CHAPTER 10

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10.0 SUMMARY OF EFFECTS

10.1 Introduction

10.1.1 This (ES) is submitted in support of a planning application made by Tegni Limited for the repowering of the existing Hafoty Ucha Wind Farm. Hafoty Ucha is an established wind farm that has been developed progressively since the mid-1990s.

10.1.2 The Proposed Development would seek to progressively decommission and remove the four existing turbines at Hafoty Ucha, and replace these with new wind turbines with a height to blade tip of 86.5m. These turbines would be identical machines to the recently erected turbine on neighbouring land at Bryn-ffynnon and would replace the four wind turbines that are currently operational on site. The new turbines would be between 5m and 25m taller than the existing structures.

10.1.3 The Proposed Development would repower an existing established wind farm, extending the life of an established source of renewable, low-carbon energy generation. As such it would accord with stated policy outcomes identified at national and local levels.

10.1.4 The scope of the ES was agreed through consultation with Conwy County Borough Council. The likely significant environmental effects of the Proposed Development are described fully within the Main Report (Volume 1). Illustrative Figures (Volume 2) and Technical Appendices (Volume 3) provide supporting data for the assessments.

10.1.5 A Non-Technical Summary (Volume 4) is also provided, comprising a brief description of the Proposed Development and a summary of the ES, expressed in a non-technical language.

10.1.6 The likely significant effects of the Proposed Development, as assessed and reported in ES Chapters 5.0 to 9.0, are summarised below.

10.2 Landscape and Visual Effects

10.2.1 The Proposed Development would comprise the repowering of an existing four-turbine wind farm. The proposed new turbines would be taller than those they would replace, but the height increase would be modest. In essence, these new turbines would be 'like for like' replacements rather than significantly larger and upgraded machines, as is often the case with repowering proposals. The influence of the new

turbines upon the character of the surrounding landscape and upon views would be very similar to that of the existing wind farm. Existing wind farm infrastructure would be retained and reused, and as such there would be no adverse effects resulting from provision of new infrastructure.

10.2.2 The principal change resulting from the Proposed Development would be an extended duration of the presence of wind turbines at the Site. The existing turbines are all time limited to twenty-five years, and as such would be progressively removed from Site as their planning permissions expire (between 2021 and 2030). As individual turbines are removed, the influence of turbines would reduce over time. Should the Proposed Development be consented, the effect would be to extend the duration of each of the four turbines by a further twenty-five years from the point at which it is replaced. The adjacent Bryn-ffynnon turbine (the same size and model as the proposed turbines) is consented until 2040.

10.2.3 As such, the influence of the Hafoty Ucha/ Bryn-ffynnon wind farm upon the landscape and upon views would continue for a longer period than in the assessment baseline. The effects of this, whilst adverse, would not be significant. The existing wind farm is a known established presence in the landscape, which has only a limited and localised influence upon its surroundings, and the Proposed Development would be little different.

10.3 Ecology

10.3.1 The majority of assessed ecological effects on habitats and species (including cumulative effects) are not significant and therefore have not required specific mitigation. With mitigation in place, the effects of the Proposed Development on important ecological features is considered low to negligible and these effects would operate at a Site or Local level.

10.3.2 The only exception to this would be non-designated sites where effects would operate at the County level; however with suitable pollution prevention measures these effects would be minor and the implementation of favourable management for the area of the Gwern-nannau CWS the lies within the Site would be anticipated to result in a minor beneficial effect on this CWS in the long-term.

10.4 Noise

10.4.1 An assessment of the potential noise impact associated with the proposed wind turbine development has been performed. The guidance contained within ETSU-R-97 has been used to assess the potential noise impact of the proposed development.

10.4.2 Predictions of wind farm noise have been made, based upon a likely warranted sound power level for an Enercon E53 machine and a calculation procedure which is considered to give conservative estimates of noise levels.

10.4.3 When considering only the Proposed Development, predicted levels and measured background noise levels indicate that, for all dwellings neighbouring the proposed site, wind turbine noise would meet the Upper Amenity Hours and Night-time Hours Noise Criteria proposed within ETSU-R-97.

10.4.4 Predicted cumulative noise levels resulting from the surrounding developments indicate that cumulative noise levels would meet the Upper Amenity Hours and Night-time Hours Noise Criterion at all un-associated dwellings.

10.4.5 Predicted noise levels indicate that the proposal would meet the existing noise conditions, and would likely result in an approximate 1 – 4 dB lower noise level than the existing turbines.

10.5 Socio-Economic Effects

10.5.1 The Proposed Development would repower an existing established wind farm, extending the life of an established source of renewable, low-carbon energy generation. As such it would accord with stated policy outcomes identified at national and local levels, including policies set out in *One Wales One Planet*, in the *Climate Change Strategy for Wales*, in the *Environment Strategy for Wales*, in the *Wales Spatial Plan*, in *Planning Policy Wales*, and in the *Conwy Local Plan*.

10.5.2 The construction period would result in some short-term employment at the Site, and the management and maintenance of the new turbines would maintain existing employment levels. Decommissioning at the end of the operational life of the Proposed Development would also result in some short-term employment.

10.5.3 As the Proposed Development relates to an established wind farm, with only limited visual change occurring, there would not be any significant adverse effects upon tourism and recreation. The landscape of the surrounding area is already influenced by views of turbines, and the Proposed Development would not increase turbine numbers.

10.5.4 Community benefits that accrue from the existing turbines would continue, with the Applicant committing to maintain payments to local organisations and community groups.

10.6 Other Considerations

10.6.1 There would be no shadow flicker effect upon nearby properties resulting from the Proposed Development.

10.7 In-Combination Effects

10.7.1 There is potential for the Proposed Development to give rise to multiple effects upon individual receptors. In such instances, whilst individual effects may not be deemed to be significant, there is the potential for significant in-combination effects to arise. In-combination effects arising in relation to the Proposed Development could affect both human and ecological receptors.

10.7.2 The Ecology Assessment (Chapter 6.0) has considered in-combination effects. The assessment has taken into account effects arising from changes to water quality, air quality and ground disturbance upon the various ecological receptors identified within the study area. The assessment concluded that it is unlikely that any significant environmental effects are likely to occur from the Proposed Development following implementation of identified mitigation measures.

10.7.3 Human beings can be affected by a number of different environmental effects. For example a local resident could be affected by both the visual and noise effects of the Proposed Development. However as neither the visual or noise effects of the Proposed Development would be significant (as reported in Chapters 5.0 and 7.0 respectively), and that recognised noise standards and guidance thresholds would not be breached, it is unlikely that any of the effects would interact to such a degree that significant in-combination effects upon human receptors would result.

10.8 Conclusion

10.8.1 In considering the findings of this ES, it can be stated that the Proposed Development would comprise a repowering of the existing wind farm at Hafoty Ucha, thereby extending the life of an established source of renewable, low-carbon energy generation. The Proposed Development would be in accord with overarching national policy aims.

10.8.2 The ES has assessed and evaluated all potential significant, direct, indirect, cumulative and in-combination environmental effects of the Proposed Development. Where adverse effects have been assessed, measures envisaged to prevent, reduce, and if appropriate offset these have been identified where practicable. There would be no residual significant adverse effects that would result from the Proposed Development.