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Fossil fuel subsidies in Australia

Federal and state government assistance to fossil fuel producers and major users in 2021-22

In 2021-22, Australian Federal and state governments provided a total of $11.6 billion worth of spending and tax breaks to assist fossil fuel industries. This is a 12% increase on last year's figure and 56 times the budget of the National Recovery and Resilience Agency. Over the longer term, $55.3 billion is committed to subsidising gas and oil extraction, coal-fired power, coal railways, ports, carbon capture and storage, and other measures.

Alia Armistead, Rod Campbell, Eliza Littleton & Sienna Parrott

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Level 1, Endeavour House, 1 Franklin St
Canberra, ACT 2601
Tel: (02) 61300530
Email: mail@australiainstitute.org.au
Website: www.australiainstitute.org.au
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Summary

As major flooding, exacerbated by climate change, hits eastern Australia and global calls to end fossil fuel subsidies grow louder, Australian governments continue to subsidise fossil fuel producers and major fossil fuel consumers. Government documents show that in the 2021-22 budget year, measures that wholly, primarily or partly assist the fossil fuel industry cost federal, state and territory governments $11.6 billion.

In other words, for every minute of every day in the 2021-22 budget period these subsidies cost the public $22,139. For context, $11.6 billion is 56 times greater than the $206.8 million budget of the National Recovery and Resilience Agency.

The total value of budgeted fossil fuel assistance over the life of projects and the forward estimates of ongoing programs is $55.3 billion. By contrast, the balance of Australia's Emergency Response Fund was $4.8 billion in December 2021.

The Federal Government provides the most assistance to the fossil fuel sector, costing $10.5 billion in 2021-22. This is more than the $9.7 billion the Federal Government provides to support public schools. The largest Federal Government assistance measure is the Fuel Tax Credits Scheme, valued at $8.07 billion in 2021-22. Federal budget papers list it as the 16th largest cost in the budget, up from 18th last year. The Fuel Tax Credits Scheme costs more each year than Federal spending on childcare, the Australian Army or the Royal Australian Air Force.

Beyond tax concessions, Federal Government fossil fuel subsidies quadrupled relative to the previous year, increasing from $266 million in 2020-21 to $1.16 billion in 2021-22. This was largely due to 'gas-fired recovery' policy, which includes measures such as the Kurri Kurri Gas-fired power station ($200 million), road construction for fracking in the Northern Territory ($173 million) and other items like concessional finance for Olive Downs coal mine ($175 million). Since the current Federal Government was elected in 2019, $6.7 billion has been committed to new fossil fuel subsidy projects and programs, amounting to $912 million in 2021-22.

Queensland provided $665 million in assistance to fossil fuels in 2021-22, with longer term commitments worth $1.96 billion. The bulk of this is spending on publicly-owned coal mines, gas fields and fossil fuel power stations such as CleanCo's Swanbank E Power Station, Kogan North Gas Field and Stanwell's Meandu mine and Tarong Power station. Queensland's state-owned ports also provide significant assistance to fossil fuel imports and exports.

Western Australia provided $108 million in assistance to fossil fuels in 2021-22, with longer term commitments worth $839 million. Like Queensland, much of this assistance goes to state-owned power stations and related mines. The Collie and Muja coal power stations

received a total of $20 million for upkeep in 2021-22 and a total of $255 million in capital spending. Gas-fired power stations Cockburn, Pinjar and Kwinana are in line to receive a total of $172 million in capital spending, with $19 million in 2021-22. Ports that ship liquified natural gas and other petroleum products, or assist the offshore gas sector, received $31 million in 2021-22 as part of $179 million in budgeted spending that at least partly benefits the oil and gas sector.

The Northern Territory provided $141 million in assistance to fossil fuels in 2021-22, with longer term commitments worth $3.66 billion. Beyond Federal subsidies to fracking companies in the Northern Territory, the Northern Territory Government funds exploration initiatives and gas industry promotion. The largest assistance measure comes via the Territory's Power and Water Corporation and its decades-long, loss-making agreement to buy and transport gas from Eni, an Italy-based multinational oil company. The Northern Territory Government has a commitment to buy $2.8 billion worth of gas with $720 million in pipeline commitments.

Victoria provided $79 million in assistance to fossil fuels in 2021-22, with longer term commitments worth $365 million. This relates to two items. First, the government department that provides data to the petroleum industry and oversees the CarbonNet carbon capture and storage project. Second, a brown coal-to-hydrogen project that cost $13 million in 2021-22, with commitments for $50 million each from the Victorian and Federal Governments over the life of the project.

South Australia provided $37 million in assistance to fossil fuels in 2021-22, with longer term commitments worth $130 million. The main item is the refurbishment of a port facility used by Santos, as well as several small programs under the Department of Energy and Mining.

New South Wales provided $92 million in assistance to fossil fuels in 2021-22, with longer term commitments worth $329 million. Key items are funding for the Tallawarra B gas-fired power station and the NSW Coal Innovation Fund.

No fossil fuel subsidies were identified in the Tasmanian or ACT government budgets.

Introduction

Australia is the world's third biggest exporter and fifth biggest miner of fossil fuels by CO_2 potential.[1] It is the world's largest exporter of liquified natural gas (LNG) and our coal exports make up 29% of the global share.[2]

Subsidies for fossil fuels obscure the true cost of these polluting industries and enable them to continue exploring for, extracting and burning coal, oil and gas. As the world works towards reducing global greenhouse emissions to mitigate climate change, international pressure is mounting for countries to stop subsidising fossil fuels so that competitively priced, clean sources of energy can be scaled up and fossil fuel use can be phased out. Following COP26 negotiations last November, UN Secretary-General António Guterres said that it was time to go "into emergency mode" and stressed the need to end fossil fuel subsidies, phase out coal and putting a price on carbon.[3]

This raises the questions of how large are fossil fuel subsidies in Australia and how do they work. Various estimates of Australia's assistance have been made in recent years, with selected findings below:

- International Monetary Fund (IMF) – US $29 billion in 2015, including unpaid costs of air pollution and climate change.[4]
- OECD – $10 billion in 2019.[5]
- Productivity Commission – $1 billion in 2018-19 to sectors that include fossil fuel activities.[6]

[1] Swann (2019) *High Carbon from a Land Down Under: Quantifying CO2 from Australia's fossil fuel mining and exports*, https://australiainstitute.org.au/report/high-carbon-from-a-land-down-under-quantifying-co2-from-australias-fossil-fuel-mining-and-exports/

[2] Ibid.

[3] UN (2021) *COP26 closes with 'compromise' deal on climate, but it's not enough, says UN chief*, https://www.un.org/africarenewal/magazine/december-2021/cop26-closes-%E2%80%98compromise%E2%80%99-deal-climate-it%E2%80%99s-not-enough-says-un-chief

[4] Coady et al (2019) *Global fossil fuel subsidies remain large: An update based on country level estimates*, https://www.imf.org/en/Publications/WP/Issues/2019/05/02/Global-Fossil-Fuel-Subsidies-Remain-Large-An-Update-Based-on-Country-Level-Estimates-46509

[5] OECD (2020) *OECD.stat – Fossil fuel support* – AUS, https://stats.oecd.org/Index.aspx?DataSetCode=FFS_FRA; OECD (2019) *Fossil Fuel Support Country note: Australia*, http://www.oecd.org/fossil-fuels/data/; and OECD (2018) *OECD Companion to the Inventory of Support measures for fossil fuels 2018*, https://read.oecd-ilibrary.org/energy/oecd-companion-to-the-inventory-of-support-measures-for-fossil-fuels-2018_9789264286061-en#page4

[6] Productivity Commission (2020) *Trade and assistance review 2018-19*, https://www.pc.gov.au/research/ongoing/trade-assistance/2018-19

- Australia Institute – $10.3 billion in 2020-21, last year's edition of this report.[7]

This wide range demonstrates a key issue in any discussion about subsidies – different definitions of "subsidy" make a large difference to the final estimate. The largest estimates, such as those from the IMF, incorporate the uncompensated costs of climate, health and other environmental damage into their definition of fossil fuel subsidies. The lower estimates, like those from the Productivity Commission, incorporate a much narrower range of assistance measures, typically direct payments and the estimated value of trade barriers.

In this paper, our estimates have been guided by the information that is available in official, public documents. Federal and state government budget papers, financial updates and annual reports of government-owned entities provide data on a range of government spending and other support measures to fossil fuel industries. In some instances, public announcements around these measures provide more detail than is contained in official documents and have been used in our estimates.

The assistance measures detailed in budget papers and annual reports include far more support measures than are considered by the narrowest definitions of subsidies, but do not include the environmental pollution or damage costs of fossil fuel extraction and use. This omission is not because these costs are unimportant, but because they are difficult to calculate, estimates are contested and there are few official estimates. Furthermore, these wider costs are borne by the community and the natural environment, not by governments directly. By concentrating on official estimates in budget papers and similar documents, we derive an estimate of how government decisions and policies result in benefits to fossil fuel producers and major consumers and, conversely, how much revenue could be raised or saved by reversing these decisions.

