

COMET RIDGE TO WALLUMBILLA PIPELINE (CRWP) CASE STUDY

Murphy Pipe and Civil (MPC) was contracted to construct a 120km welded, carbon steel gas pipeline for the Comet Ridge to Wallumbilla Pipeline Project as additional capacity to the existing system. The pipeline transports coal seam gas (CSG) from Wallumbilla (20kms outside of Roma) to Gladstone where it is then converted to liquefied natural gas (LNG).

With the below details we can compare MPC's traditional steel pipeline approach to the more advanced and innovative WNR Systems method which can produce a continuous (no-join) fiberglass pipeline on site.

CRWP Pipeline Specifications

Pipeline: 120 kilometres

Diameter: Ø600mm

Wall Thickness: 12 – 15mm

Pipe length: 12 metres

Work force: approx. 350

Project length: approx. 330 days



Approximate cost comparison in AUD of using steel pipes vs. using WNR Systems' method

	Steel Pipes	WNR Systems *
Pipe cost per metre	\$300/m = \$36,000,000 total materials	\$270/m = \$32,400,000
Labour per hour	\$90/hr; 330,000 hrs total \$315,000 per shift for wages = \$103,950,000 total wages	\$90/hr; 10,200 hrs total \$27,000 per shift = \$918,000 total wages
Hours per shift	10 hrs per worker / 3500 per day	10 hrs per worker / 300 per day
Total number of shifts	330	34
Workforce vs. Days worked	350 workers / 330 days (10 hrs day) = 1,155,000 total hours	30 workers / 34 days (10 hrs per day) = 10,200 total hours
Material & Wages	\$139,950,000	\$33,318,000
% Saved		76%

* Notes:

- WNR Systems machine producing at 60% of capacity will achieve the above figures.
- Fewer employees are needed since less clearing and handling is required.
- Significant reduction on the environment due to a much smaller footprint.
- The working conditions are enhanced as a result of minimal heavy machinery.
- Fewer disturbances to flora and fauna.
- Option of fibre optic and other communications included within the finished pipeline.
- The elimination of power lines and poles means no more fallen lines and possible bushfires due to lightning strikes.
- Unrivalled efficiency, reduced contract time with minimal community disturbance.
- For more information, please see www.wnrsystems.com

