

Creating Local Government Enthusiasm for Renewable Energy

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What am I going to talk about?

➤ Part 1 - Setting the scene

- What are the renewable technologies?
- Why invest in renewable energy?
- Relevance to Local Authorities
- Benefits for a local area

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What is renewable energy?

- Energy from natural sources that are not depleted and are 'renewable'
- The next step on from energy efficiency
- It is important that energy is used efficiently for renewable energy to be effective



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Solar renewable energy

- Passive solar
- Solar water heating
- Photovoltaics (PV) or solar electricity

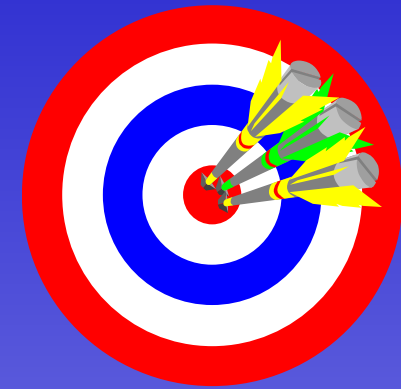


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Why invest in renewable energy?

- Climate change - Kyoto targets
- UK target under Kyoto protocol: reduce greenhouse gas emissions by 12.5% from 1990 levels by 2008-12
- UK voluntary target: reduction of 20% from 1990 levels by 2008-12



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How much needs to be done?

- UK target 10% RE generation by 2010
- UK currently 2.7%;
1.7% is large hydro
- North West 1.3%
(2000)



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Why does this concern Local Authorities?

- Local solutions are needed, contributions to targets must start at a local level
- Local Government Act:
Confers a broad power to undertake any activities that promote or improve the economic, social or environmental well-being of the area or local people

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How can this benefit our local area?

➤ Economic benefits



- Some renewable energy solutions cost less than conventional solutions
- Fuel is either free or can be produced locally
- Money remains in the region
- Job creation



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How can this benefit our local area?

- Social / community benefits
 - Can be small-scale and involve the local community
 - Independence/security of energy supply
 - Fighting fuel poverty

The New Community Wind Turbine at CAT



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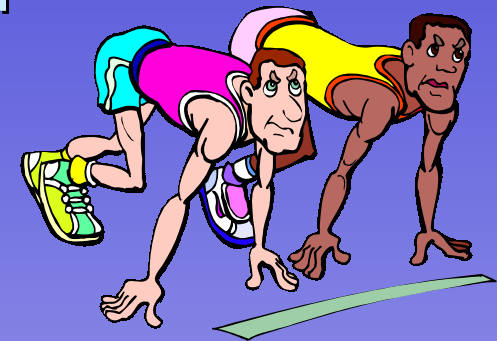
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What can Local Authorities do?

- Aim of today to give starting points
 - Renewable Energy Matrix enables assessment of key areas
 - Renewable Energy Toolkit gives further information to take things forward
 - Enthuse website

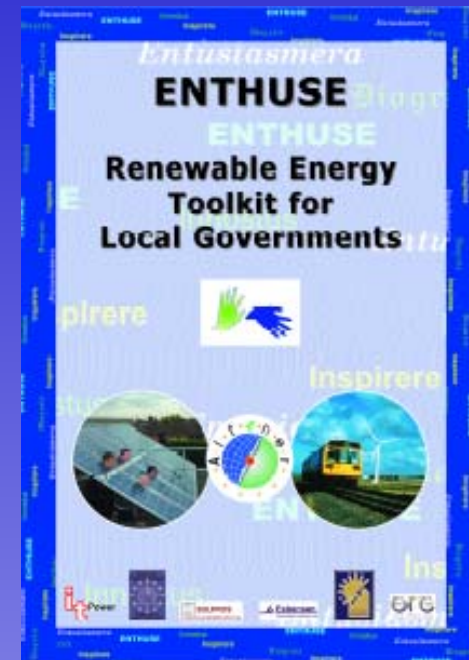


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Renewable Energy Toolkit

- Information for three roles within a local authority:
 - Renewable energy projects
 - Policies
 - Planning
- Financing
- Case studies
- Further information on website



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Enthuse website

- Toolkit downloadable in pdf format
- Additional case studies
- Links to further RE and funding information
- Library of information and links to relevant documents
- Dates of forthcoming events
- Please add information on your projects

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SITE NAVIGATION

- » Start here
- » The toolkit
- » Examples
- » Further Information
- » Library
- » News
- » Contacts

SELECT COUNTRY



WELCOME

Welcome to the Enthuse project website where Local Governments can find ideas and practical information on encouraging Renewable Energy projects.

