

24 October 2023

Senate Environment and Communications Legislation Committee Australian Parliament

SUBMISSION - Senate Inquiry into the proposed Middle Arm Industrial Precinct

The Central Australian Frack Free Alliance (CAFFA) welcomes the opportunity to make a submission detailing our concerns about the proposed Middle Arm Industrial Precinct.

Acknowledgement of Country:

The land where the Central Australian Frack Free Alliance (CAFFA) is based is the unceded sovereign Country of the (Central) Arrente people. We acknowledge the Arrente people as the Traditional Owners and Custodians of Mparntwe/Alice Springs and ongoing resilience and resistance in the face of colonialism.

We stand with Traditional Owners and Custodians in the Northern Territory and beyond who seek to protect their Country and water from fracking. We support the self-determination of First Nations people everywhere.

About us:

The Central Australian Frack Free Alliance (CAFFA) is a grassroots community group located in Mparntwe/ Alice Springs organising to protect the NT's water, health, communities and country from the harms of unconventional gas extraction. We have been active over the last nine years in raising awareness within the Central Australian community about the risks posed by this poorly regulated and inherently dangerous industry. The Central Australian Frack Free Alliance opposes fracking and all new fossil fuel projects in the Northern Territory.

Our work has seen CAFFA engaging with the community through market stalls, letterboxing, community surveying and other social events. In taking action, CAFFA stands alongside Traditional Custodians who are fighting to protect water, country and culture. We take our mandate from the people of Alice Springs: 80% stated they do not want fracking in a December 2022 survey, with just 5% in favour.

To build community capacity for opposition to new fossil fuel extraction, CAFFA undertakes a range of activities including:

- Awareness raising: Raising awareness of the risks of fracking through education, media and social media engagement.
- Research: Undertaking qualitative and quantitative research to capture community perspectives and concerns.
- Resource development: community education on the risks of fracking, fossil fuels and the climate crisis.
- Community engagement: Organising and participating in community events and contributing to local life in Mparntwe/Alice Springs.
- Alliance building and solidarity: Establishing new partnerships, contributing to relationships
 with other groups and networking in local, regional and national contexts to achieve our aims
 and stand in solidarity with others.
- Policy advocacy: Supporting changes to legislation and policy that promote First Nations sovereignty, oppose new fossil fuel extraction, and protect the environment.
- Direct action: Engaging in direct action in order to oppose all new gas/fossil fuel projects in the Northern Territory, guided by the principles outlined below and our Code of Conduct for Direct Action.

Our concerns:

CAFFA is strongly opposed to the construction of the Middle Arm industrial hub due to the range of unacceptable climate, biodiversity, health, social and cultural heritage impacts that will be both caused and enabled by the hub.

These impacts include, but are not limited to, the following:

- The acceleration of climate change in the Northern Territory, by enabling the processing and export of fracked gas from the Beetaloo Basin via a huge LNG processing and export facility, the construction of toxic petrochemicals factories utilising that gas, as well as the greenwashing of Santos' toxic Barossa gas project – and other proposed offshore fossil fuel projects – via a carbon capture and storage facility;
- The clearing of 1500 hectares of precious savanna, rainforest and mangrove vegetation a
 biodiversity hotspot located within a site of international conservation significance to enable
 the dredging of the harbour, up to five industrial-scale wharves and jetties, and the
 construction of a range of factories;
- A significant increase in fine particulate air pollution in the Darwin region, potentially increasing cancer risk and adversely impacting the health of Darwin and Palmerston residents, noting that these facilities will be located less than three kilometres from the outer suburbs of Palmerston;
- The endangerment of a precious cultural landscape maintained for many millennia by Larrakia Traditional Owners, including impacting the last remaining petroglyphs in the entire Darwin region.

