CLPG

Clatto Landscape Protection Group

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30 August 2010

**OBJECTION TO PLANNING APPLICATION NUMBER 10/01469/EIA**

**MR DOUGLAS RENNIE / GREEN CAT RENEWABLES – THREE 100 METRE WIND TURBINES, CLATTO HILL**

**Clatto Hill lies in the centre of this picture looking towards the Lomonds.The white circle marks the location of the proposed turbines**

1. The Clatto Landscape Protection Group is made up of people who live on or around Clatto Hill between Kennoway and Cupar, who value the local landscape and amenity and are interested in their protection. We object to Mr Rennie's proposals because there are clearly more significant adverse impacts than benefits. We further submit that the Environmental Statement submitted by Green Cat Renewables is not fit for purpose and therefore non-compliant with the EIA(S) Regulations 1999 through lack of balance and thoroughness of research. It only quotes policy references which suit its case and omits others. It does the same with regard to the provision of information. In this objection we hope to redress that balance, but the point remains, it is central to this objection that the ES is non-compliant.

2. The three proposed industrial scale turbines would provide a very small gain in renewable energy generation and some temporary employment, while

- Degrading the residential amenity of many local people by their visual and noise impacts,
- Introducing a dominant and wholly incongruous feature in the landscape which would be obvious for many miles around,
- Turning an area in which a varied range of peaceful outdoor activities take place to the benefit of peoples' health and well being into an area in which people would rather not spend time,
- Extinguishing the potential for more such activity in the area as the core path network in the area develops and Clatto Community Woodland's activities expand,
- Creating serious driver distraction problems over many parts of the minor road C30,
- Being inconsistent with the Council's targets to increase tourism turnover by 20%, and
- Alternatives for generating renewable energy in the seas around Scotland abound and are rapidly being commercialised making Scotland a world leader in this area.

Locations for wind farms with an accumulation of adverse impacts like this one are quite unnecessary as the potential for marine renewable energy generation has been shown to exceed current requirements by a factor of about six. The work of developing this in commercial form is well underway with high levels of Government support. The prospects are for Scotland and the UK to become net exporters of energy on a scale similar to the North Sea oil boom, as the marine renewables energy industry is grown with many thousands of sustainable jobs, including manufacturing jobs in Fife and throughout Scotland. Given this context, the proposal in question is all but irrelevant.

3. As a proposed farm diversification, we believe this proposal is completely misguided, as the real diversification opportunities lie in improving access and recreational use. **According to the Scottish Government's Scottish Planning Policy (SPP page 54, paragraph 257)*, "the planning system should be judged by the extent to which it maintains and creates places where people want to live, work and spend time."* This proposal would seriously diminish the desire to live in the area and remove any desire to spend time in it.**

4. The evidence and argument for the foregoing is developed in more detail below.

**RESIDENTIAL AMENITY**

**People live on Clatto Hill – lots of people! A view of Burnturk/Kettlehill and the Howe of Fife**

5. There are 12 homes within 1 kilometre, 40 homes within 2 kilometres and 250 homes within 3 kilometres of the proposed turbine locations. The edge of the conjoined villages of Coaltown of Burnturk and Kettlehill lie only 1.8 kilometres from the proposed turbine locations. The turbines would be seen from most of the aforementioned homes and settlement. Both the Government's **Scottish Planning Policy (SPP)** (page 69, paragraph 190) and Fife Council's **Supplementary Planning Guidance – Wind Energy** (paras. 5.14 and 5.15) on the siting of wind farms acknowledges the adverse visual impact of turbines located within 2 kilometres of residential property. Indeed, The Minister for Energy and Tourism, Jim Mather, clarified in December 2008 with regard to the 2 kilometre buffer, that proposals shall not be permitted if they will have a significant long term detrimental impact on the amenity of people living nearby, with this principle being equally applicable to single dwellings or settlements. There are no mitigating circumstances in this case that should overturn the application of the 2 kilometre separation distance. This principle was endorsed in the Auchtermuchty Inquiry and at Gathercauld.