In some cases, identifying which budget items meet the criteria of a fossil fuel subsidy is straightforward — in particular, where their title suggests the that intended beneficiaries are fossil fuel industries (for example, the Gas-Fired Recovery or Coal Innovation NSW). Other relevant items require further investigation as their titles do not explicitly identify fossil fuel-related activities. This is particularly the case for infrastructure projects that fossil fuel industries rely on, such as rail and port projects.

As a result, investigating various budget item payments was necessary to determine whether, and to what extent, particular funding would directly or indirectly benefit fossil fuel industries. For example, budget funding for the Darwin Ship Lift is not, at face value, a fossil fuel subsidy. However, the budget paper later clarifies that this money will assist oil and gas vessels.

[7] Campbell et al (2021) *Fossil fuel subsidies in Australia: Federal and state government assistance to fossil fuel producers and major users 2020-21*, https://australiainstitute.org.au/report/fossil-fuel-subsidies-in-australia/

The provision of infrastructure represents a major subsidy to fossil fuel industries in Australia. Governments spend significant amounts of money on ports, railways, pipelines, power stations and other infrastructure that assists the production, transport and consumption of fossil fuels. While the users of this infrastructure often pay to use it, and the management bodies may return surplus money to the government that owns the asset, the acceptance of risk and up-front costs by government-owned entities provides benefit to industry and imposes costs on the community. State treasuries are explicit on this point:

> Some costs may be recovered by the government over time if they are directly industry related. However, there is a real opportunity cost for governments in undertaking the initial capital expenditure. Governments face budget constraints, and spending on mining related infrastructure means less infrastructure spending in other areas, including social infrastructure such as hospitals and schools. The opportunity cost of this use of limited funds is a real cost to government and the community. – Queensland Treasury.[8]

> Western Australian Treasury calculated that in 2010 net present value terms, the estimated cost of its commitments to assist the North West Shelf project (e.g. payment of subsidies to the State's power utility to help cover the losses it initially incurred under crucial 'take or pay' gas contracts) is estimated to be around $8 billion.[9]

Our approach reflects Queensland Treasury's logic – where governments choose to allocate scarce resources to fossil fuel industries in a way that restricts use of those resources for other government priorities, this represents a subsidy to fossil fuels. The fact that user fees may later be collected does not change the fact that a government decision directed resources in a particular way.

[8] Queensland Treasury (2014) *Queensland Treasury Response to Commonwealth Grants Commission 2015 Methodology Review*, https://www.cgc.gov.au/sites/default/files/documents/2015%20Review%20Report/General%20Consultation/Commission%20position%20and%20staff%20discussion%20papers/State%20responses/R2015%20-%20CGC%202013-05%20-%20CGC%202013-06-S%20-%20CGC%202013-07-S%20-%20CGC%202013-08-S%20-%20QLD%20Response.pdf?acsf_files_redirect

[9] WA Treasury (2017) *Western Australia's Submission to the Productivity Commission's Inquiry into Horizontal Fiscal Equalisation*, https://www.wa.gov.au/sites/default/files/2020-02/western-australias-submission-to-the-productivity-commissions-inquiry-into-horizontal-fiscal-equalisation.pdf

Methodology

Estimates of subsidies and other assistance to fossil fuels are for the 2021-22 budget year, with a small number of exceptions where the 2020-21 estimate is the latest available and a similar result is likely in the following year. Funding for fossil fuel projects or programs that have been announced since the publication of 2021-22 Federal, State and Territory budget Papers have not been included in this analysis, with the exception of a handful of Federal Government announcements included in the 2019-2022 total calculations.

We have compiled estimates of assistance in 2021-22 and a separate estimate of the total value of programs/projects that run over a number of years. This includes multi-year funding packages for non-ongoing projects, and capital value of long-term physical assets.

In a change of methodology from the 2020-21 edition of this report, the value of industry assistance from ongoing programs such as long-running tax breaks and established government departments, is taken as the sum of values estimated over the forward estimates. Last year's report did not include any longer term value of such subsidies, resulting in the counterintuitive situation where the 2020-21 budget item could be greater than its total/capital value. The new approach is still conservative as such programs may run for much longer than the next four years, and therefore cost much more. This is most relevant to the Fuel Tax Credits Scheme, which dominates overall results, as the 2021-22 Federal budget indicates that spending on the Scheme will continue to increase in the future.

Relevant tax breaks, known as concessions, on existing taxes reduce revenue and carry opportunity costs for governments. Such concessions are included in our estimates where they advantage major fossil fuel producers and users, through a reduced tax rate and their value is calculated in budget documents. This approach means the Federal Fuel Tax Credit is included (it applies only to certain fossil fuel users and is calculated in budget documents), but the benefit to similar parties provided by the abolition of carbon pricing is not (no group pays an explicit carbon price and the lost revenue is not calculated in budget documents).

All items of expenditure were classified according to which type of fossil fuel industry segment was the beneficiary: coal, gas/oil or various. Items categorised as "various" provided support to several segments or referred to a larger industry investment. For example, many of Queensland's ports import and export a combination of coal, oil, gas and other products, and were thus categorised as "various".

Subsidies were assessed as being wholly, primarily, or only partly dedicated to these industries:

- Subsidies classified as wholly dedicated to fossil fuels were judged to be undertaken for the singular purpose of supporting the consumption, extraction, processing, or

transport of fossil fuel commodities. An example is the Queensland Government's $50.1 million funding for the Meandu coal mine, which supplies a state-owned power station.

- Items were considered primarily dedicated to fossil fuels were those where the fossil fuel industry received tangible economic benefit from the spending, but were not the exclusive beneficiaries. An example is Queensland's spending on Gladstone Port, a large LNG and coal port, but also handles some other commodities.
- In cases where expenditure was categorised as partly dedicated to fossil fuels, the industry received a tangible economic benefit from the spending, but that benefit was not the primary aim of the project or it was not clear which stakeholders received the primary benefit. Infrastructure projects often fall into this category as fossil fuel producers may be major, but not primary, users of these resources. However, a range of resource and other industries may also use the same infrastructure. The new Darwin Ship Lift, funded by the NT Government and the Federal Northern Australia Infrastructure Facility, will partly benefit ships that service the offshore oil and gas industry, but is also aimed at defence and other marine services.
- Where spending benefits the fossil fuel industry either incidentally, or at levels too low to be differentiated in official documents, these items were not included. For example, Victoria's mining exploration program could benefit coal or gas companies, but appears to be mainly aimed at other minerals.

Some spending by government departments has been included where:

- The role of the department includes provision of services (particularly geoscience information), or activities that incentivise and promote fossil fuel investment and production. Often these bodies also play a more basic regulatory role, or promote not just fossil fuels but also the wider mining industry. In such cases, the spending is considered as only partly dedicated to fossil fuel assistance.
- Significant under-recovery of regulatory expenses has been identified. Agencies that incur significant administrative costs, but charge few fees to the fossil fuel industries they are administering. One clear example is the NT's onshore gas regulator, where an independent inquiry in 2018 highlighted its costs and minimal revenue, but this has not been addressed some years later despite increased budget allocation. Queensland Treasury highlights that "mining regulation expenses are now material"[10] and some regulators that make minimal effort to recover such expenses.

Carbon capture and storage (CCS, sometimes including "use/utilisation and storage" and abbreviated as CCUS) is generally considered to be dedicated wholly to fossil fuel industries.

[10] Queensland Treasury (2020) *Queensland response to the Draft Report on the 2020 Methodology Review*, https://www.cgc.gov.au/sites/default/files/qld_submission_-_2020_review_draft_report.pdf

While some climate research suggests CCS will be necessary to reduce emissions from sectors that are difficult to decarbonise, the intended purpose of most CCS projects funded by state and federal governments is to enable the continued operation of fossil fuel industries. For example, the Federal Government's Carbon Capture, Use and Storage Development Fund has a stated intention to "support emissions reduction in power generation, cement, natural gas production or heavy industry."[11]

Hydrogen can be derived through a number of different methods, including renewable energy, processing from fossil gas and gasification of coal. Unless hydrogen project funding specifies that it only applies to renewable-derived hydrogen, it is included as at least partly a subsidy to fossil fuels.

[11] Australian Government (2020) *Industry, Science, Energy and Resources*, https://www.infrastructure.gov.au/department/statements/2020_2021/ministerial-statement/industry-science-energy-resources.aspx

Results Overview

This section provides an overview of total results and discussion of the basic differences between jurisdictions. More detail on each government's assistance to the fossil fuel sector can be found in the following sections.

