2 BACKGROUND INFORMATION

2.1 THE DEVELOPER – COMMUNITY WINDPOWER

1. Inverkip Community Windfarm is being proposed by Community Windpower Limited (CWL) who are an independent company, formed in 2001, working to develop community focused small scale renewable energy projects. The company always propose to design, procure, install, operate and decommission their windfarms for their lifetime, employing the correct expertise and knowledge for a project.

2. In Europe, community investment in windfarms is common and it was this model of investment that Community Windpower was keen to bring to windfarm development in the UK. Another of CWL’s foundations is to evolve and establish educational support that windfarm developers can offer to local schools and communities. Community involvement and education became the core values of the company. Together with our open and consultative approach to working with communities and planning authorities the company’s key values have enabled the company to succeed.

3. In September 2003 CWL were granted planning permission to construct a 6 turbine 18MW windfarm at Wardlaw Wood, nr Dalry, North Ayrshire. CWL chose to delay the construction start date to search for an improved access route to the site. This was in direct response to the Community Council’s concerns regarding construction traffic through Dalry, despite North Ayrshire Council’s approval of the original proposal. A new 9km stone access road was constructed to avoid Dalry town centre. Community Windpower also worked with SNH, Clyde Muirshiel Regional Park and SEPA to ensure the environmental impacts of the project were minimised and controlled. Dalry Community Windfarm became operational in May 06 and will generate enough electricity for approximately 13000 homes, annually.

4. Community Windpower’s second windfarm application at Aikengall, East Lothian, was submitted in March 2005 and is currently awaiting a decision by East Lothian Council. This followed an extensive period of consultation and negotiations with local and national bodies resulting in a layout of sixteen turbines and a rated windfarm output of 48MW.

5. Community Windpower believe in an open and consultative approach with the local community prior to the submission of a planning application for a windfarm or meteorological mast. This approach affords the local community the opportunity to become involved in the design process and to assist us with local matters and issues, which may affect the project. This project was refined, taking into account direct involvement of local residents.

2.2 SITE AND PROJECT SUMMARY

1. Inverkip is located approximately 8km west southwest of Greenock centre on the western edge of Inverclyde overlooking the Clyde Estuary. Inverkip is a conservation village and neighbours Wemyss Bay. The community councils of the two villages merged in December 2003 to correspond with Inverclyde Council’s Ward 20 area. New housing developments in recent years has allowed the population of the villages to increase to around 3100.

2. The windfarm proposal is entirely contained within Leapmoor Forest which makes up part of Leapmoor. Leapmoor Forest is located approximately 2 km east of Inverkip and Wemyss Bay, being approx 3.7km in length and a total area of 280 hectares (~692 acres). Since the early twentieth century Leapmoor Forest has been used as a commercial plantation and is planned to continue as a commercial plantation during the lifetime of the windfarm.

3. The Inverkip Community Windfarm proposal is a ten 3 megawatt (MW) modern wind turbine scheme, offering a rated output of 30MW onto Scottish Power’s electrical Distribution network. Leapmoor Forest provides an area for potentially 20 turbines but this number has gradually reduced through the design process due to various constraints listed in Table 4.6 of Section 4. The proposed turbines will have a hub height of 80m and a blade length of 45m. This provides a large swept area enabling each turbine to convert a large amount of wind’s energy into useful electrical power.

4. CWL first contacted the Inverkip and Wemyss Bay Community Council in August 2005 to present the scheme and subsequently held four open days over a period of two months, to present the plans to the local community, obtain public feedback and gather community benefit ideas. These consultations are detailed further in Section 17.

5. The environmental contribution of Inverkip Community Windfarm is detailed in Section 3.11.

6. Some images of the local area are shown in Appendix 2.1

1. Figure from Inverclyde Local Plan 2005

2.3 HISTORY OF POWER GENERATION IN INVERCLYDE

1. The Greenock Cut was designed and engineered by Robert Thom (1774-1847) between 1825 and 1827. It was designed to transport water from the reservoirs behind Greenock and Leamoor along a 5 mile route around Dunrod Hill and adjacent hills and deliver the water to Greenock town.

2. The water was used to supply industrial water mills and delivered clean domestic water supplies to the region. It was this feat of engineering that led to the boom of Greenock’s population and industrial growth allowing imported sugar and tobacco to be processed. Loch Thom was named after Robert Thom as a tribute to his achievements.

