IN PARTNERSHIP WITH
THE UNITED NATIONS
ENVIRONMENT PROGRAMME

Volvo Adventure 2012

A guide to community group energy projects

Contents

2 What's it all about?

This is a series of activities to help you prepare your entry to the Volvo Adventure. It collects together ideas and suggestions that could help devise and develop your energy project. It could be used as a complete programme for people just starting out. For those of you with existing projects it provides suggestions for supporting your entry to the Volvo Adventure.

3 What is the Volvo Adventure?

Volvo and the United Nations Environment Programme (UNEP) challenge young people all over the world to participate in Volvo Adventure, an exciting award for a better environment. This educational programme gives young people from all around the world the opportunity to display their local environment care projects.

Groups entering the Volvo Adventure are expected to show the need for their project or have a means to show it is being successful. If you have an existing project this could be based on your results, and showing an understanding of the impacts of your project locally. If you are starting out your research might focus on the potential solutions and why one was chosen.

4 Objectives

This set of activities is designed for use by groups to research the issue they are working on. The objective is to:

1) Encourage young people to develop energy saving strategies.

2) Provide a structure for young people to identify the barriers to implementing an energy project.

3) Create a youth version of environmental indicators to complement local community concerns about energy.

5 What the Volvo Adventure needs

The activities are not provided as a programme to be followed, they are ideas and suggestions that can be adapted to a variety of situations. In fact you might want to look at other ideas in other downloads – you may want to use these also. To take part in the Volvo Adventure 2012, all you have to do is:

1) Think about how you can illustrate the need for your project.

2) Use the ideas in this pack to measure, monitor, and come up with ways to show how you can improve your local environment.

3) Submit your group's project before 31st January 2012.

6 Using the activities

There are also general learning outcomes for these activities. Involvement in the project will introduce the following types of activity that are relevant to most curriculums such as:

1) Communication skills including discussion, reporting, and structured debate.

2) Understanding the needs and values of intended users.

3) Applying knowledge to understand and control risks.

4) Understanding the conflict of social, economic and natural issues in designing solutions.

5) Understanding the patterns in a locality and how people shape them.

6) Experimenting with presenting data and visions of the future.

7) Youth-adult partnerships to improve local conditions and solve local problems.

8) An understanding and experience of how decision-making processes work.

9) A connection between the local and global issues that young people and adults encounter.

10) An understanding of what sustainability means by examining a real situation.

11) Communication skills including discussion, reporting, and structured debate.

12) Collecting, recording and interpreting data.

7 How to use this pack

The activities in the following sections can be focussed on energy issues ranging from the establishment of energy saving schemes to tree planting to reduce the impact of carbon dioxide production.

In the past, successful finalists have been involved in many of these types of project. The pack is structured to:

- Find out what encourages people to conserve energy.
- Discover what people are actually doing to reduce their energy bills.
- Find out what people think they should be doing.
- Define what actions are needed to reduce energy consumption.

8 Energy briefing

The international community has started to tackle climate change. The Kyoto Protocol (1997) provides a framework for action, setting binding emission reduction targets for developed countries. All countries will eventually need to be part of the solution. But we cannot expect the developing world to do more unless developed countries show leadership by taking domestic action to reduce emissions.

Deeper cuts will be needed in the longer term, but the immediate priority must be to turn the commitments made at Kyoto into real emission reductions. There are many themes for projects if we are doing this within our groups climate change; reducing carbon emissions; energy efficiency and combined heat and power; renewables; social (including fuel poverty); international energy relations; innovation, education, skills and research; transport; security of supply; and delivery partnerships.

If your government has signed the protocol they may be preparing or publishing an action plan for your country or area. Developing an energy policy forms an essential part of raising the profile of energy within a community. There are also benefits to communities, including schools, from encouraging better energy efficiency. Wasting less energy saves money, with significant improvements in energy efficiency usually be achieved for low capital outlay and with a short payback period, creating jobs and helping to make industry more competitive. Energy efficiency measures also improve the quality of housing, helping bring warmer, healthier homes to old and vulnerable people living in fuel poverty.

