North West Regional Assembly

Technical background to draft RSS Energy Policies

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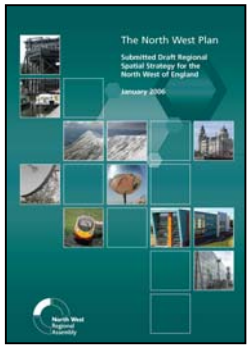
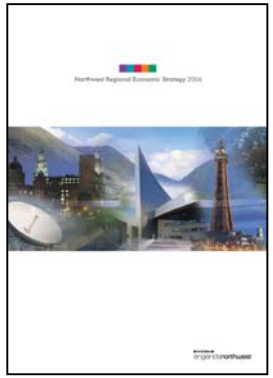
Regional Governance

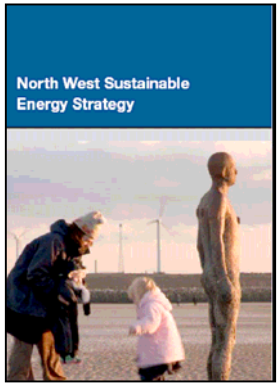
- Key regional energy policies and action plans:

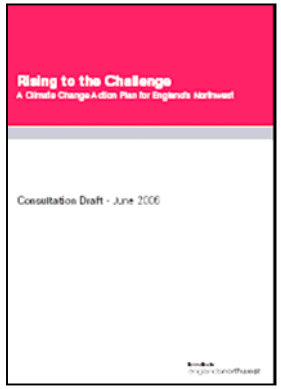


Regional Spatial Strategy

Regional Economic Strategy







Sustainable Energy Strategy

Climate Change Action Plan

Draft RSS Energy Policies

- Published January 2006 (prior to conclusions of the Energy Review).

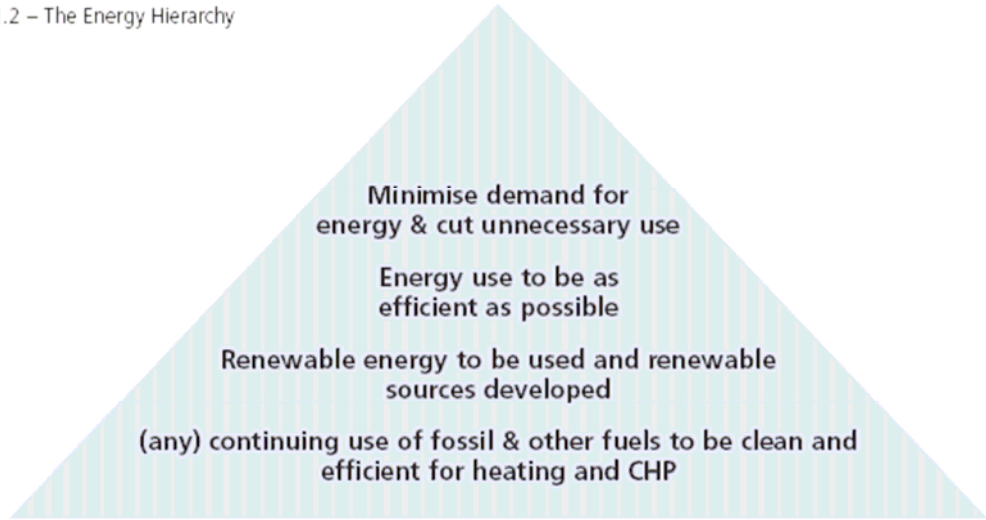
- Part 11 '*Enjoying and Managing the North West – Environmental Enhancement and Protection*' includes:
  - Policy EM15 – A Framework for Sustainable Energy in the North West.
  - Policy EM16 – Energy Conservation & Efficiency
  - Policy EM17 – Renewable Energy

- Section 8 'Renewable Energy' of the Technical Appendix.

Policy EM15

- "*Plans and strategies should promote sustainable energy production and consumption in accordance with the principles of the Energy Hierarchy set out in Figure 11.2 and within the Regional Sustainable Energy Strategy.*"

Figure 11.2 – The Energy Hierarchy



Sustainable Energy Strategy (1)

- Published July 2006 (post conclusions of the Energy Review).
- Seeks to *encourage* people to take energy issues seriously, and if the are moved to take further action by what they read, it tells them *what* they can do and *how* they might do it.
- Lead by:

Sustainable Energy Strategy (2)

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- Prioritises and encourages sustainable energy practices, to include:
  - Improving energy efficiency.
  - Deploying renewable energy technologies and combined heat and power.
  - Advancing sustainable transport solutions.

