

15 September 2023

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Principal Planning Officer  
Industry Assessments  
Department of Planning and Environment  
12 Darcy Street  
PARRAMATTA NSW 2150

Submission via Major Project Portal: <https://majorprojects.planningportal.nsw.gov.au/>

Dear Pamela Morales

**HUNTER VALLEY HYDROGEN HUB (SSD-48655719) 43-45 GREENLEAF ROAD KOORAGANG**

I refer to the Department of Planning and Environment's (DPE) notification of 16 August 2023, regarding a State Significant Development Application (SSD-48655719) submitted by Origin Energy Future Fuels Pty Ltd to construct and operate a hydrogen production facility (known as the Hunter Valley Hydrogen Hub), on land known as 43-45 Greenleaf Road Kooragang.

City of Newcastle (CN) has reviewed the EIS and the following advice is provided for your consideration:

**1. Adequacy of documentation submitted**

Concern is raised that no architectural and engineering drawings of the development were submitted with the development application. Further, it is noted there are inconsistencies in the design details of the development between the two 'Key Features' drawings (Figures 3.2 and 3.3) and the 'Artist impression'(Figure 3.4) These deficiencies have restricted CN's officers' consideration of the development, particularly regarding stormwater and flood management as discussed following in this letter.

The EIS states that the design and layout of the development are indicative only because *'...the project is progressing through the Front End Engineering Design (FEED) and as such, the design of the facility is evolving with final layout and design specifications being refined through the design and procurement process.'*

Notwithstanding this, given the type and scale of the development proposed it is considered that the Applicant should provide more comprehensive drawings in support of the application. It is recommended the Applicant be required to provide supplementary detailed plans which address the above concern.

## 2. Stormwater Management

Given the scale of the proposed development it is recommended that the Applicant is required to submit a stormwater management plan (SMP) demonstrating compliance with water quality and quantity requirements set out in the Newcastle Development Control Plan 2012 (NDCP 2012) and the associated 'Stormwater and Water Efficiency for Development' Technical Manual

The stormwater design principles as indicated in the EIS are generally supported and it is recommended the following matters are addressed by the Applicant:

- (a) A hydrology, flooding, and water quality & quantity assessment is undertaken to ensure that the upstream and downstream properties are not impacted (including nuisance flows).
- (b) Stormwater reuse aspects and requirements for retention/detention as indicated in the EIS are to be designed in detail. The design must ensure that the operational elements such as the fueling component, and the future change in use of the subject land and associated risk factors are appropriately considered in the early planning stage to mitigate impacts on the surrounding environment.

The plans must clearly indicate the existing swale and drainage infrastructure that are currently on the site and retain essential infrastructure as required by the conditions of development consent (DA2018/00681) for the approved subdivision that created the subject lots. The development must also ensure that appropriate drainage easements are established over the essential infrastructure and benefited lot owners must be duly consulted and informed.

- (c) Flood planning requirements are incorporated in the stormwater design.
- (d) Vehicular, road, access, and parking areas are to be designed to minimise the extent of hardstand areas to reduce sediments and contaminants.
- (e) The design of proposed internal road running parallel to the southern boundary of the subject site must consider the stormwater swale batter and any retaining structure to manage the internal access pavement design. It is recommended that retaining structures are not constructed within the stormwater swale infrastructure. Similarly, proposed driveways to Greenleaf Road must be designed to ensure on-road drainage is not adversely impacted on.

Having regard to the type of development proposed, it is recommended that a coordinated approach for water sensitive design, drainage, groundwater and the hardstand areas is implemented to ensure that the surrounding environment is not adversely impacted on.

It is requested that the Applicant be required to provide supplementary information and plans which address the above comments.

## 3. Flood Management

The EIS states that '*...the flood risk at the site is considered to be very low.*' According to information provided in the Newcastle City-wide Floodplain Risk Management Study and Plan (BMT WBM June 2012), the subject site is affected

by Hunter River and Ocean Flooding during both the 1% Annual Exceedance Probability (AEP) and Probable Maximum Flood (PMF) events.

It is noted that substantial areas within the site are still subject to flood impacts and overland flows and are noted to be high risk. The site has extensive areas dedicated for stormwater, flood management and drainage management purposes, including a number of catchment swales and extensive drainage infrastructure which blend and co-exist with the current environment.

It is recommended that the Applicant prepare a flood risk management plan (FRMP) for the development. The FRMP is to have regard to the relevant requirements of State policies, CN's Flood Risk Management policies, the Newcastle Local Environment Plan 2012 and the NDCP 2012. In this regard, internal and external traffic management, parking, and vehicular and pedestrian access areas must be designed to be compatible with the flooding, stormwater and drainage, hydrology and mitigate impacts to the surrounding environment. The FRMP must also address risks associated during the construction process, including at each relevant stage of construction.

