Fact Sheet:
Middle Arm Sustainable Development Project (Australia)
April 2025
Japan Center for a Sustainable Environment and Society (JACSES)

1. Project overview
1-1. Project name: The Middle Arm Sustainable Development Project (MASDP)[1]

1-2. Project purpose:
This project involves the construction of new infrastructure at the Middle Arm in the Northern Territory of Australia, including hydrogen-related facilities, carbon capture, utilization and storage (CCUS) facilities, water supply facilities, telecommunications infrastructure, port and logistics facilities, and roads. The energy-related facilities include the following projects:

A. Bonaparte CCUS project: Led by INPEX, a Japanese company[2]. Interest ownership is 53% by INPEX, 26% by TotalEnergies, a French company, and 21% by Woodside, an Australian company[3]. The planned storage location is the Bonaparte Basin, which includes the Petrel Basin, and the first storage is scheduled for 2030[4]. Estimated storage capacity is 6.48 gigatons[5]. Final investment decision (FID) is scheduled for 2026-2027[6]. Injecting 2 million tons of CO2 a year emitted by Ichthys LNG into the ground[7]. The project also intends to transport CO2 from Japan to Australia for processing.[8]。
B. Bayu-Undan CCUS project: Led by Santos, an Australian company[9]. JERA and Tokyo Gas invested in the Bayu-Undan gas field project[10]. Plans are to reuse the Bayu-Undan gas production facility offshore Timor-Leste and store CO2 in the Bayu-Undan reservoir[11]. It will be possible to store CO2 from other CO2 emitted projects such as the Barossa gas field[12]. Intended storage capacity is 10 million tons per year, to proceed to front-end engineering and design (FEED) stage in 2022[13].
C. Darwin hydrogen hub project: A green hydrogen production project using solar power generation planned by TotalEnergies H2 (TEH2), a French company[14]. Estimated annual production of hydrogen is 80 million tons[15][16]. Northern Territory Government grants land

[1] https://middlearmprecinct.nt.gov.au/about-the-precinct
[2] https://middlearmprecinct.nt.gov.au/Industries/carbon-capture,-utilisation-and-storage
[3] https://www.inpex.com.au/media/kg5ekprl/bonaparte-carbon-capture-and-storage.pdf p.1
[4] https://www.inpex.com.au/media/kg5ekprl/bonaparte-carbon-capture-and-storage.pdf pp.1-2
[5] https://middlearmprecinct.nt.gov.au/Industries/carbon-capture,-utilisation-and-storage
[6] https://www.inpex.com.au/media/kg5ekprl/bonaparte-carbon-capture-and-storage.pdf p.2
[7] https://www.nikkei.com/article/DGXZQOCD045EP0U5A300C2000000/
[8] Same as above
[9] https://middlearmprecinct.nt.gov.au/Industries/carbon-capture,-utilisation-and-storage
[10] https://www.inpex.com/business/project/bayu-undan.html
[11] https://www.santos.com/wp-content/uploads/2022/02/Fact-sheet_Bayu-Undan_CCS.pdf p.2
[12] Same as above
[13] https://middlearmprecinct.nt.gov.au/Industries/carbon-capture,-utilisation-and-storage
[14] https://middlearmprecinct.nt.gov.au/Industries
[15] Same as above
[16] https://darwinh2hub.au/the-project/

rights within MASDP to TEH2[17]. There is potential for other green hydrogen production projects, with possible water sources including the Adelaide River Off-stream Water Storage project and the restoration of the Manton Dam, and supply from a seawater desalination plant is also being considered if necessary[18].

D. Blue hydrogen production project: Plans to produce blue hydrogen using CCUS[19]. Specific project names and operators are unknown。
E. Darwin Clean Energy Project: Constructing a condensate processing plant[20]. The project has an expected processing capacity of up to 100,000 barrels per day[21]. Operator is unknown。
F. Northern Territory LNG project: LNG production project within MASDP led by Tamboran Resources, an American company[22]. The gas supply source is the Beetaloo basin, and the target LNG production is 6.6 million tons per year by 2030[23]. Front-end engineering and design (Pre-FEED) has started[24]。
G. Solar power generation project: SunCable, an Australian company, is planning a project to construct a 14GW solar power plant, construct a 4,500km HVDC power transmission system, and secure 3.2GW of adjustable power.[25]。

MASDP is also planning non-energy-related projects. Regarding mineral-related projects, the following projects are planned.