Middle Arm is a key enabler of fossil fuel expansion

It is now 100% clear that the primary function of the Middle Arm Industrial Hub is to enable an enormous and catastrophic expansion of the gas industry. If built, the Middle Arm Industrial Hub

would facilitate some of Australia's largest gas projects, becoming a demand source for gas and other hydrocarbons from the following gas fields:

- The Beetaloo Basin, which could increase Australia's emissions by up to 22%, generating 1.4 billion tonnes of greenhouse gas emissions and jeopardising Australia's commitments under the Paris Agreement. The NTG-appointed independent overseer, Dr David Ritchie, says "there has been no progress on the crux" of the crucial recommendation 9.8 that Territory and federal governments seek to ensure there is no net increase to Australia's greenhouse gas emissions as a result of fracking the Beetaloo Basin;
- The obscenely polluting Barossa gas field which is proposed to "backfill" the Darwin LNG plant. The Barossa development is associated with an extraordinarily high level of greenhouse gas (GHG) emissions, given the gas contains 18% carbon dioxide by volume. This is a higher level of CO2 by volume than any other gas resource currently made into LNG. Total emissions from producing 3.7 million tonnes of LNG per year from the Barossa Development will result in 5.4 Mt of CO2 per year, or 15.4 Mt per year including scope 3 GHG emissions, which is extreme by any standard and effectively makes the Barossa project "a CO2 emissions factory with an LNG by-product";
- Inpex's proposed expansion plans at Middle Arm, including "blue" (i.e fossil gas produced)
 hydrogen and ammonia, and its recent purchase of the Cash, Maple proposed gasfield which
 could potentially back-fill its Darwin Ichthys facility;
- Eni's proposed exploitation of the Verus field (formerly known as Evans Shoal). Its 27% CO2 reservoir is a record high for Australian gas fields.

These projects are contrary to recommendations from international bodies such as the IPCC and the International Energy Agency that Immediately if the world is to stay within safe limits of global heating.. These developments, enabled by the Middle Arm Industrial Hub, will contribute to the unsuitability of Darwin, and potentially much of the Northern Territory, for ongoing human inhabitation. A study published in the journal Nature Sustainability found that without drastic action to reduce greenhouse gas emissions, Darwin will fall outside the "human climate niche" of average annual temperatures below 29 degrees celsius, experience 265 days/ year above 35 degrees celsius, and "fatal wet bulb events – where a combination of raw heat and humidity overwhelm the human body's ability to cool itself – will force populations to flee to cooler climates".

The Middle Arm industrial precinct could increase the Northern Territory's emissions by 15 million tonnes per annum (or 75%), and could be the single highest greenhouse gas emitter in the NT. When indirect, cumulative and life cycle emissions are included (including the opening up of the Beetaloo, Barossa and Verus gas fields), the carbon footprint of Middle Arm is likely to be indefensibly high.

The <u>UN Special Rapporteur on Toxics and Human Rights recently singled out the Middle Arm Industrial Hub as threatening to turn the Northern Territory into a sacrifice zone for the fossil fuel industry, warning the project on Darwin Harbour will increase the risk of heart disease, asthma and cancer.</u>

Recommendation:

A thorough climate risk assessment must be undertaken, including:

- (a) An assessment of the direct, indirect and cumulative greenhouse gas emissions of the Middle Arm Precinct (including life cycle emissions associated with the opening up of multiple new gas fields connected to the hub), as well as the feasibility of any proposals to mitigate or offset those emissions; (b) An assessment of the risks to climate posed by these emissions, including more intense bushfires and longer fire season, storm surges, coastal flooding, inland flooding, marine heat waves and other extreme weather events, and also systemic breakdowns and overwhelming of infrastructure networks and critical services, including electricity, water supply, internet, health care and emergency services, food insecurity and breakdown of food systems, and adverse impacts on national and global economies, financial markets, industries, business and professions and living costs;
- (c) An assessment of Australia's ability to comply with its commitments made under the United Nations Paris Agreement on Climate Change should the Precinct go ahead;
- (d) An assessment of transition risks associated with the actions of other nations in moving away from the use and extraction of fossil fuels, and seeking to reduce greenhouse gas emissions in accordance with the Paris Agreement. Alternatively, an assessment of the risks that the transition will result in a reduction in demand for fossil fuels, including gas, both globally and in Australia, in the future; and the imposition of future trade measures by importing countries on those who fail to meet their obligations under the Paris Agreement.

Greenwashing by the NT government

The NT government has embarked on an extensive greenwashing campaign to mislead Territorians and Australians on the nature of the Middle Arm Industrial Hub, re-branding the hub a "sustainable development precinct".

