Installation of

Compressed Natural Gas Refuelling Station

At

Ocado Customer Fulfilment Centre
Gypsy Moth Avenue
Hatfield
Herts
AL10 9BD

PLANNING STATEMENT

Gasrec Ltd.
2 Station Court
Townmead Road
London
SW6 2PY

www.gasrec.co.uk

Project Quality Assurance Information Sheet

CNG Refuelling Equipment, Ocado, Hatfield

Planning Statement

Ref. No. – GR/OCAHAT01/RT *Status* – Rev 1

Date – 3rd May 2018

Written and prepared by –

Rick Twomey
Project Manager

_____ _____

Reviewed and approved by –

Mark Siddle
Projects Director

_____ ____

Contents

Drawing Schedule

Drawing Name	Drawing Number
Site Location Plan	GR1043/01/01
Existing Site & Planning Application Boundary	GR1043/01/02
Proposed General Arrangement	GR1043/01/03
Swept Path Analysis	GR1043/01/04
Proposed Services	GR1043/01/05
Compressor Housing Elevations	GR1043/01/06
Gas Cylinder Storage Module Elevations	GR1043/01/07
Typical CNG Dispenser	GR1043/01/08
Gas Kiosk Elevations	GR1043/01/10

1. Introduction

1.1. Purpose of this Planning Statement

1.1.1. This Planning Statement has been prepared by Gasrec Limited, in support of an application for planning permission for the installation of a Compressed Natural Gas (CNG) Refuelling Station at Ocado CFC Depot, Gypsy Moth Avenue, Hatfield, AL10 9BD.

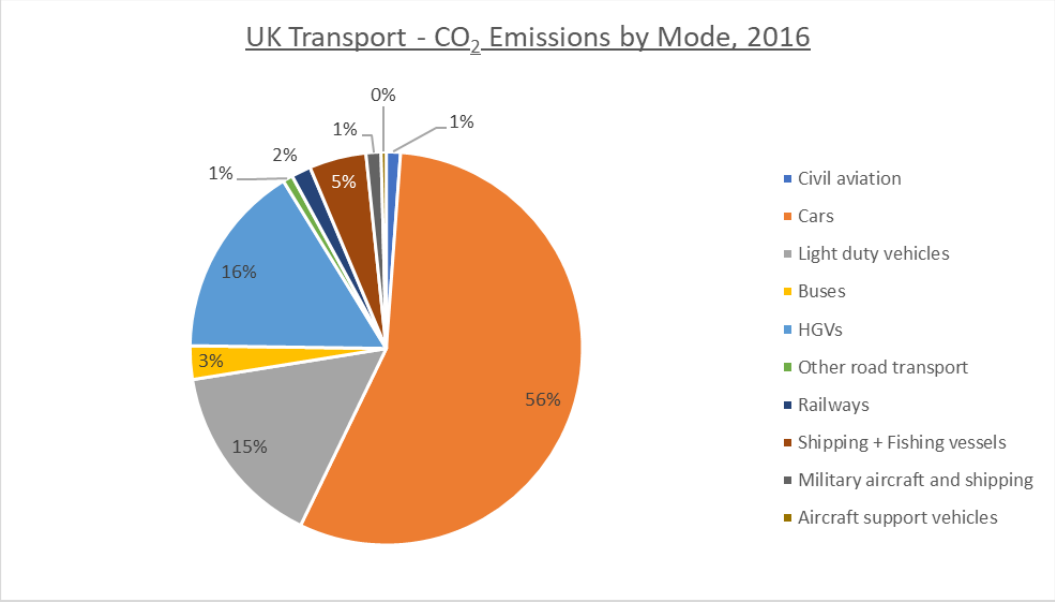
1.2. Foreword

1.2.1. The UK faces the combined challenges of providing alternative low carbon energy fuel supplies from renewable sources and innovative technologies to reduce greenhouse gas emissions and address climate change. The BEIS report, 2016 UK Greenhouse Gas Emissions[1], provides the latest statistics and details that approximately 124.4 $MtCO_2e$ (million tonnes of carbon dioxide equivalent) was produced by the transport sector which is equivalent to 33% of all the UK GHG emissions produced.

1.2.2. The latest greenhouse gas emissions statistics for 2016, published on 6th February 2016, detail that over 87% of all greenhouse gas emissions produced by UK transport was attributable to cars, vans and heavy goods vehicles (HGVs).

1.2.3. HGVs make up 16% of CO_2 emissions from all forms of transport, but only cover 5% of the total road mileage[2]. HGVs are, therefore, a significant contributor to CO2 levels while diesel HGVs also contribute significantly to NOx, SOx and particulates in the air.

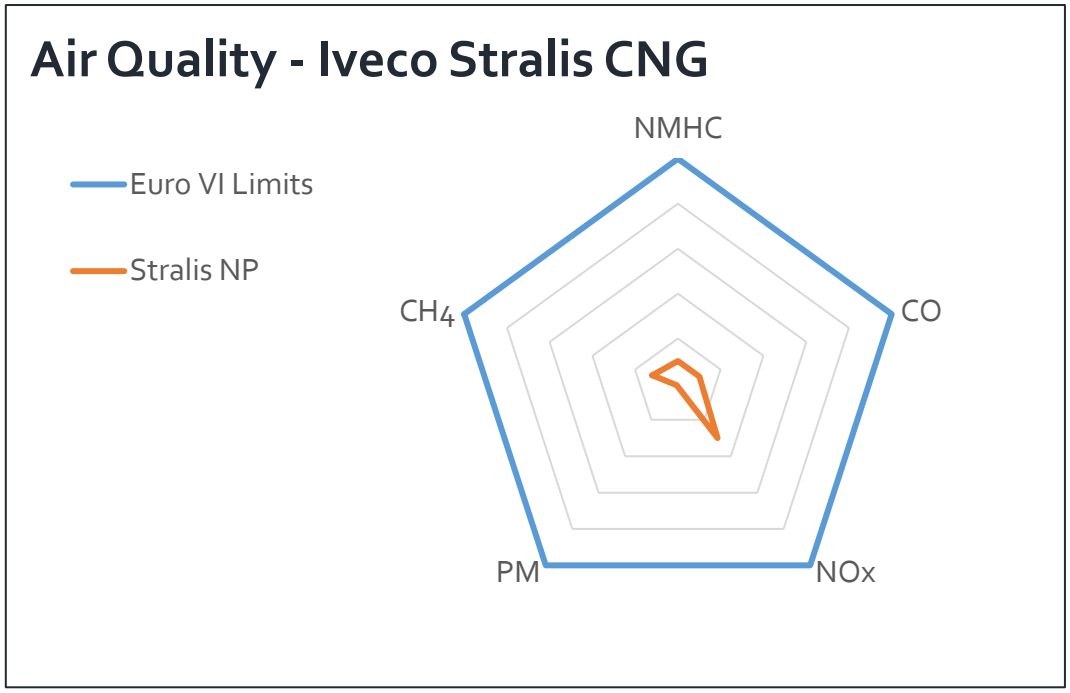
Figure 1.2: UK Source of Transport Greenhouse Gas Emissions (by mode), 2016