2021-22 FOSSIL FUEL SUBSIDIES

Every year Australian governments provide subsidies worth billions to fossil fuel producers and major users. As **Table 1: 2021-22 fossil fuel subsidies by Federal, state and territory governments** shows, subsidies cost state, territory and federal governments in Australia $11.6 billion in 2021-22:

Table 1: 2021-22 fossil fuel subsidies by Federal, state and territory governments

	Spending measures 2021-22 ($m)	Tax concessions 2021-22 ($m)	Total assistance 2021-22 ($m)
Federal	$1,163	$9,352	$10,515
QLD	$593	$71	$665
WA	$108	N/A	$108
NT	$141	N/A	$141
VIC	$79	N/A	$79
SA	$37	N/A	$37
NSW	$92	N/A	$92
Total	**$2,213**	**$9,423**	**$11,636**

Sources: Budget papers and annual reports of government entities

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Another way of looking at the results in Table 1 is that every minute of every day in 2021-22, fossil fuel subsidies cost the public $22,139.

Table 1 above shows that Federal Government tax concessions are the largest part of overall fossil fuel subsidies, in particular the Fuel Tax Credit Scheme, which refunds fuel tax to specific users. This subsidy represents one of the largest expenses in the Federal Government's budget, as shown in Figure 1 below:

Figure 1: Excerpt from 2021-22 budget papers

Table 6.3.1: Top 20 programs by expenses in 2021-22

Program(a)	Function	Estimates 2020-21 $m	2021-22 $m	2022-23 $m	2023-24 $m	2024-25 $m
larger programs omitted to fit						
Government Schools National Support	Education	9,052	9,727	10,423	11,002	11,447
Financial Support for Carers	SSW	9,906	9,709	10,154	10,642	11,046
Child Care Subsidy	SSW	8,968	9,492	10,644	11,180	11,970
Public Sector Superannuation - Benefits(b)	Other purposes; General public services	8,142	8,521	8,612	8,678	9,079
Fuel Tax Credits Scheme	Fuel and Energy	7,623	8,072	8,450	9,117	9,860
National Partnership Payments - Road Transport	Transport and Communication	7,119	7,645	10,935	10,091	7,414
Commonwealth Grants Scheme	Education	7,549	7,560	7,225	7,167	7,277
Army Capabilities	Defence	7,221	7,469	7,934	8,524	9,247
Air Force Capabilities	Defence	7,106	7,235	7,801	8,317	9,004

Source: Australian Government (2021) Budget Paper 1

Figure 1 shows that the Fuel Tax Credit Scheme cost over $8 billion in 2021-22, more than payments for roads or spending on either the Army or the Air Force. The Fuel Tax Credit Scheme is now the 16th largest expense in the Federal budget, up from 18th largest in 2020-21.

Figure 1 shows that the full cost of Federal Government fossil fuel subsidies, $10.5 billion (see Table 1), is greater than Federal Government spending on public schools, carers or child care.

Given the link between fossil fuel use and natural disasters exacerbated by climate change, it is also relevant to compare this expense to spending on disaster resilience, shown in Figure 2.

Figure 2: Federal spending on climate and disaster resilience

Building Australia's Resilience

Payments ($m)

	2020-21	2021-22	2022-23	2023-24	2024-25
Department of Infrastructure, Transport, Regional Development and Communications	0.1	0.7	-	-	-
National Recovery and Resilience Agency	-	206.8	242.7	248.3	201.8
Bureau of Meteorology	-	45.6	65.0	52.1	43.2
Department of Home Affairs	-	37.1	21.7	16.2	16.3
Department of the Treasury	-	8.0	20.0	12.0	-
Department of Agriculture, Water and the Environment	-	0.9	0.9	0.7	0.7
Department of Finance	-	0.1	0.1	0.1	0.1
Total — Payments	0.1	299.3	350.5	329.5	262.1
Related receipts ($m)					
National Recovery and Resilience Agency	-	*4.7*	-	-	-

Source: Australian Government (2021) Budget Paper 2

Figure 2 shows that in 2021-22 the Federal Government planned to spend $299 million on disaster resilience. The cost of Federal fossil fuel subsidies is 35 times greater than this total spending on resilience. Australia's total 2021-22 fossil fuel subsidies of $11.6 billion is 56 times the budget of the National Recovery and Resilience Agency.

CAPITAL VALUES AND FORWARD ESTIMATES

The results above refer only to fossil fuel subsidies incurred or spent by governments in 2021-22. However, most of these projects and programs take place over many years. Table 2 below combines the total value of specific projects and the forward estimates values of ongoing programs. See methodology section for more explanation.

Table 2: Capital values and forward estimates

	Capital values/forward estimates, including concessions ($m)
Federal	$48,008
QLD	$1,960
WA	$839
NT	$3,657
VIC	$365
SA	$130
NSW	$329
Total	**$55,287**

Source: Budget papers, annual reports and tax expenditure documents

Table 2 shows that Australian governments have budgeted $55.3 billion over the lifetime of fossil fuel projects and programs listed in 2021-22 budget papers.

By contrast, the balance of Australia's Emergency Response Fund was $4.8 billion in December 2021.[12] In other words, total planned fossil fuel subsidies are eleven times larger than the nation's Emergency Response Fund.

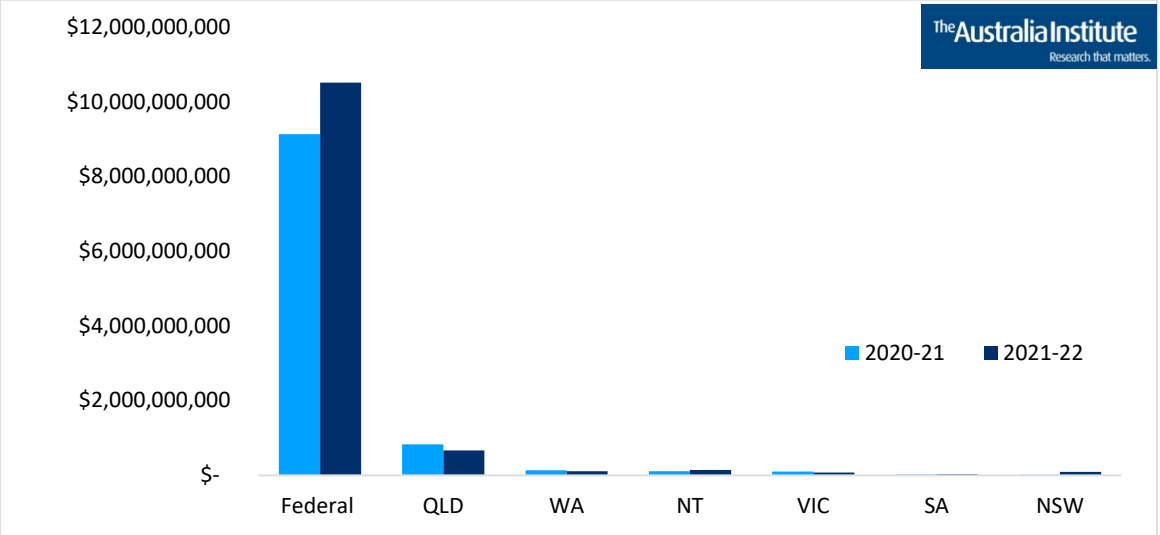
Table 2 shows that most of this total budgeted assistance comes from the Federal Government, due to the increasing cost of the Fuel Tax Credit. The Northern Territory has the second highest figure, due to multi-billion gas commitments made by its government-owned Power and Water Corporation. Queensland's total value is driven by various subsidies classified in the budget papers as 'ongoing'.