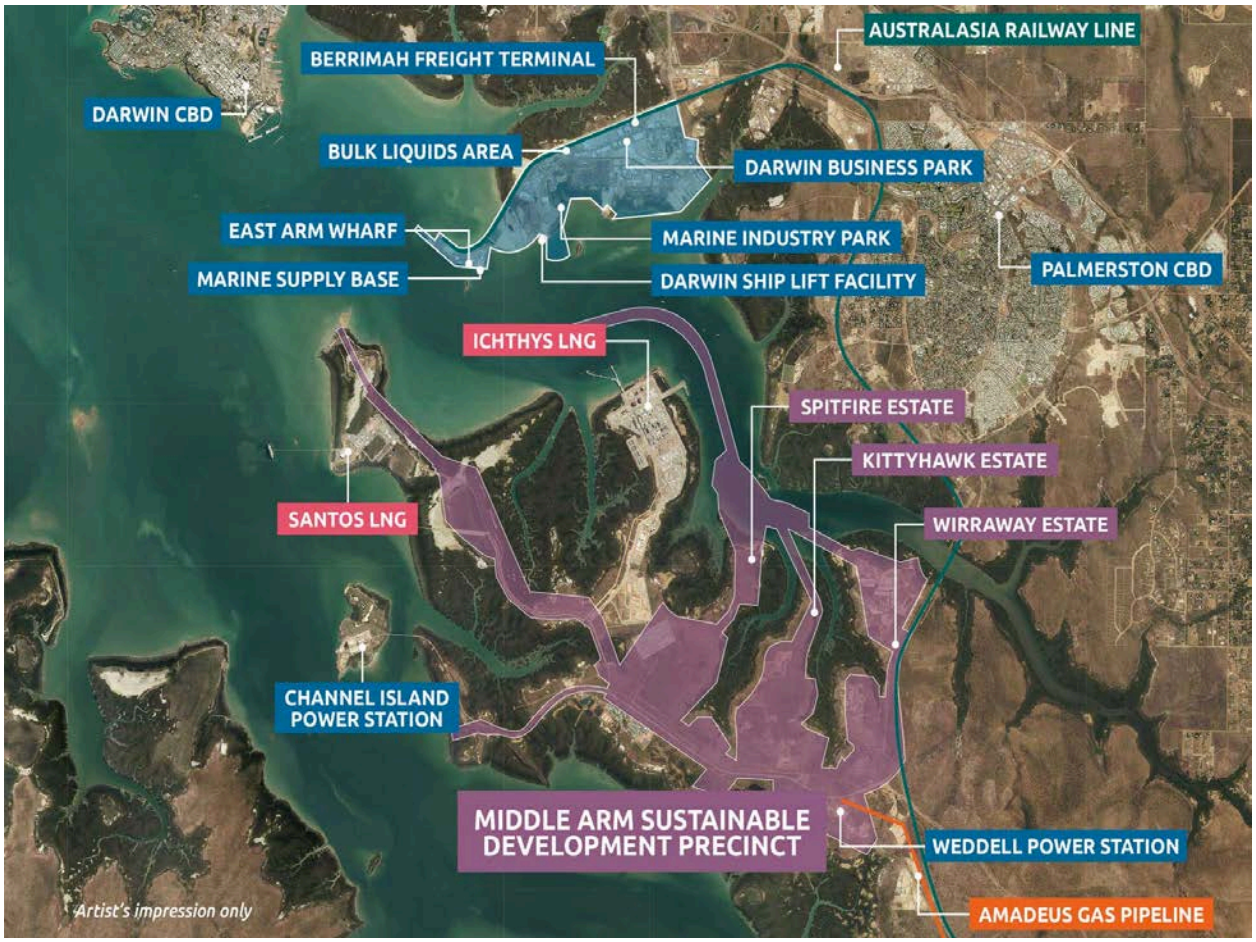
H. Vanadium, titanium and iron production project: Tivan, an Australian company, is planning[26]。
I. Lithium ferro phosphate (LFP) cathode material manufacturing facility construction project: Proposed by Averina, an Australian company, the project will produce battery cathode precursor materials using key minerals including phosphoric acid sourced from the Wonarah project in the Northern Territory[27].
J. High-grade lithium mining and export business: Core Lithium, Australian company, is planning a project[28].

[17] https://middlearmprecinct.nt.gov.au/Industries
[18] https://middlearmprecinct.nt.gov.au/Industries/hydrogen
[19] https://middlearmprecinct.nt.gov.au/Industries/hydrogen
[20] Generally, a type of crude oil extracted from gas fields is called condensate. It exists in gaseous form underground, but condenses into liquid when collected above ground.https://oilgas-info.jogmec.go.jp/termlist/1000652/1000753.html
[21] https://www.sydney.au.emb-japan.go.jp/files/100183508.pdf p.8
[22] https://ntlng.com/
[23] Same as above
[24] https://ntlng.com/wp-content/uploads/2024/09/240812-Bechtel-Announcement-FINAL.pdf
[25] https://www.sydney.au.emb-japan.go.jp/files/100183508.pdf
[26] https://tivan.com.au/sustainability/masdp/
[27] https://middlearmprecinct.nt.gov.au/Industries
[28] https://www.sydney.au.emb-japan.go.jp/files/100183508.pdf p.8