6. The following settlements also lie so close to the proposed turbines as to have an overbearing visual impact.

| | | |
|---|---|---|
| Star of Markinch | Rameldry | Craigrothie |
| Baintown | Kingskettle | Ceres |
| Bonnybank | Ladybank | Chance Inn |
| Kennoway | Springfield | |
| Montrave | Freuchie | |

From visiting wind farms with turbines of the height proposed here, it is clear to us that even 5 to 8 kilometres from the turbines, they appear as dominant features in the environment. In addition to the above settlements lying within an 8 kilometre range of the turbines, there are several hundred homes scattered throughout the countryside. In our submission, all would be adversely affected.

This photomontage shows that the turbines would have a dominating presence over much of the Howe of Fife.

**The proposed turbines on Clatto Hill from Heatherhall Woods near Ladybank. Distance to nearest turbine 5.6 km. This view is also representative of those from the A92 North of Freuchie and the Railway around Ladybank.**

**Montage based on a single frame with a 75 mm lens.**

**7. Policy I1 of the Finalised St Andrews and East Fife Local Plan 2009** states that development would be supported where it does not have a significant adverse impact on local communities**. Policy COU19 of the Cupar and Howe of Fife Local Plan** states the same thing. **Policy SG1 in the Council's Supplementary Planning Guidance – Wind Energy** indicates that development would be supported where they do not have a significant detrimental effect on the amenity of nearby residents. We contend that the industrial scale of 100 metre tall wind turbines would have an obvious detrimental visual impact on nearby residents and the local community and therefore that these policies provide grounds for refusal of this planning application.

8. In a Report (1) published in June 2009, Dr Christopher Hanning BSc, MB, BS, MRCS, LRCP, FRCA, MD considering sleep disturbance and wind turbine noise concluded *"In my expert opinion, from my knowledge of sleep physiology and a review of available research, I have no doubt that wind turbine noise emissions cause sleep disturbance and ill-health." (para. 3.8.3, page 17).* With regard to the ETSU-R-97 approach to noise assessment he says, *"it is clear that ETSU-R-97 cannot be relied upon to prevent sleep disturbance in those living near wind turbines." (para.4.2.6, page 20).* His overall conclusion is that, *"The only mitigation against sleep disturbance from industrial wind turbine noise is a setback of at least 1.5 km and probably greater."*

9. Local concern about possible noise impacts on nearby dwellings, both from health and nuisance perspectives, led our Group to engage the experienced noise consultant, Dick Bowdler, to investigate this matter on our behalf. Mr Bowdler has concluded that 16 homes are likely to suffer a major loss of amenity. This is a different conclusion from that of Green Cat Renewables and seems to arise in part because of an unreliable background noise measurement on their behalf and in part because they failed to consider the increases in ambient noise which the development would cause, as required by **PAN 56**. Mr Bowdler's Report (2) has been submitted to the Council under separate cover in support of this objection. In its Statement of Case for the Rossie, Auchtermuchty Planning Appeal, November 2007, Fife Council (para. 3.3) stated, *"the noise limits in ETSU-R-97 do not represent noise thresholds of adverse noise impact, and application of these limits does not necessarily provide adequate protection to residential amenity, particularly in areas where background noise levels are low, such as they are in this appeal. Application of the ETSU noise limits in quiet rural areas permit wind turbines to generate higher levels of noise than would be permitted for any other form of industrial development."* The same document also stated, *"Following guidance in **PAN 56**, assessment of noise impact should also take account of the increase in ambient noise resulting from the operation of a wind farm."* In his Report, the Reporter in that case endorsed these policy requirements. Needless to say, CLPG seeks consistency of approach to noise on the part of the Council, with regard to the quiet rural area of Clatto Hill and noise sensitive properties.

10. **Policy SG1 in the Council's Supplementary Planning Guidance- Wind Energy** indicates that development would be supported where it does not have a significant detrimental effect on the amenity of nearby residents. Mr Bowdler's report demonstrates that the development would have a significant detrimental effect on nearby residents. Dr Hanning's Report does likewise.

11. In March this year, a wind farm developer was instructed by the Courts in France to remove 4 turbines near the village of Navian in Languedoc. The turbines are sited between 600 metres and 1500 metres from residential property. The grounds for the Court's decisions were actual visual and noise nuisance from their presence. For us, the significance of this is that actual noise levels led to the Court's radical decision, not predictions. (3)

12. Fife Council's **Supplementary Planning Guidance** – **Wind Energy** requires the impacts of ultrasound and infrasound to be assessed. The applicant has not done this, serving only to heighten the local community's concerns on these poorly researched aspects of noise emissions.

