

## Aviation Supporting Statement

**East Karlake**

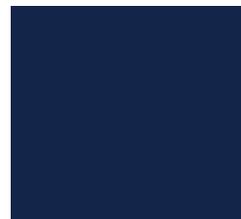
**CleanEarth Energy**

22 October 2021

CL-5636-RPT-001 V1.1

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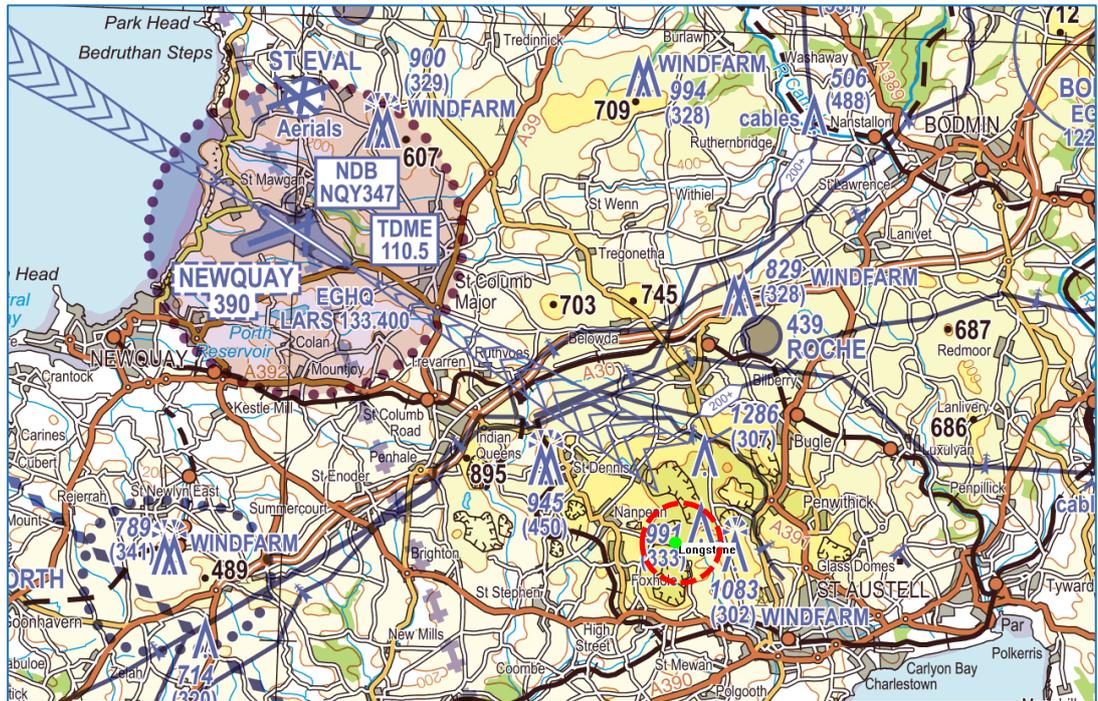


## 1. Aviation

### 1.1. Introduction

- 1.1.1. CleanEarth Energy propose to erect a wind turbine in the vicinity of Cornwall Airport, Newquay (CAN). The proposed site, known as East Karlake at E198647; N055360, is situated on the final approach path for Runway 30 approximately 7.5nm from the Aerodrome Reference Point (ARP).
- 1.1.2. CleanEarth have been involved in extensive correspondence with Newquay Airport (CAN) since July 2019, when investigations were started to indicate the suitability of further turbine development in the China Clay Area.
- 1.1.3. In response to initial concerns from the CAN Air Traffic Control team in regard to the proposed turbine locations and in a spirit of collaborative data gathering, CleanEarth commissioned third party aviation consultants, including Cyrrus Limited, to advise and to conduct assessments that considered comments raised by CAN.
- 1.1.4. Following these exercises, CleanEarth and CAN concluded the technical discussions in March 2020 with an acceptance from CAN on the suitability of multiple turbine developments within the China Clay Area – subject to turbine height constraints and with CleanEarth’s commitment to update the Airport ATC team if any aspect of future proposals significantly change and therefore differ from the locations that have been agreed upon (for which the reports had been based).
- 1.1.5. CleanEarth are now proposing to add an additional turbine within the Clay Area, in location of which has been considered within all aviation reports and discussed with the CAN aviation team.
- 1.1.6. Cyrrus conducted several assessments, including an Aeronautical Study, against the proposed site with multiple wind turbine locations. The purpose of these were to determine if the Airport would be impacted as a result of the sited wind turbines.
- 1.1.7. The UK Civil Aviation Authority requires that where there is a potential for an obstacle to impact an airport’s operations and the safety of flying aircraft, an aeronautical study be conducted. Cyrrus conducted all assessments and the Aeronautical Study in line with UK Civil Aviation Authority (CAA) regulations, the European Aviation Safety Agency (EASA) and the International Civil Aviation Organisation (ICAO).
- 1.1.8. Cyrrus is an Approved Procedure Design Organisation and accepted by the UK CAA and Irish Aviation Authority.

1.1.9. Figure 1 indicates the site location (red circle) relative to the Airport and Figure 2 indicates the turbine site location with this application.