In addition, although the specific project names and operators are unknown, ammonia, methanol, urea, and ethylene production are also included in MASDP's plans.[29]。

1-3. Site location:

- Australia, Northern Territory[30]
- Site area is approximately 1,500 hectares (15 square kilometers)[31]



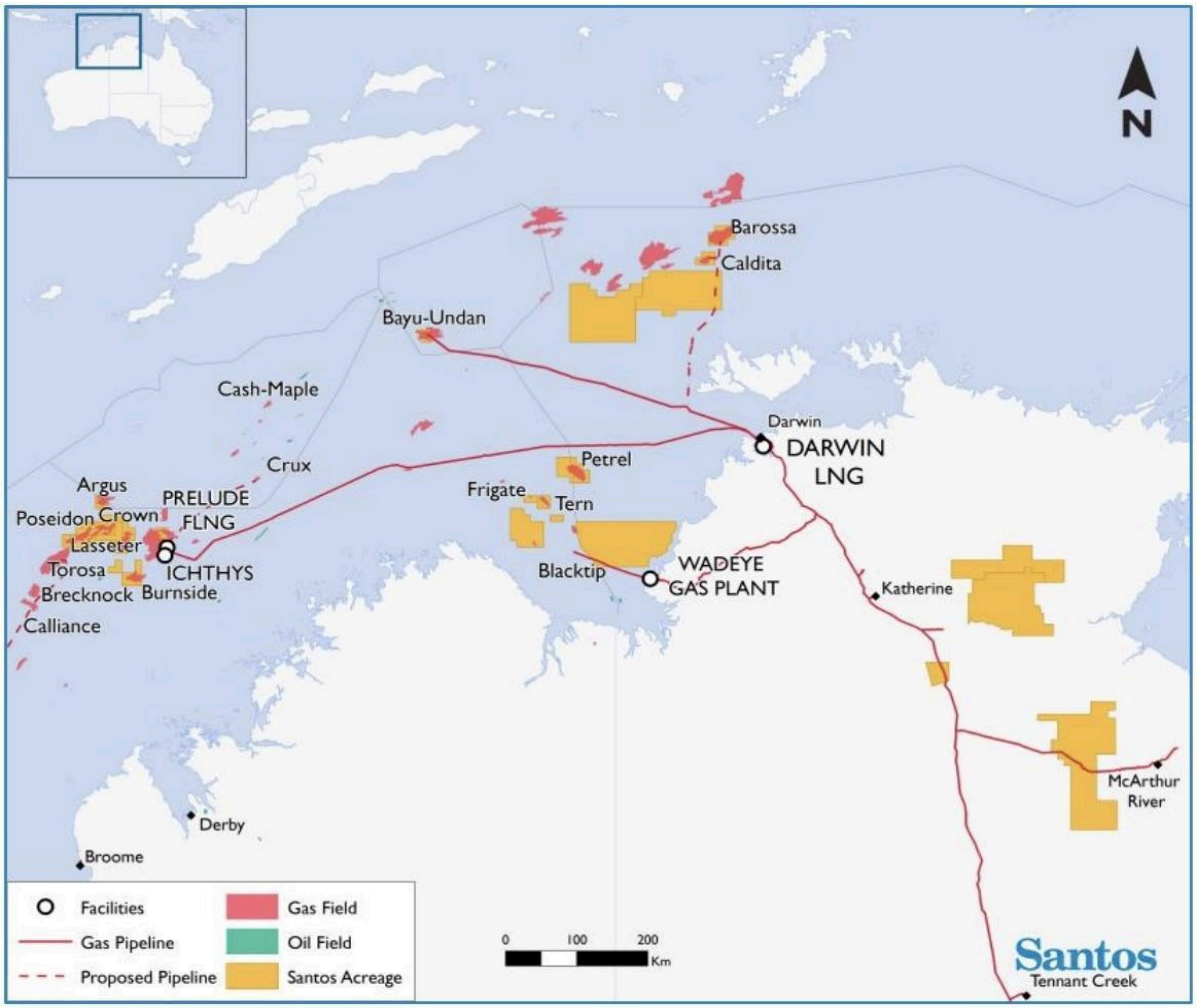
MASDP project site at Port of Darwin[32]

[29] https://middlearmprecinct.nt.gov.au/__data/assets/pdf_file/0007/1204747/middle-arm-precinct-industries.pdf

