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Woodside's Burrup Hub gas project is the nation's biggest fossil fuel threat. If approved, it will jeopardise 54 vulnerable species, spew out 6.1 billion tonnes of CO2 and generate 13 times Australia's annual emissions. Our Environment Minister has the power to stop this dangerous project from going ahead and define Labor's legacy on nature.



SUMMARY **SHUT DOWN** THE BURRUP HUB

Woodside's Burrup Hub is Australia's largest proposed fossil fuel project, posing an unparalleled threat to our oceans, wildlife, and climate. Woodside, an oil and gas company renowned for its flimsy environmental and safety record, plans to extract gas from six fields off the coast of Western Australia The project would involve a 900km pipeline through protected environmental areas, and extend the life of existing gas plants until 2070, undermining our clean energy targets.

A disaster in the making

Carbon costs Greenpeace's analysis has revealed that Woodside's Burrup Hub is Australia's biggest climate threat, with the project belching out 6.1 billion tonnes of greenhouse gas emissions over its proposed 50-year lifetime. The scale of this is off the charts —lifetime emissions from the Burrup Hub would amount to more than 13 times Australia's annual emissions from all sources, and more than 73 times New Zealand's annual emissions.² The increase in greenhouse gases will worsen global heating, intensifying extreme weather events and rising sea levels. At a time when the International Energy Agency and the United Nations have called for developed countries to rapidly phase out fossil fuels to keep the world within 1.5 degrees of warming, the Burrup Hub is incompatible with Australia's commitment to climate action.

Nature hazards Drilling for up to 50 gas wells is planned just over 2km from pristine ecosystems such as Scott Reef, home to endangered species like the green sea turtle and pygmy blue whale. Heavy shipping and drilling activities jeopardise whale migration pathways, while gas flaring and lights disrupt turtle nesting. Subsidence is another major concern - where gas extracted from reservoirs causes the seafloor to sink and threatens Sandy Islet, a critical nesting site for sea turtles that

could face ocean inundation. A disaster, such as an oil spill at a project site, could devastate marine ecosystems and coastlines as far as East Timor and Indonesia, causing lasting environmental damage. This comes after the WA Environmental Protection Authority effectively deemed Browse too risky to proceed.³ In August 2024, a preliminary view from the environmental regulator suggested the proposal was "unacceptable" on nature grounds.

Safety risks Woodside has a worrying history of neglect, as the company is responsible for at least six major incidents in the last decade, including an explosion, an oil spill, and a whale calf collision. Woodside repeatedly fails to clean up its waste, leaving massive pieces of rusted, toxic infrastructure to rot in the ocean.





Woodside's toxic, discarded oil tower near Ningaloo Reef and Exmouth Gulf, Western Australia @ Greenpeace



WHAT IS WOODSIDE'S GAS MEGA PROJECT?

Woodside's Burrup Hub is Australia's dirtiest and most polluting fossil fuel proposal, dwarfing all similar projects in scale, environmental risk, and carbon costs. If approved, it will become the largest new fossil fuel project in the Southern Hemisphere.⁴

The Burrup Hub project comprises a plan to drill the Scarborough and Browse gas field and extend the life of a huge gas plant called the North West Shelf LNG Plant, which processes gas for export. In essence, this will add two new gas fields to WA's pristine coastline, exploiting reserves from six untapped fields and drilling up to 80 offshore wells. It's no surprise this project poses a major threat to wildlife and the World Heritage-listed Ningaloo Coast. Drilling is planned just 2km from ecologically sensitive areas, such as Scott Reef, which is home to endangered species such as the green sea turtle and pygmy blue whale. An incident at Browse could also pollute the waters of Argo-Rowley Terrace Marine Park, Mermaid Reef Marine Park, and Rowley Shoals Marine Park. At Scarborough, an accident could pollute Dampier Marine Park, Montebello Marine Park, Gascoyne Marine Park, and Carnarvon Canyon Marine Park.

Both Browse and Scarborough will feed into the controversial North West Shelf (NWS) gas export precinct, which includes facilities like the Karratha Gas Plant and several offshore platforms. If approved, the Burrup Hub will prolong the lifespan of the rapidly deteriorating NWS until 2070. Extending the NWS will will fast track new gas production, locking Australia into production and export for the long haul. Over 80% of the gas extracted from the Burrup Hub is for export purposes.

