

Progressing Shared Services – Co-operation, Innovation and Civic Leadership

Low Carbon Agenda

Presentation by:

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**Comhairle Contae
Dhún na nGall**
Donegal County Council

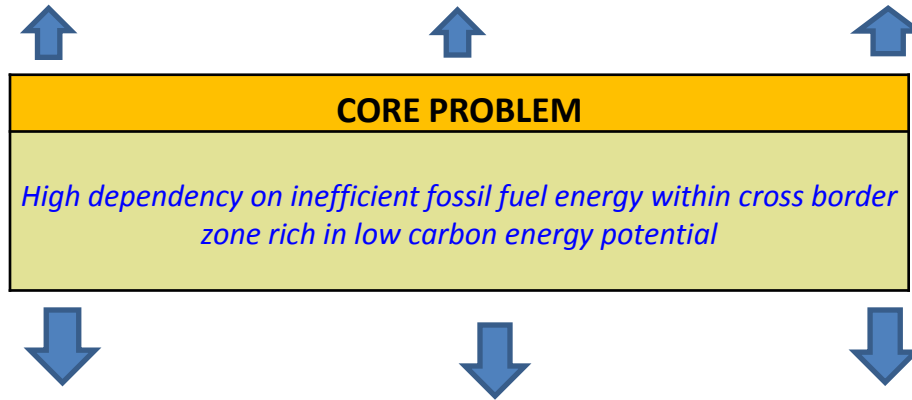


Presentation Outline

- Background
- Methodology
- Specific problems
- Why Crossborder
- General Objectives
- Specific Actions
- Impacts
- Costs
- Future Deliverables
- Discussion





The Problem Tree

Effects - Social	Effects - Economic	Effects - Environment	Effects - Co-operation
Fuel poverty Lack of community acceptance Carbon option currently cheaper	High cost to business High energy costs Energy in-efficiencies	Climate change EU targets missed Excessive carbon footprint Underdeveloped renewable options	Under utilising existing organisations experience e.g. STEM Gap in fuel supply Lack of training for industry



Cause - Social	Cause - Economic	Cause - Environmental	Cause - Co-operation
Lack of knowledge Culture change required Lack of choice Lack of awareness Lack of un-biased advice	Lack of energy self sufficiency Forestry investment v Farming & added value Lack of Technological development High investment cost in new technology	Dependency on carbon fuel Problem poor quality of soil unsuitable for agriculture	No structural networks for renewables Lack of private involvement - 'buy-in' Lack of sustainable energy plan - regional Lack of integrated network - smart grid

Specific Problems

- **Poor Standard / energy inefficient housing** resulting in high Carbon Footprint 
- **Fuel Poverty** (high cost of energy, inefficient use of energy in homes, low incomes)
- **Intensive Energy Use in Disadvantaged Areas** / dependence on imported fuels for energy supply / security of fuel supply 
- High Energy Consumption in Housing Stock & Other Buildings
- Hotspot of energy usage in Industrial premises e.g. Killybegs 
- All Council Fleets - High transport (energy) costs and high carbon footprint
- High energy usage and costs associated with Public Lighting (approximately 40% of Council energy costs) 



Why Cross Border?



- **Underutilisation of Low Carbon potential** in cross border zone
- To provide a **'back to back' energy policy framework** for participating Councils within the existing BMW region.
- To provide **economy of scale** that enables installation of new emerging energy technology within a cross border zone that has settlements with small population
- To improve Capacity Building for **Educational Development and Training** Courses for the Colleges in the region.
- **Creation of local skills and employment opportunities.** Increased cross border skills mobility
- Creation for **Demand of renewable resources** that exist locally, e.g. Biomass to utilise growing and processing fuel and making use of natural resources.
- To **continue cross border working** initiatives in the region
- To **share knowledge and skills** across the Council regions





General Objectives



- **Reduce Energy** consumption in the region
- **Reduce Carbon Footprint** in the region across buildings and fleet.
- **Improve living standards** of all residents
- **Raise Awareness** of low carbon initiatives by leading by example.
- **Realisation of a package of measures** for sustainable development approaches for the region (exemplar demonstration projects for renewables and low carbon technologies)
- **Develop improved energy mix** across border zone
- To achieve a **reduction in cost** to rate payers and citizens

Specific Actions

- **Audit** existing usage and current Building Energy Ratings.
- **Benchmark** against other Council /similar property types.
- **Audit/Review** of existing Skills availability and expertise in region
- **Choose** a select number of worst performing dwellings in the region to be brought up **to comfortable living standard or above** through installation of renewable technology and improved insulation.
- **Choose** a select number of other Council buildings within the region to have **improved energy efficiency**. Buildings to be brought up at least one grade higher on the Display Energy Certificate rating through installation of renewable technology and improved insulation.
- Develop a **Combined Heat Power** District Heating System in Killybegs
- **Establish supplier chains** for sustainable fuels such as **biomass**.
- **Review** fleet operations **and identify** target vehicles for improved efficiency measurements such as eco-driver training, route optimisation, tracking etc.



Impacts

Social

- **Reduce Fuel Poverty**
- Health & Well Being
- Increased Employability (Improved Skills)

Economic

- **Reduction of Energy Costs**
- Job Creation (sustainable fuels/training/construction)
- Labour Force Up-skilling
- Increased cross border trade for equipment, services providers and suppliers
- Fuel Security

Environment

- **Reduced Carbon Footprint**
- Reduced Air Pollution
- Sustainable Fuels and generation

Cooperation

- Information sharing with regard to Data Gaps
- New cooperation and collaboration between agencies
- **Stronger relationships between NGOs and Local Authorities**

Costs

Leitrim County Council



- Housing Retrofit works (deep retrofit for greater energy efficiency)
- Building Retrofit works (energy upgrade)
- Biomass District Heating System – potentially at a number of locations (to serve both public and private buildings)

Total Estimated Costs: €7.1M

Carbon Savings: **4, 800,000 KgCO2**

KWh Savings: **11,900,000 KWh**

Cost Savings: €2.2M per annum

Payback period: 3.3 years

Louth County Council



- Housing Retrofit works (improved deep retrofit)
- Building Retrofit works (energy upgrade)
- Higher fuel efficiency in transport fleet

Total Estimated Cost €7.55m (1686 units to have improved energy efficiency)

Carbon Savings: **9,340,000KgCO2**

KWh Savings: **20,000,000 KWh**

(29.5MWh/yr Primary E Tar)

Donegal County Council



- Housing Retrofit works (deep retrofit)
- Building Retrofit works (energy upgrade)
- Biomass District Heating System (public and private buildings)

Total Estimated Costs: €20-30M

Carbon Savings:

KWh Savings:

Fermanagh District Council



Retrofit renewable energy equipment such as, biomass boilers, pv panels, wind turbines, marine based renewables where adjacent Lough Erne and improved insulation measures to 13 municipal council buildings including Townhall, 3 leisure centres, visitor centre, museum, tourist information centre and 5 community centres.

Total estimated cost : £3.84m (Euro 4.84m)

Carbon savings: **3,200,000 kgCO2**

KWh savings: **8,395,000 kWh**

Future Deliverables

- To develop awareness and societal support through education officer across participating councils, websites, media.
- Audit other buildings and benchmark performance.
- Further roll out to other Council areas and share experiences of the project both nationally and internationally.
- Develop opportunities for joint procurement.
- Develop and implement Energy Strategy for the region.