[30] https://middlearmprecinct.nt.gov.au/about-the-precinct

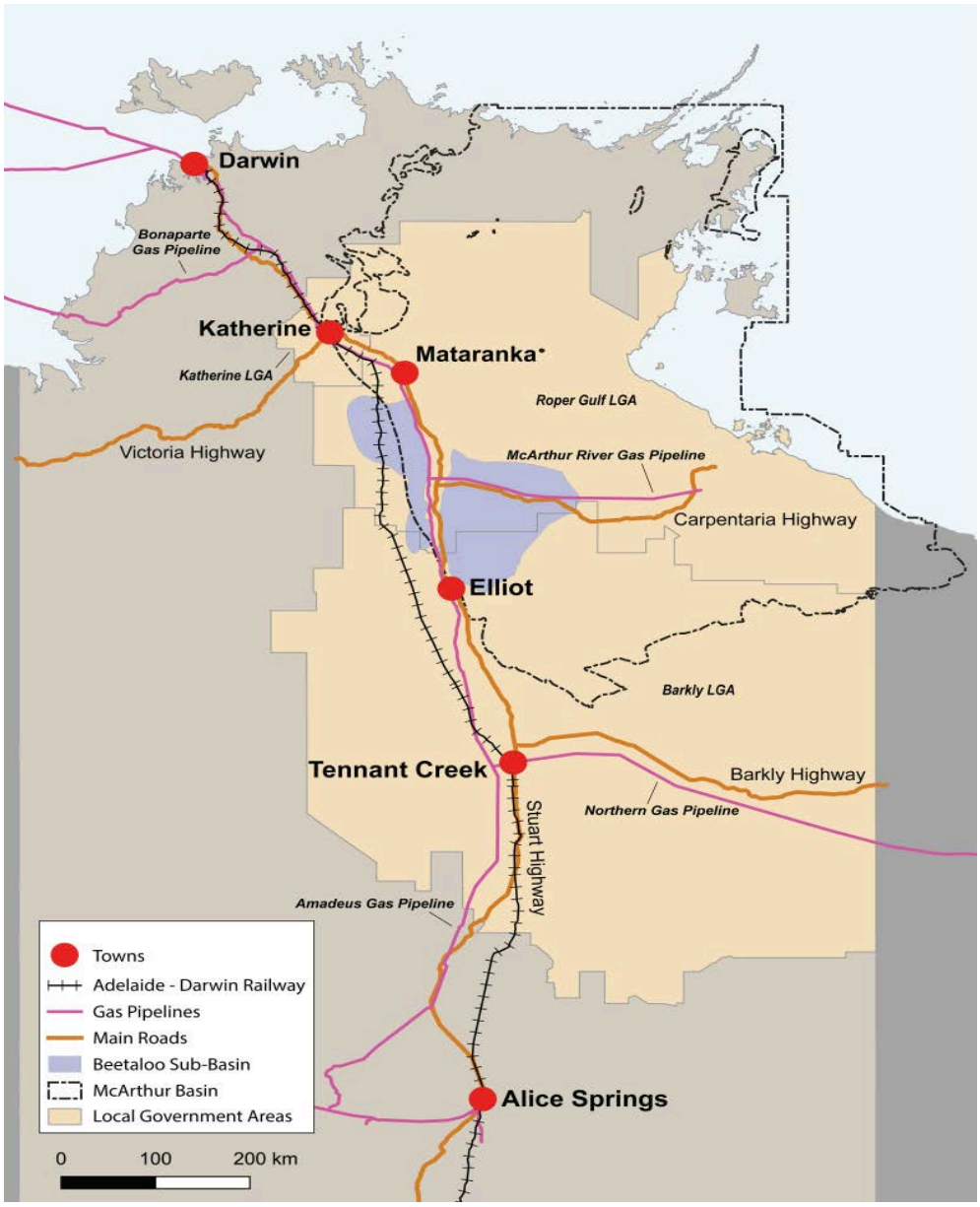
[31] https://invest.nt.gov.au/why-the-territory/infrastructure-and-strategic-land/middle-arm-sustainable-development-precinct

[32] https://middlearmprecinct.nt.gov.au/about-the-precinct



Location of offshore gas fields around Darwin[33]

[33] https://www.santos.com/wp-content/uploads/2020/02/santos-wa-nt-site-visit-presentation-2019.pdf p.24



Location of Beetaloo Basin[34]

1-4. Costs:

- Marine infrastructure development (including modular unloading facilities, shared piers, and channel expansion)[35]): 1.5 billion Australian dollars (approximately 150 billion yen) (planned to be funded by the government)[36]

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[34] https://www.industry.gov.au/publications/beetaloo-strategic-basin-plan/beetaloo-sub-basin

[35] https://invest.nt.gov.au/why-the-territory/infrastructure-and-strategic-land/middle-arm-sustainable-development-precinct

[36] https://invest.nt.gov.au/why-the-territory/infrastructure-and-strategic-land/middle-arm-sustainable-development-precinct