[1] BEIS Statistical Release, 2016 UK Greenhouse Gas Emissions, Final Figures, published 6th February 2018
[2] DfT, Annual Road Traffic Estimates 2016, published 27th April 2017

1.2.4. As a vehicle fuel, compressed natural gas (CNG) gives an 11% reduction in carbon dioxide emissions over diesel[3]. Of more importance to air quality in and around the heavily populated South East region, however, are the NOx and particulate emissions from vehicles. For these emissions, the reduction from using gas powered vehicles is 72% lower NOx and 97% lower particulates[4]. These are significant savings over even Euro VI diesel powered vehicles and will help to contribute to better air quality within the Welwyn Hatfield area.

Figure 1.3: Radar Chart of HGV Emissions – Euro VI limits vs. Iveco Stralis CNG



1.3. Ocado and Gasrec

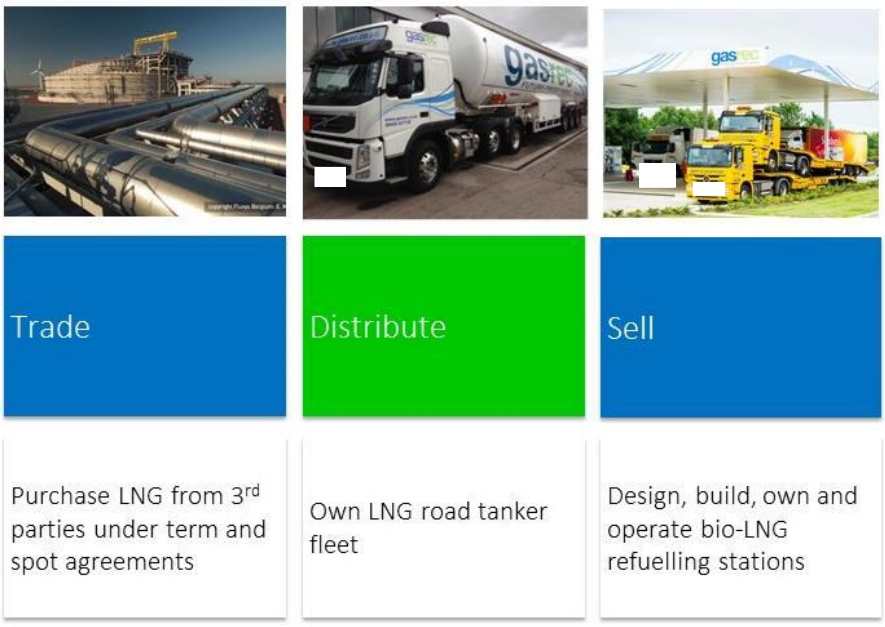
1.3.1. Ocado was founded in 2000 as an online groceries delivery service and listed on the London Stock Exchange in 2010. Ocado is now the world's largest dedicated online grocery retailer.

1.3.2. The company's first Customer Fulfilment Centre (CFC) was opened in Hatfield in 2002. There are now three further CFCs at Tamworth, Erith and Andover and a non-food distribution centre in Welwyn Garden City.

1.3.3. Gasrec was formed in 2003 and is now Europe's leading supplier of liquefied gas fuel to the road transport sector. The company fuels more than 60% of gas powered HGVs in the UK, helping operators cut fuel costs and significantly reduce pollution.

[3] https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2017
[4] Iveco

1.3.4. Gasrec has a fully integrated supply chain, from gas trading, distribution and supply.



1.3.5. Gasrec now owns and operates nine refuelling stations across the UK, including the UK's first 'open-access' gas filling station at the Daventry International Rail Freight Terminal (DIRFT). This station is used by multiple blue-chip customers including Sainsbury's, Tesco, DHL, Argos and Brit European.

1.3.6. Looking forward, the company is in the process of developing a number of strategic station locations and is working with existing and new customers to extend its refuelling network to take account of the growing number of trucks now converting to gas and the potential for market growth.

1.3.7. For the development that this planning application refers to, Gasrec will supply and maintain the CNG station equipment for Ocado to use with their new CNG powered HGVs that will replace their current diesel powered HGVs over then next 2 years. The CNG station will be placed at the Hatfield CFC on Gypsy Moth Avenue for such use.

1.4. Outline Description of the Site and Proposal

1.4.1. The proposed CNG Refuelling Station would be installed at the Ocado CFC on Gypsy Moth Avenue, Hatfield and is bounded by other distribution centres and offices to the north, east and west and residential housing to the south. See the Location Plan drawing – Drawing No. GR1043/01/01.

1.4.2. The site is located within Hatfield Business Park on the north west of Hatfield town centre. The Hatfield Business Park is on the site of the old Hatfield Aerodrome. Policy EMP2 seeks to protect this area for employment uses characterised by classes B1, B2, B8, or Sui Generic uses that are closely related.

1.4.3. The nearest residential properties are 280 metres to the south of the CNG Station compound.

1.4.4. Immediate neighbours to the CFC are food and clothing distribution warehouses, a large office building and car park, smaller B1 and B8 units and the aforementioned housing.

