

HumeLink Environmental Impact Statement

Landscape Character and Visual Impact Assessment (LCVIA)

JUNE 2023

What is an Environmental Impact Statement (EIS)

The HumeLink project has been classified by the NSW Government as Critical State Significant Infrastructure (CSSI). All CSSI development applications must be accompanied by an Environmental Impact Statement (EIS). The purpose of the EIS is to identify and assess the potential environmental, economic and social impacts of the project to help the government agencies, relevant authorities, community and stakeholders to make an informed decision or provide an informed submission on the merits of the project.

EIS project footprint

The HumeLink project extends from the existing Wagga Wagga 330 kV substation to the existing Bannaby 500 kV substation and the future Maragle 500 kV substation.

The EIS footprint is based on an indicative 200 metre corridor and is defined as the area directly affected by the construction and operation of the project. It includes the indicative location of project infrastructure, the area that would be directly disturbed during construction and any easement required during operation.

The final location of all proposed infrastructure will be confirmed during detailed design.

HumeLink planning approvals and EIS

As part of the planning approval process for HumeLink, Transgrid is preparing an EIS in accordance with the Secretary's Environmental Assessment Requirements (SEARs). The SEARs identify matters which must be addressed in the EIS and essentially form its terms of reference. It includes the requirements from both the NSW and Commonwealth Governments.

A landscape character and visual amenity technical study was completed as part of the HumeLink EIS to inform the project's Landscape Character and Visual Impact Assessment. Details about this study are included in this fact sheet.

Can I provide feedback?

Once the EIS is finalised, the NSW Department of Planning and Environment (DPE) will place the EIS on exhibition and call for public submissions. You will be able to provide feedback on the EIS directly to the DPE during this public display period. More information on how to make a submission will be provided closer to the EIS exhibition period.

To learn more about the HumeLink EIS, please visit the EIS Frequently Asked Questions on our website.



Landscape character
and visual amenity

HumeLink Environmental Impact Statement Specialist Studies



Aboriginal heritage



Electric and magnetic fields



Social



Agricultural land



Greenhouse gas and climate change risk



Soils, geology and contamination



Air quality



Historic heritage



Surface water and groundwater



Aviation safety



Hydrology and flooding



Sustainability



Biodiversity



Landscape character and visual amenity



Traffic and transport



Bushfire risk



Land use and property



Economic



Noise and vibration



Landscape Character and Visual Impact Assessment

As part of the HumeLink EIS, Transgrid has undertaken a Landscape Character and Visual Impact Assessment (LCVIA) to evaluate potential changes to visual amenity as a result of the construction and operation of the project. This assessment includes evaluating the potential visual impacts of the project on surrounding residences, scenic or significant vistas, night lighting, air traffic and road corridors in the public domain. The assessment also includes proposed mitigation measures that may reduce potential impacts.

What does this study tell us?

The LCVIA study area comprises the project footprint plus a five kilometre buffer. The study area comprises 8 different landscape character zones which are defined primarily by geology, topography, vegetation, waterways, built form patterns and land use. The study area also includes viewpoints from public areas and private homes.

The assessment methodology included:

- a review of the applicable guidelines and legislative and policy context including:
 - » relevant regional plans, management plans, Local Planning Schemes and Local Environmental Plans (LEPs)
 - » Guideline for Landscape Character and Visual Impact Assessment EIA-NO (Transport for NSW, 2020)
- a desktop review of existing information and digital modelling to understand terrain
- site inspections in select locations to verify the desktop reviews
- taking photographs to develop photomontages from representative viewpoints along the project footprint
- assessing the landscape character and visual impacts for day and night-time by considering:
 - » the visual sensitivity of each landscape character zone
 - » representative viewpoints, including assessment to landscape features such as scenic amenity and contribution to sense of place
 - » magnitude of change expected from construction and operation of the project within each landscape character zone and representative viewpoint, which considers changes to the entire landscape character zone as opposed to a small area
 - » visual impact from private homes.



Example photomontage: Proposed HumeLink 500 kV transmission towers parallel to existing 330 kV transmission towers. View south east from Westbrook Road Oberne Creek.



Assessment of landscape impact

Landscape character and sub-character zones

Due to the scale of the project, the landscape and visual study area has been divided into 8 landscape character and 20 sub-character zones. Character zones were defined by the existing built, natural and cultural environment and sub-character zones were defined to represent the local landscape and identifying features.

An assessment of landscape impact was then carried out by identifying the sensitivity of each landscape character area, describing the magnitude of change expected as a result of the project, and combining these factors to make an overall assessment of landscape impact.