- Environmental study, planning and project development work: A$27 million (funded by the Northern Territory government)[37]
- Gas-based production (ammonia/methanol): 1 billion to 3 billion AUD per project (contributors to be determined)[38]
- Offshore and land infrastructure development: Up to A$2 billion (contributors to be determined)[39]
- CCUS shared transport and storage hub: Up to A$2 billion (contributors to be determined)[40]
- Blue hydrogen/green hydrogen: Approximately A$1 billion for each project (contributors to be determined)[41]
- Mineral processing and manufacturing (phosphate rock/rare earths): Approximately A$1 billion per project (contributors to be determined)
- Darwin Clean Energy Project: A$2.95 billion (contributors to be determined)[42]
- Vanadium, titanium, and iron production project: Approximately A$848 million (contributors to be determined)[43]
- High-grade lithium mining and export project: Approximately A$85 million (contributors to be determined)[44]
- Solar power generation project: Approximately 22 billion Australian dollars (contributors to be determined)[45]

1-5. Involved Japanese companies:

A. Japan Bank for International Cooperation (JBIC): Signed a Memorandum of Understanding (MoU) with the Northern Territory Government in February 2024[46]. The MoU aims to establish a framework for strengthening the cooperative relationship between JBIC and the Northern Territory Government in order to further promote investment by Japanese companies in the Northern Territory.

B. Japan Organization for Metals and Energy Security (JOGMEC): In July 2024, a Memorandum of Understanding (MoU) was signed with the Northern Territory Government concerning the energy sector—including CCS, hydrogen, and ammonia—and the metals sector, specifically the supply chain for critical minerals[47][48]. This MoU falls under the framework of the Asia Zero Emission Community (AZEC)[49].

C. INPEX: In July 2022, INPEX reached a basic agreement with the Northern Territory Government to promote the development of a CCUS hub in the MASDP area as the

[37] https://middlearmprecinct.nt.gov.au/about-the-precinct
[38] https://www.sydney.au.emb-japan.go.jp/files/100183508.pdf p.9
[39] Same as above
[40] Same as above
[41] Same as above
[42] https://www.sydney.au.emb-japan.go.jp/files/100183508.pdf p.8
[43] Same as above
[44] Same as above
[45] Same as above
[46] https://www.jbic.go.jp/ja/information/press/press-2023/press_00169.html
[47] https://www.jogmec.go.jp/news/release/news_10_00192.html
[48] Same as above
[49] https://www.meti.go.jp/press/2024/08/20240821001/20240821001-5-1.pdf p.3

operator.[50]. They are also considering transporting CO2 from Japan to Australia for processing through the Bonaparte CCUS project[51].

D. Osaka Gas: A co-developer of Desert Bloom Hydrogen, a green hydrogen production project in the Northern Territory[52].The project site is located in the outback region of the Northern Territory and is connected to Darwin Port via a pipeline[53]. It is unclear whether this project will be included in the MASDP framework, but it seems to be related.
E. INPEX andChubu Electric Power: Signed an agreement to conduct a joint study to assess the feasibility of building a CCS value chain from Nagoya Port to the Bonaparte Basin in October 2024[54]. It is unclear whether this project will be included in the MASDP framework, but it seems to be related.
F. Toho Gas, Sumitomo Corporation and Kawasaki Kisen: In September 2023, they signed an MoU with Australian company Woodside to investigate the feasibility of building a system to capture and accumulate CO2 emissions from various industries and companies in the central region of Japan, liquefy them, transport them to Australia, and store them[55]. This MoU falls under the framework of AZEC[56]. It is unclear whether this project will be included in the MASDP framework, but it seems to be related.
G. Sumitomo Corporation, JFE Steel, Sumitomo Osaka Cement and Kawasaki Kisen: Signed an MoU with Woodside to conduct a feasibility study to realize the "Setouchi-Shikoku CO2 Hub Concept" in December 2023[57]. This matter falls under the MoU signed under the framework of AZEC[58]. It is unclear whether this project will be included in the MASDP framework, but it seems to be related.
H. Sumitomo Corporation: Signed a strategic alliance with Tivan to promote the development and financing of the Speer Project to supply vanadium oxide to MASDP in June 2024[59.]
I. Others: There is no available information other than those already under construction or in operation including projects by JERA (Investor in the Darwin LNG project, Bayu-Undan gas field project, Ichthys LNG project, and the Barossa gas field development project) and Tokyo Gas (Investor in the Darwin LNG project and Bayu Undan gas field project). .