CHANGE FROM 2020-21 TO 2021-22

Compared to 2020-21, there has been a 12% increase on that year's $10.3 billion total. This change is broken down by jurisdiction in Figure 3 below:

[12] Australian Government (2022) *Emergency Response Fund*, https://www.finance.gov.au/emergency-response-fund

Figure 3: Fossil fuel subsidies 2020-21 and 2021-22 by jurisdiction



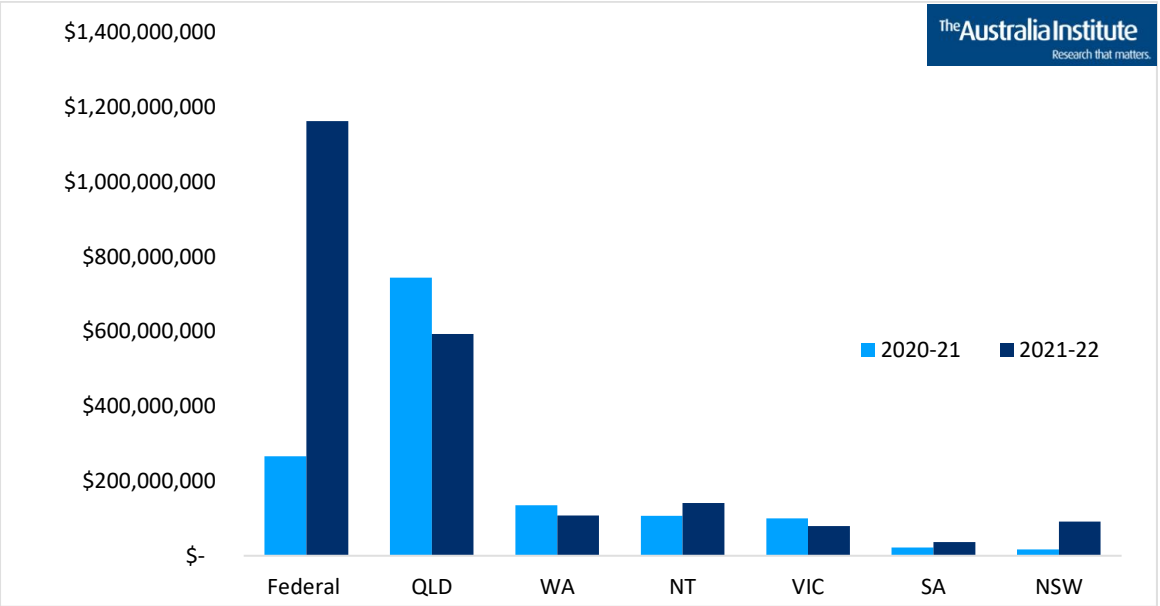
Sources: Budget papers and annual reports of government entities

Figure 3 shows the dominance of the Federal Government in fossil fuel assistance, driven by the Fuel Tax Credit Scheme as discussed above. Federal Government support for fossil fuel industries totalled $10.5 billion in 2021-22, an increase of $1.4 billion compared to the previous year ($9.13 billion).

However, while overall figures are heavily influenced by the Fuel Tax Credit, it was far from the only factor in the overall increase between years. In fact, while the Fuel Tax Credit represents 77% of Federal Government fossil fuel assistance, its $230 million increase between years made up just 16% of the $1.4 billion change.

In order to better understand this change, Figure 4 below removes all tax concessions from total figures, leaving only spending measures.

Figure 4: Total assistance by jurisdiction excluding tax concessions



Sources: Budget papers and annual reports of government entities

Figure 4 shows that beyond tax concessions, Federal Government subsidies to fossil fuel industries quadrupled from $266 million in 2020-21 to $1.16 billion in 2021-22. Funding includes for "gas-fired recovery" programs, building the Kurri Kurri gas-fired power station, CCS and fossil hydrogen under the guise of "low emissions technologies", concessional finance on the Olive Downs coal mine and road construction for fracking industries in the Northern Territory.

Figure 3 shows that, after the Federal Government, Queensland provided the most assistance to fossil fuels at $665 million. This includes $593 million in direct subsidies, largely to government-owned coal and gas power stations, coal mines and ports that export and import fossil fuels. Queensland also provides concessional subsidies worth $71 million. Queensland's total subsidies are less than the previous budget year, having declined from $831 million in 2020-21.

Subsidies from Western Australia and Victoria also declined in 2021-22 by $27 million and $21 million respectively. Western Australian subsidies, at $108 million, continue to subsidise building or upgrading gas and coal-fired power stations, support CCS projects and ports largely used for fossil fuels. Victorian subsidies, worth $79 million, support projects including a brown coal to hydrogen project and a CCS project.

Northern Territory, South Australian and New South Wales governments all increased fossil fuel subsidies in 2021-22. The Northern Territory and South Australian governments continue to fund fossil fuel infrastructure, including infrastructure provision and payments to fossil fuel export facilities. The New South Wales increase was driven by new funding for the Tallawarra B gas power station.

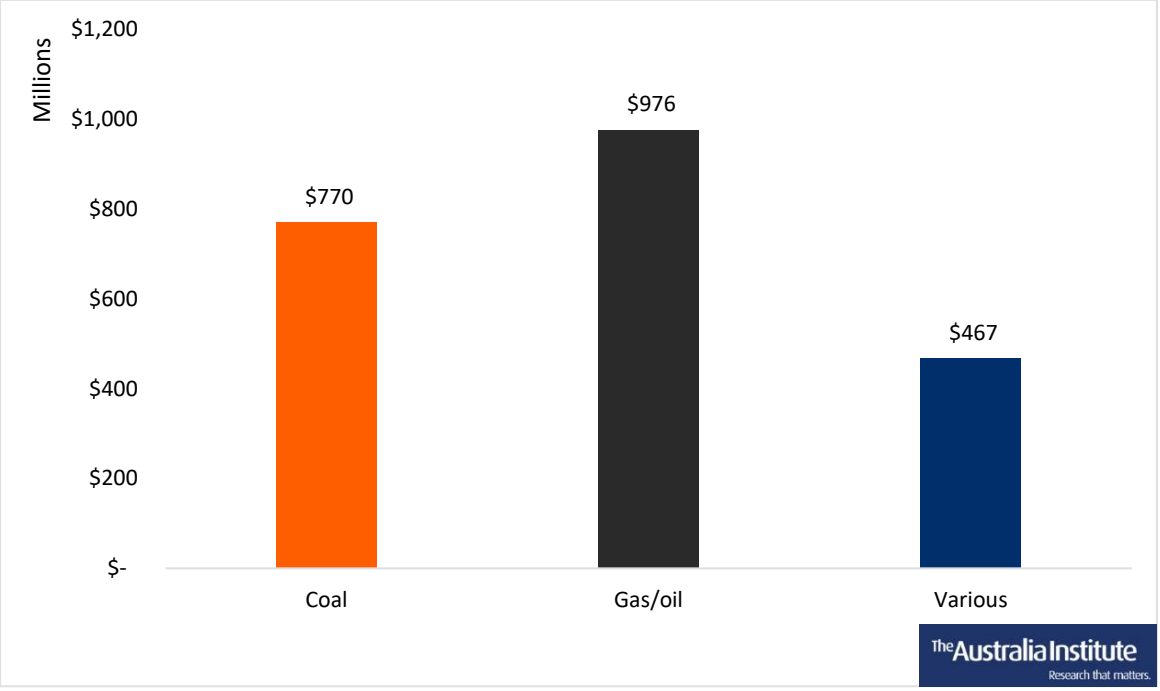
As in 2020-21, Tasmania does not have identifiable fossil fuel subsidies. While it has a mining exploration subsidy that has made grants to coal projects in the past, no fossil fuel subsidy was clear in the 2021-22 budget.

The Australian Capital Territory does not produce any coal, gas or oil and the 2021-22 budget does not contain any subsidies for fossil fuels.

2021-22 SPENDING BY INDUSTRY

Fossil fuel subsidies were categorised according to industry segment: coal, gas/oil or various. As shown in Figure 5 gas and oil were the main beneficiaries of fossil fuel subsidies, when tax concessions are excluded.

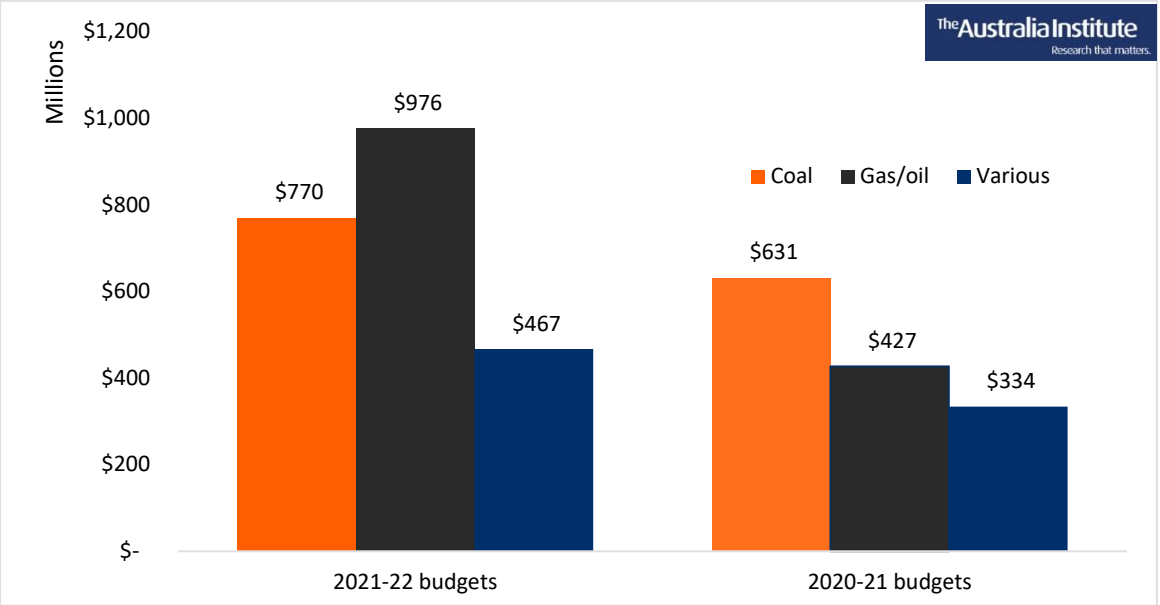
Figure 5: Budget 2021-22 spending by industry segment, not including concessions



Source: Budget papers and annual reports

In the previous year, coal received more subsidies than other industry segments, but in 2021-22 gas and oil segments increased significantly to be the largest recipient of fossil fuel subsidies. Figure 6 shows the comparison between industry segment recipients of fossil fuel subsidies between the 2020-21 and 2021-22 budget papers. The significant increase in subsidies for gas and oil largely reflects Federal Government policies and budget payments – more than half of Federal Government fossil fuel spending in 2021-22 was dedicated to gas and oil.