3. The Greenock Cut walk is said to be used by 30,000 people per year and features in many walking and cycling website and publications. The aqueduct is still in use today and holds potential for a modern hydro-power renewable energy scheme. The Greenock Cut has recently been awarded funding by various parties for its improvement which should attract more visitors to the area.

4. Inverkip Power Station is located to the south of Inverkip, approximately 2km west of Leamoor Forest, being 8km south west of Greenock. Construction began by the South of Scotland Electricity Board in 1970 being Scotland’s first oil-fired power station. The station has been a notable land-mark, with its 213m (700ft) chimney dominating the local landscape.

5. Consisting of two generating units within a 57m (187ft) tall powerhouse, the plant was designed to produce 1900MW of electricity but, due to the soaring price of oil in the 1970s, it rarely worked at full capacity. 1200MW were mothballed with the remaining capacity used to satisfy peak demands. Its most prominent use was during the 1984/5 coal miner’s strike when low coal supplies prompted operation at full capacity. Local knowledge says this period had the adverse effect of coating all boats harboured at Inverkip Marina with a black coating leading to the power station authorities to pay for all of the boats to be cleaned. It is also alleged that the fumes caused acid rain in Norway.

6. Inverkip Power Station stopped generating electricity in the late 1980s and today is maintained only as a strategic reserve, with an uncertain future. All of the power generating equipment has been removed. The site features in the Inverclyde Local Plan 2005 as potential for new housing development or greenspace, however the site is still owned by Scottish Power. Any decommissioning, once designed and agreed, would take approximately 10 years to complete at significant cost.

7. On views of Leamoor Forest from the Clyde Estuary, the proposed windfarm will be seen to sit behind Inverkip Power Station and would show the development in Scotland’s power production and the contrast of old to new technologies.

8. A large power conversion sub-station is located approximately 1km west of Leamoor Forest and 1km east of the disused Inverkip Power Station. This was designed to export large amounts of electricity from the Inverkip Power Station. It is now predominately used for a direct import-export sub-station for the large 400kV pylons running through Leapmoor Forest into Clyde Muirshiel Regional Park.

9. Inverkip Community Windfarm would connect to the Distribution network following a suitable connection offer from Scottish Power and will supply electricity to local residents and businesses in Inverkip and Wemyss Bay.
2.4 CLIMATE CHANGE

1. Climate Change is predicted to cause huge economic and social significant impacts on all parts of the world, developed and undeveloped. Fossil fuels are a key player in the cause of climate change and renewable energy generation is required to help slow down climate change and prevent severe irreversible damage to the Earth.

2. Climate Change is a globally serious accepted environmental threat which is already taking place at an unsustainable rate, as concluded by The Third Assessment Report (TAR) of the Intergovernmental Panel on Climate Change (IPCC, 2001). It is globally agreed that climate change has been accelerated by human activities and the impacts of this can be seen around the globe, in various forms, on human society and the natural world. Consequently, Governments are now working together on a global scale to try and slow down the rate at which these climate changes take place.

3. The levels of toxic greenhouse gases in our Earth’s atmosphere have undoubtedly increased as a result of human activities e.g. agriculture, transport and most importantly, the burning of fossil fuels, to provide power.

4. Carbon Dioxide, Methane and Nitrous Oxide are the main toxic gases, which have rapidly escalated to their highest ever recorded levels in the 1990s, which was also the warmest decade since pre-industrial times (IPCC, 2001).

5. Overall the UK population uses almost twice as much energy in transport and over 20% more energy for powering homes, than we did 30 years ago (DTI, 2006a).

6. Carbon dioxide (CO₂) accounts for 80% of the toxic emissions (DTI, 2005). Total CO₂ levels have risen by around 30% over the last 200 years (IPCC, 2001) and they are known to be the largest contributor to climate change, because of the sheer volume of CO₂ emissions released from human activities around the world (Sustainable Development Commission, 2005).

7. Changes in society have also led to increased CO₂ emissions, because of a higher demand for domestic energy. In other words, due to a growing population and social changes such as more people now living on their own, more homes need more energy for lighting and heating. Other contributions leading to increased emissions include:
   - Petrol engines
   - Aircraft
   - Increases in the number of people travelling
   - Increases in waste energy

8. The rise in CO₂ emissions over the last century is extremely likely to have caused the observed global temperature rise of 0.7°C. This warming is happening as a result of climate change, and it’s having serious impacts all over the world (DTI, 2006b).