**LANDSCAPE AND VISUAL IMPACT**

13. **The Fife Landscape Character Assessment** describes at Figure 2 that Clatto Hill is one of Fife's "principal hill ranges." In this proposal, the three 100 metre tall turbines would be about 225 metres above sea level on a gentle ridge near the top of Clatto Hill, which is 248 metres above sea level. For a comparison, the top of Largo Law is 290 metres above sea level. As such, the turbines would be within view of most of the area bounded by the north east edge of Kirkcaldy, Cowdenbeath, Auchtermuchty, Guardbridge and Elie. The applicant's Zone of Theoretical Visibility maps demonstrate this. We already know that Clatto Hill can be seen over this range, without turbines on it. Distant views would see 100 metre turbines on a 248 metre hill. In sheer common sense terms, this is a significant change. The applicant asserts that other tall structures such as the 2 masts at Down Law would mitigate the impact of the turbines. Those masts are 40 meters tall, and static, not 100 metres tall with rotating blades which change their orientation with the wind. So that claimed mitigation is insignificant and the contention is false.

**Montage showing the turbines in the landscape from Bowden Hill, site of an Iron Age fort.**

**The important Down Law fort site is directly under the left-hand turbine. Distance to radio masts 900m, to nearest turbine 1500m.**

The turbines would be seen by rail travellers from most of the stretch between the north eastern edge of Kirkcaldy and Cupar. They would also be seen from most of the nearby main roads - the A92 from the north eastern edge of Kirkcaldy beyond Ladybank, the A914 from its junction with the A92 to Cupar, most of the A91 from Auchtermuchty to Cupar and along the A916 between Hill of Tarvit, Craigrothie and Kame Bridge. In short whoever is travelling by road or rail within about 15 kilometres of the turbine site would see them.

The proposed turbine site lies close to and between two nearby candidate Special Landscape Areas. Their prominent location means that they will be visible from most locations in those cSLAs. The applicant's ZTV in their ES verifies this. In the case of the Tarvit and Ceres cSLA its boundary is only 2 kilometres from the proposed turbine locations.

**Montage of turbines from minor road near Kame Bridge (A916), 75mm lens, nearest turbine 3.25Km**

14. The turbines would be seven times the height of the mature trees in the area. Contrary to the applicant's landscape and visual assessment, the gently rolling landscape does not constrain views of the turbine site to any great degree. Considering the local impact, the small hills within the rolling landscape are no more than 30 metres tall. This would not hide 100 metre tall turbines from very many near views.

15. The ridgeline location means that there is no backclothing of the turbines. Everywhere they would be seen, they would be skyline features. The applicant's Environmental Statement uses 11 viewpoints to represent the range of likely views of the turbines. In every case, it can be seen that no backclothing takes place. The **Fife Landscape Character Assessment** suggests that any wind turbines situated in this area of "pronounced volcanic hills and craigs" should be backclothed by the landscape behind their position to mitigate the effect of their height. That was written in 1999 when turbine heights in typical proposals were around half the height proposed here.

**Looking over the Nature reserve at Clatto reservoir. The turbines are seen dominating Clatto Cottages and the horizon. (75mm lens)**

16. We contend that the applicant's ES is disingenuous in asserting no more than a low/medium sensitivity of the landscape to change. It acknowledges the extensive views towards and from the site. That makes it more, not less sensitive to change. Green Cat ignores the very considerable extent to which this landscape is valued by local people and the many visitors to it. They would, since there was no consultation with local people from which this may have been gleaned. The **Fife Landscape Character Assessment** states in the introduction that *"all landscapes are valued and often cherished by those who live and work in them, or visit or travel through them."* Further on page 23 it states that *"The landscape can therefore hold a special meaning for many people as the source of numerous experiences and memories. Many of them are visual, but at times the landscape may also invoke other sensual, cultural or even spiritual responses."* Those statements begin to explain the value local people and visitors alike attach to Clatto Hill and its surroundings. Green Cat's attempt to claim that the landscape is of only *"moderately valued characteristics*" and thus downgrade sensitivity to change is to be deplored. Finally on the point of sensitivity, landscape assessment guidance states that the degree of peacefulness and tranquillity matters when judging sensitivity to change. By any standards, Clatto Hill is a very tranquil and peaceful place. In fact this is one of its main attractions to local people and visitors. The various factors highlighted in this paragraph actually make the landscape highly sensitive to change.

