Agenda Item	
Report No	

THE HIGHLAND COUNCIL

CAITHNESS, SUTHERLAND & EASTER ROSS PLANNING APPLICATIONS COMMITTEE – 9 March 2010

09/00446/FULSU: The Highland Council
Inver Primary School, Inver, Tain

Report by Area Planning and Building Standards Manager

SUMMARY

Description: Installation of 6kw wind turbine at Inver Primary School.

Recommendation - GRANT

Ward : Ward 8 – Tain & Easter Ross

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 black polypropylene plastic turbine head supported on a galvanised 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 Inver Primary School sits to the south-west of the village, with Inver Bay to the north. The turbine is located to the north of the school, adjacent to the northern boundary. The turbine is to be situated on what is currently an open, grassy area.

3. PLANNING HISTORY

3.1 None relevant

4. PUBLIC PARTICIPATION

4.1 Advertised : Neighbour Notification (expired 20.11.09)

Representation deadline : 20.11.09

Timeous representations : None

Late representations : None

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. Support the installation of micro renewables in locations where they do not have significant adverse impacts on the natural heritage and protected species. In this case do not consider that the proposal will have a significant effect on the natural heritage.

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 **Ross & Cromarty East Local Plan**

BP2 Background policy 2

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.

Ross & Cromarty East Local Plan Background Policy 2 states that "The Council will permit development unless this would be likely to have a significantly adverse effect on, or be significantly adversely affected by, the features for which the area has been designated". 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 Local Plan policy BP2.

8.4 Material Considerations

Visual impact

The turbine is located adjacent to the northern boundary of the site. The area immediately around Inver is relatively flat, however levels slope gradually downwards from the Fendom road towards the village. This change in levels minimises the visual impact of the turbine from the road and wider area. The school building will screen the turbine from a southerly approach in to the village.

The turbine will be visible from the western edge of the village, however the separation distance between the turbine and settlement minimise any impact. The visual impact is considered to be limited to the area immediately surrounding the turbine, with no significant impact upon the wider 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 47 metres away from the turbine and the nearest neighbouring property is located 110 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. A small corner of the school comes within the 10 x rotor diameter guidance. In the line of sight between the turbine and the area of the school within the 10 x rotor distance, the sun will be between 329 and 331 degrees. At this position the sun will be set and in the hours of darkness. Therefore, shadow flicker will not be an issue. Environmental Health are satisfied with the calculations and confirmed that shadow flicker should not be an issue in this instance.

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 planning permission/approval of matters has been submitted to and acknowledged by the Planning Authority.

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

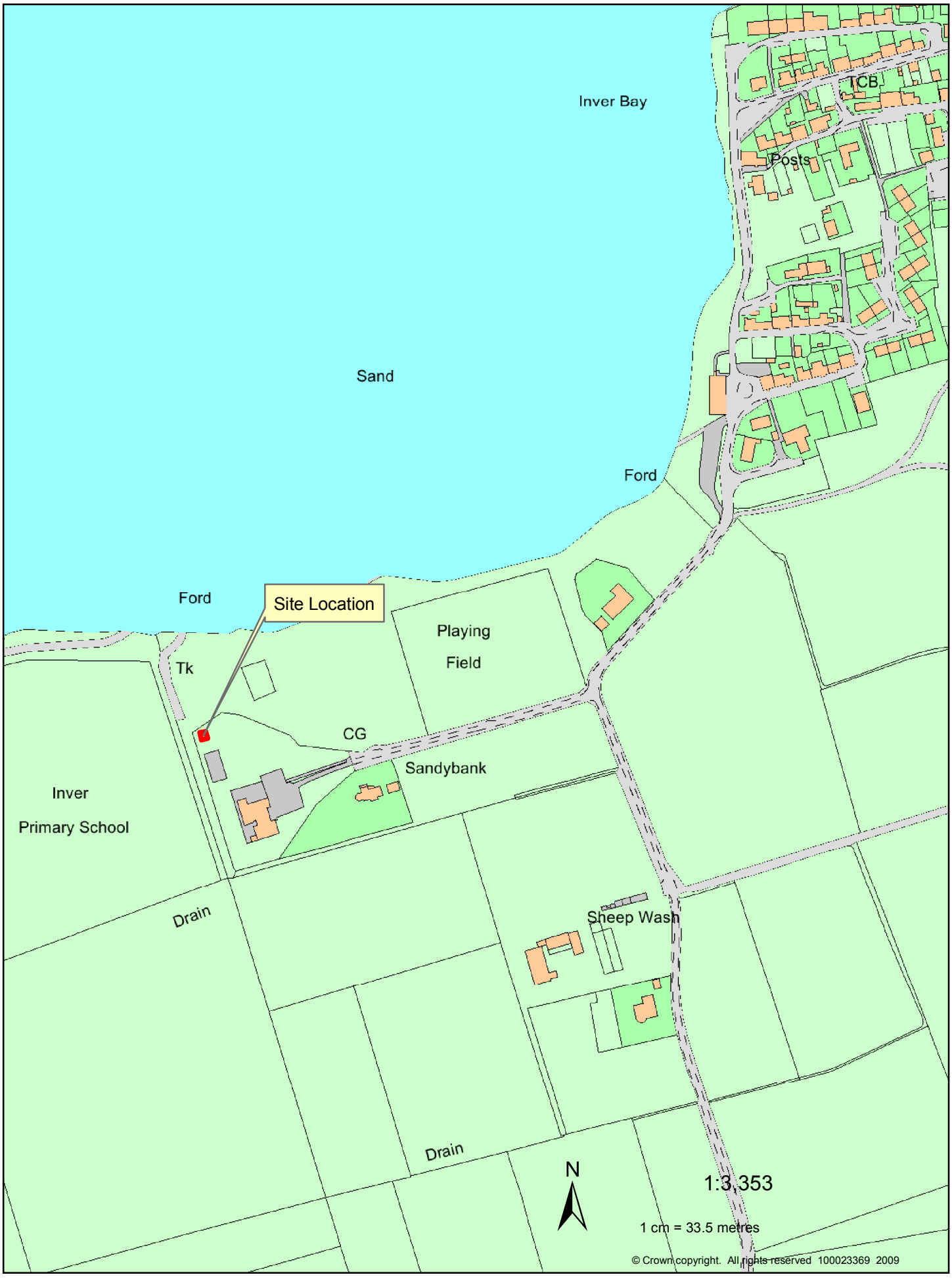
3. Upon completion of the development the completed Notice of Completion form attached to this decision notice shall be submitted to the Planning Authority.

   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 OR.) 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.

Signature:	Allan J Todd
Designation:	Area Planning & Building Standards Manager Caithness, Sutherland and 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 and elevations



09/00446/FULSU
Installation of a 6Kw Wind Turbine mounted on a 15m column
at Inver Primary School, Inver, Tain.

The Highland Council
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