	your energy statement to all	If yes, please detail	
5. What projects have you c energy management?	arried out during this cycle of		
		10. Do you feel familia	r with your company's energy bills?
		Yes	No
		11. Have you made a li ongoing plan for e	ist of recommendations for the nergy efficiency?
		Yes	No
		12. How much energy	have you saved?
5. How many targets have b action plan?	been identified in your energy		

13. Have you considered entering the SEAI energy awards?		5? 14. Have you investigated the range of grants that are available from SEAI?
Yes	No	Yes No
E .		
Future recomm	iendations	
ACTION 16	Fill out future recommendatio	ins below.
Outline a list of sug	gestions as to how to improve on y	your energy management programme for next year:









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