



SEA STATEMENT



STRATEGIC ENVIRONMENTAL ASSESSMENT
OF THE

**RENEWABLE ENERGY STRATEGY FOR CO. MAYO
2011-2020**

MAYO COUNTY COUNCIL
COMHAIRLE CONTAE MHAIGH EO

June 2011

Introduction

This is the Strategic Environment Assessment (SEA) Statement of the Renewable Energy Strategy for Co. Mayo 2011-2020 (RES).

SEA is the systematic, ongoing process of evaluation of the likely significant environmental effects of implementing a plan or programme (including a strategy such as the RES) in order to ensure that these effects are appropriately addressed before a decision is made to adopt it. It also gives the public and other interested parties an opportunity to comment and to be kept informed on decisions that may impact on the environment and how they were made.

The SEA is being carried out in order to comply with EU SEA Directive 2001/42/EC which was transposed into Irish law through the SEA Regulations. In order to ensure that the proposed RES does not have any adverse impacts on Mayo's designated conservation sites, the Natura 2000 network, a separate assessment called a Habitat Directive Assessment was also carried out. A Flood Risk Report was also carried out on the Strategy and incorporated into the SEA Environmental Report.

The SEA Statement is required to include information summarising:

1. How environmental considerations have been integrated into the Strategy
 2. How the environmental report, the submissions/observations made to the planning authority on the proposed Strategy and Environmental Report have been taken into account during the preparation of the Strategy
 3. The reasons for choosing the Strategy, as adopted, in light of the other reasonable alternatives
- and
4. The measures decided upon to monitor the significant effects of implementing the Strategy.

The SEA process was carried out as a parallel process in the preparation of the Renewable Energy Strategy for County Mayo. The findings of the SEA were expressed in the Environmental Report which was submitted to the elected members of Mayo County Council alongside the proposed draft Strategy. The purpose of the Environmental Report was to provide a clear understanding of the likely environmental consequences of the decisions regarding the harvesting and provision of renewable energy in the County. The Environmental Report and the draft Renewable Energy Strategy were placed on public display from 22nd December 2010 to 28th January 2011.

Submissions and observations received on the draft Renewable Energy Strategy were considered by the SEA team and the Environmental Report was updated (Addendum I). Proposed amendments to the draft RES were recommended by the Manager to the elected members in the Manager's Report (May 2011). The proposed amendments were ratified by the members and the draft RES was adopted on 9th May 2011. The amendments were environmentally assessed by the SEA team (Addendum II).

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Section 1 How Environmental Considerations were Integrated into the Renewable Energy Strategy 2011-2020

This Section deals with how environmental considerations have been integrated into the Strategy.

Consultations

As part of the SEA process it is necessary to engage in consultation with the public and various agencies to ascertain the environmental issues of relevance to the RES. In this regard, prior to preparing the draft RES, the Council published a Discussion Paper in February 2010 titled “The Potential for Renewable Energy in Co. Mayo” and invited submissions. A ‘scoping’ exercise was also carried out to determine the range of environmental issues and level of detail to be contained in the Environmental Report. This involved consultation with the relevant Environmental Authorities i.e. the Environmental Protection Agency; the Department of the Environment, Heritage and Local Government; and the Department of Communications, Marine and Natural Resources (details set out in Section 2 of this Statement).

An inter-departmental multi-disciplinary SEA Team was established within Mayo County Council to carry out the SEA process which provided advice and expertise in establishing the baseline, determining environmental impacts of the RES, establishing environmental protection objectives and mitigation and monitoring measures. The Forward Planning Section co-ordinated the SEA process and compiled the Environmental Report.

Environmental Sensitivities

Before future environmental impacts can be predicted, it is necessary to achieve an understanding of the current state of the environment. Therefore, a baseline description of the current physical environment must be established, with particular reference to those aspects of the environment which are experiencing existing environmental problems, or are likely to be significantly affected by implementation of the Strategy. Such baseline data is required in order to:

- Allow environmental problems to be identified
- Provide a baseline against which future monitoring can be carried out and
- Provide a basis for impact prediction.