2. Main background

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[50] https://www.inpex.com/news/news/assets/pdf/20220721.pdf
[51] https://www.nikkei.com/article/DGXZQOCD045EP0U5A300C2000000/
[52] https://www.osakagas.co.jp/company/press/pr2022/1305853_49634.html
[53] https://www.aqua-aerem.com/desert-bloom-hydrogen
[54] https://www.chuden.co.jp/english/corporate/releases/pressreleases/1214743_5163.html
[55] https://www.sumitomocorp.com/en/easia/news/topics/2023/group/20230907_2
[56] https://www.meti.go.jp/policy/energy_environment/global_warming/azec/1st_leaders_meeting/1st_azec_lm_mou_abstract_jp.pdf p.5
[57] https://www.sumitomocorp.com/ja/jp/news/topics/2023/group/20231218_1
[58] https://www.meti.go.jp/policy/energy_environment/global_warming/azec/1st_leaders_meeting/1st_azec_lm_mou_abstract_jp.pdf p.6
[59] https://invest.nt.gov.au/news-and-insights/Middle_Arm_Major_Deal

February 2021	The Middle Arm development proposal was made as well as "National Infrastructure Priority List" as Stage 1 of the project by Infrastructure Australia[6061.]
2022	The Northern Territory Government invested 27 million AUD in environmental studies, planning, and project development for the Middle Arm project[62] (2022~2023).
March 2022	The Federal Government and the Northern Territory Government signed an agreement to conduct a Strategic Environmental Assessment (SEA) for the Middle Arm project[63].
March 7, 2022	The Northern Territory Government's referral form for the Environmental Impact Statement (EIS) of the MASDP plan, to conduct SEA[64], was accepted by the Northern Territory Environment Protection Authority (NTEPA)[65].
March 31, 2022	The Northern Territory Government and the Federal Minister for the Environment signed an agreement regarding the MASDP program and EIS[66].
September 29, 2022	The Northern Territory Environment Protection Authority (NTEPA) issued the final Terms of Reference (ToR) for the Northern Territory Government's SEA[67].
February 2023	The Northern Territory Government granted Tivan exclusive use rights to a portion of land (South Mining Lease 1817, Hundred Ayers) as part of the MASDP[68].
June 9, 2023	The Northern Territory Government granted Tamboran Resources exclusive use rights to 170 hectares of land within the MASDP[69].
August 2023	The Northern Territory Government granted Tivan a second exclusive

[60] https://middlearmprecinct.nt.gov.au/about-the-precinct
[61] https://www.infrastructureaustralia.gov.au/map/common-user-infrastructure-middle-arm-precinct
[62] https://middlearmprecinct.nt.gov.au/about-the-precinct
[63] https://www.dcceew.gov.au/environment/epbc/strategic-assessments/middle-arm
[64] Refers to environmental impact assessment targeting policies, plans, and programs at a stage higher than the project implementation stage, where traditional environmental assessments (project assessments) are conducted.
http://assess.env.go.jp/files/4_kentou/4-2_training/h21/h21_tanaka_summary.pdf
[65]
https://ntepa.nt.gov.au/your-business/public-registers/environmental-impact-assessments-register/assessments-in-progress-register/middle-arm-sustainable-development-precinct
[66]
https://www.dcceew.gov.au/sites/default/files/documents/tor-middle-arm-sustainable-development-precinct.pdf
[67] https://middlearmprecinct.nt.gov.au/stay-informed/strategic-assessment
[68] https://tivan.com.au/wp-content/uploads/2025/01/Tivan-Secures-One-Year-Extension.pdf p.1
[69]
https://ntlng.com/wp-content/uploads/2023/09/230609-Tamboran-Granted-Middle-Arm-Acreage-for-LNG-Development.docx.pdf

	use right to the Hundred Ayers District 1817 South Mining Lease[70].
September 5, 2023	The Senate referred an inquiry into the Middle Arm Industrial Precinct to the Senate Environment and Communications References Committee[71].
October 4, 2023	Regarding federal ToR on SEA, the final decision was agreed by the Federal Minister of the Environment[72].
October 31, 2023	INPEX submitted documents to the Middle Arm Sustainable Development Precinct Senate Investigation Committee stating that it will support the establishment of a CCS hub at MASDP[73]. Tamboran Resources submitted comments on MASDP investigation to the Senate Standing Committee on Environment and Communications[74]
February 15, 2024	JBIC signed an MoU with the Northern Territory Government.[75].
February 27, 2024	Infrastructure Australia rejected the business case for the MASDP[76].
March 1, 2024	The Northern Territory Government has granted Tivan the exclusive use rights to the Hundred Ayers District 1817 South Mining Lease for the third time[77]
July 17, 2024	JOGMEC signed an MoU with the Northern Territory Government in the energy and metals sectors[78].
End of July 2024	The Northern Territory Government and Vopak signed an MoU to develop a shared storage hub, including a CO2 import terminal, in the Middle Arm region[79].