These bad faith claims to sustainability are thoroughly undermined by the following evidence:

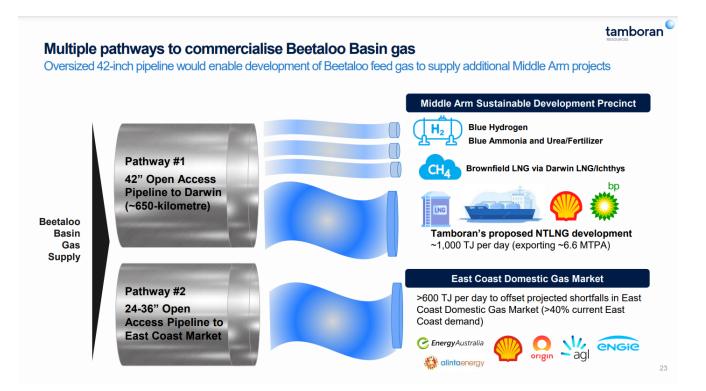
- In November 2018, the NT and Commonwealth governments signed an MOU recommending the creation of a "Middle Arm Industrial Hub" which aims to "establish[...] the NT as a world class gas production, manufacturing and services hub", including by "establishing gas based manufacturing and services". The parties agree to "delivery of infrastructure and programs in support of the Northern Territory Gas Industry and gas leveraged industries";
- In November 2020, the Territory Economic Reconstruction Commission, co-chaired by former
 Dow Chemicals boss and SaudiAramco director Andrew Liveris, <u>released its final report</u>
 recommending investment in "onshore and offshore gas developments and manufacturing,
 including low emissions petrochemicals", mentioning petrochemicals 15 times in the report;
- In November 2020, a <u>Deloitte report into the viability of fracking in the Beetaloo Basin</u> states that "[s]everal downstream industries are being considered for Darwin (Middle Arm) that could leverage off large volumes of product coming from the Beetaloo Sub-basin", including a methanol plant, an ethane cracker, and an ammonia plant;
- The Northern Territory Government's initial submission to Infrastructure Australia for funding for the precinct in 2020, released under Freedom of Information laws, revealed the fundamental objective of the development was to establish a "new gas demand centre" and expand the NT gas industry, including by opening up the Beetaloo Basin for fracking. These documents also identified opportunities for petrochemical production as part of the project, noting that "the potential recovery of natural gas liquids from the onshore Beetaloo Sub Basin project means there is also an opportunity for future production of ethane-based products such as plastics, paints, polymers and rubbers as well as the production of liquid fuels to help address Australia's energy security";