1.4.5. The A1(M) Motorway is 680 metres to the east of the Ocado CFC.

1.4.6. The CNG Refuelling Station will initially provide fuel for 30 Compressed Natural Gas (CNG) powered articulated Heavy Goods Vehicles (HGVs). These new vehicles will replace 30 diesel powered HGVs currently operating from the CFC. It is important to note that there is to be no increase in vehicle numbers at the CFC as a direct result of this project.

1.4.7. The CFC uses 65 HGVs in total and it is currently planned that the remaining 35 diesel powered trucks will be replaced through 2019 and 2020 so that the CFC runs HGVs entirely on gas.

1.4.8. The CNG station will be installed on existing concrete in the yard at the north western end of the CFC building – see site layout drawing GR/1043/01/04 It will consist of:

- Up to 2 off Compressor and Housing – 20 foot container
- Up to 2 off Air Cooling units
- Up to 8 off CNG storage racks
- 2 off CNG dispensers
- 1 off Refuelling island
- Associated gas pipework and electrical cabling

More details of the equipment is provided in Section 3.2. Drawing No. GR1043/01/03 shows the general arrangement of the CNG station and Drawing Nos. GR1043/01/06, 07, 08 and 10 shows the elevations.

1.4.9. The timeline for this project currently shows work starting in August 2018 and completing by the end of 2018 at the latest.

1.5. Pre-Application Discussions

1.5.1. A pre-application meeting was held with Ms Lucy Hale, Development Management Officer for Welwyn Hatfield Borough Council on the 20th March with a formal response received on 24th April 2018 following discussions at the meeting.

1.5.2. The pre-application response and meeting suggested information to accompany any future planning application. The table below outlines this information and the sections in the planning statement where the details can be found.

1.5.3. The pre-application response stated that there were no policy objections to the principle of the proposal and that the proposal would be welcomed providing that the noise and transportation/parking implications are consistent with the Hatfield Business Park Employment Area (EA6).

Table 1.5 – Pre-Application Response Checklist

Issue Raised	Response Details
Noise	Section 4.5
Transport	Section 4.2
Air Quality	Section 4.3
Vehicle tracking drawings and parking	Section 4.2 GR1043/01/04

1.6. Planning Statement Structure

1.6.1. This Planning Statement has been organised into the following chapters:

- The Site and Surroundings
- The Proposed Development
- Environmental Considerations
- Planning Policy
- Summary and Conclusions

2. The Site and Surroundings

2.1. Introduction

2.1.1. This chapter provides a description of the site in terms of its location, history, and surrounding land uses.

2.2. Site Location

2.2.1. The Ocado CFC is located off Gypsy Moth Avenue, Hatfield within Hatfield Business Park – Employment Area EA6 as identified in the Welwyn Hatfield District Plan 2005. The CFC comprises a large warehouse type building of more than 27,000 square metres, yard area for HGV, trailer and van parking and two separate staff car park areas. The total land area occupied by Ocado on this site is 8.8 hectares.

2.2.2. Policy EMP1 of the Welwyn Hatfield District Plan 2005 seeks to protect listed Employment Areas for employment uses characterised by Class B uses or associated sui generis. Hatfield Business Park is the largest such Employment Area in Hatfield.

2.2.3. The application site forms part of Ocado's wider existing Customer Fulfilment Centre (CFC) located Gypsy Moth Avenue. The proposed CNG Refuelling Station is located on the northern boundary close to the north western corner of the main building. The proposed station compound and refuelling lanes together will have a footprint of c. 650m^2 and be located on an area of concrete yard currently occupied by parking for 15 delivery vans. The vans parking in the station location can be accommodated elsewhere on site. See Figure 2.4 overleaf. The CFC currently runs some 280 delivery vans.

2.2.4. The Ocado CFC benefits from close proximity, and good connections to, the strategic road network, including the A1(M) to the east and the A414 to the south and the east beyond the A1(M).

2.2.5. Immediate neighbours to the CFC are other distribution warehouses to the east and west, a large office to the north and residential properties to the south. Immediate neighbours to the proposed CNG Station are the office to the north, a warehouse to the east and the CFC building and yard to the south and west.

2.2.6. The application site boundary within the CFC is located 280 metres from the closest residential properties located to the south of the CFC. There is another residential area 320 metres to the north east.

2.2.7. Overall, the application site can be considered generally as a non-sensitive location for the CNG Station given the distance at which the most sensitive receptors are located away from the site combined with the site's existing warehousing and distribution related activities.

2.3. Site History

2.3.1. Prior to 1930 the site was farmland and a small wood – Tanners Wood. In 1930 the de Havilland Aircraft Company bought the land to use as an airfield and build a new aircraft factory to replace their site in Edgware. The factory was built in 1934 and included a flying school and control tower.

2.3.2. A hard runway was laid in 1947 and the factory enlarged to cope with demand for military aircraft, meanwhile, further buildings were built along Manor Road to test and build rockets and missiles.

2.3.3. From the 1960's through to the early 1990's, the site was used to design and build commercial aircraft and airliners. The factory was closed in 1993 and the last aircraft to use the air strip was in April 1994.

2.3.4. The old airfield and aircraft factory land was redeveloped in the late 1990's continuing through to the present day. The Ocado building was built in the early 2000's with the triangle of land where the proposed CNG Station is to be located concreted over as additional yard space around 2010.

2.4. Site Characteristics

2.4.1. The application site for the CNG Station is part of the wider Ocado CFC on Gypsy Moth Avenue. See Drawing No. GR1043/01/02.

2.4.2. The CNG Station is proposed to be located on an area of concrete yard on which up to 15 vans can be parked. Figure 2.4 shows the proposed CNG station location as it currently is.

Figure 2.4 – current views of the proposed CNG Station location

2.4.3. The CNG station will be installed over two phases as the new gas powered HGVs come in to replace the old diesel fleet. The first 30 gas HGVs arrive in Autumn 2018, while the remaining 35 will be ordered for a 2020 delivery. Ultimately, the CNG Station will comprise 2 x CNG Compressor Housing (20ft container), up to 6 storage packs of 2,400 litres each, two twin hose

dispensers and associated pipework and cabling all within a fenced compound. The fence will be a Palisade type as used elsewhere around the Ocado CFC.