[70] https://tivan.com.au/wp-content/uploads/2025/01/Tivan-Secures-One-Year-Extension.pdf p.1

[71] https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Environment_and_Communications/MiddleArm

[72] https://middlearmprecinct.nt.gov.au/stay-informed/strategic-assessment

[73] https://www.inpex.com.au/media/xrqfeqem/231031b-middle-arm-sustainable-development-precinct-inpex-submission.pdf

[74] https://ntlng.com/wp-content/uploads/2023/11/Tamboran-Resources_Middle-Arm-Inquiry_Senate-Ctee-Submission_FINAL.pdf

[75] https://www.jbic.go.jp/ja/information/press/press-2023/press_00169.html

[76] https://www.abc.net.au/news/2024-11-11/nt-foi-documents-show-middle-arm-project-faces-delays/104585662

[77] https://tivan.com.au/wp-content/uploads/2025/01/Tivan-Secures-One-Year-Extension.pdf p.1

[78] https://www.jogmec.go.jp/news/release/news_10_00192.html

[79] https://invest.nt.gov.au/news-and-insights/vopak-sign-mou-for-co2-hub

August, 2024	The Senate Inquiry report was published[80].
August 2, 2024	TEH2 commenced local design and engineering work for the Darwin Hydrogen Hub project[81].

3. Future schedule

The environmental approval process under the Environmental Protection Act (EP Act) has begun[82]. NTEPA and the federal government are currently assessing the MASDP plan[83]. The next process is the creation and approval of SEA and EIS documents[84]. The Northern Territory Department of Infrastructure, Planning and Logistics (DIPL) will release the EIS to the public as soon as it is prepared and invite public input schedule[85]. In 2026, each entity will prepare an application for approval notification related to construction and operation, and infrastructure construction will begin[86]. The approval notice will also be made publicly available, and public feedback will be invited[87]. In November 2024, NTEPA extended its deadline for the Northern Territory Government to submit an environment impact statement proposal by two years, from October 2024 to October 2026[88].

4. Main issues

4-1. Misalignment with the 1.5-degree goal of the Paris Agreement

Hydraulic fracturing in the Beetaloo Sub-basin will emit up to 89 million tonnes of CO2 emissions annually, potentially increasing Australia's total emissions by as much as 22% each year[89].The IEA's Net Zero Roadmap: A Global Pathway to Keep the 1.5 °C Goal in Reach states that there is no room for new fossil fuel extraction projects to achieve net zero by 2050[90]. Therefore, the MASDP, which includes the development of an LNG project sourcing gas from the Beetaloo Sub-basin, is not aligned with the 1.5°C target of the Paris Agreement.

4-2. Health problems caused by harmful substances[91]

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80 https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Environment_and_Communications/MiddleArm/Report

81 https://darwinh2hub.au/wp-content/uploads/2024/08/MEDIA-RELEASE_TEH2-2-August.pdf

82 https://ntepa.nt.gov.au/__data/assets/pdf_file/0009/1092465/masdp-referral-report.pdf p.x

83 https://ntepa.nt.gov.au/your-business/public-registers/environmental-impact-assessments-register/assessments-in-progress-register/middle-arm-sustainable-development-precinct

84 https://ntepa.nt.gov.au/__data/assets/pdf_file/0009/1092465/masdp-referral-report.pdf p.x

85 https://www.dcceew.gov.au/environment/epbc/strategic-assessments/middle-arm

86 https://middlearmprecinct.nt.gov.au/about-the-precinct

87 https://middlearmprecinct.nt.gov.au/stay-informed/frequently-asked-questions#The-Middle-Arm-Sustainable-Development-Precinct

88 https://www.abc.net.au/news/2024-11-11/nt-foi-documents-show-middle-arm-project-faces-delays/104585662

89 https://www.acf.org.au/middle-arm-industrial-precinct-a-climate-disaster-in-the-making

90 https://www.iea.org/reports/net-zero-roadmap-a-global-pathway-to-keep-the-15-0c-goal-in-reach

91 https://www.un.org/sites/un2.un.org/files/eom_-_08_sep_2023_-_final_.pdf p.8

Environmental scientist Michael D. Petroni has pointed out that MASDP could increase regional emissions of fine particulate matter (PM) by 513%[92], in addition to releasing carbon monoxide (CO), nitrogen oxides (NOx), PM10, sulfur dioxide (SO_2), and volatile organic compounds (VOCs)[93]. Based on research from the U.S. Environmental Protection Agency[949596], he states that human exposure to PM2.5, NOx, SO2, etc. is associated with increased risk of respiratory and cardiovascular symptoms and increased mortality[97].

Mr. Petroni also analyzed that production facilities for LNG, GTL, ammonia, methanol, ethylene, etc. within MASDP emit formaldehyde, acetaldehyde, polycyclic aromatic compounds (PACs), and other hazardous substances[98]. He points out that it quadruples the local industry-derived cancer risk[99].

Hydraulic fracturing in the Beetaloo Basin will not only have a negative impact on local communities and ecosystems, but will also contaminate the landscape with toxic water, UN Special Rapporteur Marcos A. Orellana said[100]. On August 8, 2023, 45 pediatricians in the Northern Territory took action in front of the state legislature to protest the Middle Arm Project, which includes Beetaloo, due to concerns about health risks caused by hydraulic fracturing in the Beetaloo Basin[101].