- <u>Lobbying firm Dragoman was engaged by the NT Government</u> between September 2021 and April 2022 to "influence" the Commonwealth government and Opposition to support a gas-based manufacturing hub on Darwin Harbour, primarily LNG processing/export and petrochemicals production;
- An <u>EIS documentation submitted to the NTEPA</u> in January 2022, the Middle Arm Sustainable Development Program (MASDP), the following list of industries are included as part of the assessment: "Liquefied Natural Gas (LNG), Ammonia and derivatives, Urea and derivatives, Ethylene and derivatives, Methanol and derivatives, Gas to liquids (GTL), Hydrogen, Carbon capture and storage, Minerals processing, Advanced manufacturing, Support service industries". These industries remain in the scope of the strategic environmental assessment;
- In the <u>2021-2022 Investment Territory Report</u>, the Territory Investment Commissioner and Major Projects Commissioner advertise that the MASDP will include "gas-based processing and advanced manufacturing".
- Infrastructure Minister Catherine King was briefed as the incoming Minister in May 2022 by
 her with conceptual drawings showing the infrastructure to be funded by the Commonwealth –
 four of five proposed wharves are labelled for shipping of LNG, methanol, ethylene, ammonia
 and "clean petroleum". The remaining wharf is labelled "hydrogen", and could presumably be
 used for either blue (gas-based) or green hydrogen;
- Minister Plibersek was briefed in July 2022 that Middle Arm was a "key enabler" for the export
 of Beetaloo gas from Middle Arm, as well as to add to the feasibility of proposed offshore
 carbon capture and storage associated with Santos Barossa project;
- On Monday 10th October 2022, the <u>CEO of fracking company Tamboran told a Senate Inquiry</u> that "gas that will be extracted from the Beetaloo will be necessary for a full range of industrial purposes at the Middle Arm Sustainable Development Precinct, near Darwin. This includes ammonia and urea production for fertiliser, hydrogen production, energy-intensive manufacturing, power generation and LNG export".
- <u>This video</u> that was presented to the Commonwealth Government by the Northern Territory Government shows a simulation of proposed infrastructure at Middle Arm, lists funding, and shows proponents at Middle Arm for the first time. The video:
 - Shows Tamboran as a proponent at Middle Arm, providing a direct link between Middle Arm and the Beetaloo Basin for the first time.
 - Shows a petrochemical company called Allied Methanol as a proponent at Middle Arm;
 - Shows Santos and Inpex as responsible for the carbon capture and storage facility proposed at Middle Arm.
 - Shows 5 huge jetties/wharves extending into the Harbour four of which are intended for shipping of gas-based products including LNG (liquefied natural gas), methanol, ethylene, ammonia and "clean petroleum";
- On June 9, 2023 Beetaloo <u>fracking company Tamboran Resources</u> was announced as an anchor tenant at the site, announcing that it would construct a 20 million tonne per annum LNG processing and export facility, only 3 kilometres from the outer suburbs of Darwin. The Australia Institute estimates this would generate 81 million tonnes of life cycle emissions annually, <u>equivalent to the annual emissions of 12 Australian coal-fired power stations</u>.

Recommendation:

• Federal funding must be subject to a condition that it not be used to directly or indirectly fund gas-related industries at the Middle Arm Industrial Hub (including LNG processing, petrochemical production, blue hydrogen and carbon capture and storage). This includes the

funding of infrastructure to enable supply of renewable energy to gas-based industries at Middle Arm.

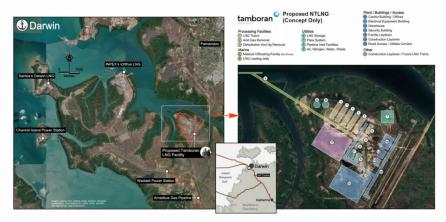


tamboran [©]

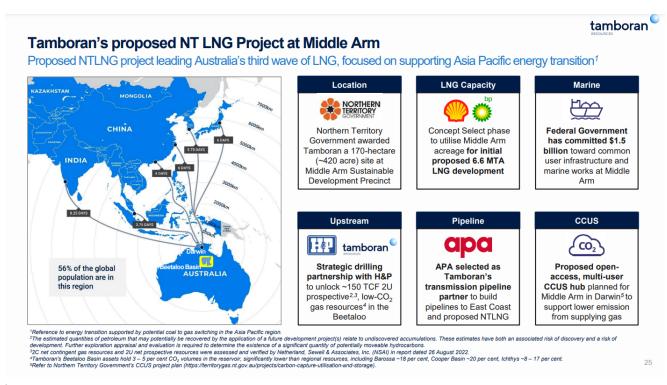
Site for proposed NTLNG site at Middle Arm Sustainable District awarded to Tamboran¹

Targeting first fully integrated LNG development in onshore Northern Australia

- Northern Territory Government awarded Tamboran a 170-hectare (~420 acre) site at Middle Arm Sustainable Development Precinct (MASDP), specifically at the Wirraway North site, to be named Northern Territory LNG (NTLNG).
- The Australian Federal Government contributed \$1.5 billion towards the development of the MASDP2 which will provide significant infrastructure to support Tamboran's NTLNG (road, rail, electricity, water, deep-water port, module offload facilities, jetty, common user marine berths).



¹Refer to Northern Territory Government Media Release (09 June 2023) - <u>Link.</u> ²Refer to Middle Arm Development Precinct website (<u>The Precinct | Middle Arm Su</u>



¹Tamboran Beetaloo Basin site tour booklet, demonstrating clearly that the company stands to benefit from the Commonwealth's \$1.5 billion Middle Arm subsidy.