If Tanya Plibersek approves the Burrup Hub, the projected emissions will be higher than all other proposed fossil fuel projects currently undergoing federal environmental approvals. It will be a monumental setback to Australia's commitment to limiting global warming to 1.5 degrees, undermining the world's progress towards phasing out fossil fuels.



A SLIPPERY SLOPE NN/18/(0)|N|(65%

1. The risk of oil spills and at-sea accidents

Woodside's data reveals how close the Burrup Hub's infrastructure is to critical marine habitats and coral reefs.⁶ A blowout at one of Woodside's gas wells could see Scott Reef and neighbouring Sandy Islet covered in oily pollution, which could impact the surrounding habitats of Rowley Shoals Marine Park, Adele Island, and even reach Indonesian waters. This wouldn't be the first time. In 2016, a 10,500-litre spill occurred at the Cossack field on the North West Shelf, leaking a bathtub's worth of oil into WA waters every day for two months.7 A worst-case scenario well blowout, spill or vessel rupture at the Burrup Hub could pollute the waters of multiple protected marine parks.

CASE STUDY: THE WORST-CASE SCENARIO

Woodside's own modelling suggests the risk of a well blowout is credible. For example, a blowout at the Torosa reservoir could result in 142,154 cubic metres of toxic condensate leaking into the ocean over 77 days.8 This could devastate local communities and industries that depend on healthy reefs and marine life, including tourism and fisheries.

A total of 54 species could be directly impacted if disaster strikes at a Burrup Hub site. Among these are protected birds, sharks, snakes, fish and turtles9 including:

Birds

Australian lesser noddy	Endangered
Abbott's booby	Endangered

- 6. Greenpeace Australia Pacific. (2022, June 21). Deep sea disaster: Why Woodside's Burrup Hub project is too risky.
- 7. The Guardian (2017, May 19) <u>Woodside says it was behind oil spill that regulator kept secret.</u>
 8. Greenpeace Australia Pacific. (2022, June 21). <u>Deep sea disaster: Why Woodside's Burrup Hub project is too risky.</u> 9. Greenpeace Australia Pacific. (2022, June 21). Deep sea disaster: Why Woodside's Burrup Hub project is too risky.

Birds (cont.)	
Eastern curlew	Critically endangered
Curlew sandpiper	Critically endangered
Red knot	Endangered
Great knot	Critically endangered
Greater sand plover	Vulnerable
Lesser sand plover	Endangered
Bar-tailed godwit	Vulnerable
North Siberian bar-tailed godwit	Critically endangered
Southern giant petrel	Endangered
Australian painted snipe	Endangered
Australian fairy tern	Vulnerable
Night parrot	Critically endangered
Far Eastern curlew	Critically endangered
Painted snipe	Endangered
Amsterdam albatross	Critically endangered
Wandering albatross	Vulnerable
Southern giant petrel	Endangered
Northern giant petrel	Vulnerable
Soft-plumaged petrel	Vulnerable
Indian yellow nosed albatross	Endangered
Tasmanian shy albatross	Vulnerable
Campbell albatross	Vulnerable
Black browed albatross	Endangered
White capped albatross	Vulnerable

Whale Shark around Ningaloo Marine Park © Lewis Burnett



Sharks

Vulnerable
Vulnerable
Vulnerable
Endangered
Endangered

Snakes

Dusky sea snake	Endangered
Short-nosed sea snake	Critically endangered
Olive python	Vulnerable
Fish	
Green sawfish	Vulnerable
Largetooth sawfish	Vulnerable
River sawfish	Vulnerable

Leichhardt's sawfish	Vulnerable
Northern sawfis	Vulnerable
Turtles	
Green turtle	Vulnerable
Loggerhead turtle	Endangered
Hawksbill turtle	Vulnerable
Olive ridley turtle	Endangered
Flatback turtle	Vulnerable
Leatherback turtle	Vulnerable
Whales	
Pygmy blue whale	Endangered
Blue whale	Endangered
Sei whale	Endangered
Fin whale	Endangered

2. Seabed subsidence on Scott Reef

Seabed subsidence, caused by extracting gas from underground reservoirs, could jeopardise Scott Reef.¹⁰ When gas is extracted, it leads to a drop in pressure in the reservoir under the earth, which can trigger the seafloor above to sink. As the Browse gas field is directly under Scott Reef, this sinking of the seafloor poses risks to the integrity of the reef and the animals who nest there. Even a small case of sinking from subsidence could mean crucial nesting grounds for endangered sea turtles are lost under the ocean. Seabed subsidence can disrupt marine habitats, increase seismic activity, and endanger the fragile ecosystem of Scott Reef and its inhabitants.

