THE HIGHLAND COUNCIL

Agenda Item	3.3
Report No	18/10

CAITHNESS, SUTHERLAND AND EASTER ROSS PLANNING APPLICATIONS COMMITTEE – 20 April 2010

09/00475/FULSU : The Highland Council
Stoer Primary School, Stoer, Lochinver

Report by Area Planning and Building Standards Manager

SUMMARY

Description : Installation of 6Kw wind turbine at Stoer Primary.

Recommendation - GRANT

Ward : Ward 1 – North West & Central Sutherland

Development category : Local development

Pre-determination hearing : Not required

Reason referred to Committee : Application submitted by the Council.

1. PROPOSED DEVELOPMENT

1.1 The application seeks consent to erect a 6kw wind turbine, measuring 15.3 metres to the centre point of the hub. The turbine has a rotor diameter of 5 metres and consists of a polypropylene plastic turbine head supported on a steel tower.

1.2 A supporting document was submitted with the application which includes detail on the equipment specification, estimated energy capture, noise, shadow flicker and ornithological issues.

2. SITE DESCRIPTION

2.1 Stoer Primary is located to the east of the B869, surrounded by relatively open landscape. The proposed turbine is situated approximately 30 metres south–west of the school building on open, grassy ground.

3. PLANNING HISTORY

3.1 None relevant

4. PUBLIC PARTICIPATION

4.1 Advertised : Neighbour notification & Schedule 3 (expired 27.11.09)

Representation deadline : 27.11.09

Timeous representations : None

Late representations : None

4.3 All letters of representation can be viewed at the Area Planning Office and for Councillors, will be available for inspection within the members lounge immediately prior to the Committee Meeting.

5. CONSULTATIONS

5.1 **Environmental Health**: No objections. Recommend that the wind turbine meets the following requirements;

- Noise arising from the wind turbine shall not exceed an $L_{A90,10min}$ of 35 dB at the nearest neighbouring noise sensitive property. This shall apply at wind speeds not exceeding 10m/s, as measured at a height of 10m above ground level at the wind turbine. In the event of audible tones being generated by the wind turbine a 5dB(A) penalty for tonal noise shall be added to the measured noise level. Any measurement and assessment of noise from the wind turbine shall be carried out in accordance with The Assessment and Rating of Noise from Wind Farms (ETSU-R-97). (Available from ETSU, Hartwell, Oxfordshire, OX11 ORA)
- To prevent problems with shadow flicker, separation between wind turbines and nearby dwellings should generally be 10 times the rotor diameter. Where shadow flicker could be a problem developers should provide calculations to quantify the effect.

The Environmental Health Officer was supplied with noise data and a sunpath diagram showing the effects of shadow flicker. The Environmental Health Officer is satisfied that the nearest house is far enough away not to be adversely affected by noise or shadow flicker.

5.2 **SNH**: No objections. Requested an assessment of how the proposed development will affect the visual resource of the area. The agent supplied this assessment and SNH have confirmed that the proposal is not considered to have a significant impact upon the scenic qualities of the Assynt-Coigach National Scenic Area. However, SNH have recommended that the turbine should be painted colour RAL 1015 (light brownish grey) to reduce the impact of the turbine within the landscape. This has been added as a recommended condition to the consent.

6. DEVELOPMENT PLAN POLICY

The following policies are relevant to the assessment of the application

6.1 **Highland Structure Plan 2001**

E2 Wind energy developments

6.2 **Deposit Draft Sutherland Plan**

Policy 4.2 Natural, Built and Cultural Heritage

7. OTHER MATERIAL CONSIDERATIONS

7.1 Draft Development Plan

Not applicable

7.2 Highland Council Supplementary Planning Policy Guidance

Highland Renewable Energy Strategy and Planning Guidelines

7.3 Scottish Government Planning Policy and Guidance

- Scottish Planning Policy
- PAN 45 Annex 1 – Planning for Micro Renewables: Annex to Renewable Energy Technologies

8. PLANNING APPRAISAL

8.1 Section 25 of the Town and Country Planning (Scotland) Act 1997 requires planning applications to be determined in accordance with the development plan unless material considerations indicate otherwise.

8.2 This means that the application requires to be assessed against all policies of the Development Plan relevant to the application, all national and local policy guidance and all other material considerations relevant to the application.

8.3 Development Plan Policy Assessment

Structure Plan policy E2 (Wind energy developments) states that "wind energy proposals will be supported provided that impacts are not shown to be significantly detrimental". For the reasons discussed below, the proposal is not considered to present any significant impacts in terms of visual impact or impact upon residential amenity. Therefore, the proposal is considered to comply with Structure Plan policy E2.