Carbon Capture and Storage does not work and is a fig leaf for fossil fuel expansion

The Middle Arm Industrial Hub's highly dubious claims to sustainability rest largely on the success of a planned carbon capture and storage (CCS) facility on the site. This would comprise a multi-user CCS hub, where carbon dioxide streams from different sources would be aggregated, and transported via pipeline to offshore sequestration sites (initially Santos' depleted Bayu Undan field, and then the Petrel sub-basin, where Inpex is undertaking exploration to ascertain the suitability of these geological formations for this purpose).

The CCS facility is key to the gas industry's expansion plans in the Northern Territory (onshore and offshore) and aims to provide social licence for the expansion and prolongment of the fossil gas industry.

Possible users of this facility include:

- Santos' offshore Barossa project (with 18% CO2 content), with CO2 piped to the Bayu Undan field in Timor Leste and injected into the depleted Bayu Undan field;
- Eni's proposed offshore Verus gas field (with 27% CO2 content);
- Inpex's Ichthys field, and potentially its newly acquired Cash and Maple fields;
- Beetaloo fracking company Tamboran's proposed LNG processing facility at Middle Arm;
- Proposed petrochemicals, blue hydrogen, ammonia and other CO2-intensive industries at Middle Arm:

¹ Source: Tamboran Beetaloo Basin site tour booklet. Accessed online at https://www.listcorp.com/asx/tbn/tamboran-resources-limited/news/beetaloo-basin-site-tour-presentation-29234 43.html

The countries of Japan, Singapore and South Korea (gas trading partners with Australia), who
propose to send CO2 on ships to Middle Arm, due to a lack of CCS storage locations in those
countries.

Clearly the CCS facility proposed for Middle Arm is intended to enable fossil fuel expansion, including the opening-up of some of Australia's dirtiest gas fields. This will radically increase emissions at a time when the world needs to decarbonise rapidly. A negligible portion of the emissions enabled by the CCS project at Middle Arm will be captured and stored. CCS does not remove other greenhouse gasses, such as methane, and every CCS project to date has captured significantly less CO2 than projected. Carbon capture and storage is not a climate solution; it is a bad mythology with a decades-long history of failure. It prolongs dependence on fossil fuels and delays their replacement with renewable alternatives.

Carbon capture and storage infrastructure presents serious health, safety, and environmental risks. These risks are especially serious given that the Middle Arm Industrial Hub will be sited just three kilometres from the population centre of Palmerston. Pipelines can leak or rupture; compressed CO2 is highly hazardous upon release and can result in the asphyxiation of humans and animals. In 2020, a <u>sudden leak</u> from a carbon pipeline in Sataria, Mississippi, led to dozens of residents collapsing into seizures in a scene described as akin to <u>zombie apocalypse</u>. The town's 200 residents had to be evacuated, with 45 hospitalised. As first responders arrived on the scene, their cars shut off because there was so little oxygen in the air. Underground storage poses additional risks, such as potential leakage, contamination of drinking water, and stimulation of seismic activity.

Carbon capture and storage technology is incredibly energy intensive and requires burning extra fossil fuels to produce this energy; this means that smokestacks fitted with carbon capture technology emit greater volumes of other harmful emissions - i.e. ground level ozone, ultra-fine particles, formaldehyde, benzine, than smokestacks without carbon capture technology. These emissions are known to cause heart attacks and strokes, shorten lifespans, cause childhood asthma and preterm birth. Palmerston residents just three kilometres from a Middle Arm CCS facility will be exposed to these health risks.

Recommendation:

• Federal funding must be subject to a condition that it not be used to directly or indirectly fund gas-related industries at the Middle Arm Industrial Hub (including capture and storage).

Other potential detrimental health impacts of the Middle Arm Industrial Hub

It is extremely disconcerting that no health impact assessment has been undertaken as part of the Environmental Impact Assessment for the Middle Arm Industrial Hub. There is widespread community support for such an assessment; doctors and parents from the Northern Territory, and around Australia, have galvanised a grassroots movement opposing the Middle Arm Industrial Hub on the grounds of its health impacts. Over 1200 health professionals from across the nation have signed an open letter opposing Middle Arm and the decision to greenlight fracking in the Beetaloo Basin.