2.4.4. The two CNG dispensers will be positioned on a refuelling island adjacent to the CNG Station compound. Vehicles filling with CNG will pull into the refuelling area and off the main site road. See Drawing No. GR1043/01/04 which shows vehicle tracking around the CNG station and exit. Note that traffic flows are one way only and in a clockwise direction around the CFC.

2.4.5. To the rear of the CNG station compound is a car park for staff at the large office beyond the northern boundary of the CFC.

2.5. Designations

2.5.1. The Ocado CFC is located within Hatfield Business Park, a designated Employment Area within the Welwyn Hatfield District Plan 2005 identified as EA6.

2.5.2. The proposed CNG Station is located on the Ocado CFC yard and, therefore, within the Employment Area EA6.

3. The Proposed Development

3.1. Introduction

3.1.1. This section provides a description of the development, operational layout, equipment and structures proposed within the site.

3.1.2. The development proposal is for the installation and operation of a Compressed Natural Gas (CNG) Refuelling Station. The station will provide the necessary infrastructure for Ocado to refuel new CNG powered vehicles and facilitate a shift from diesel powered HGVs to cleaner gas powered HGVs.

3.2. Proposed Layout

3.2.1. The proposed development, as shown in Drawing No. GR/1043/01/03 and GR1034/1/04, will ultimately consist of:

- Up to 2 Compressors and Housings (20 foot container)
- Up to 8 CNG storage cylinder racks – total up to 16m^3 in volume
- Two CNG dispensers for refuelling the gas vehicles
- Associated gas pipework and electrical cabling
- New gas meter kiosk, underground gas main to the station and power feed running underground.
- Gas main pipe will also rise up into the compound and feed into the compressor

The photographs below are from a CNG Refuelling station in the London Borough of Brent that Gasrec built in 2017.

3.2.2. Swept path analysis drawings have been used to ensure that other traffic can pass while HGVs are refuelling with CNG. See Drawing No. GR1043/01/04.

Compressor Housing

3.2.3. Each compressor housing is divided into two internal compartments and will contain the station controls and electrical connections in one end with the gas compressor in the larger main compartment. This compressor will take gas from the mains and compress it up to 250bar for storage in the CNG storage cylinder packs.

3.2.4. The compressor to be used is a well proven design with more than 1,000 in operation around the world and 20 in the UK.

Figure 3.2.1. – Compressor Housing

Figure 3.2.2. – Inside main section of Compressor Housing showing Compressor

CNG Storage Cylinder Racks

3.2.5. There will be up to eight CNG storage cylinder packs – four in Phase 1 with an additional four for Phase 2. These cylinders hold the CNG at 250bar for dispensing into the HGVs. The total stored weight of natural gas will be 3,400kgs after Phase 2 is rolled out.

Figure 3.2.3. – CNG Storage Cylinder Packs

CNG Dispensers

3.2.6. There will be two CNG dispensers for refuelling the gas powered vehicles. These will fill the HGVs with CNG at 200bar pressure. There will be a Fuel Management Unit that will control the CNG dispenser so that only staff with the correct training and fuel card or key fob can fill from these dispensers.

Figure 3.2.4. – CNG Dispenser and Fuel Management Unit

New Gas Main

3.2.7. As part of the CNG station install, there will be a new gas main installed. It is likely that this will connect directly outside the CFC on Gypsy Moth Avenue – see Site Plan drawing GR1043/01/05 – however, two other options for connecting on Hatfield Avenue and Frobisher Way are also being investigated. These are subject to separate discussions with Cadent (local gas network operator) and Welwyn Hatfield Highways Department.

3.2.8. A new gas meter inside a 2m x 2m GRP kiosk will be installed on land adjacent to the CNG Station compound with an underground outlet pipe running to the compressors.

3.3. Construction Programme

3.3.1. Subject to the granting of planning permission, civil engineering and install of CNG station equipment would be for a temporary period of 10 to 12 weeks.

3.3.2. The provisional programme for the construction works includes:

- Site preparation, including excavations for refuelling island
- Excavations for new gas pipe and power feed with subsequent reinstatement
- Raised concrete island for CNG refuelling equipment
- Installation of compound fence, crash protection barriers and bollards

3.3.3. The installation of the CNG station equipment will follow on from the civil engineering works and includes:

- Install of compressor housing
- Install of CNG storage cylinder packs
- Install of CNG dispensers and fuel management unit
- Install of all associated connecting station pipework to link compressor to CNG storage racks and then CNG dispensers
- Install of all power and data cabling

3.3.4. Separately, as stated in paragraph 3.2.7. above, there will be a new gas main being installed and likely to connect outside the CFC on Gypsy Moth Avenue. It is expected that this new gas main will be installed under the CFC site roads. This is planned to take some 4 weeks and will begin in August 2018.

3.3.5. All construction traffic will use the depot site entrance and exit and follow the site one-way system during the construction phase. Temporary welfare facilities will also be established for the duration of the construction.

4. Environmental Considerations

4.1. Introduction

4.1.1. This chapter sets out the environmental considerations which have been taken into account during the project development process.

4.2. Traffic Generation

4.2.1. The depot has a dedicated entrance and exit for delivery vans and HGVs on Gypsy Moth Avenue. Traffic flow around the depot is in a clockwise direction only – there is no two-way traffic flow.

4.2.2. Swept path analysis has been carried out to ensure vehicles can still access the refuelling area with maximum number of trailers parked at the CFC. See Drawing No. GR1043/01/04.

4.2.3. The CFC is allowed to park 140 trailers on site by the DVSA (Driver Vehicle Standards Agency). In reality this only ever happens on Christmas Day when the CFC is closed. At all other times the trailers are in use and on the highway network travelling to other Ocado locations. The space taken by the new CNG Station will not reduce the number of trailers that can park safely at the CFC as shown in Drawing No. GR1043/01/03.

4.2.4. It's important to note that there will be no additional vehicle movements as a consequence of the CNG Refuelling Station. The gas powered HGVs using the CNG station will replace diesel powered HGVs that have come to the end of their term. There will be 30 new CNG powered HGVs to replace 30 old diesel powered HGVs based at the Hatfield Business Park as part of a roll-out programme. Another 35 will arrive at the depot in the next two years so that all Ocado HGVs running out of the Hatfield Business Park will be gas powered by the end of 2020.

