

HUGS Pipeline Project

Pipeline Construction Process

Fact Sheet April 2022



Pipeline Construction - What's Involved?

Lochard Energy is proposing to undertake the Heytesbury Underground Gas Storage (HUGS) Project. A key component of the HUGS Project is the construction of a new 5.5 – 6.5 km 250–300mm diameter underground gas pipeline, referred to as the HUGS Pipeline.

Lochard is currently undertaking studies of the gas fields and is in discussions with landholders and other stakeholders regarding the optimal location for the Mylor, Tregony, Fenton Creek (MFCT) wellsite. See map below for route of the proposed HUGS pipeline.



Pipeline Construction Overview

Landowner and Occupier Engagement

Meetings will be held with landowners, occupiers and other stakeholders who are expected to be directly impacted by the proposed HUGS Pipeline.

The meetings will be held either face-to-face or virtually to negotiate access to private and public property for pipeline construction, operation and maintenance activities.

These meetings will address impacts the pipeline may have and how these will be managed, as well as access considerations, route optimisation and compensation agreements.

Land Surveys

Land surveys will be conducted along the proposed pipeline route to obtain data and knowledge, including but not limited, to cultural heritage, geotechnical, environmental and social considerations. These surveys will inform the planning for the pipeline's construction, operation and rehabilitation.

Land surveys typically involve a small team (generally up to five people) accessing a property by foot or in a light vehicle. Some equipment may be used as part of the surveys, including surveying and testing equipment, such as probes to measure electrical conductivity of soil or a small drill to collect soil samples.

Some land surveys will also require photography that will be used to map out assets such as fences, dams or other existing service utilities.

Landowners and occupiers will be informed about the land surveys proposed to be conducted on their land and Lochard will seek to reach agreement regarding access to conduct these surveys. The landowners and or occupiers will have the opportunity to provide feedback on timing and access in order to avoid disruption to a property's operation, or to avoid impact to a certain location of a property. If Lochard is unable to obtain agreement to enter the land for the purposes of a land survey, Lochard may apply to the Minister for Energy, Environment and Climate Change for consent to enter the land under Section 22 of the Act.

Work Areas

Preparation for the proposed HUGS Pipeline easement and associated work areas, referred to as Right of Way (ROW), will be clearly identified. These work areas, including areas to stockpile lengths of pipeline and other pipeline materials, will be identified in collaboration with impacted landowners and occupiers.

A typical pipeline ROW width is generally 20-30m. However, the exact width of the ROW for the HUGS Pipeline will be determined by surveys, feedback from landowners and other construction considerations informed by the preparation of impact management plans.

Clear and Grade

Pipeline construction activities can commence once all regulatory approvals and landowner agreements are reached.

Clear and grade, the first physical step involved in a pipeline's construction, involves the preparation of the pipeline easement and associated work areas by using excavators, bulldozers and graders. Topsoil and vegetation are stockpiled to assist post-construction rehabilitation works.

Stringing

Lengths of steel pipe are stockpiled in work areas before being transported along the ROW. The pipeline lengths are then laid end-to-end next to the pipeline trench in preparation for welding and installation.

Welding

Pipe lengths are welded together prior to lowering the pipeline into the prepared trench. Pipeline welds are inspected using x-ray or ultrasonic equipment. Fire restrictions are always observed during welding activities to ensure fire safety.

Trenching

Pipe trenching machines and excavators are used to dig the trench along the proposed pipeline route. Any subsoil is removed and placed on the side of the trench and will be used at a later stage to bury the pipeline.

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Trenchless Construction

Trenchless construction using specialist Horizontal Directional Drilling (HDD) equipment is used when traditional trenching methods are deemed unsuitable, and enables the pipeline to navigate away from areas of environmental sensitivity or existing infrastructure.

HDD technology inserts the welded pipeline into a tunnel prepared by HDD equipment.