In 2022, the Environment Centre NT commissioned <u>a report by Dr Michael Petroni</u> on the potential environmental and human health impacts of the Middle Arm industrial precinct. Dr Michael Petroni is

an environmental scientist with expertise in environmental health and risk assessment, with a focus on petrochemical and large manufacturing. He has experience working for the United States Environmental Protection Agency on health risks associated with industrial facilities.

Dr Petroni's modelling suggests an increase in industrial fine particulate emissions by 513%, and a four-fold increase in the industrial cancer hazard. The connections between gas and petrochemical developments and poor health outcomes are well established. Populations living within 5km of petrochemical facilities experience a 30% higher risk of developing leukaemia than those without exposure to petrochemical facilities. The proposed Middle Arm Industrial Precinct is less than three kilometres from populated areas of Palmerston.

Recommendation:

• A robust health impact assessment must occur, including more precise specification of the geographic boundaries of the analysis, a health baseline study, and a health monitoring plan.

Integrity and governance concerns regarding Commonwealth funding

The Albanese Government has committed \$1.5 billion to the Middle Arm precinct. This money was first committed by both the Morrison Government and the Labor Party (in opposition) during the 2022 federal election campaign; described by a senior Territory bureaucrat as "political giving season".

The processes that led to the funding commitment to this project raise important questions about integrity and good governance that require proper scrutiny:

- The Federal funding commitment for Middle Arm circumvented Infrastructure Australia's own Assessment Framework, including the requirement for a business case prior to the funding being committed (Stage 3 of the Infrastructure Australia Assessment Framework). Indeed, the funding appears to have been committed without advice at all from Infrastructure Australia. Infrastructure Australia told the Senate (page 45) that they were not involved in the funding commitment. The funding was initially committed when the project was at Stage 1 of the Infrastructure Australia Assessment Framework. The project by the Northern Territory Government recently progressed to Stage 2. It is noted that Prime Minister Anthony Albanese established the agency in 2008 when he was Infrastructure Minister to take the politics out of infrastructure project selection and funding. Specifically, Minister Albanese said at the time that the government was "replacing neglect, buck-passing and pork-barrelling with long-term planning where governments predict and anticipate infrastructure needs and demands."
- Serious questions have been raised about the economic viability of the project. These have
 not been addressed due to the unusual manner in which the project secured funding. IEEFA
 has analysed the feasibility of the project on the basis of the scant information available
 publicly and concluded that the plan is flawed, and that the business model for Middle Arm is
 not viable.
- The funding promised by the Commonwealth is a fossil fuel subsidy, and will directly fund the
 gas industry. <u>Freedom of information</u> documents demonstrate that the \$1.5 billion in federal
 funding is for dredging the harbour and the construction of up to five jetties and wharves
 labelled for shipping of LNG, methanol, ethylene, ammonia and "clean petroleum". The

- remaining wharf is labelled "hydrogen". Tamboran Resources' <u>ASX disclosures</u> confirm that the federal government has funded \$1.5 billion towards marine infrastructure.
- There is evidence that fracking company Tamboran Resources, which stands to benefit from the Commonwealth subsidy, makes use of secrecy jurisdictions and opaque company structures to avoid paying tax. <u>Tamboran recently announced a move to re-domicile to the known tax secrecy jurisdiction of Delaware</u>. Tamboran's subsidiary, Sweetpea Petroleum, appears to be domiciled in <u>what tax transparency advocacy group Publish What You Pay describes as a modest "yellow brick building" in Wilmington, Delaware</u>, that is reportedly the registered address of ~ 300,000 companies. The company has previously been investigated for contempt of the senate after it refused to front a <u>senate inquiry into fracking in the Beetaloo Basin</u>.
- Documents obtained by the Environment Centre NT revealed that lobbying firm Dragoman, associated with Saudi Aramco director Andrew Liveris, was engaged by the NT Government between September 2021 and April 2022. Dragoman was asked to "influence" the Commonwealth Government and Opposition to support a gas-based manufacturing hub on Darwin Harbour, including LNG export and petrochemicals production. The Guardian article that revealed these links states that "[f]rom the start of the Middle Arm project and its associated gas developments, there have been concerns about the potential for actual or perceived conflicts of interest by decision makers."