4.3. Air Quality

4.3.1. As shown in the Foreword (section 1.2), heavy road transport produces a disproportionate amount of emissions. However, by replacing diesel vehicles with gas powered vehicles, there will be a beneficial effect to air quality within the locale. These new gas powered vehicles will reduce NOx by 72% and particulates by 97%, both of which are significant contributors to respiratory disease.

4.4. Visual

4.4.1. The proposed CNG Refuelling Station is located within the confines of the Ocado CFC, which itself is in a recognised Employment Area with other large distribution warehousing. The compressor housing and the CNG storage cylinder packs will only be 2.6m and 2.85m tall

respectively. HGV trailers parking at the depot are typically 4m to 4.9m high for the single and double deck trailers.

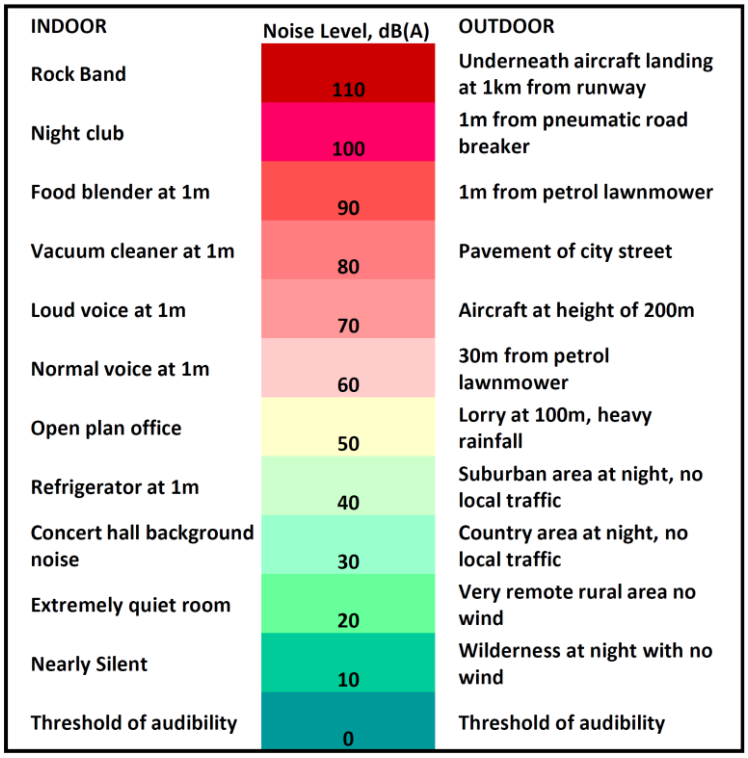
4.4.2. The proposed CNG Station will be located as such that it cannot be easily seen from the public highway or footpaths. The main viewpoint from outside the CFC boundary will be from the car park associated with the large office neighbouring the site. Against the backdrop of the CFC building behind (see Figure 2.4) it is felt that this will not diminish visual amenity.

4.4.3. It is considered that the scale of the proposed CNG station is compatible with the existing uses on the Hatfield Business Park and will have no detrimental visual impact to the area.

4.5. Noise

4.5.1. The compressors are expected to be running for 3,750 hours per annum out of the total 8,730 CFC operating hours. During the compressor operating hours, the noise from 3 metres outside each compressor housing will be no more than 75 dB(a) as stated by the manufacturer of the equipment. Due to the logarithmic scale used to demonstrate sound levels, the combined level for both compressors running would be 78dB(a)[5]. Figure 4.5 below shows some comparative noise levels.

Figure 4.5 – Indoor and Outdoor Noise Comparisons



Source – HS2 presentation - https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/534028/Sound__Noise___Vibration.pdf

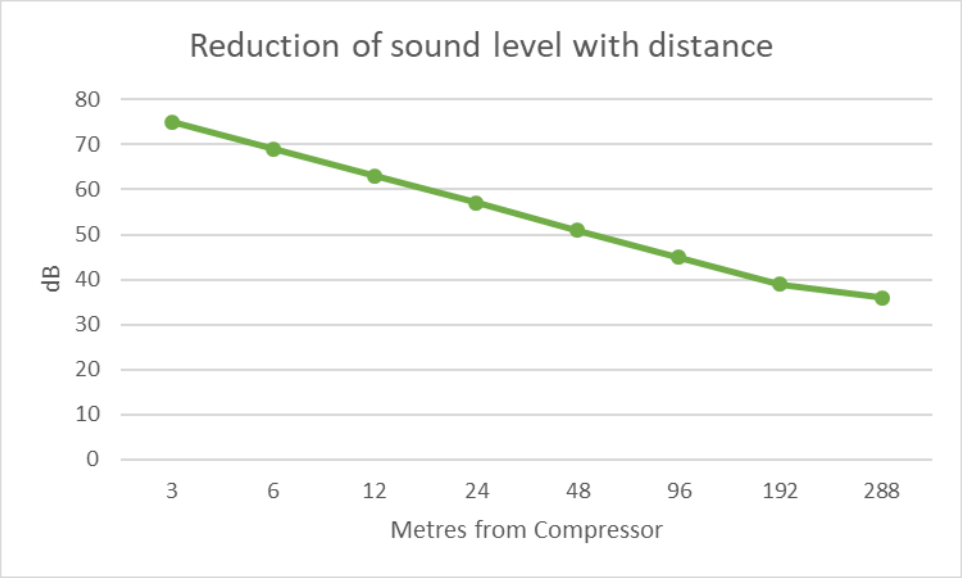
[5] http://www.sengpielaudio.com/calculator-spl.htm

4.5.2. Of these 3,750 running hours, half will be during the peak refuelling period of 13:00 to 17:00, during which time other CFC machinery, HGVs, etc. will also be operational – the CFC is a 24/7 operation. The remaining 50% will be spread through the day, with another peak at 09:00 accounting for the main proportion.

4.5.3. It is also worthy of note that gas powered vehicles are conspicuously quieter than their diesel counterparts. This has added benefit while the vehicles are going about their work in and around the CFC and Hatfield.