Figure 6: 2020-21 and 2021-22 spending by industry segment, not including concessions

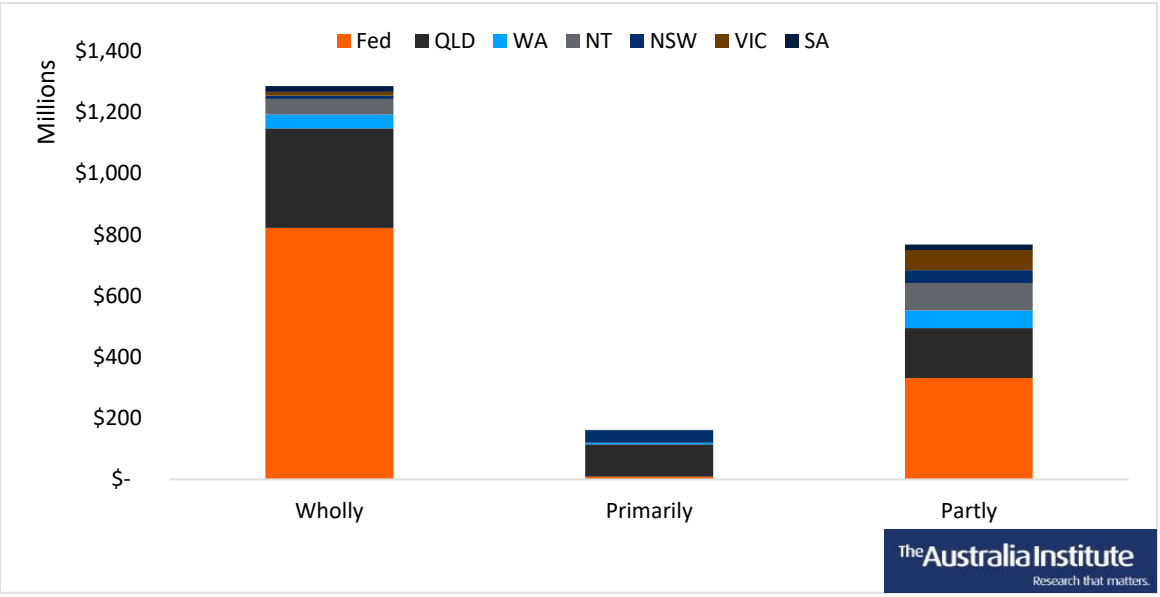


Source: Budget papers and annual reports

2021-22 SPENDING BY DEDICATION

Budget spending was classified as wholly, primarily or partly dedicated to fossil fuels. Figure 7 shows total Federal, state and territory spending in 2021-22 by dedication, not including concessional subsidies.

Figure 7: Budget 2021-22 spending by dedication, not including concessions



Source: Budget papers and annual reports

Half of all non-concessional subsidies, worth $1.29 billion, are classified as wholly dedicated to fossil fuels, of a total $2.21 billion. Wholly dedicated fossil fuel subsidies represented

more than subsidies classified as primarily or partly for the Federal Government, Queensland and South Australia.

Subsidies dedicated partly to fossil fuels are where the industry receives tangible economic benefit from the spending but are not the exclusive beneficiaries. Partly dedicated fossil fuel subsidies were the most common dedicated for all other states, namely Western Australia, Northern Territory, New South Wales and Victoria.

Federal Government

In the budget 2021-22, the Federal Government provided assistance worth $10.5 billion to support fossil fuels, $1.4 billion more than in 2020-21. The largest component of this is tax concessions for major fossil fuel users through the Fuel Tax Credit Scheme, valued at $8.07 billion, which also increased compared to the previous year, along with other exemptions from tax such as the Petroleum Resources Rent Tax (PRRT).

Federal Government subsidies that are not tax-based have increased dramatically in the 2021-22 budget from the 2020-21 budget. In 2021-22, direct budget subsidies increased more than fourfold to $1.16 billion. In 2020-21, direct budget subsidies totalled $266 million. More than half of this is dedicated to gas, due to significant funding for gas projects under the current Federal Government's gas-fired recovery policy, as discussed below. Most of this support is classified as wholly dedicated to fossil fuels ($10.1 billion). Total Federal Government 2021-22 funding is shown in Table 3.

Table 3: Federal Government fossil fuel subsidies 2021-22 ($ million)

Dedication to fossil fuels	2021-22 Budget spending	2021-22 tax concessions	Total 2021-22 assistance
Wholly	$822	$9,297	$10,119
Primarily	$9	$55	$64
Partly	$332	$0	$332
Total	**$1,163**	**$9,352**	**$10,515**

Source: Federal Government Budget Papers 2021-22

The total estimated value, including capital value and budget paper forward estimates for 2021-22 Federal projects and programs, is $48 billion. This is the amount that the Federal Government anticipates it will spend on projects that were funded this year.

Table 4: Federal Government fossil fuel subsidies – total project/program funding

Dedication to fossil fuels	Capital values/forward estimates
Wholly	$44,847
Primarily	$240
Partly	$2,921
Total	**$48,008**

Source: Federal Government Budget Papers 2021-22

Since the current Federal Government was elected in 2019, $6.7 billion has been committed to new fossil fuel subsidy projects and programs. These new projects and programs cost $912 million in 2021-22. This is separate to increases in ongoing programs and all tax-based concessions to fossil fuel industries. This new funding in this term of government includes:

- $80.7 million committed to the Grid Reliability Fund to support energy security through the Underwriting New Generation Investments Scheme (UNGI), which shortlisted a number of gas projects, with no transparency or accountability for project selection.[13]
- $50 million for the Carbon Capture Use and Storage Development Fund, which is used to justify the continued operation of fossil fuels, particularly gas.
- Payments supporting refineries and to increase liquid fuel stocks, such as $250.7 million to support diesel fuel storage and up to $2 billion for the Fuel Security Services Payment.
- $173 million for road construction for fracking in the Northern Territory.

TAX CONCESSIONS

Fuel Tax Credits

The biggest Federal Government fossil fuel subsidy is the Fuel Tax Credit Scheme. The scheme allows businesses to claim a tax credit on fuel used in machinery, heavy vehicles and light vehicles used off public roads.[14] This tax break works to make fossil fuel use cheaper

[13] Swann & Merzian (2020) *Problems with UNGI*, https://australiainstitute.org.au/report/problems-with-ungi/

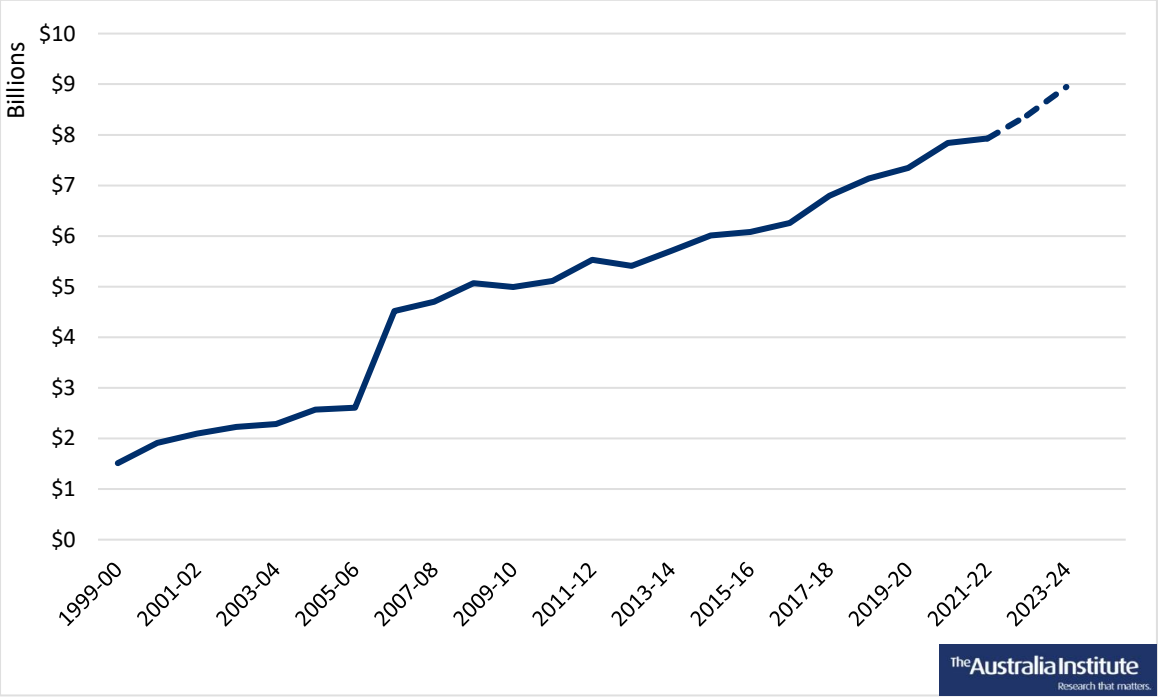
[14] ATO (2021) Fuel tax credits – business, https://www.ato.gov.au/Business/Fuel-schemes/Fuel-tax-credits---business/