Recommendations:

- A business case for the industrial hub must be submitted prior to the allocation of Commonwealth funding.
- Federal funding must be subject to a condition that it not be used to directly or indirectly fund gas-related industries at the Middle Arm Industrial Hub (including LNG processing, petrochemical production, blue hydrogen and carbon capture and storage). This includes the funding of infrastructure to enable supply of renewable energy to gas-based industries at Middle Arm.
- Federal funding must not benefit companies that make use of secrecy jurisdictions and opaque company structures to avoid paying tax.

Undemocratic and opaque environmental approvals process

The Middle Arm Industrial Hub is currently undergoing <u>concurrent strategic environmental</u> <u>assessments</u> under both the Environment Protection Act (NT) and the Environment Protection and Biodiversity Conservation Act (Cth).

The strategic environmental assessments are opaque in the following respects:

- There is a lack of detail in the referral about the industries that are proposed to be constructed at Middle Arm, making meaningful engagement with the referral and draft terms of reference extremely difficult, if not impossible;
- No development scenarios have been disclosed, nor a draft development plan released, beyond a laundry list of "classes of actions" in the referral documentation.
- Methodologies for the calculation of baselines, and impact assessments, for key domains have not been released nor public comment sought on these methods (including the air shed

- model, marine impacts, health impacts, climate impacts, biodiversity impacts and offsets methodology);
- The strategic assessment area has not been clearly defined and justified.

CAFFA is concerned by reports from the Environment Centre NT that there is next to no knowledge in Darwin and Palmerston communities about the proposed developments at Middle Arm or their impacts, and that this lack of knowledge is exacerbated by the absence of meaningful detail in environmental assessment documentation. This has meant that the public has struggled to engage with the strategic environmental assessment process. It is unacceptable that detail about what is proposed (including potential development scenarios) may not be available to the public until the environmental impact statement is publicly released, leaving only a few weeks for the public to become informed about the project and provide meaningful comment on it. The implications of this lack of information are extremely serious.

Recommendations:

- Given the potentially catastrophic impacts of the Proposal, the flaws in the strategic environmental assessment to date, and the minimal knowledge base in the community about the Middle Arm Industrial Hub's impacts, it is crucial that the project be subjected to the highest level of environmental assessment under both the Environment Protection Act and EPBC Act: a public inquiry.
- Gas-related industries must be removed from the scope of the environmental impact assessment (including LNG processing, petrochemical production, blue hydrogen and carbon capture and storage).
- The release of the environmental impact statement for public exhibition must be delayed until the following actions are taken:
- (a) A Larrakia-led and designed cultural heritage and cultural values assessment is completed, endorsed by the Larrakia people, and incorporated into the EIS;
- (b) The offset methodology for the Middle Arm Industrial Hub is peer-reviewed, released to the public for comment, and an offset plan developed in accordance with that methodology is incorporated into the EIS;
- (c) The climate risk methodology is peer-reviewed, released to the public for comment, and a climate risk assessment developed in accordance with that methodology is incorporated into the EIS;
- (d) the marine impacts methodology is peer-reviewed, released to the public for comment, and a marine impacts assessment developed in accordance with that methodology is incorporated into the EIS:
- (d) The health impact assessment methodology is peer-reviewed, and an impact assessment developed in accordance with that methodology is incorporated into the EIS;
- (e) The cumulative impact assessment methodology is peer-reviewed, released to the public for comment.

Conclusion

In addition to the above recommendations addressing the concerns detailed above, CAFFA submits the following recommendations:

- The Federal government must immediately extend the water trigger (an election promise) in the EPBC Act to include shale and tight gas. The Federal Government must also amend the relevant policy guidelines to ensure that Traditional Owner cultural values and knowledge are properly considered in water assessments.
- The free, prior and informed consent of Larrakia Traditional Owners must be obtained for the precinct, whatever the configuration of industries at the site.

Sincerely,

Jorgen Doyle

On behalf of the Central Australian Frack Free Alliance