4.5.4. Sound decays with distance and is attenuated by obstacles and soft ground surfaces. Sound levels reduce by 6dB with every doubling of the distance from the noise source. The graph below shows how the sound from the compressor (for Phase 1) when running will diminish with distance.

Figure 4.6 – Compressor sound levels reducing over distance



4.5.5. The nearest residential properties are approximately 280 metres from the compressors, therefore, by the time the sound reaches those properties it will have gone from 75dB to 36dB in Phase 1 and from 78dB to 39dB for Phase 2. This is less than the background suburban noise levels at night with no local traffic as shown in the table at Figure 4.5 above.

4.5.6. The attenuated level of 36dB and 39dB at the nearest residential property also assumes a worst case scenario with no buildings, vehicles, trailers, fencing, trees/bushes etc. between the compressor and the nearest resident. These obstacles that are present will naturally attenuate the noise further. The calculated figures is also taken in isolation of any other activity on site – vehicle movements, staff cars, loading activity, etc. that would be nearer to the residential properties.

Figure 4.7 – Noise receptors and sound levels

4.5.7. The next receptor would be the staff at the large office. The nearest part of the building is 100m from the compressor location. The sound level at the office wall will have reduced to 45dB. The office will have double glazing, so any noise would be attenuated further still. As shown in the table at Figure 4.5, the noise levels in an open plan office are 50dB.

4.5.8. As outlined above, it is highly unlikely that the compressors will cause a noise nuisance due to their location, obstacles in the way of the travelling sound and other noise sources at all times of the day from the CFC. Noise levels from the compressor at times of the day when it runs will be less than the background levels found in either the gardens of the residential properties or in the office to the north.

4.6. Surface Water Management and Drainage

4.6.1. The application site is not located within an area of flood risk and, as part of an existing operational site, has existing suitable drainage.

4.6.2. The proposed CNG Refuelling Station is to be sited on an area of existing hardstanding. Any current surface water runoff is managed and contained within the site wide drainage system already in place and dealt with accordingly.

4.6.3. The site wide drainage also has oil interceptors, however, any fuel leaks from the CNG Station would go to atmosphere and not present any pollution hazard to local watercourses.

4.6.4. The new CNG station will not add any new hardstanding area and, therefore, will not create additional surface water runoff. In addition, the station design will not block the routes to any drains nor reduce the available drains. On that basis it is felt that the current drainage system will be able to cope with any runoff from the station compound as it currently does.

4.7. Lighting

4.7.1. The Ocado CFC benefits from existing site wide lighting. This is considered sufficient for the CNG station compound, however, it is proposed that two new LED lights are installed to act as task lighting at the dispensers. These lights will be directed downwards around the dispensers to allow refuelling to take place safely in the darker winter months.

4.8. Health and Safety

4.8.1. The stored weight of the gas in the CNG storage cylinders will be a maximum of 3,400kg. This is well below the threshold of 15,000kg for the station to require a Hazardous Substance Consent from the Planning Authority.

4.8.2. The CNG Refuelling Station will be maintained by Gasrec. Gasrec currently operate some nine gas stations for refuelling vehicles, four of which have Hazardous Substance Consents due to storing in excess of 15 tonnes. Gasrec applies a high importance on maintaining safe operations at all of its sites and the CNG Refuelling Station proposed would be operated under similar high specification safety principles.

4.8.3. All of the CNG station equipment complies with current UK and industry guidance and best practice and is CE marked.

4.9. Environmental Permit

4.9.1. An Environmental Permit will not be required for the proposed CNG Refuelling Station as it is not a listed activity in Schedule 1, Part 2 of the Environmental Permitting (England and Wales) Regulations 2016. If at any time in the future the CNG Station does require an Environmental Permit, then an application will be made to the Environment Agency to allow continued operation of the facility.

5. Planning Policy

5.1. Introduction

5.1.1. This section sets out the planning policies and material considerations that are relevant both to the site and the type of development proposed, giving consideration to National and local planning, and climate change policy.

5.2. National Planning Policy

5.2.1. The UK government published the National Planning Policy Framework (NPPF) in March 2012. It seeks to support the requirement for sustainable development via the planning system whereby the "presumption in favour of sustainable development" forms the overarching role.

5.2.2. The overarching principles of the planning framework are underpinned by 12 core land-use planning principles, which includes supporting the "…transition to a low carbon future in a changing climate…". The proposed CNG Refuelling Station will reduce carbon emissions from the fleet using gas as a road transport fuel and therefore accords with this principle.

5.2.3. Policy paragraph 18 of the NPPF states that:
"The Government is committed to securing economic growth in order to create jobs and prosperity, building on the country's inherent strengths, and to meeting the twin challenges of global competition and of a low carbon future."

5.2.4. The proposed development will form part of a sustainable supply chain that will provide low carbon transport fuel and enable the transition of an existing fleet of diesel vehicles to lower carbon gas vehicles. This will aid a reduction in the UKs carbon emissions and contribute towards meeting climate change targets across the district and the UK. This accords with Part 4 of the NPPF – Promoting Sustainable Transport.

5.2.5. The role of planning in shaping climate change and supporting sustainable development is identified in Policy paragraph 93 of Part 10 – Meeting the challenge of climate change, flooding and coastal change:

> *"Planning plays a key role in helping shape places to secure radical reductions in greenhouse gas emissions, minimising vulnerability and providing resilience to the impacts of climate change, and supporting the delivery of renewable and low carbon energy and associated infrastructure. This is central to the economic, social and environmental dimensions of sustainable development."*

5.2.6. Policy paragraph 97 states:

> *"To help increase the use and supply of renewable and low carbon energy, local planning authorities should recognise the responsibility on all communities to contribute to energy generation from renewable or low carbon sources..."*

5.2.7. The CNG Refuelling Station is fully in accordance with these sections of the NPPF through providing the infrastructure required to supply the next generation of low carbon road fuels.

5.2.8. The development will make a significant contribution in reducing emissions and climate change from road transport and, as referenced in previous sections of this document, the development will not generate any significant impacts compared to current practice.

