



Creating a Carbon Neutral Footprint for Dunbar & Innerwick Communities

Community Windpower Ltd
September 2007






Project Goals

- ◆ To reduce carbon emissions from domestic energy use by 10% each year for the next 10 years
- ◆ To lift all families out of 'fuel poverty' within the next 5 years



Project Drivers

- ◆ Economic Benefits
 - ◆ Reduce energy bills
 - ◆ Eliminate fuel poverty
 - ◆ Environmental Benefits
 - ◆ Reduce carbon emissions
 - ◆ Help combat climate change
- 



Current Situation

- ◆ Population = 6350 (Census 2001)
- ◆ Households = 2750
 - 95% of which have central heating
 - (60% of domestic energy costs are for heating)
 - 17.33% occupied by pensioners*
 - 6.18% are lone parent households with dependent children*
 - 35.46% occupied by a person with a limiting long-term illness *

*indicates families most likely to be living in fuel poverty



Current Energy Consumption & Carbon Emissions

- ◆ 4,700 kwh of energy per household
- ◆ 12,925,000 kwh of energy for total population of Dunbar each year
- ◆ 10,940 tonnes of Carbon Dioxide emitted each year from domestic energy consumption



Reducing Energy Consumption & Carbon Emissions

- ◆ A 10% reduction in domestic energy consumption means an annual reduction of 470 kwh per household
- ◆ = 9 kwh per week
- ◆ = 1.28 kwh per day

= reduces annual carbon emissions by
1094 tonnes for the area and reduces each
household energy bill by £36



How to reduce energy consumption

- ◆ Working in partnership with East Lothian Council, Changeworks, Energy Saving Trust and SCHRI
 - Energy Audits
 - Education
 - Energy Saving Advice ~ General
 - Energy Saving ~ Specific projects
 - Energy Generation
 - Carbon offset



Energy Audits



- ◆ Aim to audit all homes in Dunbar area within 2 years
- ◆ Delivered by Changeworks organisation
- ◆ Target low income families first
- ◆ Start year 1 of project
- ◆ Funding provided by CWL
- ◆ Cost = ?



Drop-in advice shop



- ◆ Town centre location for easy access
- ◆ One-stop shop for energy advice
- ◆ Advice on available grant funding to implement energy efficiency measures
- ◆ HQ for project coordinator creating one fulltime job



Education



- ◆ Aim to provide continuous ongoing education on importance of reducing climate change and using renewable energy
- ◆ Delivered by CWL and Changeworks organisation
- ◆ Target schools & community groups first
- ◆ Start year 1 of project
- ◆ Funding provided by CWL
- ◆ Cost = ?



Energy Saving Advice ~ General



- ◆ Aim to provide practical information on how to save energy
- ◆ Delivered by CWL, Changeworks, ELC & Energy Savings Trust
- ◆ Target all homes in Dunbar area
- ◆ Start year 1 of project
- ◆ Funding provided by CWL, EST, ELC
- ◆ Cost ?



Energy Saving ~ Specific



- ◆ Aim to provide each home in Dunbar area with 6 energy saving light bulbs every 2 years, which will reduce Carbon Dioxide emissions by over 1000 tonnes per year
- ◆ Delivered by CWL
- ◆ Target all homes in Dunbar area
- ◆ Start year 1 of project
- ◆ Funding provided by CWL
- ◆ Cost £35,000 every 2 years



Energy Generation



- ◆ Aim to encourage micro-generation from small-scale renewable generators such as domestic wind turbines and solar panels
- ◆ Facilitated by CWL, ELC, EST, and SCHRI
- ◆ Grant funding provided by SCHRI



Carbon Offset



- ◆ Aim to zero out (offset) all or part of the Carbon Dioxide emissions from one source by increasing the carbon dioxide absorption of another e.g. tree planting; or by
- ◆ Funding Sustainable Energy projects
- ◆ Delivered and funded by CWL, ELC, EST, and SCHRI



Project Management



- ◆ Plan
 - ~ when to start and how long for
- ◆ Implement
 - ~ roles and responsibilities
- ◆ Check and review progress
 - ~ Compare energy consumption figures
 - ~ Awareness questionnaires
- ◆ Maintain momentum



Who will support and promote the project?



- ◆ Schools
- ◆ PTAs
- ◆ ECO Groups
- ◆ Community Councils
- ◆ ELC
- ◆ EST
- ◆ Dunbar Transition Town



How will we raise awareness?



- ◆ Drop-in advice shop
- ◆ Presentations
- ◆ Displays
- ◆ Literature
- ◆ Local Newsletter
- ◆ Editorials
- ◆ Websites
- ◆ Word of mouth
- ◆ Competitions
- ◆ Suggestion schemes
- ◆ Energy Quiz
- ◆ Invite expert opinions
- ◆ Energy awards
- ◆ Energy projects

10 Year plan

- ◆ Reduction of Carbon Dioxide emissions

Years 1-3

Years 4-6

4-10

2007 = 10940 tonnes carbon dioxide ~ 2017 = 4238 tonnes