2.5 CURRENT SITUATION OF CLIMATE CHANGE

1. The EU Member States agreed in 1997 on a global mean temperature change of no more than 2°C relative to pre-industrial levels (DTI, 2006b). It is clear that to prevent a 2°C temperature rise, the world has to reduce and stabilise its CO₂ emissions. (Schellnhuber et al, 2006).

2. Global emissions of CO₂ have continued to increase, with a rise of 16% between 1990 and 2002, even though the UK CO₂ emissions were 4% below their 1990 levels in 2004 (DTI, 2005).

3. Current predictions show that climate change will continue, with increasingly adverse effects on the environment and human society (Schellnhuber et al, 2006). The IEA World Energy Outlook 2004 predicts that CO₂ emissions will increase by 63% over 2002 levels by 2030 (Schellnhuber et al, 2006) which consequently implies that the world would “almost certainly be committed to a temperature rise of about 0.5°C relative to today by 2050” (Defra, 2006).

4. Global mean sea level is predicted to rise by between 0.09 to 0.88 metres by 2100, due to rising global temperatures causing increased ice and glacial melting, and continued thermal expansion of the oceans (IPCC, 2001).

5. Glaciers are expected to continue their widespread retreat during the 21st Century, with permafrost, snow cover and sea ice all decreasing in the Northern Hemisphere (IPCC, 2001) with impacts expected on the Greenland and Antarctic ice sheets.

Chart 1 - Global emission of carbon dioxide from fossil fuel combustion from 1900 to 2000

(Source: DTI, 2005)

Chart 2 - The observed and predicted changes in global mean temperature

(Source: DETR, 2000)
2.6 Future Effects of Climate Change - National

1. Climate Change has affected the Earth, as changes have already been observed as a result of the warming climate. These changes vary by region with impacts on physical and biological sectors, including:
   • rising sea levels,
   • an increased incidence in extreme weather conditions like heat waves and droughts,
   • an increase in the melting and retreat of mountain glaciers,
   • changes to growing and breeding seasons for plants, birds and animals,
   • adverse effects on regional habitats and ecosystems around the world (DEFRA, 2004).

2. From recent UKCIP climate scenarios in 2002 (UKCIP02) the main impacts for the UK and Scotland where reported in ‘Climate Change Scenarios for the United Kingdom: The UKCIP02 Briefing Report’ published by DEFRA in 2002 and included:

   *Temperature*
   - Annual average temperature may rise by between 2°C-3.5°C by the 2080s (see Chart 2).
   - The temperature of UK coastal waters will rise although not as rapidly as land temperatures.
   - There will be greater warming during the summer and autumn, along with increased warming during winter nights.
   - The southeast areas of the UK will warm greater than the northwest areas of Scotland.

   *Precipitation*
   - Winter precipitation will increase.
   - UK summer rainfall is expected to decrease by up to 35-50%.
   - North-west Scotland will experience the smallest changes, whereas the south and east of England will experience the largest changes.
   - UKCIP98 climate scenarios suggested that precipitation totals for Scotland were likely to increase, with the main increase occurring during autumn. (Scottish Executive, 1999).

   *Snowfall*
   - For the whole of the UK, there will be less snow.
   - The Scottish Highlands are expected to see the smallest reduction, but total snowfall is likely to see a 60% decrease relative to today’s levels by 2100.

   *Soil Moisture*
   - The UK will experience a decrease in average soil moisture in the summer, with the possibility of up to a 20-40% fall by the 2080s in southeast England. This will have huge effects on agriculture.

   *Effects on Sea levels*
   - Impacts caused by extremes of sea level, such as during storm surges, causing coastal damage is likely to increase around the southeast coast of England during the next century.
   - Sea levels in southeast England could rise by between 26-86 m by the 2080s (DEFA, 2004).

3. Extremes of weather (i.e. types of weather which are more frequent and intense) are expected to increase and have an impact on the UK and Scottish climate. They include:
   • Heavy precipitation – winter precipitation will increase in intensity
   • Heat waves – high temperature extremes will increase in frequency, whereas low temperature extremes (cold snaps) will decrease in frequency
   • Gales – increasing in intensity and frequency
   • Extremes of sea level (e.g. storm surges) increase in frequency.

2.7 Future Effects of Climate Change – International

1. For the rest of the globe, the predicted changes to climate are similar, although the rate at which they occur is much more varied, with greater adverse impacts expected on human and natural environments. These changes are summarised in Table 2.