The proposal is located within an area designated as being of national importance. Therefore, the application has to be assessed against policy 4.2 (Natural, Built and Cultural heritage) of the Deposit Draft Sutherland Plan. Policy 4.2 states that "for features of national importance we will allow developments that can be shown not to compromise the amenity and heritage resource". The proposal is not considered to have any significant impact upon the natural, built or cultural features of the area. Therefore, the proposal is considered to comply with policy 4.2.

8.4 Material Considerations

<u>Visual Impact</u>

The turbine is sited within the Assynt-Coigach National Scenic Area. The proposed turbine will appear directly associated with the school and close enough to have a clear rationale for its location. The turbine is also sufficiently separated from the school so as not to dominate the scale and form of the school building. The school building and the immediately surrounding area is located at a lower level compared with the wider landscape. This rise in levels away from the site reduces the visual impact upon the wider landscape.

On SNH's recommendation, the turbine is to be painted a light brownish grey colour (RAL 1015) to help it integrate into the surrounding landscape.

Impact upon residential amenity

Noise impact - Noise is most associated with large scale wind turbines and most of which emanates from the gearbox. Noise from smaller turbines is generally minimal. The 6kw turbine is constructed without a gear box, therefore the possibility of noise is greatly reduced. The maximum noise output at the base of this model of turbine was recorded at 60dB(A) at a wind speed of 20m/s. The noise output at the base of the mast in light winds 5m/s was 40 dB(A). Background noise is louder than the turbine when more than 25 metres from the mast in both cases. The closest point of the school will be located 30 metres away from the turbine and the nearest neighbouring property is located 134 metres away, therefore, there is not considered to be any unacceptable impact in terms of noise.

A condition can be attached to the planning permission which sets a maximum noise output and allows for the turbine to be shut down and not operated again until mitigation measures to reduce noise levels have been agreed and implemented.

Shadow flicker - Under certain combinations of geographical position, time of day and time of year, the sun may pass behind the rotor and cast a shadow over neighbouring properties. When the blades rotate, the shadow flicks on and off and the effect is known as "shadow flicker". It occurs only within buildings where the flicker appears through a narrow window opening. The seasonal duration of this effect can be calculated from the geometry of the machine and the latitude of the potential site. This is an issue most often associated with large scale turbine applications. To prevent shadow flicker, as a general rule, separation between the turbine and the nearest residential property should be ten times the rotor diameter.

In order to ensure that no detrimental impacts on amenity would result from shadow flicker, calculations were provided to quantify the impact. The western part of the school has the potential to be in line of sight with the sun within the 10 x rotor diameter guideline. This will occur all year round between 13:30 to 15:00. Three windows are in the line of sight. These are at high level and serving an office/staff area. Through discussions between the head teacher and the agent, it was noted that the staff area was used intermittently and only for short periods. Therefore, it was concluded that shadow flicker will not be an issue based on the fact that it would not exceed 30 hours/year or 30 minutes per day (longest duration across a window is 9 mins). Environmental Health are satisfied with the calculations and confirmed that shadow flicker should not be an issue in this instance.

8.5 **Other Considerations – not material**

None.

8.6 **Matters to be secured by Section 75 Agreement**

None.

9. CONCLUSION

9.1 The proposal complies with Structure Plan policy E2, which states that wind energy developments should be supported provided that impacts are shown not to be significantly detrimental. The proposal also complies with national policy and guidance, which encourages Planning Authorities to support the development of a diverse range of renewable energy technologies, including small scale projects. There is not considered to be any significant impact on the visual qualities of the area or the amenity of the residential area. Therefore, the recommendation is to grant permission subject to the conditions below.

10. RECOMMENDATION

Action required before decision issued	N
Notification to Scottish Ministers	N
Notification to Historic Scotland	N
Conclusion of Section 75 Agreement	N
Revocation of previous permission	N

Subject to the above, it is recommended the application be **Granted** subject to the following conditions.

1. The development to which this planning permission relates must commence within THREE YEARS of the date of this decision notice.

   Reason : In order to accord with the statutory requirements of the Town and Country Planning (Scotland) Acts.

2. No development shall start on site until the completed Notice of Initiation of Development (NID) form attached to this decision notice has been submitted to and acknowledged by the Planning Authority. From the date of acknowledgement, the Site Notice attached to it shall be posted in a publicly accessible part of the site until the development is completed.

   Reason : In order to accord with the statutory requirements of the Town and Country Planning (Scotland) Acts.

3. Upon completion of the development the completed Notice of Completion form attached to this decision notice shall be submitted to the Planning Authority.

   Reason : In order to accord with the statutory requirements of the Town and Country Planning (Scotland) Acts.