It is also noted that Stormwater Management Plan Report prepared by ADW Johnson Ref: RCH:239783 Rev B dated 11/10/2018 for the subdivision including the subject lots, includes a detailed analysis of the overall subdivision area and stimulated stormwater and flood models. The report also indicates recommended Flood Planning Levels (FPLs) of 2.67m AHD and 2.17 AHD for occupiable rooms (buildings) and unoccupied areas (such as vehicular access areas), respectively. It is recommended that these FPLs are considered in the detailed design of the proposed development. The detail design should also consider such matters as cut and fill, appropriate design levels for vehicular and pedestrian access, and incorporating road and parking areas with the plant and infrastructure and the abovementioned FPLs.

The design of essential infrastructure must consider flood resilient design outcomes and make provisions for overland and flood flows. The flood analysis and risk assessment must plan for future expansions on the site and surrounds and flood risks and management for infrastructure such as pipelines and overhead infrastructure, services, impact on local roads to/from the site including freights and land transport.

It is requested that the Applicant be required to provide supplementary information and plans which address the above comments.

#### **4. Traffic and Parking**

The internal road, vehicular access and pedestrian network within the site must be designed to facilitate the final phase of the development, including the provision of lighting and safety features. Further, the design of the development must incorporate adequate provision for off-street parking (includes car, truck, bicycle, and motorbike parking) for staff and visitors to address the parking demand for such facilities generated by the development. In addition, provision should be made for the charging of electrical vehicles and the provision of end of trip facilities including toilets, showers, and storage for cyclists.

It is recommended the Applicant provide further information to demonstrate that the development satisfies the relevant requirements of Section 7.03 Traffic, Parking and Access of the NDCP 2012, Australian Standard AS/NZS2890 series and Transport for NSW (TFNSW) guidelines.

## 5. Vehicular Access, Driveway Design and Crossing Location

Based on the TIA and the indicative layout plan (i.e. Figures 3.2) in the EIS the following comments are provided:

- (a) On-site truck routes must be clearly identified and any potential conflicts between small vehicles/cars and trucks are to be avoided, where possible.
- (b) The northern driveway entry from Greenleaf Road is for two-way entry/exit access. The swept path analysis has not indicated if this driveway will be used by articulated vehicles (AV's) to exit, which may adversely impact on the operations of the gate and increase safety risks at this driveway access.
- (c) The driveway of the property 168 Greenleaf Road on the eastern side of Greenleaf Road is located directly opposite the proposed northern driveway for the development. Traffic movements from the proposed development should consider the impact on the operational requirements for the above property, vehicular safety and on-road parking impacts.
- (d) Concerns are regarding some AV truck turning paths indicated on the submitted swept path analysis. It is considered that the north-western and south-western corners of the access ring road would have to be widened to accommodate the movements of the AV's. Also, the southern driveway may have to be widened to accommodate for AV's entry and to minimise likely impacts on the stormwater swale and drainage infrastructure.
- (e) To minimise the potential for vehicular conflict within the adjacent public road it is recommended all of the entry gates on the Greenleaf Road frontage are setback a minimum of six metres from the property boundary to allow for access to the site security system without the vehicle protruding onto Greenleaf Road

It is recommended that the Applicant provide information to demonstrate that the development satisfies the relevant requirements of Section 7.03 Traffic, Parking and Access of the NDCP 2012, Australian Standard AS/NZS2890 series and TFNSW guidelines.

## 6. Landscaping

Concern is raised at the lack of landscaping proposed within the development with almost the entire site, boundary to boundary, being paved.

The lack of onsite landscaping represents a poor planning and design outcome. New developments should enhance the landscape character in the locality of the site. Accordingly, it is recommended that the Applicant is required to modify the design of the development to incorporate more onsite landscaping including appropriate areas adjacent to the two street frontages of sufficient width to accommodate suitable taller-growing trees and/or screening shrubs in order to provide visual relief to the paved areas, enhance the external appearance of the development and to add to the landscape quality of the locality.

It is further recommended that the Applicant be required to submit a Landscape Concept Plan which has had regard to the relevant requirements of Section 3.13 - Industrial Development and Section 7.02 Landscape. Open Space and Visual Amenity of the NDCP 2012.

## 7. Heritage

The EIS confirms the land is reclaimed and has been subject to heavy disturbance from industrial development. As such, the proposed impact on non-Aboriginal heritage (built & landscape heritage and historical archaeology) is considered acceptable.

The EIS also indicates a preliminary AHIMS search identified the nearest Aboriginal sites to be located approximately 700m east of the project site. As such, the proposed impact on Aboriginal cultural heritage is considered acceptable.