5.3. Local Planning Policy

5.3.1. The Welwyn Hatfield District Plan was adopted in July 2005. This sets out policies to cover the whole district, urban areas within the district and rural areas within the district.

5.3.2. A pre-application meeting was held with the Planning Officer for Welwyn Hatfield on the 20th March 2018. Their response to this meeting then followed on the 24th April 2018. In the section following, the relevant policies as highlighted in the Pre-Application Response from the Planning Officer are taken in turn.

5.3.3. Key Policy SD1 Sustainable Development sets a requirement to use the checklist found in the Supplementary Design Guidance. The table below shows the relevant parts of the checklist for the CNG Station and how the station satisfies each criteria. Category E – *non building such as car parking, landscaping, engineering operations* has been selected for this exercise.

Criteria	Response
Siting & Land Use	
Use previously developed land as opposed to a green field site.	The proposed CNG Station is to be located within the current CFC yard area.
Make use of any derelict, under-used or vacant land or buildings.	The area to be used is currently for van parking only. The vans are able to park elsewhere on the yard.
Avoid areas of high quality agricultural land and floodplains.	The proposed CNG Station is to be located within the current CFC yard area.
Avoid the possible sterilisation of mineral resources identified in the Adopted Minerals Local Plan.	The proposed CNG Station is to be located within the current CFC yard area.
Impact and Future use of the Development	
Minimise noise, e.g. building design, use of quieter technology, operating hours and traffic reduction.	The CNG Station is quiet in operation and the gas powered vehicles are noticeably quieter than their diesel equivalents.
Minimise light pollution, e.g. design of buildings, and lighting schemes, avoiding use of floodlighting.	The yard area lighting is sufficient with two new low level task lights to be installed at the dispensers.
Minimise odours from buildings and plant.	In normal operation there will be no odours. If gas is smelt, the station should be shut down using the Emergency Shut Down buttons. The station also has gas detection to automatically shut down in the event of a gas leak.
Use local sources for the water supply and disposal of waste if possible.	Not applicable.
Prevent pollution of ground and surface water and enhance water quality where possible e.g.	Not applicable. No liquid fuels to be used.

renew sewers, waterway maintenance, reed beds for waste water treatment.	
Protect the hydrology of the site and the surrounding areas e.g. use permeable surfaces for car parks, provide swells, and open water areas, minimise road length, avoid water run-off into water courses.	The proposed CNG Station is to be located within the current CFC yard area.
Minimise water consumption through the use of water efficient fixtures and fittings, reed bed systems, ponds, rainwater storage and recovery and grey water re-use.	Not applicable.
Follow the Waste Strategy Hierarchy of Minimisation, Re-use, recovery, and disposal as a last resort.	Not applicable.
Ensure that there will be no overall net loss of biodiversity i.e. the quantity and variety of species.	The proposed CNG Station is to be located within the current CFC yard area.
Contribute to the priorities and targets set out in the Local BAP (Biodiversity Action Plan).	Not applicable.
Protect designated sites and other sites/features of nature conservation importance, including SSSIs, and County Wildlife Sites.	The proposed CNG Station is to be located within the current CFC yard area.
Conserve protected species where found.	The proposed CNG Station is to be located within the current CFC yard area.
Make positive provision to nature conservation e.g. nature reserves, naturally shaped watercourses, native planting to encourage wildlife, or other wildlife- friendly landscape features.	The proposed CNG Station is to be located within the current CFC yard area.
Provide for the ongoing management of habitats where applicable.	The proposed CNG Station is to be located within the current CFC yard area.
Encourage use of timber from sustainably managed sources.	Not applicable – no timber to be used in the CNG Station.
Improve facilities and conditions for cycling especially safety aspects e.g. secure covered cycle storage, cycle paths, signals and lanes.	As gas vehicles generate significantly less NOx, SOx and particulates, cyclists will benefit from better air quality on roads.
Minimise car parking e.g. appropriate levels/standards of parking, car free neighbourhoods, park and ride.	Not applicable.
Segregate vehicles from all other modes of transport wherever possible.	The proposed CNG Station is to be located within the current CFC yard area. Staff transport is already kept separate from CFC operational vehicles.
Construction Period	
Include a site investigation to identify areas of soil contamination and take correct measures for decontamination.	There will be minimal breaking out of the concrete, but the construction will not need to go below the imported stone base, so any natural soil will not be broken into.

Minimise noise levels and light pollution during the building processes e.g. use of quieter technology, restriction of operating hours and traffic reduction.	Normal hours for the construction work will be between 7am and 6pm, more usually 8am to 4.30pm.
Minimise air and dust pollution during construction.	There will be minimal dust created as the majority of the civils works is installing fencing, Armco barriers and a 15m long refuelling island. There are no major earthworks.
Prevent pollution of ground and surface water.	There will be no digging down to natural ground, so groundwater pollution is unlikely. Surface water drainage on site has interceptors, etc. to protect surface waters.
Minimise odours from buildings and plant.	No odours expected. Gas connections are made using valves and spades to ensure no gas escape.
Encourage the use of renewable recycled, recyclable and durable products e.g. building materials, salvage material for re-use/ recycling, use demolition materials for hardcore and aggregate.	To be included as part of detailed design wherever possible.
Promote the use of local materials first, followed by low embodied energy materials, and finally high embodied energy imported materials.	Construction materials will be sourced from local suppliers. Provision of CNG Station equipment is a Europe wide market with equipment being sourced from UK, Germany and Italy.
Ensure the protection of trees, hedgerows and other plants during construction.	No trees will be harmed, however, some bushes in landscaped area close to compound will need to be removed to make way for gas and electric meter kiosks.
Preserve wildlife habitats on site during construction either in situ or by translocation.	N/A – the CNG station is to be constructed on an area of concrete yard.
Use clean hazard-free technologies for plant and building operation and maintenance.	The CNG Station compresses natural gas for clean burning HGVs. Minimal oil is used in the design of the compressor, while other equipment is principally mechanical to store and deliver gas at pressure.
Store potentially hazardous materials safely.	Oils and anti-freeze will be stored in secure storage cabinets.
Encourage liaison with the local community as part of a 'Considerate Contractor' approach to the construction phase.	Immediate business neighbours are aware of the scheme. Residential neighbours are more than 280 metres away and should not feel any impact from the small civils and station install works.