- Identifies key target groups:
  - local authorities, private sector and construction industry.

Sustainable Energy Strategy (3)

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- Sets the following goals:
  - Improving energy efficiency & eliminating energy wastage.
  - Renewable electricity generation targets.
  - Setting the region on course to reduce greenhouse gas emissions.
  - Communicating regional views, experiences and examples, nationally & internationally.
  - Eliminating fuel poverty.
  - Contributing to the region's economy.

Policy EM17

- *"In line with the North West Sustainable Energy Strategy, by 2010 at least 10% (rising to at least 15% by 2015 and at least 20% by 2020) of the electricity supplied in the North West should be provided from renewable energy sources."*

- *"To achieve this, new renewable energy generation capacity should be developed in order [to] meet as a minimum the indicative capacity targets set out in Tables 11.6 and 11.7 a-c."*

Regional Energy Targets

- Current targets for renewable energy (RE) in NW RPG are based on “From Power to Prosperity” (SNW, 2001). Based on capacity figure of 8.5% of the region’s installed capacity

Since then…

- technology assumptions have become out-of-date.
- More urgent and focused action is required to meet the future energy challenge: Climate Change, energy security

- Technical Briefing Note – *Renewable Energy Targets for the North West*. Supporting evidence for proposed revisions to renewable energy targets for the North West

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National Context

- The **Renewables Obligation (RO)** placed on electricity suppliers requires them to progressively provide greater quantities of electricity RE.
- **RO targets** are 10% by 2010 and 15% by 2015
- **Energy Review** confirmed that energy these targets and the objectives set in Energy White Paper (2003) are still valid. Objectives are: security of supply; CC and emissions; fuel poverty; competition

The North West

- In order for the North West to play it's part… *"an equitable approach would be to set RE targets as a percentage of the electricity used in the North West."*
- The RE targets are set as a % of the electricity actually used within the North West.
- Regional targets should refer to the amount of RE actually generated from electrical schemes that have been developed.
- Targets should be reviewed bi-annually enabling periodic updating through an active process of monitoring and review.
- Monitoring should be carried out for:
  - RE deployment against proposed targets
  - Regional electricity consumption

Estimating Energy use in the North West

First step: to estimate how much electricity the region will be using in the future, projecting forward from today's usage.

Three scenarios and assumptions…

- SCENARIO 1 – an increase of regional electricity use of 1% per annum (lower than the current rate of increase and a decrease in real terms)
- SCENARIO 2 – no increase in regional electricity usage over the 15 year period to 2020
- SCENARIO 3 – a decrease in regional electricity usage of 1% per year

We are assuming that scenario 1 is the closest approximation to the current situation

The current situation in the NW

- DTI Energy Trends gives the North West regional electricity demand in 2003 as **33.449 TWh**[3]

Table 1: Projected Regional Electricity Demand for the North West (TWh / year)			
	1	2	3
2010	**35.92**	33.5	31.22
2015	**37.75**	33.5	29.69
2020	**39.67**	33.5	28.24

Table 2: Proposed Regional RE Electricity Targets for the North West (TWh / year) – assuming scenario 1	
2010	3.59
2015	5.66
2020	7.93

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Existing RE Schemes in the North West as of Nov 2005

RE Type	No of Schemes	Installed Capacity (MW)
Off-shore wind	0	0
On-shore wind	16	68.9
Biomass (incl. Co-firing)	4	114.1
Small hydro	9	2.7
Solar Photovoltaics	V small	V small
Landfill Gas	52	113.4
Sewage Gas	16	13.4
Thermal treatment of waste	1	10.5
TOTAL	**98**	**323**

Data Sources and Assumptions

Data sources

- data from Renewables Northwest (RNW) - database of existing and proposed schemes

Assumptions

- assumptions of energy outputs from these schemes made via independent energy specialists (Future Energy Solutions) with input from RNW
- Included theory and practice based on experience of existing schemes in the North West

Expressed as tables

- Indicative Breakdown of Targets for 2010, 2015 and 2020
- Indicative Sub-Regional Breakdown of Targets for 2010, 2015 and 2020