   Table 2 – Main projected changes to the global climate during the 21st Century.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Projected changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Precipitation</td>
<td>-Increase during 21st century, particularly over high-latitude regions in summer and winter.</td>
</tr>
<tr>
<td>Sea level</td>
<td>-Increases likely over northern mid-latitudes, tropical Africa and Antarctica in winter and in southern/eastern Asia in summer.</td>
</tr>
<tr>
<td>Snow cover</td>
<td>-Projected to rise by 0.09 to 0.88 metres between 1990 and 2100. Caused by melting glaciers and ice caps, thermal expansion of oceans.</td>
</tr>
</tbody>
</table>

   (Source: IPCC, 2001)

2. Changes in the frequency, intensity and duration of extreme weather conditions are also predicted on a global scale, which will have serious adverse affects on the world’s ecological systems, socio-economic sectors and human health (IPCC, 2001). These are summarised in Table 3.

   Table 3 – Projected weather extremes during the 21st Century and their resulting consequences

<table>
<thead>
<tr>
<th>Extreme weather changes</th>
<th>Expected impacts from these changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher maximum temperatures, more hot days, heat waves over most land areas</td>
<td>-Increased heat stress in livestock and wildlife</td>
</tr>
<tr>
<td>-Increased risk of damage to agricultural crops</td>
<td></td>
</tr>
<tr>
<td>-Increased incidence of death and serious illness in the urban poor and elderly people</td>
<td></td>
</tr>
<tr>
<td>-Increased demand for electric air-cooling units</td>
<td></td>
</tr>
<tr>
<td>-Shift in tourism destinations</td>
<td></td>
</tr>
<tr>
<td>Warmer minimum temperatures, fewer cold days and cold snaps over most land areas</td>
<td>-Decreased cold-related deaths</td>
</tr>
<tr>
<td>-Increased risk to some crops</td>
<td></td>
</tr>
<tr>
<td>-Extended range and activity of some pests and diseases</td>
<td></td>
</tr>
<tr>
<td>Increased, more intense precipitation events over many areas</td>
<td>-Increased risk of floods, landslides, avalanches and mud slides and the associated damage</td>
</tr>
<tr>
<td>-Increased soil erosion</td>
<td></td>
</tr>
<tr>
<td>-Increased pressure on governments and private flood insurance systems and disaster relief</td>
<td></td>
</tr>
<tr>
<td>Increased summer drying and associated risk of drought</td>
<td>-Decreased water resource and effects on quantity and quality</td>
</tr>
<tr>
<td>-Decreased crop yields</td>
<td></td>
</tr>
<tr>
<td>-Increased risk of fire</td>
<td></td>
</tr>
<tr>
<td>-Increased damage to building foundations caused by ground shrinkage</td>
<td></td>
</tr>
<tr>
<td>Increase in tropical cyclone peak wind intensities, mean</td>
<td>-Increased coastal erosion and damage to coastal infrastructure</td>
</tr>
</tbody>
</table>
and peak precipitation intensities.
- Increased damage to coastal ecosystems e.g. coral reefs and mangroves
- Increased risk to human life and risk of infectious disease epidemics e.g. malaria

<table>
<thead>
<tr>
<th>Intensified droughts and floods associated with El Nino events</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Decreased hydro-power potential in drought-prone areas</td>
</tr>
<tr>
<td>- Decreased agriculture productivity in drought-prone and flood-prone regions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Increased Asian summer monsoon precipitation variability</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Increase in flood and drought magnitude and damages, in temperate and tropical Asia</td>
</tr>
</tbody>
</table>

(Source: IPCC, 2001)

3. The Antarctic is the world’s 5th largest continent with 99.7% of its surface covered by a vast ice sheet, with an average thickness of approximately 2km. If the ice sheet were to melt, global sea levels would rise by around 57m (Rapley, 2006).

4. The Greenland Ice sheet dominates land ice in the Arctic, where glaciers have been in decline since the 1960s. The Arctic’s area of seasonal surface melt increased by 16% from 1979 to 2002 with significant year-to-year variations, as shown in figure 4 (Hassol and Corell, 2006).