It is recommended the following informative conditions be included in any determination issued:

- Unexpected finds procedure for discovery of archaeological relics during works (i.e. in the event that an archaeological relic is unexpectedly discovered during works, requirement for development works to immediately stop in area of discovery, and to inform Heritage NSW and await their instruction.)
- Unexpected finds procedure for discovery of Aboriginal objects during works (i.e. in the event that an Aboriginal object is unexpectedly discovered during works, requirement for development works to immediately stop in area of discovery, and to inform Heritage NSW and await their instruction.)

## 8. Social impact Assessment

The appendices of the EIS include a Social Impact Assessment (SIA) dated 25 July 2023 prepared by GHD (Appendix Q). The following comments are provided regarding the various elements of the SIA:

### Social baseline

Chapter 5 of the SIA presents a detailed social baseline of the relevant project localities. It is noted that the SIA has included more recent 2021 ABS Census data, as compared to the scoping report, and acknowledges that 2016 SEIFA indices have been used as they were not updated at the time of writing the report. CN welcomes the recognition of the Worimi people as traditional custodians within the Newcastle LGA in addition to the Awabakal people, and the consultation that occurred with both these groups.

It is noted the detailed local study area conducted for Kooragang and Stockton. Regarding Stockton, access to the suburb has been indicated as via Nelson Bay Road. This is correct; however, many residents of Stockton also use the ferry service to and from Newcastle City Centre for work and leisure purposes. Consideration should be given to this second access route by water and its proximity to the proposed project site.

### Social impact assessment

Chapter 6 of the SIA presents an assessment of the potential social benefits and impacts that may result during construction and operation of the project, as well as potential cumulative impacts.

It is agreed that the key social benefits of the project are primarily related to increased economic value and employment opportunities associated with the project. Opportunities for local employment to support the project and ongoing use

of the facility, which would support wellbeing and livelihood outcomes for local community members. It is also agreed the key social impacts are related to the potential wellbeing impacts that may be experienced by some individuals because of concerns about perceived risks and hazards associated with constructing and operating the project.

CN concurs with the evaluation of the identified social impacts based on the likelihood and magnitude significance rating and supports the mitigation measures identified in response to potential social impacts, and to enhance social benefits.

The following comments are provided regarding the construction and operational phases of the development:

### **Construction**

- The identification of direct and indirect procurement and employment opportunities during construction that would contribute to the regional economy are welcomed. In particular, the inclusion of '*...preferential local and First Nation participation inclusions of tender documents which outline the sub-contracting and local employment goals that construction contractors would need to deliver*'.
- The identification of potential impacts to Aboriginal heritage and cultural values during construction of the project and the various mitigation measures identified are also welcomed.
- The mitigation measures identified to respond to community and stakeholder concerns about risks associated with transport and storage of chemicals onsite that could lead to stress and anxiety affecting wellbeing for some individuals are supported.
- Also welcomed is the Community and Stakeholder Engagement Strategy as a mitigation measure, in particular the enquiries and complaints management system which will be implemented before and during construction and maintained for a minimum of 12 months after construction finishes. This responds effectively to DPE's SIA Guideline 'decision-making systems' category as to '*...whether people experience procedural fairness; can make informed decisions; have power to influence decisions; and can access complaint, remedy and grievance mechanisms*'.

### **Operation**

- It is noted that one of the issues identified during community consultation was concerning the shortage of specialist skills required for renewable projects in the Hunter region. The mitigation measures proposed in the workforce and procurement plan, includes '*Promotion of supply and employment opportunities through local industry channels and employment organisations*' and '*Investigation of partnerships with local educational institutions and universities to support local residents to fill jobs during operation*.' Such measures are supported.'

It is suggested that the Applicant contact with the Hunter Jobs Alliance (HJA) who campaign for local and sustainable jobs in relation to the changing energy market. They may be able to provide expert local insights and guidance of use to the project, particularly in relation to skills shortages. The HJA can be contacted at: <https://hunterjobsalliance.org.au/> .

## **9. Section 7.12 Development Contributions**

The provisions of CN's Section 7.12 Development Contributions Plan, which became operational on 1 January 2022, apply to the subject site. Under the plan,



a contribution rate of 1% of the cost of the development applies to all non-residential developments having a cost of more than \$200,000.

It is recommended the Applicant is required to address the requirements of the above plan and submit a cost summary report for the proposed development. It is further recommended that the full 1% levy is applied to the development.

#### **10. Description of the subject land**

The EIS states the address of the subject land as 43-45 Greenleaf Road Kooragang. According to CN's records the subject land is identified as 1-3 Portlink Close and 161 Greenleaf Road Kooragang. It is recommended the Applicant be required to confirm the property address of the subject land.

If you have any questions in relation to the various matters raised in this letter, please contact Geof Mansfield City Significant Development Section Manager on 4974 2767 or by email on [gmansfield@ncc.nsw.gov.au](mailto:gmansfield@ncc.nsw.gov.au).

Yours faithfully



Amy Ryan

**CITY SIGNIFICANT & STRATEGIC PLANNING MANAGER**