for energy-intensive businesses, such as coal mines, but it is not available to other businesses and individuals that use machinery and vehicles for productive use. Fuel taxes are not linked to road funding, as is commonly suggested by recipients of this subsidy; they simply contribute to general revenue, like most other federal taxation.

The cost of the scheme has steadily increased since 1999. In the 2020-21 budget the fuel tax credit was estimated to cost $7.84 billion and increased in the 2021-22 budget to $8.07 billion. The budget says that the Fuel Tax Credit Scheme is estimated to increase by 13.9% in real terms from 2021-22 to 2024-25, "largely reflecting increased use of fuels that are eligible", which is precisely the intention of the scheme – to make it cheaper for energy-intensive businesses to use fossil fuels. In the 2021-22 budget, the fuel tax credit was listed 16th in the Top 20 expense programs, higher than spending on Army Capabilities (19th at $7.47 billion) and Air Force Capabilities (20th at $7.23 billion). The same year the Australian Government spent $9.7 billion on support for government schools. That means the Fuel Tax Credit is worth 83% of Federal Government spending on public education.

The 2020-21 budget forecast that the Fuel Tax Credit would cost $7.93 billion in the latest budget year (2021-22), meaning that at $8.07 billion, almost $150 million more than intended was spent subsidising fossil fuel consumption.

Figure 8: Total cost of the fuel tax credit scheme per year



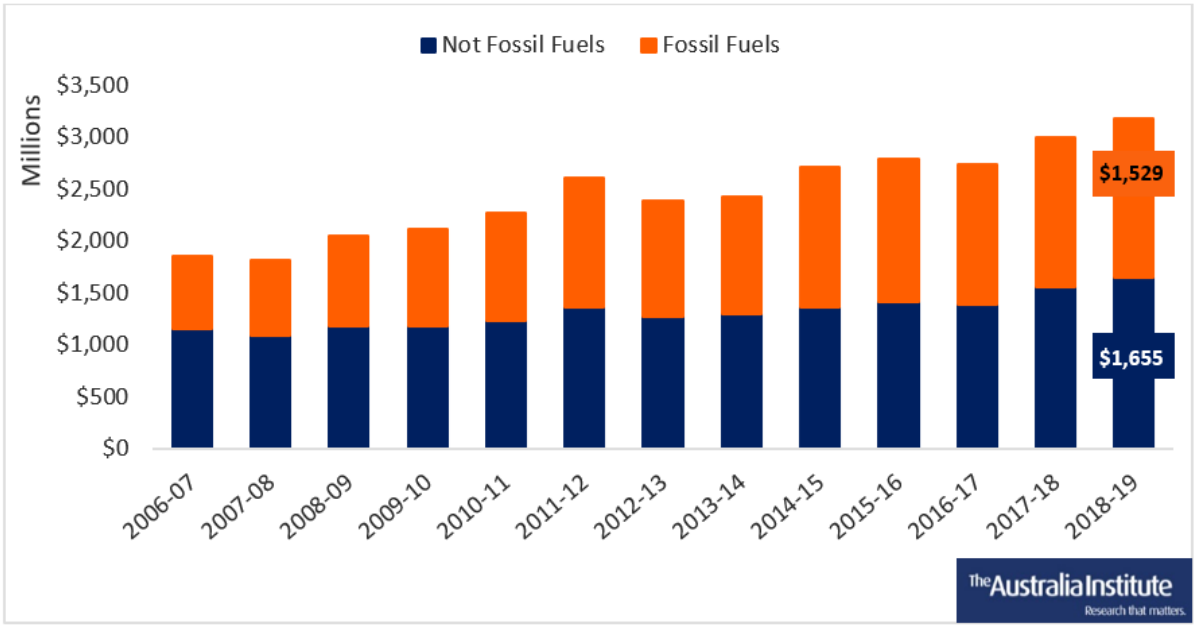
Source: Australia Taxation Office (2020) Taxation statistics 2018-19, Excise and fuel schemes, Table 4; Australia Government (2021) Budget Paper 1.

Note: The change in 2006 is due to the fuel tax credit replacing the previous energy grant scheme.

The Fuel Tax Credit Scheme not only subsidises the consumption of fossil fuels; fossil fuel producers themselves are key beneficiaries of the subsidy. The mining industry has received

44% of total fuel tax credits since 2006, and around half of this goes to fossil fuel companies, as shown in Figure 9 below.

Figure 9: Fossil fuel share of mining industry fuel tax credit 2018-19



Source: Australia Taxation Office (2020) Taxation statistics 2018-19, Excise and fuel schemes, Table 4
Note: ATO Taxation statistics have not been updated since this 2020 edition

Figure 9 shows the share of fuel tax credit that went to the mining industry, distinguishing fossil fuel and non-fossil fuel companies, which in total made up 45% of the fuel tax credit in 2018-19. More than $1.5 billion accrued to fossil fuel producers in 2018-19. Not surprisingly, the mining industry leads a campaign to maintain this lucrative subsidy.[15]

Other Tax Concessions

Fossil fuel producers and users receive exemptions from various taxes and excises. Such exemptions serve to reduce government revenue and reduce incentives to minimise fossil fuel use or production. The cost of these concessions is estimated in the Tax Benchmarks and Variations Statement prepared by the Federal Treasury.[16] For some items, Treasury estimates a range rather than a point estimate. In these cases, our estimates take the midpoint of Treasury's range.

[15] Fuel Tax Credit Alliance (2020) *Fuel tax credits*, http://fueltaxfacts.com.au/
[16] Australian Government (2022) *2021 Tax Benchmarks and Variations Statement*, https://treasury.gov.au/publication/p2022-244177

Table 5: Tax-based fossil fuel subsidies 2021-22, excluding the Fuel Tax Credits Scheme

Tax concession	Dedication	Industry segment	Estimated cost
Transport for oil rig and remote area employees exemption	Primarily	Gas/Oil	$55,000,000
Concessional rate of excise levied on aviation gasoline and aviation turbine fuel	Wholly	Gas/Oil	$960,000,000
Excise concessions for 'alternative fuels' (including LPG and LNG)	Wholly	Gas/Oil	$100,000,000
PRRT - expenditure uplift rate	Wholly	Gas/Oil	$55,000,000
PRRT - gas transfer price regulations	Wholly	Gas/Oil	$55,000,000
PRRT - starting base and uplift rate for capital assets	Wholly	Gas/Oil	$55,000,000
Total			**$1,280,000,000**

Source: 2021 Tax Benchmarks and Variations Statement

The largest concession in Table 5 relates to aviation gasoline and turbine fuel. Civil aviation companies pay a lower rate of excise than other fuel users. Other discounts apply to "alternative fuels", a category that includes liquified petroleum gas (LPG) and liquified natural gas (LNG). Like the fuel tax credit discussed above, lowering the price of fossil fuels for selected users reduces government revenue, transferring costs onto other parties, and also reduces incentives to minimise fossil fuel use and related pollution.

Petroleum resource rent tax (PRRT) is levied on the profits generated from the sale of oil and gas. However, a range of concessions reduce the amount of PRRT paid by the industry, including credits for any tax losses, the use of a pricing method that undervalues gas, and deductions based on the value of project assets that can be carried forward and uplifted.

BUDGETED SUBSIDIES AND COSTS

Technology Investment Roadmap

Funding for the Technology Investment Roadmap increased in 2021-22 with a commitment for $1.6 billion over ten years, including $761.9 million in the first four years, classified as partly dedicated to fossil fuels. The 2021-22 budget labels funding for the Technology Investment Roadmap as 'Emissions Reductions' through new investments in technologies and growth of new export industries.