17. We also contend that the applicant is disingenuous in asserting that a low/medium magnitude of change would arise from their proposal. They claim the landscape would only experience a "minimal" level of change. How can 100 metre turbines on a 248 metre hill do that? They do acknowledge "some locally significant change" however, but then try to dismiss it. The reality is that a high magnitude of change arising from turbine size and very prominent location would occur. This is confirmed by the **Fife Landscape Character Assessment** (page 113) which advises to

*"Restrict the development of tall structures to those absolutely essential for operational reasons and avoid any new installations of masts, wind turbine generators on all the distinctive, recognisable and prominent hill tops, peaks and skylines."*

The combination of high sensitivity to change and high magnitude of change in reality produce a significant adverse impact of a high order.

We have noted that the **Ministry of Defence** has objected to the proposal on grounds of interference of the turbines with ATC radar at RAF Leuchars. In the unlikely event that the applicant can offer convincing mitigation of such an effect, we further note that the **MOD** would require lights to be fitted as high as possible on the turbines. Such a step would introduce light pollution in an area without any at present. This in itself would be another adverse visual impact of the proposal.

18. **The Fife Landscape Character Assessment** advises, *"Explore the potential to steer wind farm developments away from exposed ridgelines and summits and from locations where their visual influence would extend across the Lowlands."* Because this is a speculative application on behalf of the landowner, no such exploration was or could have been undertaken on the limited area of land he owns. Hence we have an application for turbines on a very prominent ridgeline where their visual influence would indeed extend across the Lowlands, as the applicant's own Environmental Statement verifies.

19. **Policy SG1 of the Supplementary Planning Guidance – Wind Energy** indicates that wind farms will be supported where *"the landscape is capable of accommodating them."* It is clear from the foregoing that the landscape cannot hope to "accommodate" this proposal. The attempt to assert that it can in the applicant's rather self-serving Environmental Statement is hollow. It is also clear that no account has been taken of the **Fife Landscape Character Assessment** in formulating this proposal. **Fife Structure Plan Policy R1** states that the **Fife Landscape Character Assessment** will be a material consideration in the siting of wind turbines.

20. **Policy E3 of the Finalised St Andrews and East Fife Local Plan** requires development to make a positive contribution to the quality of the local environment. What contribution to the quality of the local environment does this proposal make? **Policy E19 of the St Andrews and East Fife Emerging Local Plan** requires proposals which may impact upon a Special Landscape Area to demonstrate how the development will *"contribute to the preservation, restoration, or enhancement"* of it and *"its associated landscape qualities."* Green Cat has made no attempt to demonstrate this and we do not believe this can be demonstrated.

21. The **Council's Strategic Environmental Assessment of the Supplementary Planning Guidance – Wind Energy** states that the application of the **Supplementary Planning Guidance – Wind Energy** would ensure that *"only proposals which can demonstrate that they will not result in adverse impacts on the natural, built and historic environments and their neighbours would be permitted. Each development will require to demonstrate that their proposed development incorporates any necessary mitigation measures to achieve acceptable standards."* The applicant has patently failed to offer any substantive mitigation of landscape and visual effects or effects on residential amenity.

**ACCESS, RECREATION AND HEALTH**

22. Policies at Scottish Government and Fife Council level have been developed in recent times to encourage people to spend more time in outdoor activities in the interests of their health and well being. The realisation of such policies requires an expansion of attractive locations in which people can be engaged in such activities.

23. Clatto Hill and its surrounding area is just such a location. It is easily accessible being served by a minor road bringing people 200 metres above sea level (quite rare in Fife). From many parts of the area it is possible to enjoy fine views of the Sidlaw Hills and the Grampians to the north, the Lomonds and beyond to the west, Largo Law to the east and the Pentlands and Firth of Forth to the south. Very few places in Fife can offer this with such easy access, without a stiff climb on foot, so it is ideal for young and old alike.