Section 1: Energy use

Skills and competencies

Competency	Skill	Activity
Undertake basic surveys	• Basic data collection and recording. • Devise and develop a data collection strategy.	1: What do people think and do? 2: Starting an energy project

Activity 1: What do people think and do?

Time required: 20 minutes plus time to carry out and analyse the surveys.
Resources needed: Paper, pens, copies of the Activity 1 Survey.

Objectives

- To identify how to prove the issue is real.
- To research the barriers to resolving the issue.
- To find out what actions people are already taking.

Instructions

1) To start you can undertake an exercise with your group to work out why you think energy issues are important before going on to find out what other people think.

2) After deciding why and what people think a more quantitative study can be done using the energy audit activity ideas.

3) You have to find out what young people and adults think and do about energy. There are two parts to this. First, we want to know what you and your team think. This activity creates a baseline from which to start. You will be able to judge the success of your action plan by seeing how perceptions have changed.

4) What do you and your team perceive about energy consumption? Simply answer these questions before going on to the next activity:

   a) Is it important to conserve energy? Yes / No
   b) If Yes: Why do you feel that it is important to conserve energy? Write down why you feel this is important.
   c) If No: Why do you feel that it is not important to conserve energy? Write down why you feel this is not important.

5) Now, fill in the following questionnaire that you will be using to find out how people use energy and what they think about energy issues. You can add some extra questions on energy if you want.

6) After studying the results, what can you say about energy consumption amongst young people? A survey sheet is given here for you to use or adapt.

Activity 1: Survey on energy perception

1) Do you turn out the lights when you leave a room empty?

☐ Always ☐ Sometimes ☐ Never

2) Do you have a CD, TV, or PC? Yes / No
If yes, do you leave your CD, TV, PC and other machines on standby for more than one hour?

☐ Always ☐ Sometimes ☐ Never

3) Did you ever try to save energy?

☐ Always ☐ Sometimes ☐ Never

4) Have you ever managed without electricity for more than 24 hours?

☐ Yes ☐ Can't remember ☐ No

5) How many products run on electricity do you have at home?

☐ None ☐ Less than 10 ☐ 10-20 ☐ More than 20

6) Do your parents ever tell you to save energy?

☐ Yes ☐ Can't remember ☐ No

7) Do you think there are energy supply problems globally? Yes / No

If Yes, what are they?

If No, please explain why not:

8) Do you think there are energy supply problems in your country? Yes / No

If Yes, what are they?

If No, please explain why not:

9) Do you think energy is used wisely in the area in which you live? Yes / No

If Yes, how?

If No, please explain why not:

Activity 2: Starting an energy project

Time required: 20 minutes
Resources needed: Paper and pens

Objectives

- To decide what type of audit you need to do.

Instructions

1) Analyse the results and decide what issues you want to tackle.

2) Review the issues you want to tackle.

3) Get the group to think about the ways they can test their plans.

4) Writing and doing simple questionnaires in which the groups identify key questions to ask.

Section 2: Auditing

Skills and competencies

Competency	Skill	Activity
Undertake basic surveys	• Basic data collection and recording. • Devise and develop a data collection strategy.	1: Fuel use audit 2: Electricity users 3: Appliance audit 4: Fuel use patterns

Activity 1: Fuel use audit

Time needed: 30 minutes to set up, plus the running time.
Resources: Access to fuel meters or fuel stores.

Objective:

- To find out how much of a particular fuel is being used.

Instructions

1) Identify where different utility meters and/or fuel stores are within your building.

2) Ask permission to monitor their use.

3) Decide upon a rota of who needs to take readings and when.

4) Record your information on the fuel use audit sheet.