The Technology Investment Roadmap prioritises technologies that enable and perpetuate the production and use of fossil fuels, through 'clean' hydrogen and carbon capture and storage (CCS). 'Clean' hydrogen combines fossil fuel-based hydrogen production with CCS. This is clear in the Federal Government's current definition of clean hydrogen: "produced using renewable energy or using fossil fuels with substantial carbon capture and storage (CCS)".[17] The Technology Investment Roadmap does not indicate that renewable, zero emissions hydrogen will be prioritised over fossil fuel (blue) hydrogen and government officials have said that emissions from fossil fuel hydrogen do not have be under a certain level to meet the definition of 'clean'.[18]

Low Emissions Technology Commercialisation Fund

The Low Emissions Technology Commercialisation Fund is included as a fossil fuel subsidy for the same reasons the Technology Investment Roadmap is included – the fund is likely to support CCS and fossil fuel hydrogen, given they are included on the Australian Government's 'low emissions' technologies priority list. The Fund is worth $500 million over ten years, classified as partly dedicated to fossil fuels. The Fund will be distributed by the Clean Energy Finance Corporation (CEFC), which cannot currently invest in fossil hydrogen or CCS, however the announcement flags that the Government will introduce legislation to establish the fund. The Australian Government has previously attempted to change the investment remit of the CEFC to allow it to invest in loss-making projects, gas and CCS, however was unsuccessful after Nationals MPs attempted to include coal in the legislation change.[19] This announcement suggests that further attempts to change the CEFC's legislation are planned.

Hydrogen Hubs

Additional funding for hydrogen hubs, $31.7 million this budget year and $158.7 million over five years was included in the Mid-Year Economic and Fiscal Outlook (MYEFO) to support two additional hydrogen hubs, expanding the commitment to seven hubs. Funding for hydrogen hubs is not dedicated to renewable hydrogen and some portion of funding will therefore go to fossil fuel-based hydrogen and fossil fuel infrastructure. Additionally, the

[17] Australian Government (2020) *TECHNOLOGY INVESTMENT ROADMAP DISCUSSION PAPER: A framework to accelerate low emissions technologies*

[18] Commonwealth of Australia (2020) *Official Committee Hansard: Senate Environment and Communications Legislation Committee Estimates, Tuesday, 20 October 2020*, https://parlinfo.aph.gov.au/parlInfo/download/committees/estimate/f5a251e5-48d3-4283-b5a2-530558521771/toc_pdf/Environment%20and%20Communications%20Legislation%20Committee_2020_10_20_8212_Official.pdf;fileType=application%2Fpdf, p. 95-96.

[19] Coorey (2021) *Gas plan up in the air after Nationals coal ambush*, https://www.afr.com/politics/federal/gas-plan-up-in-the-air-after-nationals-coal-ambush-20210217-p57374

seven prospective locations are mostly existing fossil fuel producing regions: Darwin (NT), Eyre Peninsula (SA), Gladstone (QLD), Latrobe Valley (VIC), Hunter Valley (NSW) and the Pilbara (WA). Bell Bay in Tasmania is also planned as a hub, an industrial area based on Tasmania's historic investment in hydroelectricity.[20] Funding for Hydrogen Hubs is classified as partly dedicated to fossil fuels.

Gas-fired recovery

Programs under the 'gas-fired recovery' include funding for new gas basin planning, gas infrastructure projects, developing the Wallumbilla Gas Hub and the National Gas Infrastructure Plan, designing a framework to facilitate gas infrastructure investment and to 'empower gas reliant businesses to negotiate competitive outcomes'. Funding is $28.9 million this year and $58.6 million over the forward estimates classified as wholly dedicated to fossil fuels, with the majority ($19.4 million) going to 'support critical gas infrastructure projects'.

Despite Australian Government claims that national economic recovery from the COVID-19 pandemic would be 'gas-fired', the gas industry has made a minimal contribution to economic recovery. In 2021, the Australian Government allocated almost $1 billion of subsidies (including forward estimates) to the gas industry. Despite that, employment in the gas industry since May 2020 fell by 10.5%, the largest employment decline of any industry. Most of domestic gas production is directed towards exports, not used in Australia, and the long lead times for gas projects (from planning to extraction) means that any economic boost from gas investment would be years away.[21]

Strategic Basin Plans: Treasury, Geoscience Australia, DISER

The 2021-22 budget and MYEFO include additional funding for the Australian Government's Strategic Basin Plans, which was included in last year's budget under the JobMaker 'Gas-fired recovery' Plan. The first Strategic Basin Plan was released in 2021 for the Beetaloo Sub-basin in the Northern Territory, followed by plans for the North Bowen and Galilee Basins in Queensland. Funding from the 2021-22 budget and MYEFO total $16.2 million, with $78 million over the forward estimates, classified as wholly dedicated to fossil fuels.

Beetaloo Basin production is expected to result in 39 million tonnes of domestic greenhouse gas emissions annually, equivalent to almost 8% of Australia's annual emissions, and 99

[20] Australian Government (2021) *Future hydrogen industry to create jobs, lower emissions and boost regional Australia*, https://www.minister.industry.gov.au/ministers/taylor/media-releases/future-hydrogen-industry-create-jobs-lower-emissions-and-boost-regional-australia

[21] Saunders & Denniss (2021) *Too little too late: Gas in the COVID recovery*, https://australiainstitute.org.au/wp-content/uploads/2021/05/Too-little-to-late-WEB.pdf

million tonnes of emissions annually when exported emissions are included, almost one-fifth of Australia's annual emissions.[22]

Funding goes to gas field appraisal trials in the North Bowen and Galilee Basins and to promoting exploration investment and competition between gas producers in the Cooper and Adavale Basins in South Australia and Queensland respectively, for which basin plans have not yet been released. Funding across the budget and MYEFO are split between Geosciences Australia, Department of Treasury and Department of Industry, Science, Energy and Resources.

Northern Territory Gas Industry Roads Upgrades

Funding for roads in the Northern Territory is explicitly to enable the development of gas resources in and around the Beetaloo basin, the first of the Australian Government's strategic gas basins. The budget allocates $173.6 million to the initiative, while the project is expected to cost $217 million, wholly dedicated to fossil fuels.

Northern Land Council – Beetaloo Sub-Basin agreements

Funding of $733,000 this year and $2.2 million over the next three years goes to the Northern Land Council to "build the capacity of the Northern Land Council to facilitate land use agreements and drive economic opportunities in the Beetaloo sub basin". This funding is classified as dedicated wholly to fossil fuels.

It is unclear how this funding is used to 'facilitate' the development of the Beetaloo Basin, however the Northern Land Council says it was not consulted over controversial federal grants to Empire Energy for exploratory drilling in the region and that recommendations from the NT fracking inquiry must be implemented.[23]

Recommendation 11.6 says an independent third party should implement an information program about onshore shale gas to share "reliable, accessible, trusted and accurate information" with affected Aboriginal people. This program has so far been driven by the Gas Industry Social and Environmental Research Alliance (GISERA), whose members include Santos, Origin Energy, QGC (owned by Shell, China National Offshore Oil Corporation and

[22] Pepper (2018) *Scientific Inquiry Into Hydraulic Fracturing In The Northern Territory*, https://frackinginquiry.nt.gov.au/inquiry-reports/final-report
Australian Government (2022) *National Greenhouse Gas Inventory Quarterly Update: September 2021*, https://www.industry.gov.au/data-and-publications/national-greenhouse-gas-inventory-quarterly-update-september-2021

[23] Verschuer, Ogge, & Campbell (2021) *Subsidising fracking in the Beetaloo Basin*, https://australiainstitute.org.au/wp-content/uploads/2021/07/P1098-Beetaloo-fracking-subsidy-submission-Web.pdf

Tokyo Gas) and Australia Pacific LNG (owned by Origin, ConocoPhilips and Sinopec). GISERA's research is often flawed, resulting in headlines favourable to the gas industry.[24]

Gas power projects

Kurri Kurri Hunter Power Project

The $600 million commitment for the new Kurri Kurri gas-fired power stations is included in the MYEFO as the Kurri Kurri Hunter Power Project, dedicated wholly to fossil fuels. Funding includes $200 million for the first year, as well as 'not for publication' temporary equity support to Snowy Hydro Ltd. The commitment to the Kurri Kurri gas project, announced in May 2021 but not included in the 2020-21 budget, is intended to replace generation from the Liddell coal-fired power station that will close in 2023, however the plant is expected to run at only 2% of its capacity across the year, deeming it not commercially viable.[25] The project has been criticised for making little commercial sense and analysis from Victoria University showed the project will not generate enough revenue to justify its cost.[26]

In February 2022, Federal Labor opposition pledged up to $700 million in additional funding for Snowy Hydro to make the Kurri Kurri gas-fired power station run on green hydrogen instead of fossil fuels.[27]