24. Indeed both the **Fife landscape Character Assessment** (para.E.2.5, page 152) and the applicant's ES (page 73) acknowledge the value and further potential of the area for outdoor recreation. Fife Council has this year used the Clatto Hill location to make a video promoting access to the local countryside and featured photographs from the area in its newspaper in this context.

25. Reflecting the potential, the proposed **Core Path Network** includes core paths 800, 195, 267 and 377 in the area with 800 particularly close to proposed turbine locations, as well as several other long established existing paths. National cycle route No.1 linking, Edinburgh, Dunfermline, St Andrews and Dundee, comes on to Clatto Hill and National Cycle route No.766 linking Kirkcaldy, Glenrothes and Dundee comes within 2 kilometres of Clatto Hill.

**Montage of the proposed turbines as seen from The Gateway woodland of Clatto Community Woodlands. The main opportunity for extending CCW's interest on the hill is the wood in front of the right hand turbine. Distance to nearest turbine 1Km.**

26. There is a local community controlled charitable company limited by guarantee, **Clatto Community Woodlands (CCW)**, which owns a small wood 1 km north of the proposal, which the applicant fails to recognise in the Environmental Statement. **CCW** is in discussion with a local landowner about formal management agreements for two more. One of those lies a mere 150 metres north of the proposed turbine locations. A Feasibility Study funded by a £10,000 Lottery Grant has confirmed their potential for development as community woodlands, gradually replacing commercial conifers with native species, promoting recreational use and biodiversity, and exploring possible community micro-business seeding. This is in keeping with **Fife Landscape Character Assessment** (para. E.2.7) on the management of the Pronounced Volcanic Hills and Craigs landscape character type and in keeping with **Scottish Planning Policy** (para.149 on page 30) which expects planning authorities to protect and enhance open spaces for recreation. **CCW** have reported a marked decrease in the motivation of volunteers created by the mere threat of wind farm development in the area. A considerable risk exists of losing completely this charitable organisation and all its potential for sustainable development, were the development of this wind farm to proceed.

27. The current diverse range of outdoor activities of walking, shooting, voluntary woodland management, cycling, horse riding, dog walking, bird watching, clay pigeon shooting, observing wildlife and fishing provide ample evidence

of the attraction and further potential of the area for access and recreation. Our own census of horses stabled within 2 kilometres of the proposed turbine locations revealed there are at least 120. In addition to local riders, visiting riders undertake endurance riding activities in the area.

28. In light of the foregoing, the potential for increased access to Clatto Hill by both tourists and local people is clear.

29. The very character of the area which attracts people for the current wide range of outdoor activities would be destroyed by the impact of the proposed development, making it an area where people would not want to spend time, the reverse of the very specific outcome sought by **Scottish Planning Policy** (SPP para. 257). In addition, the wind farm site would, in common with others built, have boundary notices discouraging access on safety grounds. To our Group, this seems perverse in a location ripe for further development for access and recreation, and in which local people have devoted their voluntary time to help make it happen. The **Scottish Planning Policy** (SPP page 10, paragraphs 47 and 48 requires the planning system to safeguard and enhance an area's environmental quality to the benefit of tourism and recreation. The same **Scottish Planning Policy** (SPP page 30, paragraph 149) seeks the promotion of access to good quality open space and recreation to promote health and well being. Clatto Hill is conveniently close to the large centres of population of Kirkcaldy, Glenrothes and Cupar to have such a role, and its development in this way could help relieve pressure on other sensitive areas.

30. Several policies in the **Finalised St Andrews and East Fife Local Plan** would be contradicted by the proposal. **Policy B2** contains a presumption against loss of facilities with a valuable community purpose. **Policy E3** requires development to make a positive contribution to the quality of the immediate environment. **Policy C8** requires footpaths to be kept open and free from obstruction, or suitable alternative routing provided. The proposals contain no alternative routing for Core Path 800 adjacent to the proposed turbine site. In any case, the development would undermine the usefulness of a path for reasons described earlier. Since local residents make good use of the local area for access and recreation, **Supplementary Planning Guidance Wind Energy, Policy SG1, would** be negated by the significant detrimental effect of the proposals on the amenity of the nearby residents.

