



07/04/2014

**Submission to County Kerry Development Plan 2015- 2021
Submitted by Transition Kerry to Kerry County Council**

Transition Kerry welcomes this opportunity to make a submission to the Draft County Development Plan 2015-2021.

Transition Kerry is a voluntary community group, operating in communities across County Kerry and is part of the wider national and international Transition Network. Our objective is to develop a greater degree of resilience in our local communities in response to the challenges of Peak Oil, Climate Change and continued global economic, environmental and social uncertainty.

Transition Kerry was founded in 2007 (previously under the name Transition Town Tralee). Transition Kerry has a main steering committee, made up of representatives of various statutory, community and interest based working groups. These groups are focusing on community sustainability and resilience. We seek to address core aspects of our social and economic lives in County Kerry, including energy security, sustainable transport, food security, personal/health and community resilience, education and up-skilling for future challenges.

With regard to the time span of the draft County Kerry Development Plan, a number of pertinent issues stand out: the urgency of responding to climate change at a local level, the development of an integrated sustainable local economy, the economic development and environmental sustainability for a resilient community in County Kerry for generations to come.

Transition Kerry is aware that Kerry County Council is waiting on national legislation regarding climate change policy to develop local climate adaptation plans. Similarly we are aware that there is an upcoming national heating and cooling plan. Transition Kerry believe these need to be integrated into all future County Development Plans and request to be involved in the consultation and development process into the future.

Transition Kerry has the following recommendations we consider vital to the building of resilience and sustainability in Kerry's towns, villages and communities.

For more information on Transition Kerry, please look up www.transitionkerry.org

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**c/o chairperson, Niamh Ní Dhúill,
Gortbreac, Baile na Síodhe, Trálí, Co. Chiarraí**

Core Strategy:

Transition Kerry is proposing the following additions to the draft document:

From a Kerry perspective sustainable community and economic resilience is paramount. For this we need to develop county development strategies that must be underpinned by sustainable development, particularly in the areas of energy, agriculture and food production, as the main components in our local economy.

A major threat to sustainable development of agriculture and other key sectors, such as fisheries, marine tourism and other forms of eco-tourism is posed by climate change.

In the context of agriculture, diversification of agricultural activity, growth and on-farm enterprise is critical and this should be recognised in the core strategy.

To this end, a greater emphasis on climate change mitigation and carbon reduction and management must be introduced into the draft.

Key strategic areas such as Energy Management, Renewable Energy Strategy, The Covenant of Mayors (of which both local authorities are signatories) and the Sustainable Energy Community (SEC) are not integrated through the current draft.

Economic Development and Employment:

Transition Kerry is proposing the following additions to the draft document:

The Council should take any opportunity to encourage and support people who wish to create livelihoods for themselves, providing necessary services, functions and products for their own communities or using resources within their communities, that benefits their community or the wider Kerry area.

We strongly believe the levels of supports for export driven food markets should be balanced with equivalent supports for locally based food production and supply systems that enhance the health of our rural economy, environment and people. The best way to do this is through the inclusion of Food Sovereignty and Food Security Principles in the County Development Plan.

- To support small-scale family farms, which have the capacity to create employment and added value to agriculture products, therefore building stronger resilient communities.
- To support small scale diverse horticulture sector enterprises, particularly in the area of local organic production of quality food.
- To support locally produced artisan food producers and processors
- To encourage the development of small-scale craft abattoirs and their related infrastructure
- To support diverse and nature-based sustainable agriculture

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ES10 – There needs to be a greater emphasis on small to medium enterprises.

ES 27 - support the sustainable development of locally produced food and craft markets and supply chains

We support the council's objectives **ES30 and ES31**

Tourism and Recreation:

Transition Kerry is proposing the following additions to the draft document:

The provision and maintenance of a pristine environment is a pre-requisite for sustainable tourism development.

There should be a reduced focus on large scale 'honey pot' development and a greater emphasis placed on small scale diverse enterprise, where visitors will receive a more personal experience.

The potential of a more diverse agricultural sector to support a wider range of tourism activity should be explored within the document.

Consider the viability of moving the train station in Farranfore to a location nearer to the airport, or to improve with an appropriate shuttle bus service.

T7: to promote the integration of public transportation policies that meet the needs of both local population and visitors and enables access to parts and populations of the county not currently served by scheduled transport services.

To support and facilitate other bodies in the adoption of a green standard for environmental sustainability performance for all major festivals held in Kerry, with a view to further enhancing the brand value of County Kerry as a place to do business in a real sustainable manner.

