

The Darwin Pipeline Duplication Project is a new component of Santos' proposed Barossa gas project.

The offshore Barossa gas field in the Timor Sea, north of the Tiwi Islands, has the highest carbon dioxide (CO₂) content of any gas field in Australia, at 18%. This would make it one of the dirtiest gas fields in Australia, and means that very little gas is produced per tonne of emissions produced.

The life cycle greenhouse gas emissions of the Barossa project are said by Santos to be 296Mt Co₂-e, producing more CO₂ than LNG. It has been suggested that Santos' emissions calculations are not accurate and the actual emissions will be even larger. For example, Santos have accounted for DarwinLNG's operations as scope 3 emissions because they claim the owners are different – this makes a mockery of emissions accounting, as Santos own 50% of Barossa and 43% of DarwinLNG and are the operators of both.

Economist John Robert has called the project a “carbon dioxide factory with an LNG by product”.

The Barossa is thus a significant high-risk project.

Sea clearing and the industrialisation of Darwin Harbour poses an unacceptable risk to marine life and ecosystems. Construction will result in over 550 vessel transits in Darwin Harbour during construction. Marine megafauna is threatened by the increased vessel activity and associated light and noise impacts, and probable collisions. Marine mammals that are found in the project area are the False Killer Whale, Australian Humpback Dolphin, Australian Snubfin Dolphin, Indo-Pacific Bottlenose Dolphin, and Dugong. Darwin Harbour forms part of the Biologically Important Area (BIA) for the three Dolphin species. Dolphin numbers in Darwin Harbour are already decreasing and would be at risk of further decline. I understand that, because of existing decline in the dolphin population, Santos has not attempted to collect further baseline data for dolphins. This means that impacts on an already vulnerable population will be difficult or impossible to assess. Adding to this list, six species of marine turtles are found in the project area: Loggerhead Turtle, Green Turtle, Hawksbill Turtle, Flatback Turtle, Leatherback Turtle, Olive Ridley Turtle. Although four of these species were previously considered absent by Santos, their presence is known and recorded. However, there is an overall data deficiency in relation to marine megafauna and ecosystem dynamics in the Harbour; this makes risk assessment and management difficult. More base-data work needs to be done before any decision to proceed could be made.

The project requires sea clearing (“dredging”); 40m width of cleared seabed to lay the pipe. Sea clearing in this manner will most likely result in temporary and/or permanent habitat loss due to direct removal of habitat, or damage to habitat through dumping of dredge material. Additionally, the risk that the disturbance of the sediments may mobilise contaminants, including arsenic which is found at levels above the National Assessment Guidelines for Dredging screening levels is high.

The impacts of a spill resulting in toxic hydrocarbon condensate lapping at the shores of Mindil Beach during the markets, is a scenario modelled as a possible outcome of a spill from Santos' own data. This scenario is not acceptable in this location, because of biological consequences for all living organisms in the surrounding area.

The rationale for the Darwin Pipeline Project's proceeding is for Santos to pursue Carbon Capture and Storage at Bayu[1]Undan. Santos need to build the Darwin pipeline for gas so they can use the existing pipeline to send carbon dioxide to Bayu-Undan. There would appear to be no confirmation that the existing pipeline infrastructure is appropriate for transporting carbon dioxide, which requires reengineering to avoid corrosion and other effects of concentrated CO₂. Santos have stated

that they are willing to use offsets to meet their requirements under the Safeguard Mechanism until Bayu Undan CCS is in operation, but do not appear to be pursuing required approvals to realize the CCS project. Santos' justification does not detail the expected amount of CO₂ to be captured, the additional emissions created, and net emissions reduction anticipated from a CCS project. If the previous analysis of potential for CCS at Bayu Undan is correct no net reduction in emissions will occur because of the high level of emissions involved in transporting and compressing carbon dioxide. If this is the case, this project is unnecessary and poses unacceptable risk, and seems like a thimble and pea operation. CCS would appear to be a rhetorical tool to greenwash Barossa gas to investors, without any evidential signs of genuine intent to pursue the project. At the time of publishing the SER, Santos is still awaiting a Statement of Conformity to establish the possibility of using existing infrastructure for CCS.