5.3.4. Policy RA10 concerns the landscape and character of the district. The CNG station is low level and proposed for an area of the CFC yard that cannot be easily seen from public areas. The CNG Station will not be detrimental to the landscape in any way due to its location on the Hatfield Business Park.

5.3.5. Policy SD1 and SD2 relate to the standard of design for the CNG Station and how it relates to character and context of the area in which it's proposed. The equipment will be located in a fenced compound and mainly within enclosed containers for weatherproofing and to keep the look and feel of the station as clear and clean as possible. This is in line with other equipment on the site and on other distribution centres on Hatfield Business Park. Pipework and cables will be above ground on suitable trays inside the CNG Station compound, but will be underground outside the compound, so cannot be seen.

5.3.6. Policy EMP1 states the areas within the district that are designated Employment Areas (EAs). Hatfield Business Park is EA6 and the CNG Station is proposed for this area. The CNG Station is an appropriate ancillary use to the B8 class of the CFC.

5.3.7. Policy EMP2 lists the acceptable uses in Employment Areas. Each of these is taken in turn below –

i) Housing demand – The proposal is only for a CNG Refuelling Station and, therefore, will not create any increased numbers of jobs at the CFC. It will have no effect on the demand for housing in the area.

ii) Transport Infrastructure – Gas powered vehicles will give positive impacts to the local and strategic transport infrastructure due to their significantly lower emissions and lower noise when compared to the diesel trucks they will replace at the CFC.

iii) Residential Amenity – The station will not harm the amenity of nearby residential properties as shown in Section 4.5. The CNG Station cannot be seen from any residential properties as discussed in Section 4.4.

iv) The CNG Station will not create any new vehicle trips or increase the number of vehicles over that which is already allowed at the CFC by their Operators Licence. The station is proposed for an area of the yard that will not impact on any parking for trailers, HGVs or staff parking. The 15 vans that can be parked in this area can be parked elsewhere on site very easily, trailers less so, hence the location on site being chosen for the station. The CFC operates some 280 vans in total.

v) The CNG Station is not a retail development, however, it is ancillary to the main CFC to allow Ocado to refuel their HGVs effectively.

By innovating and developing their fleet, Ocado are ensuring that they're at the forefront of technological advancement and sustainable transport. This gives them competitive advantage. By providing the correct infrastructure, Gasrec are enabling Ocado to maintain this advantage and, therefore, provide quality services from their Hatfield CFC, thus securing jobs and much needed facilities for the District.

5.3.8. Policy R18 regards Air Quality in the District. The CNG Station will have a positive impact on the air quality of the District as it will allow Ocado to replace diesel vehicles with cleaner burning gas powered vehicles. As outlined in Section 1.2, gas powered vehicles offer significant reductions in tailpipe emissions when compared to the current diesel fleet. These new gas powered vehicles will directly replace the diesel vehicles in use by Ocado – there will be no increase in vehicle numbers or movements as a direct result of this proposal.

5.3.9. Policy R19 concerns noise and vibration. The compressor element of the station is designed to sit on rubber mounts to minimise vibration being transmitted to both the ground and to the machine itself. This is good industrial design. The noise from the compressor will have

attenuated naturally so that it will not be of any nuisance to nearby residents. See Section 4.5 above.

5.3.10. Policy M14 relates to parking provision for new developments. The proposed CNG Station will not be creating any new vehicle trips as the gas powered vehicles that will refuel at the station will be replacements for the aging diesel vehicles currently operating from the CFC. Therefore, no parking provision is required.

5.3.11. The CFC has an Operators Licence (O Licence) from the Driver and Vehicle Standard Agency (DVSA) allowing Ocado to have 140 trailers and 80 HGVs based at the site. During normal operation these trucks and trailers will be in use and on the road networks or at the CFC ready for unloading/loading. The CFC is a 24/7 operation, so the only day that all trucks and trailers are parked back at the CFC is Christmas Day. The location chosen for the CNG Station takes this into account so that all 80 HGVs and 140 trailers are able to park at the CFC safely.

5.3.12. The location proposed for the CNG Station is currently used as spare parking spaces for up to 15 vans that can be easily parked in other areas within the CFC yard on Christmas Day. The CFC operates a fleet of 280 vans in total.

6. Summary and Conclusions

6.1. Introduction

6.1.1. This statement describes a proposal by Gasrec Limited to construct a Compressed Natural Gas (CNG) Refuelling Station within the existing Ocado CFC in Hatfield. The station will enable Ocado's HGVs and vans to run on gas, thus reducing CO_2, NOx and particulate emissions from road transport.

6.2. Environmental Effects

6.2.1. A number of environmental considerations are set out in Chapter 4. These consider the effects of the proposed development upon the application site and immediate environment.

6.2.2. The proposed CNG Refuelling Station will help to reduce and mitigate the air quality concerns of the area by providing fuel for a fleet of HGVs. This CNG powered fleet will not only emit 10% to 15% less CO2 than their diesel equivalent, but will also emit 72% less NOx and 97% less particulates.

6.2.3. It is considered that the proposed CNG station is ancillary to the existing uses of the site and, due to its scale and the nature of the surrounding area, the facility will create no new environmental effects either locally or in the wider area.

6.3. Planning Policy

6.3.1. The proposals have been considered in the context of national and local policies for climate change and planning policy. The development will assist in meeting targets for greenhouse gas reduction from road transport, improving air quality standards, and securing the use of the CFC in a designated Employment Area.

6.3.2. The CNG Refuelling Station will provide the following economic and environmental benefits:

- Development of a small scale CNG refuelling station on an existing industrial area and distribution depot to service Ocado's fleet of vehicles;
- A lower carbon refuelling facility that will help to meet the objectives of UK and local sustainability policies;
- Natural gas as a vehicle fuel emits circa 15% less CO2, 72% less NOx and 97% less particulates than diesel and, therefore, contributes to national and local air quality objectives;
- Contributes towards the establishment of a CNG Refuelling Station to allow further conversion of diesel HGVs operating from the Hatfield Business Park and thereby adding further to the air quality benefits of running on gas.