Retail Strategy:

Transition Kerry is proposing the following additions to the draft document:

That future developments use existing buildings and development sites in towns and villages and that they incorporate sustainability principles relating to large scale water harvesting, appropriate renewable sourced energy, waste reduction, tree planting and natural landscaping into their planning from the beginning of the process.

Make zoning change-of-use more flexible, facilitating the conversion of retail units to provide for other social and economic activities, eg. offices for small start up enterprises, cultural and community centres, childcare facilities, leisure and hospitality.

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Transport and Infrastructure:

Transition Kerry is proposing the following additions to the draft document:

RD20: the upgrade and improvement to tourist routes should have due regard to the existing character and nature of the road route.

Road signage should reflect the depth of culture and local history that exists in and is ingrained in every Kerry locality. Bland numbered index signs do not create a verbal landscape for locals and visitors alike.

The appointment of a Local Authority Cycling Officer at an appropriate senior level to oversee the delivery of the cycling related strategy. This work would involve the development, integration and promotion of both local and visitor cycling and cycle routes in the county.

To implement a full cycle network and create bike parking spaces around our towns and villages of Kerry.

To focus on improving public transport, to reduce car dependency in the County.

To implement the proposals put forward by the Transition Kerry Submission Tralee Transport Strategy – Transport Working Group November 2012.

To use models such as the ‘smarter travel’ schemes being piloted in other parts of the country.

Natural Resources:

Transition Kerry is proposing the following additions to the draft document:

NR14: protected, enhanced **and expanded** through the use of appropriate use of planning, development and support measures.

Social Infrastructure and Community Development:

Transition Kerry is proposing the following additions to the draft document:

Public open spaces – examine existing public open spaces, which may have potential for use as public allotments and community gardens, to develop community based food production and education, building on examples such as An Tobar Naofa Allotments and the Shanakill Ragoonane Community Organic Garden.

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Facilitate the sustainable provision of community based cultural multi-use facilities, having regard to local requirements and more a diverse social and cultural environment and population

Sustainable Design:

Planning decisions for the county need to be underpinned with real sustainability.

All planning decisions need to use as markers for the future – continued energy demand reduction and renewable energy supply, water conservation and recycling, promotion and use of sustainable urban drainage, Integrating and prioritising in planning decisions.

Landscaping for biodiversity, food production, recreational amenities and productive green spaces.

Natural Environment & Flood Risk Management:

Transition Kerry is proposing the following additions to the draft document:

Increased flooding and very severe weather events are projected to be a more frequent occurrence under current climate change predictions.

Separate flood risk management from the natural environment section, as it requires careful consideration within it's own right, due to the increasing changing climate, increasing rainfall and flood risk.

Take a catchment based approach to flood risk management, aimed at increasing the infiltration and attenuation of water flows within a catchment, with a view to reducing water delivery rates to flood risk areas.

The use of strategically located plantations, woodlands, hedge systems and drains to attenuate water flow rate in flood risk areas

Proper maintenance of drains and hedgerow systems as part of an integrated flood risk plan

Zoning and Landscape:

Transition Kerry is proposing the following additions to the draft document:

Use of community and green spaces for food growing:

The continued use and expansion of green spaces to grow food and create more community spaces based around food growing.

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To encourage and support urban agriculture and community supported agriculture (CSA) models in and around the town.

Planting fruit and nut trees in public spaces around the town – these can be harvested as part of community based food initiatives.

Planting of community orchards in public and private green spaces.

Planting of community woodlands, to promote and increase local biodiversity and sustainable woodland management.

Finish the wildlife corridor planting of shelter-belt with native trees from Tralee town to Ballyseedy woods

Support and implement the Kerry Food Strategy.

Renewable Energy:

Transition Kerry has recently commissioned and will be launching **'The Kerry Sustainable Energy Community (SEC) Roadmap – An Action Plan for County Kerry's Transition to 100% Renewable Energy Supply'** in May 2014.

Please find attached below our executive summary of this document, which summarises the following:

- Energy and Emissions Balance in County Kerry
- Renewable Energy Resources Potential
- Technological Pathways to 100% Renewable Energy Systems in Kerry
- Community Participation in the Renewable Energy Transition

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May 2014

‘Transition Kerry Sustainable Energy Community (SEC) Roadmap – An Action Plan for County Kerry’s Transition to 100% Renewable Energy Supply’

Please find attached our executive summary of this document, which summarises the following:

- Renewable Energy Resources Potential
- Technological Pathways to 100% Renewable Energy Systems in Kerry
- Community Participation in the Renewable Energy Transition

About the Study

This report was commissioned by Transition Kerry, a community initiative aiming to accelerate the change to a more resilient, sustainable future for Kerry. Transition Kerry will shortly publish a report detailing an energy action plan, outlining a vision for the future of energy development in Co. Kerry.