Pictured: Example of character zone undulating rural hills and ridges landscape.



Example of a photomontage: View south-east from Brungle Road.



Example of a photomontage: View south from Snowy Mountains Highway.



Example of a photomontage: View south from Cooks Hill Road.

Eight landscape character zones were defined for the purposes of the HumeLink LCVIA:



Landscape character zones



Sub-character zones

Rural fringe landscape	<ul style="list-style-type: none"> • Rural areas to the south of Wagga Wagga
Great Dividing Range foothills landscape	<ul style="list-style-type: none"> • Gregadoo Great Dividing Range foothills • Ellerslie Range Great Dividing Range foothills
Rural valleys landscape	<ul style="list-style-type: none"> • Gregadoo to Book Book rural valleys • Yaven Creek and Adelong Creek rural valleys • Tumut rural valleys • Adjungbilly rural valleys • Tumbarumba rural valleys
Forested hills landscape	<ul style="list-style-type: none"> • Green Hills forested hills • Bago forested hills • Minjary forested hills • Red Hill and Bungongo forested hills
Undulating rural hills and ridges landscape	<ul style="list-style-type: none"> • Wondalga to Batlow undulating rural hills and ridges • Tumut undulating rural hills and ridges • Murrumbidgee undulating rural hills and ridges • Black Range to Yass undulating rural hills and ridges • Jerrawa to Dalton undulating rural hills and ridges
Upland forest landscape	<ul style="list-style-type: none"> • Snowy Mountains upland forest
Rural tablelands landscape	<ul style="list-style-type: none"> • Crookwell rural tablelands landscape character area
Rural highland and deep valley landscape	<ul style="list-style-type: none"> • Taralga to Bannaby rural highland and deep valley landscape character area



Pictured: Rural fringe landscape character zone.



Pictured: Rural highland and deep valley landscape character zone.



Assessment of visual impact

As part of the LCVIA, Transgrid assessed potential visual impacts on private homes and public viewpoints across the project footprint. This assessment included a preliminary desktop analysis to assess the potential visibility of the project, as well as site visits to conduct assessments from representative viewpoints.

Each view was assessed by identifying the magnitude of change created by the project, and the sensitivity of the expected viewer. Combined, these characteristics were used to assign a rating of potential visual impact. Ratings range between negligible, low, moderate or high.

The magnitude of change refers to the extent of potential change to the landscape as a result of the project from a given viewpoint. This includes what has changed and how it has changed. A high magnitude of change would result when the infrastructure contrasted strongly with the existing landscape, whereas a low magnitude of change would occur if there was minimal visual contrast.

Visual sensitivity combines viewer sensitivity, the nature and duration of views and scenic quality. Locations where a view would potentially be seen for a longer time, where there are more potential viewers and scenic landscapes have been identified as having higher visual sensitivity.

Private viewpoint assessment

As part of the LCVIA, Transgrid also conducted an assessment of potential visual impacts on private residential properties. This was done in two stages:

Stage 1: Preliminary desktop assessment of views from private residences

- identification of all residential homes within two kilometres of the project footprint
- desktop analysis of terrain and vegetation cover
- homes that have moderate to high potential visibility of the project were identified for detailed assessment.

Stage 2: Detailed assessment of impacts on views from private residences

- identification of views to be affected (including distance, orientation and key feature)
- visit private residences which were selected based on:
 - » highest potential visual impact within a group of residences
 - » located within the different landscape character zones
 - » prioritising residences that are permanently occupied.
- assessment of the extent of the impact, which considered indicators such as proximity of proposed transmission line corridor, existing vegetation, landform and topography, and visibility of the infrastructure.

Preliminary impacts identified

Preliminary visual impacts associated with construction and operation of the project will involve temporary mobilisation of plant and equipment throughout the project footprint and establishment of ancillary infrastructure including construction compounds and access roads/tracks.

In some instances, construction impacts will involve removal of vegetation.



Next steps

The detailed design phase will consider opportunities to minimise visual impacts. The project team will consult with landowners of properties that have been identified to have a high visual impact to understand where property-specific mitigation measures would be effective. For residences where the project is predicted to have a high or very high visual impact, opportunities for planting screening vegetation will be investigated once detailed design is complete.

Appropriate visual screening or other options will be confirmed in consultation with the affected landowner and implemented during construction. Vegetative screening would be maintained by the landowner.

As the project progresses through the EIS and detailed design, more information about the identified impacts to visual amenity and landscape character as well as the proposed management measures will become available.



Connect with us

Transgrid is committed to working with landowners and communities through the development of HumeLink. Please connect with us for more information.



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