Baseline data relating to the environmental parameters identified in the SEA Regulations was collected from a variety of existing known environmental and other relevant data sources, including from within the Council, in order to establish the current state of the environment. The environmental parameters identified were:

1. Biodiversity, Flora and Fauna
2. Population and Human Health
3. Soils and Geology
4. Water
5. Air Quality and Climatic Factors
6. Material Assets
7. Cultural Heritage
8. Landscape

A Geological Information System (GIS) was established to map and analyse data for environmental and planning constraints in the County.

Environmental and planning constraints used included:

- Candidate Special Areas of Conservation
- Groundwater Sources
- Special Protection Areas
- Walkways and Cycleways
- Natural Heritage Areas
- Sensitive Landscapes such as Ridges
- Proposed Natural Heritage Areas
- Recorded Monuments
- Ballycroy National Park
- Listed Buildings
- IGH Sites
- Shell Fish Production Areas
- Local Biodiversity Areas
- Designated Bathing Waters (Blue Flag and Green Coast)
- Tree Preservation Orders
- Mayo Coastal Waters At Risk
- Recorded Landslide Events
- Mayo Transitional Waters At Risk
- Pearl Mussel Catchments Areas
- Harbour Seal Sightings
- Salmonoid Rivers
- Grey Seal Sightings
- Water Sources
- Scenic Views
- Residential buildings

This gave an overall picture of the baseline information for the County.

In preparing Map 1 Wind Energy the planning and environmental constraints set out in Table 1 below were used.

Table 1: Planning & Environmental Constraints used in the preparation of the Map 1 Wind Energy of the Renewable Energy Strategy for Co. Mayo	
Planning & Environmental Constraints	Buffer
Freshwater Pearl Mussel Catchments	0m
Designated Salmonid Rivers	50m
Public and Group Water sources	100m
Special Areas of Conservation	0m
Natural Heritage Areas	0m
Special Protection Areas	0m
Ballycroy National Park	0m
Local Biodiversity Areas	0m
Tree Preservation Orders	0m
Irish Geological Heritage sites	100m
Landslides	100m
Listed Buildings	100m
Recorded Monuments	100m
Walkway & Cycle routes	50m
Vulnerable Routes & Ridges & Scenic Views (MCDP)	50m
Geodirectory (Residential)	500m
Consented planning permissions	0m
Existing Wind Farms	0m

These areas were then excluded as potential areas suitable for wind energy development (Map 1 Wind Energy) with the exception of sensitive landscapes, scenic views, routes or viewing points and recorded monuments where it was felt that these would require further assessment and could possibly be mitigated against on a case by case basis.

It was decided that due to the nature and scale of other renewable energy developments, development proposal would have to be considered on a case by case basis. Consideration of such proposals and renewable energy infrastructure will be subject to an assessment using the planning and environmental constraints used for Map 1 Wind Energy which shall be continuously updated, and added to as relevant data becomes available.

Early Identification and Evaluation of Alternatives

Article 5 of the SEA Directive requires the Environmental Report to assess the likely significant environmental effects of implementing a plan and “*reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme*”. Such alternatives are required to be realistic and capable of implementation and should therefore represent a range of different possible approaches within the statutory and operational requirements of the County Development Plan. Five number alternatives were identified and evaluated for their likely significant environmental effects:

Scenario 1: Do nothing scenario: Retain Current Wind Energy Strategy 2008 and Mayo County Development Plan 2008-2014 Renewable Energy Policies and Objectives

Scenario 2: Ad-hoc planning for Renewable Energy Development without an overall strategic framework to guide renewable energy developments in the County

Scenario 3: Offshore Renewable Energy Development Only

Scenario 4: Strategically Planned Off-shore and On-shore Renewable Energy Development; enabling priority areas for renewable development to be identified; and considering all forms of renewable energy development.

Scenario 5: Renewable Energy Development along the Mayo Coastline Only.

The assessment of the Scenarios allowed the Strategy making team to make an informed choice as to which alternative was to form the basis of the Strategy and put before the elected members as the proposed Strategy. Scenario 4 was identified as the preferred Scenario. This is further examined in Section 3 of this Statement.