Site location on CAA 1:250,000 VFR chart; © Crown copyright. All rights reserved. License number 100040585

Figure 1: Site Location in relation to the Airport

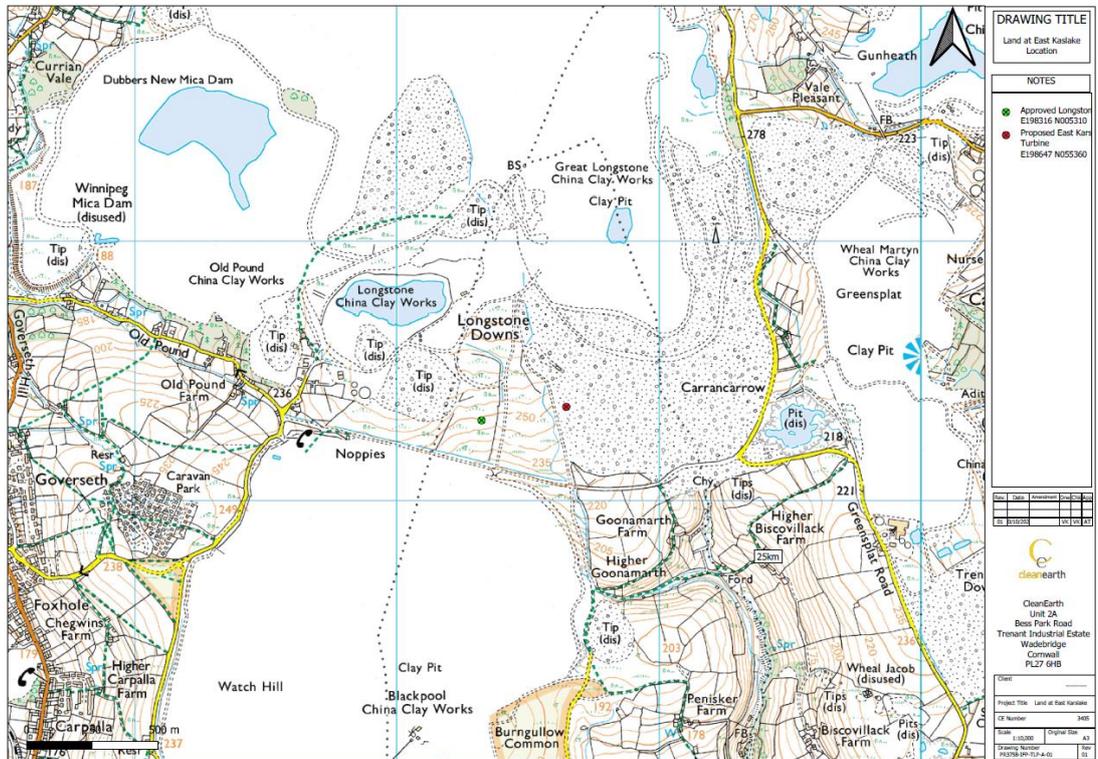


Figure 2: Turbine Site Locations

## 1.2. Summary

- 1.2.1.1. Cyrrus conducted a series of aviation assessments and an Aeronautical Study to consider the potential impact the proposed wind turbines may have to the Airport, Airspace and aircraft operations, these included:
- Two Instrument Flight Procedure (IFP) Safeguarding Assessments:
    - Reference: CL-5436-RPT-002 V1.1, dated 26 November 2019; and
    - Reference: CL-5456-RPT-002 V1.0, dated 20 January 2020.
  - Aeronautical Study:
    - Reference: CL5456-RPT-003 V2.2, dated 21 February 2020.
  - Technical Safeguarding Assessment:
    - Reference: CL-5456-RPT-004 V1.2, dated 19 March 2020.

## 1.3. Newquay Cornwall Airport

- 1.3.1. Newquay Cornwall Airport is the only airport that could be impacted by the site. The Airport is licensed by the UK Civil Aviation Authority (CAA). The airport designation is EGHQ, which is the four-letter international code for Newquay Cornwall Airport and as listed in the UK Aeronautical Information Publication (AIP).
- 1.3.2. The Airport identified that wind turbines in the proposed site penetrated the Obstacle Limitation Surfaces (OLS), as a result an IFP Safeguarding Assessment was conducted. This assessment satisfies the requirements of the UK CAA CAP168 with respect to Certification of Aerodromes to consider the impact to safety to airborne aircraft.
- 1.3.3. An IFP Safeguarding Assessment determined that wind turbines, in the identified site, should remain below an elevation of 401m (above mean sea level) in order not to impact the IFPs. The highest proposed Wind Turbine is at 392m and therefore there will be no impact.
- 1.3.4. An Aeronautical Study was conducted to determine the potential impact to aircraft operations using the airspace in the vicinity of site and the Airport. This study focussed on aircraft flying under Instrument Flight Rules (IFR), specifically Commercial Air Transport (CAT) aircraft against Visual Flight Rules (VFR) crossing aircraft.
- 1.3.5. A Technical Safeguarding Assessment was conducted to determine the potential impact of the site could have on the Airport's Instrument Landing System (ILS). The assessment determined no impact.

## 1.4. Other Infrastructure

- 1.4.1. There are no impacts to Navigational Aids, radio stations for air-ground-air communications, to any NATS infrastructure or to any UK Met Office weather radar.

## 1.5. Conclusion

- 1.5.1. The assessments undertaken in support of this application categorically show the Wind Turbine located on the proposed site will have no adverse safety impact on the operation or functioning of aviation interests in the area and Newquay Cornwall Airport.



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