The study was undertaken by a consortium led by XD Sustainable Energy Consulting Ltd and completed in November 2013, and was supported by Kerry local authorities as well as North East Kerry Development Partnership and South Kerry Development Partnership with LEADER funding.

The overall objective of the study is to assist communities in Kerry develop a strong, positive vision of its sustainable energy future and plan the journey for the transition of the county towards 100% renewable energy supply by 2030.

The specific objectives of the study were to:

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- Define the energy balance (supply and demand), energy expenditure and energy-related CO2 emissions for the county for a baseline year (2008), against which energy efficiency and renewable energy targets for the county can be set;
- Review the energy infrastructure currently in place in the county and assess the potential renewable energy resource available within county Kerry's boundaries and offshore along its coastline;
- Model and compare different scenarios for the transition of the energy systems in Kerry towards 100% renewable energy supply, assessing their economic, social and environmental impacts;
- Analyse the framework for community participation in renewable energy development in Kerry and define a roadmap for community-based renewable energy co-operatives to become a key driver in the energy transition of the county.

Energy and Emissions Balance in county Kerry

The energy balance of the county was developed for 2008 as baseline year, using a mixture of bottom-up data collected via surveys and 'top-down' data extrapolated from national statistics. The analysis breaks down energy demand by socio-economic sector and by fuel, and translates energy demand in related CO2 emissions and energy expenditure.

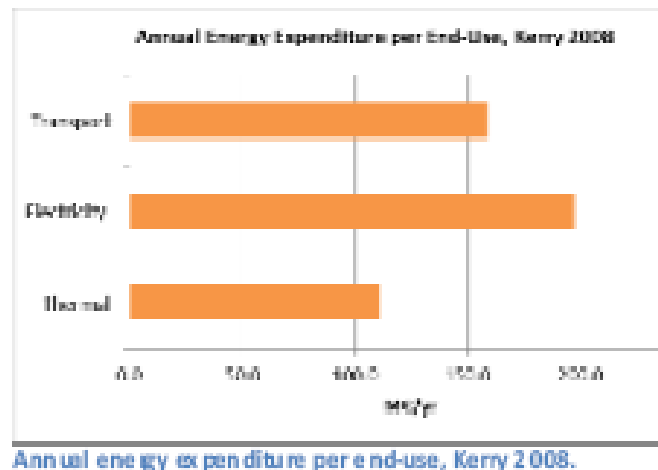
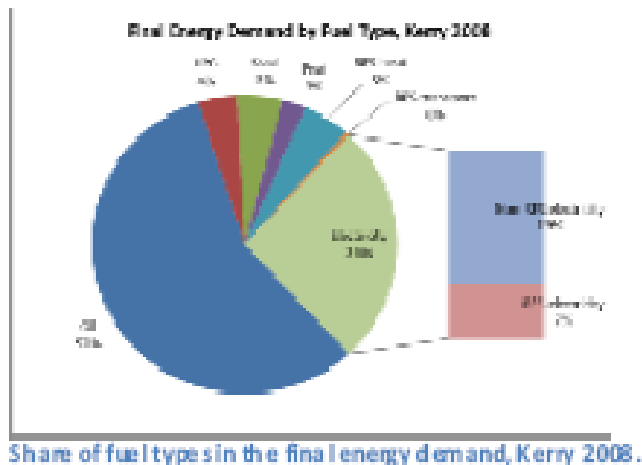
The total energy demand was estimated at almost 4 TWh/year in 2008, equivalent to 345 thousand tonnes of oil per year. Kerry is highly dependent on oil for its energy usage (57%), showing its prime importance as a heating fuel and transport fuel. Solid fuels, a traditional home heating source, occupy a significantly higher share of energy demand in Kerry (12%) compared to national usage (7%).

Overall energy usage in the county is responsible for the emission of 1.22 million tonnes of CO2 per year, equivalent to 8.8 tonne per person. The social cost of energy -related CO2 emissions in the county is estimated at c. € 28 million per year.

Energy expenditure is almost €470 million per year in Kerry, equivalent to approx. €3,230 per capita per year. The residential sector spends €227 million on energy or an average of €4,300 per year per household on car fuels, heating and electricity.

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Renewable Energy Resources Potential

Using a combination of published statistical data and know-how, we conducted a comprehensive assessment of the potential renewable energy resources available to meet Kerry's energy demand. The bulk of the resource lies with on-shore and offshore wind energy as well as wave energy, which together can potentially generate an amount of electricity equivalent to over 5 times the total final energy demand of the county.