Mitigation

Mitigation is a measure to avoid/prevent, minimise/reduce or as fully as possible offset/compensate for any significant adverse effects on the environment as a result of implementing a plan. Mitigation involves ameliorating significant negative effects. Where there are significant negative effects, consideration is given in the first instance to preventing such effects or, where this is not possible for stated reasons, to lessening or offsetting those effects. Mitigation measures can be roughly divided into those that: *avoid* effects; *reduce* the magnitude or extent, probability and/or severity of effect; *repair* effects after they have occurred, and; *compensate* for effects, balancing out negative impacts with other positive ones.

Mitigation measures which arose from the evaluation of the emerging Strategy (based on Scenario 4) were integrated into the draft RES as an appendix. Through the SEA process, mitigation measures were recommended to be integrated into the Strategy. The mitigation measures have now been integrated into the Strategy in Section 6.5 and Objective 2.2

Section 2 Environmental Report and Submissions & Observations

This Section details how the Environmental Report and the submissions/observations made to the Planning Authority on the Environmental Report and SEA process have been taken into account during the preparation of the Strategy.

SEA Scoping

Where it has been determined that SEA is required, the contents of the Environmental Report must be scoped to establish the scope and level of detail to be included in the Environmental Report and to identify environmental issues which may require further consideration during the SEA process. Mayo County Council carried out a scoping exercise in conjunction with the prescribed Environmental Authorities i.e. the Environmental Protection Agency; Department of Environment, Heritage and Local Government; and Department of Communications, Marine and Natural Resources.

In this regard, a Scoping Consultation document was submitted to the Environmental Authorities in September 2010. This document gave an outline of the geographic area involved; the nature of the proposed Strategy and its intended lifespan; the likely scale, nature and location of development within the area during the lifetime of the Strategy; an outline of the types of renewable energy sources considered appropriate for County Mayo; and predicted significant environmental impacts.

The Scoping Consultation document expressed the view that the draft RES has the potential to impact on a broad range of environmental components. Submissions were received from:

Environmental Protection Agency (EPA)
Department of Environment, Heritage and Local Government
Inland Fisheries Ireland-Ballina

The submissions raised a number of issues and gave guidance on how to undertake SEA. The submissions are summarised in Section 2 Table 2.1 of the Environmental Report and were taken into consideration in the preparation of the draft Renewable Energy Strategy and SEA Environmental Report.

Environmental Report

The draft Renewable Energy Strategy and accompanying environmental assessments, including the Strategic Environmental Assessment Environmental Report, went on public display during the period 22nd December 2010 to 28th January 2011. Out of the 53 submissions received, three referred to the Environmental Report:

Environmental Protection Agency
Engineers of Ireland West Region
Department of Environment, Heritage and Local Government

The submissions were circulated and assessed by the SEA team. A number of recommendations were made from the SEA team based on the submissions made.

The Environmental Report was updated in Addendum I of the SEA Environmental Report.

A number of amendments to the draft Strategy based on the submissions received were recommended by the Manager in the Manager's Report dated 3rd May 2011 to the Elected Members. The recommendations included amendments to the draft Strategy that are interlinked with the SEA procedure. The members adopted the Renewable Energy Strategy subject to the proposed amendments. The proposed amendments were assessed by the SEA team and Addendum II of the Environmental Report sets out the SEA response and assessment. The assessment states that although some of the proposed amendments are considered to have potential negative or uncertain impacts it is considered that the proposed mitigation measures outlined in the Renewable Energy Strategy which will be applied at project level will negate potential negative or uncertain impacts.

This Section describes the alternative scenarios considered in the preparation of the Renewable Energy Strategy, summarises the evaluations for the likely environmental effects of the alternatives and identifies the reasons for choosing the Strategy, as adopted, in light of the other reasonable alternative scenarios.

Description and Summary of the Evaluation of the Alternative Scenarios

Article 5 of the SEA Directive requires the Environmental Report to assess the likely significant environmental effects of implementing a plan and “*reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme*”. Five alternative scenarios for the sustainable development of renewable energy in the County were devised. Each Scenario was then assessed in terms of its planning impacts and environmental impacts on the various environmental components (Population and Human Health, Biodiversity, Flora and Fauna, Soils and Geology, Water, Material Assets, Cultural Heritage and Landscape). Each Scenario was then evaluated against the EPOs.