5. If the Greenland Ice Sheet were to melt completely, it could raise global sea levels by around 7 metres (Houghton et al, 2001). The influx of freshwater from Greenland is another concern, as it could eventually trigger a slow-down or collapse of the ocean thermohaline circulation, which could lead to the cooling of the Northern Hemisphere (Lowe et al, 2006), although this is considered unlikely.

6. Nonetheless, it must be remembered that even if CO₂ emissions are stabilised, global sea levels will continue to rise for more than 1000 years after stabilisation, which emphasises the importance of acting now and not delaying efforts to reduce greenhouse gas emissions.

7. The observed changes to the Arctic climate are shown in figure 5.

2.8 COSTS OF CLIMATE CHANGE

1. The occurrence of heat waves has increased and the 1990s was globally, the warmest decade on record. Heat waves are expected to increase in frequency, which could cause serious impacts on human health and economies in the future.

2. In the summer of 2003, Europe experienced extremely high temperatures, which caused approximately 26,000 premature deaths. In France alone there were around 15,000 premature deaths and overall, it is estimated to have cost European economies approximately $13.5 billion (DEFRA, 2004).

3. Increased precipitation and extreme rainfall events also have serious human and economic impacts and costs, as was seen during the floods in 2002. In total, 37 deaths were caused and costs amounted to approximately $16 billion.

4. The Association of British Insurers highlighted that in 2000, the UK experienced its wettest autumn for nearly 300 years, with heavy rainfall causing damage to 10,000 properties, leading to a total of around £1 billion in insurance claims (DEFRA, 2004).

5. Storms and flooding led to an increase in insurance claims within the UK, which doubled to over £6 billion during 1998-2003, compared to the previous five years (DEFRA, 2004).

6. On a global scale, the world’s second largest insurer, Swiss Re, stated that the “economic costs of global warming threatened to double to $150 billion per year by 2014, hitting insurers with $30-40 billion in claims, annually (DEFRA, 2004).

7. Additionally, food, water and tourism resources will be threatened, as beaches, coral reefs, freshwater fisheries and wildlife habitats are all at risk and ‘off-island migration’ may occur (DEFRA, 2004).

8. The IPCC report stated in 2001 how an increase in water temperatures of a little as 1°C could lead to coral bleaching and the eventual death of some corals.

9. In China, temperature increases may be between 3-4°C, which could lead to crop yields of rice, maize and wheat falling by up to 37%.

10. Consequently there has been a reduction of 50% in days when oil and gas exploration and extraction equipment can be used. Also, existing buildings, roads and pipelines are likely to become unstable,

Figure 4 – Seasonal surface melt extent on the Greenland Ice Sheet, as observed by satellite since 1979.

Figure 5 – Projected changes in sea-ice extent in the Arctic over the next century

(Source: Hassol and Corell, 2006)
requiring costly repair and replacement.

11. Shifts in vegetation zones will greatly reduce breeding and grazing areas for many birds and animals, with some species very likely to become extinct. Bird species are predicted to lose more than 50% of breeding area during this century.

12. Africa has warmed at a rate of roughly 0.5 °C per century with precipitation also decreasing. These trends are expected to continue in the future as the climate continues to warm, with further problems arising as a result of changes in the frequency and magnitude of extreme events.

13. Water stress in Africa is already happening as droughts since the 1970s have led to decreased river discharges and reduced lake areas.

14. It is predicted that water shortages will increase by 29% by 2050 in southern Africa, with Mozambique, Tanzania and South Africa being most affected (Schultz et al, 2001).

15. A decrease in river flow of up to 75% is predicted for the Nile region by 2100, which will have disastrous implications on irrigation and agricultural productivity.

16. Conflicts may also rise over access to water resources and negotiations may be needed with neighbouring countries.

17. The impacts on agriculture are particularly significant for Africa, as currently, this industry provides:
   - 40% of total export earnings
   - One third of the national income
   - Employs between 70-90% of the total labour force
   - Supplies 50% of household food requirements
   - Provides 50% of household incomes

Negative impacts are expected including:
   - Net losses of up to 12% in cereal-production in the sub-Saharan region by the 2080s.
   - 40% of sub-Saharan countries will lose a substantial share of their agricultural resources.
   - Overall cereal crop yields will decrease by 2.5-5% by the 2080s.
   - Human nutrition and health could suffer due to impacts on fish and fisheries, as freshwater temperatures, water chemistry and circulation are all altered and sea level rise impacts coastal fishing villages. E.g. in Cameroon, about 53% of fishing villages could be displaced, inducing the migration of 6000 fishermen in land, due to sea levels inundating the low-lying estuary areas.
   - 50% of fish in the Conkouati Lagoon in Congo are estimated to disappear, due to increased penetration of seawater into the lagoon.
   - Impacts on food security are heightened as agricultural yields are predicted to decline, at the same time as the demand for food and water increases due to the population growing.
   - Estimates suggest that globally, an additional 80-125 million people will be at risk of hunger by the 2080s, with 70-80% of these living in Africa (Parry et al, 1999).