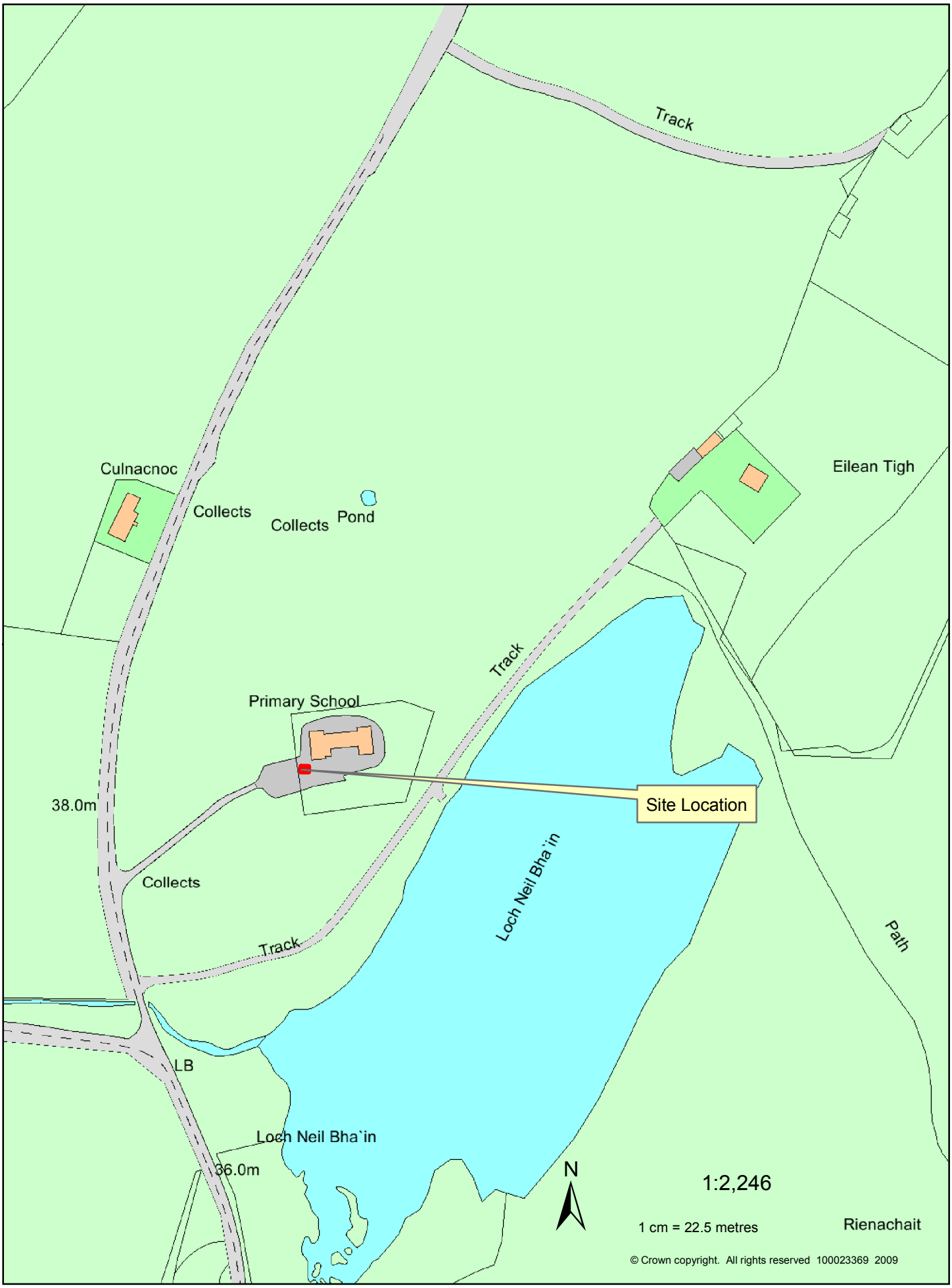
4. Noise arising from the wind turbine shall not exceed an LA90,10min of 35 dB at the nearest neighbouring noise sensitive property. This shall apply at wind speeds not exceeding 10m/s, as measured at a height of 10m above ground level at the wind turbine. In the event of audible tones being generated by the wind turbine a 5dB(A) penalty for tonal noise shall be added to the measured noise level. Any measurement and assessment of noise from the wind turbine shall be carried out in accordance with The Assessment and Rating of Noise from Wind Farms (ETSU-R-97)(Available from ETSU, Hartwell, Oxfordshire, OX11 0RA). In the event of noise levels exceeding the permitted level the turbine shall be shut down and not operated again until mitigation measures to reduce the noise levels to below the permitted level have been submitted by the developer, agreed in writing by the Planning Authority and thereafter implemented by the developer.

   Reason : In the interests of amenity.