A description of the five scenarios and a summary of the evaluation of each scenario is outlined below.

Scenario 1: Do nothing scenario – Retain Current Wind Energy Strategy and Mayo County Development Plan Renewable Energy Policies and Objectives

Description of Scenario 1

This scenario would retain the existing Wind Energy Strategy 2008 and renewable energy policies and objectives in the Mayo County Development Plan 2008-2014 to guide the planning and development of wind farm and renewable energy developments in the County. Developments for wind farms will not be permitted in the west of the County, are open to consideration in parts of central Mayo, generally permitted in the east of the County, and encouraged in Belderg, Ballycastle, Porturlin, Eskeragh, Bellacorrick, Sheskin, Doogary and Louisburgh. The production of energy from renewable resources in particular biomass, forestry, wind, solar power, tidal, hydro, wave and geothermal will be encouraged, along with achieving specified targets.

Summary of Evaluation of Scenario 1

Subject to normal planning and environmental standards the implementation of Scenario 1 would be within the carrying capacity of the receiving environment. However some of the current policies and objectives in the County Development Plan and Wind Energy Strategy may conflict with some environmental components such as landscape, cultural heritage and water. These need to be addressed. The current scenario would also give rise to piecemeal renewable energy developments occurring throughout the County and the full potential of the County’s renewable energy production may not be realised.

Scenario 2: Ad-hoc Planning for Renewable Energy Development

Description of Scenario 2

This scenario would see applications for renewable energy developments in the County being addressed on a case-by-case basis without an overall strategic framework to guide renewable energy developments.

Summary of Evaluation of Scenario 2

This non-strategic approach would not allow for a cumulative assessment of the impacts of renewable energy development and hence environmental impacts could not be adequately assessed and mitigated against. The impacts associated with ancillary works required, such as access roads, soil removal, quarrying, storage areas and grid infrastructure would be significant and likely to extend over greater areas of the County. This scenario would be likely to lead to less certainty of planning permission being received and would prolong the planning process. The implementation of Scenario 2 would be likely to, over time, conflict with various environmental components.

Scenario 3: Offshore Renewable Energy Development only

Description of Scenario 3

This scenario would guide renewable energy developments to the offshore areas of the County, including the islands off the western coastline, as a means of achieving renewable energy targets. The main form of renewable energy would be in the form of off-shore wind farms and developments using wave and tidal energy. All associated infrastructure such as cables, substations, connections to the national grid and relevant pier upgrades would occur on the main land.

Summary of Evaluation of Scenario 3

The Mayo coastline has wave power levels that are among the highest in the world. However as technologies are not that advanced it is unlikely that the County could achieve significant renewable energy production from off-shore renewable energy developments alone within the timeframe envisaged for the RES. Implementation of Scenario 3 would be likely to have negative impact on a number of environmental considerations such as landscape, ecology, cultural heritage and infrastructure. This is because many of the off shore islands, along with much of the coastline, are designated for nature conservation, the areas are very scenic, possess many architectural and archaeological structures (e.g. light houses, piers, wrecks) and are quite remote with limited infrastructure servicing the area.

Scenario 4: Strategically Planned Off-shore and On-shore Renewable Energy Development

Description of Scenario 4

This scenario would direct renewable energy developments to on-shore and off-shore areas in and around the County in a planned manner taking into account the natural environment, cultural heritage, wind speeds and existing and planned infrastructure, as a means of achieving renewable energy targets. Priority areas for renewable development would be identified. All forms of renewable energy development would be considered (e.g. wind, ocean, solar, geo thermal, bio mass, biogas, and biofuel) including micro renewables.

Summary of Evaluation of Scenario 4

Implementation of Scenario 4 would be likely to be the most environmentally sustainable of the five alternatives considered. Although there may be potential for conflict with the some of the environmental components such conflicts are likely to be mitigated by measures put in place to mitigate such conflicts.

