

RENEWABLE ENERGY

A Supplier's Perspective



Gerry Magee
Head of Environment
ScottishPower Energy Retail



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Contents

- **ScottishPower and Sustainable Development**
- Renewable Generation
- Green Supply Options



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ScottishPower & Sustainable Development

- Stakeholders demand more than a hefty bottom line
- They expect us to tackle various environmental and social issues
- Consumer purchasing behaviour is continually being influenced by corporations' attitudes to environmental and social responsibility
- In a commodity industry, this provides one way of competing on a non-price basis – a brand differentiator in the mind of consumers
- Sustainability is a cornerstone of our business strategy!



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Recognition

- Ranked in Top Tier of the 1st BITC (Business In The Community) Corporate Responsibility Index
- Top of 2002 Business in the Environment Index of Corporate Environmental Engagement
- Won 'Environmental Awareness Award' 2002 National Business Awards
- Recognised by The ACCA (Association of Certified Chartered Accountants) for our environmental reporting excellence for the 5th successive year.
- Voted 'Overall Company of the Year' in the 2002 BITC Awards
- Queens award for enterprise for sustainable development
- 6 impact endorsement marks BITC 2002 Awards for Excellence



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Renewable Generation Drivers

- Kyoto
- Government Regulation / UK Energy Policy
- Customer Demand
- Technology Evolution

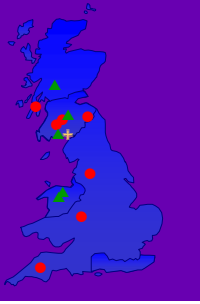


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Renewable Generation

- Windfarms**
11 UK sites - 128 MW
(4 sites - 30 MW in Ireland)
- Hydro**
Lanark, Galloway,
Cruachan & North Wales
- Under construction**
1 SS Hydro 500 kW

Note:
Last year 5.79% of ScottishPower's total generation came from renewable sources. The industry average is 2.51%



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Why Wind?

- Cost Effective @ c 2.5 – 4p per kWh
- Proven and Reliable Technology
- Large Resource in the UK
- Quick to Deploy
- Significant Economies of Scale
- ScottishPower Track Record of Success

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Current Wind Farm Development

Vision:
To invest £500m and expand our renewables portfolio to 1000MW by 2010

- Recently commissioned large (30 MW) windfarm in Kintyre
- Build commenced on a new 30MW site in Cowal
- Further expansion required to meet obligations
- New windfarms totalling 500MW under development including Whitelee (322MW) to the south of Glasgow
- Our biggest challenge is the planning system



ScottishPower are currently the largest windfarm developer in the UK

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Other Current Technologies

- **Hydro Power**
 - Lanark Scotland's 1st hydro station, built in 1964
 - Galloway A collection of 6 stations built in 1931
 - Cruachan Built in 1960's in the heart of Ben Cruachan
- **Combined Heat and Power (CHP)**
 - ScottishPower have 7 CHP plants in the UK.
 - Power is generated and used on site, with excess supplied back to the grid
- **Biomass**
 - Co-firing in existing generation plant

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Future Technologies

- **Wave**
- **Tidal Stream**
- **Biomass**
- **Solar PV**

- ScottishPower are actively investigating the environmental benefits and commercial viability of these emerging technologies
- We have no firm plans as yet, but our long term renewable strategy is likely to include one or more of these generation sources.

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Community and Small-Scale Renewables

- **Solar PV (photovoltaic)**
ScottishPower are actively involved in the DTI demonstration project in conjunction with South Ayrshire Council and Berwickshire Housing Association
- **Micro CHP**
Field trials of this technology are beginning with volume expected from 2006
- **Small-scale Wind Power**
Most suitable for remote locations
- **Much work remains before we will fully understand the support requirements and impact of these technologies** (metering, network, data flows, export reward, customer service, true carbon impact)

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Green Supply Options

Business Customers

- **Green Source** CCL Exempt, new renewable energy
- Over 100 business organisations including IBM, Safeway, Standard Life, M&S, Debenhams, The NHS and Scottish Water have signed up to this offering

Domestic Customers

- **Green Energy H₂O**
 - Supply based product, from hydro-power, no premium
 - GO GREEN AT NO EXTRA COST!
- **Green Energy Fund**
 - Fund based product, one of the UK's leading domestic Green offers
 - Customers donate £10.50 to the ScottishPower Green Energy Trust
 - YOUR CHANCE TO MAKE A REAL DIFFERENCE!



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ScottishPower Green Energy Trust

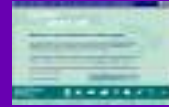
- An **Independent Charitable Trust** established since May 2000
- Board members include FoE, Energywatch and the Policy Studies Institute
- Supports small scale renewable and educational projects that will lead to an increase in the use and understanding of renewable energy sources
- To date we have allocated over **£325,000 to over 40 projects** such as The Scottish Seabird Centre:
 - Solar power has replaced diesel generation for interactive cameras.
 - Lower noise, lower emissions AND lower cost!



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ScottishPower Carbon Account

www.scottishpower.co.uk/carbonaccount



An innovative FREE web based service that:

- Allows users to calculate their personal environmental footprint
- Provides advice on simple and cost effective ways to improve this and thereby reduce CO₂ emissions
- Offers customers the opportunity to offset non-reducible emissions by supporting an offsetting project(s) of their choice in conjunction with Climate Change organisation Future Forests

ScottishPower are the 1st and only energy company to offer this service



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