The theoretical potential of biomass in the study area has been estimated at circa 2 TWh/yr or 50 % of the final energy consumption in the area. The potential consists primarily in woody biomass from forestry and energy crops (55% of total biomass). Grass silage together with other wet organic by-products of agriculture, municipalities and industry can be digested anaerobically for producing biogas (0.9 TWh/yr potential). Solar technologies have an energy potential of 1.2 TWh/yr, or over 30% of the county's final energy demand. Geothermal heat pumps could also provide a substantial part of the thermal energy demand in the county and could play an important role as an energy storage technology.

The total figure of 42 TWh of renewable energy resource potentially available in the study area, including its adjacent offshore area, is encouraging when compared to the final energy demand of the region (10.6 times more).

Technological Pathways to 100% Renewable Energy Systems in Kerry

The next step was to explore technological pathways for the transition of Kerry energy system to 100% renewable energy supply within the next 17 years. To do so, we undertook a process of iterative modelling of a series of future energy system scenarios with EnergyPLAN, a software developed by the University of Aalborg in Denmark.

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The model aims to optimise the technical operation of the overall energy system by integrating electricity, thermal and transport systems, while balancing supply and demand within the region. The model provides a series of technical, environmental and economic indicators on the basis of which these scenarios can be compared. 100% renewable energy scenarios were benchmarked against the 2008 baseline and against a business as usual scenario representing a continuation of the current national policy for renewable energy.

Future energy system scenarios included for a 25% reduction in final energy use by 2030 through energy efficiency. Out of the modelling process, the following energy system transformation scenario emerges as the most advantageous for the county:

“By 2030, the county will be capable of becoming energy self sufficient on the basis of its own renewable energy resource. Households, businesses and industry in larger towns will be supplied renewable heat via district heating systems harnessing heat from wood-fired power stations, industrial processes and large solar arrays. Rural dwellers will have switched to heat pumps and solar heating systems, supplemented with wood stoves. In terms of electricity supply, wind energy will cover up to 45% of total energy requirements of the county. Solar power will also play a significant role in the electricity mix”.

Biomass is the other pillar of future renewable-based energy system scenarios, as a primary fuel to supply heat, electricity and transport fuels (50% of the overall primary energy requirement). Meeting future biomass fuel needs will require an ambitious programme of supply chain development to mobilise existing feedstock and create new sources with energy crop cultivation.

The energy system and its users will have a high degree of intelligence enabled by IT solutions, and will be capable of responding to intermittent renewable energy supply by adapting their energy usage, using battery storage in electric vehicles, storing heat with heat pumps, etc. Hydrogen production will also play a key role in balancing supply and demand within the county.”

The technological transformation of the energy system of the county will require a long-term investment plan which could total up to 1.8 billion euro. However, the increase in capital cost will be largely compensated by the elimination of the county’s fossil fuel expenditure – the bulk of which leaves the local economy.

Overall, the total annual economic costs of the recommended 100% renewable energy system in 2030 will be 15% higher than those calculated for the 2008 baseline scenario.

In addition, the local production of biomass fuels, the construction, operation and maintenance of the new energy infrastructure will result in the creation of up to 2700 new local jobs compared to 2008. Finally, the transition to renewable energy naturally results in CO2 emission reductions totalling 1 billion tonne per year compared to 2008 emissions, worth €2.7 million euro per year in carbon credits.

Community Participation in the Renewable Energy Transition

Our assessment of the barriers and opportunities for community participation in the renewable energy transition indicate that these are intrinsically linked with the centralised and monopolistic nature of the current energy system.

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Other challenges and opportunities are inherent to how community groups are organised, relying for the most part on volunteers, and how they compensate for limited financial resources with social capital. Given the radical transformation of the institutional, policy and infrastructural framework required by the transition, the models of community participation and pathways for the transition are still to be defined in Ireland.

Our recommendation is for community groups to adopt a co-operative business model when for renewable energy project development, promoting local ownership, democratic and transparent Business principles. The proposed roadmap for renewable energy coops (REScoops) in Kerry articulates a process of capacity building, starting with accessible projects, before tackling larger developments and diversifications into other products and services. Outreach will play an important role in promoting community buy-in and in disseminating the REScoop model to other communities in the county.

Finally, a review of the wider transition of the county's energy system indicates that it will require a full-scale mobilisation of human resources and capital, driven by a long-term multi-stakeholders partnership. REScoops and other community groups should be pivotal in this revolution to make sure that local communities take full advantage of the opportunities it will present.



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