Activity 1 Worksheet: Fuel use audit

Activity	Electricity	Gas	Oil	Coal or coke	Wood	Other:
Meter reading or amount in store:						
Date:						
Meter reading or amount in store:						
Date:						
Difference:						

Activity 2: Electricity users

Time needed: 30 minutes to set up and then running time.
Resources: Access to electricity meters to read, copies of this sheet.

Objectives

- To find out what is using electricity.
- To find out how much electricity is being used.

Instructions

1) What is using electricity? Go round the building and see what is using electricity. You could repeat this for other energy users by creating your own tables.

2) Mark where the appliances on a plan of the building.

3) Write to product manufacturers or talk to the person responsible for buying them to find out if they are energy efficient.

4) Use this following sheet to record your information.

Activity 2 Worksheet: Electricity use record sheet

Electricity use	Place found

Activity 3: Appliance audit

Time needed: 30 minutes to set up and then running time
Resources required: Access to meters to read.

Objective

- To find out how much of a particular fuel is being used.

Instructions

1) Look at the labels on electrical and gas appliances and they will have an energy rating. If you cannot find a sticker, look in catalogues or visit showrooms to get information from appliance brochures. You may even want to email or write to the manufacturers.

2) You can work out where the energy in your meeting building or home is being used by looking at the ratings of the different appliances and items that you are using. For example, look at the wrapper from a light bulb. All you need to do is work out the amount of time they are being used. You can apply this to houses as well.

3) Create averages for appliances to create an energy estimator, using information on:

    - Wattage / power unit
    - Amount per unit of electricity

4) Create your own appliance use calculator for each appliance and include:

    - Cost of each unit of electricity
    - Units of electricity used per hour
    - Amount of time used per day
    - Amount of time per week

5) Repeat for other energy users.

Activity 4: Fuel use patterns

Time needed: 30 minutes to set up and then running time.
Resources required: Access to meter readings from bills.

Objective

- To find out how much of a particular fuel is being used, and record your findings here:

Instructions

1) Look at the difference in how fuel is used over a year using information from past bills, or monitor it over several months.

2) Graph the results to decide what factors are causing changes.

Section 3: Indicators and action planning

Skills and competencies

Competency	Skill	Activity
Understand the importance of reflecting different views.	Identify a range of community viewpoints and interests concerning an issue and explain their importance.	1: Now prove it!
Develop the ability to produce a basic plan.	• Produce a plan. • Produce a timetable.	2: Action Planning

Activity 1: Now prove it!

Time needed: 60 minutes
Resources required: Paper and the previous research results.

Objective:

- To identify factors that could measure success.

Instructions

This is the final session when the group finalises their action plan and works out how they are going to implement and evaluate it. Ask the group these questions about energy issues:

1) What would improve your life?

2) What changes do you recognise in the place that you live?

3) How do you recognise these changes?

4) Are these changes for the good?

5) How have they affected the natural environment/wider community?

6) Are there alternatives?

7) Who is damaging the environment and in what way?

8) What benefits do you get from them damaging our environment?

9) Is there a means of control?

10) How are you affecting other people's lives?

11) Describe the proposed target groups - all of them.

12) Decide upon the interests within the target groups; try ranking environmental degradation, natural world, human health and security, public opinion, public relations, economics.

13) Are the environmental issues relevant to the target groups? This will help in defining indicators.

14) Identify which indicators are relevant to these issues.

15) Are there any groups you should be targeting?

16) Who will use your information? How often will it be collected?

Activity 2: Action planning

Time needed: 60 minutes
Resources required: Copies of this sheet or paper and the previous research results.

Objective:

- To develop an action plan.

Instructions

Use the group's answers to Activity 1 and use this sheet to develop an action plan.

1) What's the issue?

2) What's your conclusion?

3) What's the objective of your action plan?

4) Who needs to be involved?

5) How will you involve them?

6) How will you prove support for your idea / get other peoples ideas?

7) Do you need funding?

8) Where will you get funding from?

9) What's the timescale?

10) How will you know if your project has succeeded?