4-3. Lack of consent of Indigenous Peoples

Representatives of the Larrakia people, who reside around Darwin Harbour[102], have expressed concern that the Middle Arm development could cause irreparable damage to nearby valuable cultural heritage—such as rock art, history, Dreaming stories, and ceremonial sites—as well as to the harbour and marine life. They have also pointed out that there has been a lack of proper consultation with Indigenous communities[103]. Furthermore, the development of gas fields using hydraulic fracturing in the Beetaloo Basin has raised concerns from the Karranjini tribe and other Indigenous Peoples living near the Beetaloo Basin, in areas such as Katherine and Barkly. At a public consultation held in 2017, the community expressed concerns about the impact of the development of the Beetaloo Basin gas field using hydraulic fracturing on water resources and land, the impact on culture, health and welfare, and the impact on climate change[104], has been protesting by sending letters and attending shareholder meetings of affiliated

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[92] https://ntepa.nt.gov.au/__data/assets/pdf_file/0009/1124397/environment-centre-nt.pdf p.6
[93] https://ntepa.nt.gov.au/__data/assets/pdf_file/0009/1124397/environment-centre-nt.pdf p.54
[94] https://www.epa.gov/isa/integrated-science-assessment-isa-oxides-nitrogen-health-criteria
[95] https://cfpub.epa.gov/ncea/isa/recordisplay.cfm?deid=338596
[96] https://www.epa.gov/isa/integrated-science-assessment-isa-particulate-matter
[97] https://ntepa.nt.gov.au/__data/assets/pdf_file/0009/1124397/environment-centre-nt.pdf p.58
[98] https://ntepa.nt.gov.au/__data/assets/pdf_file/0009/1124397/environment-centre-nt.pdf p.56
[99] https://ntepa.nt.gov.au/__data/assets/pdf_file/0009/1124397/environment-centre-nt.pdf p.6
[100] https://www.un.org/sites/un2.un.org/files/eom_-_08_sep_2023_-_final_.pdf pp.8-9
[101] https://www.acf.org.au/do-no-harm-middle-arm
[102] https://larrakia.com/about/the-larrakia-people/
[103] https://www.acf.org.au/middle-arm-industrial-precinct-a-climate-disaster-in-the-making
[104] https://frackinginquiry.nt.gov.au/__data/assets/pdf_file/0006/494286/Complete-Final-Report_Web.pdf p.22

companies[105][106]. As of 2018, it has been pointed out that the provision of information to Indigenous Peoples is inadequate[107]. As of June 2024, Empire Energy, the Australian company responsible for hydraulic fracturing in the Beetaloo Basin, discovered ancient Aboriginal stone tools near an exploration well but failed to report them to local heritage authorities[108]. As of March 2025, Empire Energy and Tamboran Resources failed to notify First Nations of leaks of drilling fluids and toxic fluids from a hydraulic fracturing pilot project in the Beetaloo Basin[109]. Concerns on these cases have been expressed by Indigenous Peoples.

4-4. Economic risks of CCS/CCUS/hydrogen/ammonia business

The Institute for Energy Economics and Financial Analysis (IEEFA) has found that no CCS project in the world has ever met its CO2 capture targets[110], which shows that CCS technology and performance do not meet investors' expectations. Since the blue hydrogen planned for production under the MASDP is to be produced using natural gas and CCUS technology[111], hydrogen production, CCUS, and LNG production will become inseparable businesses. IEEFA indicates that clean blue hydrogen cannot be produced if CCUS CO2 capture technology is insufficient[112]. Since ammonia is also produced with CCUS technology[113], as well as blue hydrogen, blue ammonia cannot be produced cleanly if CCUS technology is insufficient.

Geoscience Australia, the Australian federal government's research agency, has pointed out in a report that the Northern Territory is not suitable for CCS hydrogen production[114]. IEEFA points out that CCS/CCUS within MASDP has low competitiveness because investment is concentrated in other regions[115]. In fact, Santos is facing concerns from investors with its Moomba CCS project and is unable to obtain funding for the project[116].

For inquiries regarding this matter:

Yuki Tanabe / Ayako Honkawa

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105 https://www.marketforces.org.au/traditional-owners-from-the-nt-travel-to-sydney-to-attend-the-origin-agm/

106 https://www.marketforces.org.au/wp-content/uploads/2024/07/Open-letter-to-APA.pdf

107 https://www.marketforces.org.au/traditional-owners-from-the-nt-travel-to-sydney-to-attend-the-origin-agm/

108 https://www.abc.net.au/news/2024-06-05/nt-mining-company-failed-to-report-ancient-aboriginal-artefacts-/103934550

109 https://www.nurrdalinji.org.au/more_beetaloo_basin_fracking_breaches_traditional_owners_comment

110 https://ieefa.org/ccs

111 https://www.iwatani.co.jp/jpn/consumer/hydrogen/about/method/

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