Padding and Lowering-In

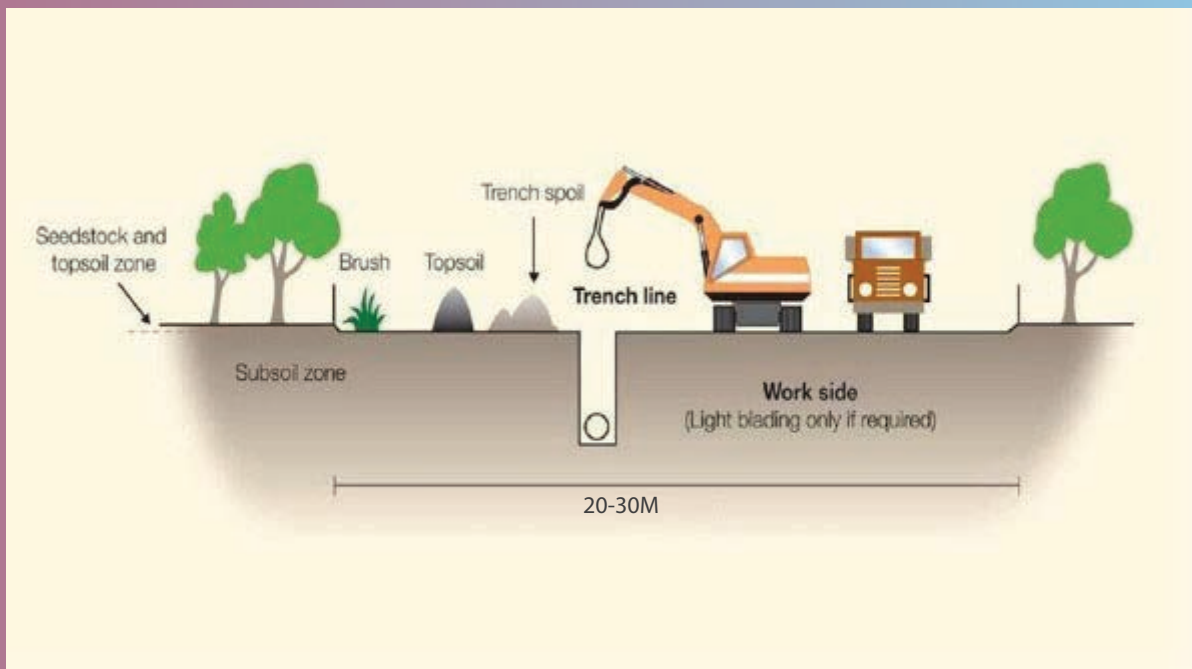
The trench is padded with sand or existing materials and the pipeline is lowered into the trench using heavy machinery equipment including side-booms. The pipeline is lowered into the trench following a rigorous quality assurance process.

Backfilling

Open trenches are backfilled with suitable fill material so that the coated pipeline is then completely buried, apart from the two above-ground locations i.e. at the start and end points of the pipeline.

The stockpiled topsoil is then reinstated over the buried pipeline to match the contour of the land and to ensure pastures can be rehabilitated.

The below diagram demonstrates a typical pipeline Right Of Way (ROW):



Pipeline Construction Overview

Hydrotesting

Hydrotesting is the final test of a pipeline to ensure the pipeline is ready for operation. In this process, water is pressure tested through the pipeline to check for leaks and marks the final stage in the quality assurance process.

Rehabilitation & Land Care

Rehabilitation of the ROW is an essential part of a pipeline's lifecycle and a proponent's commitments to regulatory requirements and technical obligations under Australian Standard AS 2885.

Any disturbed areas must be reinstated to their former state including erosion control and recontouring to match the existing topography and environment. Topsoil conserved during construction is used to assist in pasture regrowth.

Where necessary, rehabilitated areas can be kept fenced during this period to prevent damage by stock and ensure successful rehabilitation.

Signage

Signage is placed along the pipeline alignment at regular intervals and informs landowners of the location of the underground pipeline.

Contact information for the relevant pipeline owner and Dial-Before-You-Dig is included on the pipeline signage.

Decommissioning

A licensed pipeline must be decommissioned in accordance with AS2885, the Australian Pipelines and Gas Association's Environmental Code of Practice and the approved pipeline decommissioning plan.

The Pipelines Act requires this decommissioning plan to be approved by the relevant regulatory authority. An environmental risk assessment process that identifies any potential effect on the environment and other uses or users of the easement should support decommissioning preparation.

If the decommissioned pipeline is left in place, appropriate measures will be taken to prevent contamination of soil or groundwater and to avoid land subsidence impacts.

More Information

Should you require further information on the pipeline's construction, please contact Lochard Energy or one of the pipeline regulators, the Department of Environment, Land, Water and Planning or Energy Safe Victoria.

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