DISEASE

18. For human health, the risk of disease is also greater, as vector-borne diseases like Malaria and Rift Valley Fever increase dramatically when periods of above average temperatures and rainfall occur.

19. Currently, 85% of all deaths and diseases associated with Malaria happen in Africa and it is possible that an additional 21-67 million people in Africa alone could be at risk of Malaria epidemics by the 2080s.

20. In South Africa, the area of land suitable for Malaria is estimated to double by 2100, with 7.8 million people being at risk.

21. Meningitis, associated with low humidity, is also expected to increase, with the meningitis belt of the drier parts of west and central Africa likely to expand in to the eastern regions of Africa.

22. For the world has a whole, current modelling estimates an additional 90 -200 million people could be at risk by the 2080s (DEFRA, 2004).

2.9 CLIMATE CHANGE CONCLUSIONS

1. Climate Change will continue to occur with irreversible consequences if something is not done to reduce the emissions of greenhouse gases.

2. Changes will be experienced by all countries, with the vast majority of impacts being negative. It is firmly accepted that human activities have lead to rises in greenhouse gases, particularly carbon dioxide since the beginning of the industrial revolution, with the most rapid increases occurring since the 1950s (DEFRA, 2005).

3. Changes in agriculture, land-use and a rise in the burning of fossil fuels, are the main causes of these rising emissions.

4. The effects of climate change are already taking place, as mountain glaciers are retreating more rapidly, precipitation totals are increasing and temperatures are rising as the globe warms up. Consequently, there has been an increase in the number of forest fires, an increase in water shortages and the risk of insect and disease outbreaks has grown rapidly. The impacts on human society are escalating and will continue in relation to the changing climate. Global mean temperatures and sea levels will continue to rise putting many low-lying countries at risk around the world.

5. Even if greenhouse gas emissions are reduced, the effects of climate change will continue for many years after, which enhances the importance of acting now and not delaying global procedures and policies to reduce greenhouse gas emissions.

6. Estimations show that by 2020, the world will need 40% more energy than today and that 80% of that extra demand will come from developing countries (DEFRA, 2004). Therefore global emissions have the potential to continue rising rapidly, causing serious adverse impacts worldwide if left un-tackled. Therefore it is vital that alternative sources of power are developed to meet growing energy demands.

7. For instance, rather than rely on fossil fuels which currently are in decline and are the main contributors to climate change, alternative energy sources which will not emit greenhouse gases or contribute to climate change are required. Such sources are described as being renewable energy sources and include wind, solar, wave, biomass, geothermal and tidal power.

8. For the UK, wind power is particularly important, as the UK is one of the windiest countries in Europe and there is great potential to harness the wind and use it for the generation of electricity. Thus reducing the need for fossil fuel generated power, which consequently helps to reduce carbon dioxide and greenhouse gas emissions to levels below those of 1990, which is the main aim of the Kyoto Protocol. Further work is needed and increased implementation of renewable technologies is required by Scotland, the UK and all countries. If targets are to be met and exceeded, to help slow down climate change and avoid its most irreversible impacts.

2-5
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2-6
APPENDIX 2.1 IMAGES OF THE LOCAL AREA

**Taken from Dunrod Hill, May 2005. From the left: Daff Reservoir, Leapmoor Forest with electricity pylons, Clyde Estuary and Inverkip Power Station.**

**Taken from Dunrod Hill, May 2005. From the left: Daff Reservoir, Leapmoor Forest with electricity pylons, Clyde Estuary and Inverkip Power Station.**

**Taken from Lunderston Bay, November 2005. South facing dusk shot of Clyde Estuary and Inverkip Power Station.**

**Taken from south edge of Leapmoor Forest by proposed access route, July 2005. West facing showing Inverkip Power Station with electricity pylons running through the forest.**

**Taken from Lunderston Bay, September 2005. Centre: Leapmoor Forest at a distance. Right: Inverkip Power Station.**