CASE STUDY: SCOTT REEF'S STRUGGLING SEA TURTLES

Sea turtles are one of the most vulnerable species in the path of the Burrup Hub. Seabed subsidence, combined with the aggressive glow of gas flares and lights from vessels and infrastructure, could drastically alter turtle nesting grounds. At the heart of Scott Reef's fragile ecosystem is Sandy Islet, a tiny sandbar barely two metres above sea level, which is an essential location for green sea turtles to nest. If Sandy Islet is washed away, their precious habitat and eggs could be lost at sea. This would jeopardise the populations' reproductive cycles, nesting and hatching success, and could lead to a dip in population.

Green sea turtle, near Sandy Islet on the West Hook of Scott Reef © Alex Westover



3. Light pollution throws nesting and migration off course

Gas flares and lights from structures like oil rigs and ships disorient sea turtles and confuse the migratory patterns of birds and fish. Newly hatched sea turtles rely on natural light cues to navigate to the ocean, but artificial lights can lead them away from the water and diminish their chances of survival. Changes in light conditions also affect plankton distribution, disrupting food chains. Artificial illumination impacts coastal communities, dimming night skies and causing navigational challenges for maritime industries.

4. Offshore drilling jeopardises marine ecosystems

Offshore drilling disrupts the ocean floor through sediment displacement and pollution from operations, such as releasing toxic chemicals in drilling muds. These pollutants can indirectly harm coral reefs and marine life, leading to long-term ecological damage.

Noise pollution from drilling interferes with the communication and hunting behaviours of whales and dolphins, disturbing their natural activities. Offshore drilling platforms also emit greenhouse gases and pollutants, degrading air quality and accelerating climate change – risking both marine life and human health.





WOODSIDE'S TROUBLING TRACK RECORD

Woodside's credentials are chequered by gas explosions, oil spills, infrastructure neglect and dubious environmental decisions. Given this history, can they be trusted with a mega-project like the Burrup Hub? Some of their recent blunders include:

Whale calf collision In August 2023, a tugboat operated by a Woodside contractor collided with a whale calf in the Port of Dampier. The incident was confirmed by the Department of Biodiversity, Conservation and Attractions (DBCA) only after media inquiries.

Explosion at Pluto LNG plant In May 2023, an explosion rocked the Pluto LNG plant forcing a shutdown. Despite prior warnings about flaring gas and dark smoke, Woodside was accused by unions of downplaying the incident.11

Northern Endeavour clean-up debacle Woodside wriggled out of responsibility for the abandoned Northern Endeavour oil platform in the Timor Sea by selling it to a one-person operation. The 274-metre rust-riddled platform was shut down in 2020 amid safety warnings, leaving the offshore oil and gas industry to shoulder the \$325-million decommissioning cost.1213

Cost-cutting maintenance Despite warnings from offshore requlator NOPSEMA about corrosion, Woodside announced a 30% cut in operating costs over three years starting in 2021, focusing on maintenance costs. As a result, there were serious structural integrity issues at multiple Woodside facilities.14

^{11.} AFR. (2023, May 28). Woodside investigates Pluto LNG plant incident. The Australian Financial Review.
12. WA Today. (2024, May 30). Resources giants headed to court over \$86 million clean-up bill. WA Today.
13. ABC News. (2023, June 10) Northern Endeavour's \$325m decommissioning begins.
14. Bolling Cold. (2021, July 9). Concern over corrosion found at Woodside's North West Shelf LNG plant.

^{15.} Boiling Cold. (2021, February 5), 'Regulator tells Woodside to clean up oil field and may take legal action', Boiling Cold,

Abandoned infrastructure After halting oil extraction in the Enfield field in 2018, Woodside left behind the Nganhurra Riser Turret Mooring (RTM), an 83-metre-long, 2,452-tonne piece of infrastructure. Following an order from NOPSEMA to remove it, Woodside proposed to sink the toxic RTM near the World Heritage-listed Ningaloo Reef. It was finally removed in October 2023.¹⁵

Oil spill in Cossack field In 2016, a Woodside oil rig in the Cossack field leaked over 10,500 litres of oil into the ocean due to a degraded seal. Woodside claimed there was "no lasting impact to the environment" – a statement that was widely contested.¹⁶



16. Michael Slezak et al (May 19th, 2017), Woodside says it was behind oil spill that regulator kept secret, The Guardian

The Northern Endeavour, which became the responsibility of the federal government after its former owner went into liquidation @ Boiling Cold

A TIMELINE OF NEGLECT

WA oil and gas blunders

From exploding pipelines to environmental carelessness, here's a rundown of incidents that have rocked WA's oil and gas industry, in which Woodside features heavily.