**DRIVER DISTRACTION / ROAD SAFETY**

**Turbines in view as a blind bend is negotiated**

31. The C30 minor road traversing Clatto Hill would pass approximately 600 metres from the turbine site at the nearest point. It is a very narrow road that requires even medium sized cars to slow down to pass in opposite directions over most of its length. It is rarely gritted in winter and it is quite usual for several vehicles to go off the road in wet or icy conditions. This windy road, with many blind summits or bends along its length, carries local traffic, services visiting local people and farms including large animal and feed transporters, and visitors including those for recreation as well as being used as a travel-to-work shortcut. In addition, the road is in frequent use by horse riders.

32. The **Supplementary Planning Guidance – Wind Energy** (paragraph 3.13) recognises that turbine siting may cause distraction for road users and the possibility requires investigation. The applicant's ES confines any consideration of this matter to main roads, completely ignoring any issues on the C30.

33. **Spatial Planning Advice Note SP12/19** recognises driver distraction and defines it in terms of sudden unexpected features coming into view. Avoidance of sudden distraction, the Note explains, is ensuring that obstacles can be seen from some way off. A survey carried out by our Group demonstrates that this is impossible on this road.

34. Our Group's survey of the C30 covered both directions of travel and produced a detailed account listing the locations where the turbines would come into view quite suddenly, with high risk of driver distraction. We stress that

what would suddenly come into view would be turbines or parts of turbines that appear overwhelming, large and intimidating. There are 8 such locations. The local topography makes it impossible to avoid the distractions, short of a major realignment and widening of the road, not something proposed by the applicant.

35. Our conclusion is that the proposal creates, on a road with more than its share of driving challenges already, road safety problems for which no proposals have been made in mitigation.

**TOURISM**

36. Tourism is a major contributor to the Fife economy and Fife Council has set a target for a 20% (£51m) increase in revenues by 2020. The revenues and employment (9% of the work force) from tourism is concentrated in East Fife. It is well understood that the quality and character of East Fife's landscape is the driving force in attracting visitors to the Kingdom. Anything which has an adverse impact on the landscape can therefore be detrimental to tourism's prospects for the future. A report for the Scottish Government by **The Moffat Centre for Travel and Tourism( Glasgow Caledonian University)** in 2008 highlighted that 30% of tourists to Scotland did not want views of wind farms and the presence of wind farms has a negative impact on revenue and thus employment.

37. For the most part, Fife's landscape is gently rolling countryside. The all-round prominence and visibility of Clatto Hill has been demonstrated by the applicant's ZTV. It is also evident that most locations in Fife chosen for wind farms would also have these features – there are no hiding places. Our Group does not contend that this proposal on its own would have a Fife-wide impact. But were it to become one of several sites like it in Fife, the effect would be that wind farms would be seen much of the time by visitors approaching and passing through by rail or by car. We consider that this would alter visitors' perception of the landscape, seriously diminishing the joy experienced and negating all attempts to increase visitor numbers.

38. Some contend that wind farms can attract visitors. This may be so for some people but the opposite is true for many and in any case, the novelty value has worn off by the presence of many wind farms in Scotland already.

39. Clatto Hill is seen from all the tourist routes coming into Fife. Designated cycle routes and walking routes come close to or go through the area. The area is featured on the Fife Direct cycle route website, the Sustrans UK website supported by the Scottish government which promotes walking and cycling and Cycle-route.com. The attraction of visitors to Clatto Hill and its surroundings would be diminished. By contrast, with new locations required to attract increasing visitor numbers, Clatto Hill offers real potential. The reasons are covered in the section above on Access, Recreation and Health.

40. In this fragile economy anything that has a negative impact on tourism in East Fife should not be approved.

**RENEWABLE ENERGY STRATEGY**

41. Backed by a world lead in the technologies and a huge "raw" resource, the **Scottish Government's Climate Change Delivery Plan** (5) (para. 2.3, page 7 and Table 2, page 13) sets the aim *of "a largely decarbonised electricity generation sector by 2030."* The **Plan** explains that this aim requires extensive development of offshore wind, wave and tide power and carbon sequestration and storage at fossil fuel power stations. The **Plan** (para.3.19, page 17) also states, referring to the 2011 and 2020 targets, that, *"current activity suggests that these targets will be met comfortably."*

42. The Scottish Government's assessment of the renewable generation potential of Scotland is some 60,000 megawatts (MW)(para.3.19, page 17). To meet current demand requires a capacity of around 16,000 MW. The potential far outstrips the need, even taking account of the Scottish Government's ambitions for Scotland to be a substantial exporter of electricity. The limit of wind and wave power to contribute to the mix stems from its intermittency. Hence the need for tide power and continued use of fossil fuels in the mix.