Scenario 5: Renewable Energy Development along the Mayo coastline only

Description of Scenario 5

Given the high wind energy speeds along the coastline, this scenario would allow for renewable energy developments, mainly in the form of wind farms and ocean renewables, along the entire Mayo coastline.

Summary of Evaluation of Scenario 5

Implementation of Scenario 5 would be similar to Scenario 3. Implementation of Scenario 5 would be likely to have negative impact on a number of environmental considerations such as landscape, ecology, cultural heritage and infrastructure as much of the coastline is designated for nature conservation, the areas are very scenic, possess many architectural and archaeological structures (e.g. light houses, piers, wrecks) and are quite remote with limited infrastructure servicing the area.

Reasons for Choosing the Adopted Renewable Energy Strategy in light of the other reasonable alternatives dealt with.

Having regard to planning and environmental considerations, Scenario 4 - Strategically Planned Off-shore and On-shore Renewable Energy Development was the option that emerged as the alternative that balanced environmental protection with economic and social development. The draft Renewable Energy Strategy was then drawn up based on Scenario 4 and its policies and objectives were assessed by the SEA team. This is set out in Section 7 of the Environmental Report. Mitigation measures were also proposed by the SEA team and these are outlined in Section 8 of the Environmental Report.

The Strategy was adopted by the elected members having regard to the environmental effects which were identified by the Strategic Environmental Assessment.

Section 4 Monitoring the Renewable Energy Strategy

This Section sets out the measures decided upon to monitor the significant environmental effects of implementation of the Renewable Energy Strategy (RES).

The SEA Directive requires that the significant environmental effects of the implementation of plans and programmes are monitored. The environmental report puts forward proposals for monitoring the implementation of the RES, which are adopted along with the Strategy.

Monitoring enables, at an early stage, the identification of unforeseen adverse effects and the undertaking of appropriate remedial action. In addition to this, monitoring can also play an important role in assessing whether the RES is achieving its environmental objectives and targets - measures which the RES can help work towards - whether these need to be re-examined and whether the proposed mitigation measures are being implemented. The monitoring programme will consist of an assessment of the relevant indicators and targets against the data relating to each environmental component.

Indicators and Targets

Monitoring is based around the indicators which were chosen earlier in the SEA process for the purpose of measuring changes to the various environmental components. They allow quantitative measures of trends and progress over time relating to the Environmental Protection Objectives used in the evaluation process. Focus will be given to indicators which are relevant to the likely significant environmental effects of implementing the Strategy and existing monitoring arrangements will be used in order to monitor the selected indicators. Each indicator to be monitored is accompanied by targets which are derived from the relevant legislation.

Section 9 Table 9.1 in the Environmental Report shows the indicators and targets which have been selected with regard to the monitoring of the Renewable Energy Strategy.

Sources

Measurements for indicators should come from existing monitoring sources and no new monitoring should be required to take place. Existing monitoring sources exist for each of the indicators and include those maintained by Mayo County Council and the relevant authorities e.g. the Environmental Protection Agency, the National Parks and Wildlife Service and the Central Statistics Office.

The Development Management Process in Mayo County Council will provide passive monitoring of various indicators and targets on an application-by-application basis (i.e. of renewable energy projects). Where significant adverse effects are likely to occur upon, for example, entries to the RMP, entries to the RPS or ecological networks as a result of the undertaking of individual renewable energy projects or multiple individual renewable energy projects, such instances should be identified and recorded and should feed into the monitoring evaluation.

Reporting and Monitoring

Mayo County Council will be responsible for collating existing relevant monitored data, the preparation of a monitoring report and, if necessary, the carrying out of corrective action. It is recommended that a multi-disciplinary committee of suitably qualified persons (Monitoring Committee) be established within two months of adoption of the Renewable Energy Strategy to oversee the monitoring process, determine the frequency of monitoring and input into the preparation of the Monitoring Report. It is recommended also that the monitoring reporting should go parallel with the review of the Renewable Energy Strategy with a Monitoring Report at least every two years or more frequently if determined by the Monitoring Committee.

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