5. The turbine blades, head and tower shall be painted RAL 1015, or as may otherwise be agreed in writing with the Planning Authority.

   In the interests of visual amenity.

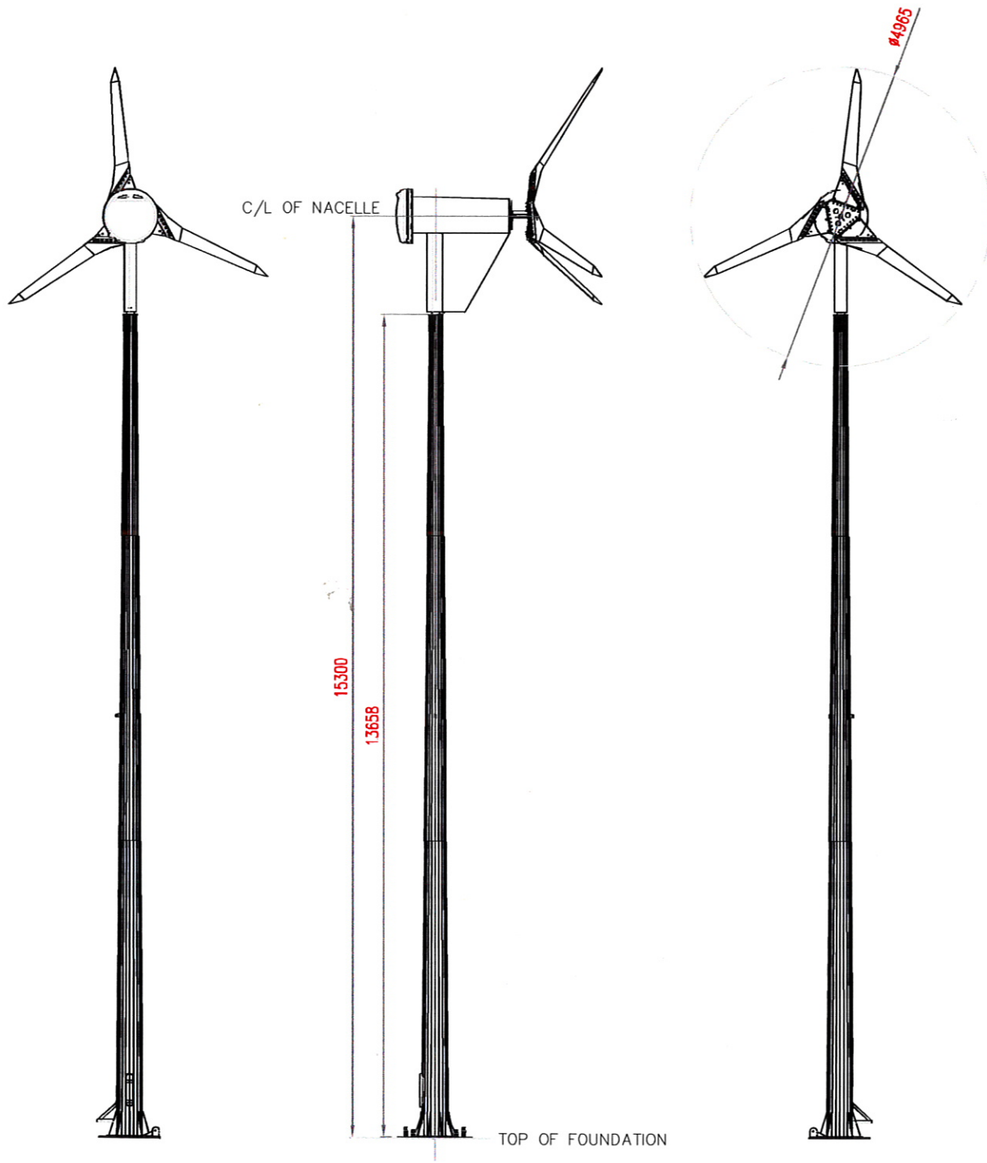
Signature:	Allan J Todd
Designation:	Area Planning & Building Standards Manager Caithness, Sutherland & Easter Ross
Author:	Rebecca Scott
Background Papers:	Documents referred to in report and in case file.
Relevant Plans:	Plan 1 – Location plan
	Plan 2 – Site plan & elevations



09/00475/FULSU
Installation of a 6Kw Wind Turbine mounted on a 15m column
at Stoer Primary School, Stoer, Lochinver.

The Highland Council
per cdmm(UK) Ltd
36 Longman Drive
Inverness
IV1 1SU

ALL DIMENSION ARE IN MILLIMETRES
DO NOT SCALE FROM THIS DRAWING



ELEVATIONS OF PROPOSED TURBINE