- [About the Enthuse project](#)
- [About the presentations](#)
- [About the website](#)
- [About Altener](#)

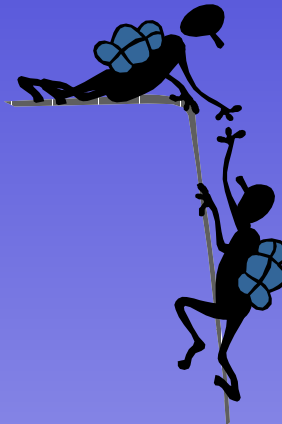
The materials available here were produced by a partnership of 6 organisations from 5 countries (UK, Ireland, Denmark, Finland and Sweden).

Click on their logos below to link to their websites. Their details can be found on the contacts page:



What can Local Authorities do?

- Renewable energy projects
 - Lead by example
 - Whenever energy is needed ask "is there an opportunity to use renewable energy here?"



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Examples of successful projects

- South Somerset District Council is acting as project leader and facilitator in the development of 12 hydro projects at mill sites



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Getting started

➤ Toolkit leaflet: Renewable energy projects:

- Which technologies are suitable?
 - Assess: energy demand and energy resource
- Technology specific information
- Contacts and sources of further information

Checklist for procurement of renewable energy (RE)

- Evaluate green energy (e.g. electricity generated from renewable sources, bioethanol fuel for vehicles)
- Assess the possibility of using renewable energy to meet your energy needs. (see box 'Is there an opportunity to use local renewable energy here?')
- Identify renewable energy resources in your area and assess viability of their use. (see box 'What can we do with our local renewable energy resource?')

Is there an opportunity to use renewable energy (RE) here?

1. Define the need: How, how or both?
2. Quantify the need: Small (<100kW), medium (100-1000 kW) or large (>1000 kW)?
3. Identify the technology: See Table of RE options
4. Assess technical feasibility: Is the RE resource available? Is it an asset?
5. Assess economic feasibility: Estimate the cost. Estimate the return. Calculate simple payback and assess other factors.
6. Next step: Proceed? A more in-depth appraisal? Or a detailed feasibility study required?

What can we do with our local renewable energy (RE) resource?

1. Define the resource: What an available local RE resource?
2. Assess the output: Using Table of RE Options assess the type and type of output available (heat, power, fuel).
3. Assess feasibility: How often available site in the region? How can the local authority be encouraged to explore their local RE resource? Should the local government consider to use private?
4. Next step: Have resources of the potential. Consider carrying out studies. A more in-depth appraisal? Or a detailed feasibility study required?

Table of RE options

	Heat	Power/Electricity	Combined heat & power
Small (<100kW)	Passive solar design Solar water heating Solar space heating Biomass – wood pellet chip-heating	PS, mini-turbine or grid-connected Small wind Small hydro	Micro combined
Medium (100-1000kW)	Biomass – wood pellet	Wind Micro hydro	Biomass – gasification
Large (>1000kW)	Biomass – wood chip	Biogas – storage/landfill Large wind Small hydro	Biogas – storage/landfill Biomass – wood chips

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What can Local Authorities do?

➤ Policy maker

- Integrate into the way of thinking & activities
- Strategic approach
- Development plans (include targets)
- Include RE in Community Plans
- Work with community

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What can Local Authorities do?

- Planning decisions can have a great impact
 - Be aware of real issues
 - Take a positive approach
 - Give priority to developments with a RE or sustainable element
 - Ask whether RE use has been considered

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Examples of successful projects

- Greater London Authority - renewable energy in London Plan
 - “Major developments should generate a proportion of the site’s energy need from renewables”
- London Borough of Merton Local Plan
 - New developments > 1000m², 10% energy needs from renewables



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How is all this going to be paid for?

- Costs of renewables are capital and up-front ⇒ Look at life-cycle costs

Start with schemes that are economically viable now e.g. stand-alone PV systems



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How is all this going to be paid for? -example

- Hydro scheme, Somerset
- Grouped installations - reduced costs
- Funding:
 - Innovation Pilot Project
 - Green Electron (SWEB)
 - Electricity price negotiated with Scottish & Southern Electric and SWEB



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UK government funding

- Community Renewables Initiative
- Elizabeth Bruce
Sustainability Northwest
Tel: 0845 6018874
e.bruce@snw.org.uk

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UK government funding - example

- 50% funding from Carbon Trust as demonstration project
- 3 x 6kW wind turbines to be installed on Environment Agency offices in Worthing



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How is all this going to be paid for? -example

- Solar thermal, Leicester City Council, variety of funding mechanisms:
 - Rotating fund set up: savings ring-fenced for more installations
 - Combining solar thermal with shorter payback period energy efficiency measures => overall payback period shorter



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Any questions / comments?



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