43. In pursuit of those aims, and following the building of the world's first deep water offshore wind farm in the Moray Firth, the UK's Crown Estates has released areas of sea for offshore wind development of over 11,000 MW potential capacity. For wave and tide, building on Scotland's world lead in research and development, the European Marine Energy Centre in Orkney is being used to test commercial scale devices for these means of generation. According to the **RE News Marine Energy Special 2010** (6)(the renewables industry's regular news bulletin), at least 14 wave or tide projects will be operating by 2012. No other country in the world is working on the commercialisation of wave and tide at this level. The ROCs used to promote renewable energy activity have been specifically adjusted to promote further wave and tide generation activity. According to the **Marine Energy Road Map** (7) between 500 MW and 2,000 MW of wave and tide power will be in operation by 2020. Recent work by the Scottish Government's Marine Energy Group suggests 2,000 MW is feasible. The potential of wave and tide extends to over 20,000 MW.

44. In pursuit of carbon capture and storage, over 200 years worth of storage capacity has been identified in saline acquifers in the North Sea off Scotland, with piping directly to them from power stations being the favoured transport method. Scottish Power is benefiting from a UK Government grant to develop carbon capture technology. Building on the prototype already running, Scottish Power expects to have carbon sequestration operating in one of its four 600 MW units at Longannet by 2014. Full commercialisation is expected to take somewhat longer. With the Knowledge in the Scottish universities and industry, the experience of working in the marine environment with oil, the storage capacity of the North Sea, the Scottish Government believes Scotland is well placed to take the lead in developing and commercialising carbon capture and storage. With 23,000 coal fired power stations world wide, the need for retro-fitted carbon capture and sequestration is evident and a major export opportunity. Close to home, recent announcements about practical projects to develop underground coal gasification (UCG) of the coal seams under the Firth of Forth will require carbon capture and storage to make this a green option. The eventual UCG potential under the Forth is over 1,000 MW.

45. The Scottish Government sees the development of low carbon electricity generation in Scotland and in Scottish waters as a huge opportunity to boost the Scottish economy and build exports.

46. With the interim renewable electricity generation targets expected to be exceeded, the scale of Scotland's renewable energy potential, and very large scale industrial developments underway to meet low carbon electricity generation needs in the future both for home demand and export, there is no overriding need to site onshore wind projects where serious adverse impacts would be felt. The **Renewables Action Plan** (8) (page 77) sees any further development of onshore wind *"where they are environmentally acceptable"*, not locations like Clatto Hill!

COMMUNITY CONSULTATION

47. The Scottish Government's **Renewable Energy Action Plan** (8) (page 77) describes the ambition of *"maximising community engagement with onshore wind projects."* **PAN 81** also highlights the need for pre-planning application consultation with local communities. In this proposal, the developer has not engaged meaningfully with the local community in the development of proposals. There is clearly no appetite at Scottish Government level for local conflicts about wind farm proposals in inappropriate locations like many we have seen in the last few years. It appears that the developer in this case has not noticed this.

Greg Brown, chair

On behalf of Clatto Landscape Protection Group

REFERENCES


(1) Sleep Disturbance and Wind Turbine Noise, Dr Christopher Hanning, June 2009

(2) CLATTO WIND FARMS, CLATTO FARM, Critique of the Noise Section of the Green Cat ES, Dick Bowdler, Acoustic Consultant, August 2010

(3) Newspaper cutting from "L'Independant" (in French), 6 March 2010

(4) Road Safety/Driver Distraction Issues in connection with 2 proposed wind farms on Clatto Hill, CLPG, August 2010.

(5) Climate Change Delivery Plan – Meeting Scotland's Statutory Climate Change Targets, The Scottish Government, June 2009

(6) RE News Marine Energy Special 2010, RE News Limited, 2010

(7) Marine Energy Road Map, FREDS (the Scottish Government's renewable energy forum with industry and academia), 2009

(8) Renewables Action Plan, Scottish Government, Renewable Energy Division, June 2009