NOW

20 MARCH 2022 -

VARANUS ISLAND

Santos spills 25,000 litres of light oil condensate during tanker loading.

2 DECEMBER 2021 -

OFF THE COAST OF BROOME

Fire shuts down Prelude, Shell's floating gas factory.

JULY 2021 -

KARRATHA GAS PLANT

Major corrosion issues are brought to light on a gas train at Woodside's Karratha Gas Plant.

24 JULY 2021 -

EXMOUTH

Equipment failure on Woodside's Ngujima-Yin oil vessel injures two workers.

JUNE 2021 —

NORTH RANKIN COMPLEX

NOPSEMA directs Woodside to assess 14 corroded caissons beneath its North Rankin A Platform.

JUNE 2020 —

OFF THE COAST OF DAMPIER

Woodside abandons 400 tonnes of plastic waste from the Echo Yodel project on the seafloor.

A TIMELINE OF NEGLECT RISKY BUSINESS

FEBRUARY 2020

NORTHERN ENDEAVOUR, TIMOR SEA

Woodside sells its abandoned Northern Endeavour oil platform, leaving taxpayers to shoulder over \$1 billion of decommissioning costs

OCTOBER 2019

NINGALOO COAST

Woodside's degraded Nganhurra Riser Turret Mooring (RTM) is found, triggering concerns about sinking highly toxic materials near Ningaloo Reef.

APRIL, 2016

COSSACK FIELD, TIMOR SEA

An unnamed rig in Woodside Petroleum's Cossack Field leaks 10,500 litres of oil over a two-month period.

21 AUGUST 2009 -

TIMOR SEA

PTTEP's West Atlas rig in the Montara oil field suffers a massive blowout, sparking an uncontrolled fire.

3 JUNE 2008

VARANUS ISLAND

A ruptured gas pipeline at Apache Energy's facility causes an explosion, sparking an energy shortage in WA and costing the state's economy billions.





THE BURRUP HUB'S COST TO OUR PLANET

1. It's a climate threat

The Burrup Hub project isn't just another development. Over its 50-year lifespan, it's projected to spew a staggering 6.1 billion tonnes of greenhouse gases into the atmosphere. This makes it Australia's most climate-polluting fossil fuel project by far, with the predicted emissions from Woodside's Burrup Hub higher than all other proposed fossil fuel projects currently undergoing federal environmental approvals.

2. It blows our carbon budget

Beyond carbon dioxide, the project will unleash substantial methane emissions throughout its lifetime. Methane is a potent greenhouse gas, which is 84 times more impactful than carbon dioxide over a 20-year period. If approved, the Burrup Hub would produce gas until around 2070 — 20 years after global climate commitments to reach net zero by 2050.

3. It doesn't benefit WA communities

Despite the Burrup Hub's massive carbon footprint, Western Australians aren't the ones profiting. Over 80% of its gas will be exported as LNG, largely to Asian markets such as Japan, China, South Korea and Taiwan. Ironically, Japan, our largest customer, may not even need our LNG, as demand has plummeted and is projected to continue falling. Japan profits by reselling our LNG while we shoulder the environmental burden.¹⁷ The project overshadows the progress made by WA households to harness clean energy by installing solar panels on their roofs. Instead of embracing green exports as part of a sustainable future, this project will bind WA into prolonged gas dependency.¹⁸

4. It will slow the switch to renewable energy

As nearly 90% of Australians support the renewable energy transition,¹⁹ greenlighting new fossil fuel projects like the Burrup Hub is a backward step. Extending gas exports until 2070 delays the urgent transition to renewables that our planet desperately needs. Gas is a dangerous and polluting fossil fuel that is driving the climate crisis, and is a roadblock to a clean, green future.

^{17.} RenewEconomy. (2024, May 16). <u>Japan does not need Australian gas to keep the lights on in Tokyo</u>.

18. ABC News. (2024, September 19). <u>A small WA seaside town was forced to switch off gas, becoming a 'prototype' for the green energy transition</u>.

^{19.} Conservation Council of Western Australia. (2023, November 6). Premier: Stop defending fossil fuels.

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Clownfish near Scott Reef, Western Australia © Wendy Mitchell

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