Port Kembla Power Station

The budget allocated $30 million to the private Port Kembla power station proposal. The project was declared Critical State Significant Infrastructure by the NSW Government in August 2021, noting the project proposes to run on gas and green hydrogen.[28] However, the Australian Government announcement in October 2021 makes no mention of hydrogen, saying the funding will help the project reach Final Investment Decision – "This is what the

[24] See for example Ogge (2020) *CSIR…who? A closer look at recent research on coal seam gas environmental impacts*, https://australiainstitute.org.au/report/csirwho-a-closer-look-at-recent-research-on-coal-seam-gasenvironmental-impacts/

[25] Cox (2021) *NSW approves Morrison government's $600m Kurri Kurri gas-fired power plant*, https://www.theguardian.com/environment/2021/dec/20/nsw-approves-morrison-governments-600m-kurri-kurri-gas-fired-power-plant

[26] Morton (2021) *Morrison government's $600m gas power plant at Kurri Kurri not needed and won't cover costs, analysts say*, https://www.theguardian.com/australia-news/2021/jun/10/morrison-governments-600m-gas-power-plant-at-kurri-kurri-not-needed-and-wont-cover-costs-analysts-say

[27] Morton & Martin (2022) *Labor pledges up to $700m in extra funding for Snowy Hydro power plant to make it run on green hydrogen*, https://www.theguardian.com/australia-news/2022/feb/01/labor-pledges-extra-funding-for-snowy-hydro-power-plant-to-make-it-run-on-green-hydrogen

[28] NSW Government (2021) *Proposed Port Kembla power station declared critical*, http://www.planning.nsw.gov.au/News/2021/Proposed-Port-Kembla-power-station-declared-critical

Government's gas-fired recovery is about - helping Australia bounce back strongly from the COVID-19 recession".[29]

The Port Kembla project was originally flagged for funding on the Underwriting New Generation Investments (UNGI) scheme in 2019, however regulations had not been changed that would allow government to fund the scheme.[30] A new legislative instrument was registered in August 2021 specifically to allow direct funding of the Port Kembla project – *Industry Research and Development (Port Kembla Gas Generator Investment Development Grant Program) Instrument 2021*.[31]

Hydrogen & Gas infrastructure

Funding of $8.3 million this budget year and $24.9 million in forward estimates also supports fossil gas though the "development of hydrogen ready gas generation infrastructure", enabling the expansion of new gas-fired power stations.

Future Fuels Fund

The Future Fuels Fund was announced in 2020 with $71.9 million to support hydrogen and biofuel technologies, and public charging infrastructure for battery electric vehicles.[32] The MYEFO allocated an additional $177.7 million to the Future Fuels Fund, bringing the total to nearly $250 million. Round 2 of funding allocated $22.8 million for Viva Energy to build hydrogen cell refuelling stations that "will support a range of technologies to support customer choice", including "traditional diesel refuelling infrastructure".[33] The fuelling station will also be partly used to transport petrol from the Viva Energy Geelong refinery to a network of Shell petrol stations.[34] Funding is classified as partly dedicated to fossil fuels.

[29] Australian Government (2021) *Advancing a gas-fired recovery and affordable, reliable power*, https://www.minister.industry.gov.au/ministers/taylor/media-releases/advancing-gas-fired-recovery-and-affordable-reliable-power

[30] Australian Government (2019) *Underwriting New Generation Investments program*, https://www.energy.gov.au/government-priorities/energy-programs/underwriting-new-generation-investments-program#toc-anchor-read-more

[31] Federal Register of Legislation (2021) *Industry Research and Development (Port Kembla Gas Generator Investment Development Grant Program) Instrument 2021*, https://www.legislation.gov.au/Details/F2021L01386

[32] ARENA (2022) *Future Fuels Program*, https://arena.gov.au/funding/future-fuels-program/

[33] Australian Government (2022) *Government backs next generation hydrogen fuel service station*, https://www.minister.industry.gov.au/ministers/taylor/media-releases/government-backs-next-generation-hydrogen-fuel-service-station

[34] Mazengarb (2022) *Viva and ARENA fund hydrogen project that will help transport petrol from refinery*, https://thedriven.io/2022/03/01/viva-and-arena-fund-hydrogen-project-that-will-help-transport-petrol-from-refinery/

Oil

Oil Stocks and Refining Capacity in Australia

Oil subsidies in the 2021-22 budget are for Oil Stocks and Refining Capacity, with the broader funding commitment classified as 'not for publication'. The budget specifies that $50.7 million is allocated over the next 6 years, with $8.5 million this year, for the implementation and monitoring of the Fuel Security Services Payment to refineries and administration of the minimum stockholding obligation. This builds on funding from last year for 'securing Australia's liquid fuel stocks' with $250 million over ten years.

Other items included in the 'not for publication' budget item include a production payment for support domestic refineries and support for infrastructure upgrades.

The Fuel Security Services Payment has been costed at up to $2 billion to 2030, enabled by the Fuel Security Bill 2021 that was introduced to Parliament in May 2021 after the 2021-22 budget. The Minimum Stockholding Obligation is set to commence in 2022 and from July 2024 will require diesel importers to increase stockholdings by 40%.[35] The Australian Government announced that infrastructure upgrades would be supported with $302 million to "bring forward the production of better-quality fuels". These costs are included as the capital value.[36]

Australia's two refineries still in operation are Ampol's Lytton refinery in Queensland and the Viva Energy refinery in Geelong, Victoria.[37]

The MYEFO added further funding to the Government's fuel security program, $20 million this year and $60 million over the next three years, which will support companies through matched industry funding to increase their domestic fuel storage.[38]

Australia's Global Resources Strategy

Funding from Australia's Global Resources Strategy supports Mining Equipment, Technology and Services companies and the resources sector to "be the most commercially viable investment destination [and] meet the global demand for energy resources and technology

[35] Australian Government (2022) *Minimum stockholding obligation in Fuel Security Act exposure drafts: have your say*, https://www.industry.gov.au/news/minimum-stockholding-obligation-in-fuel-security-act-exposure-drafts-have-your-say

[36] Australian Government (2021) *Locking in Australia's fuel security*, https://www.pm.gov.au/media/locking-australias-fuel-security

[37] Australian Government (2021) *Locking in Australia's fuel security*

[38] Australian Government (2021) *Boosting Australia's Diesel Storage Program*, https://business.gov.au/grants-and-programs/boosting-australias-diesel-storage-program

minerals".[39] The Global Resources Statement supporting the strategy highlights the coal, oil and gas industries. The Statement calls gas an important feedstock for electricity generation and industry in Australia, referencing gas-fired recovery plans for opening new gas basins to supply the supposed increase in LNG demand overseas. "LNG plays an important role as a stable and flexible fuel. LNG, in combination with Carbon Capture and Storage (CCS), will be a critical enabler of emerging low emissions technologies". Despite decades of public funding, the only operational CCS project in Australia has failed to meet its CO_2 storage targets, every major global CCS target has been missed and three quarters of global CCS projects are actually used to increase oil production.[40] The Statement also says incorrectly that coal will "continue to play an important role in the world's energy mix for years to come".[41] The International Energy Agency's (IEA) pathway for net zero global emissions by 2050 says that no new coal, oil or gas projects are needed for global energy demand.[42] The Global Resources Strategy is allocated $9.1 million in 2021-22 and $20.1 million over the next two years, classified as primarily dedicated to fossil fuels.

Global Science and Technology Diplomacy Fund

The Global Science and Technology Diplomacy Fund (GSTDF) was announced as part of the 2021-22 budget with $500,000 this budget year, $54 million over the forward estimates and $8.2 million in ongoing funding, classified as partly dedicated to fossil fuels. The Fund will support global partnerships on science and technology and consolidate six Global Innovation Strategy programs that are expected to conclude in 2022, which include mining equipment, technology and services, and oil, gas and energy resources. These programs are continued in the *Partnering with Australia on Innovation, Science and Research* document, including funding for National Energy Resources Australia (NERA), which provides industry-matched funding to energy and resources projects.[43]

[39] Australian Government (2021) *Australia's Global Resources Strategy*, https://www.industry.gov.au/data-and-publications/australias-global-resources-strategy

[40] Pipe Dream (2022) report forthcoming. Browne & Swann (2017) *Money for nothing*, https://australiainstitute.org.au/wp-content/uploads/2020/12/P357-Money-for-nothing_0.pdf Browne (2018) *Sunk costs*, https://australiainstitute.org.au/wp-content/uploads/2020/12/P546-Sunk-costs-WEB.pdf

[41] Australian Government (2021) *Australia's Global Resources Statement; Reliable, Responsible, Ready for the Future*, https://www.industry.gov.au/sites/default/files/2021-06/australias_global_resources_statement.pdf p. 15-17

[42] International Energy Agency (2021) *Net Zero by 2050: A Roadmap for the Global Energy Sector*, https://www.iea.org/reports/net-zero-by-2050

[43] National Energy Resources Australia (n.d.) *About NERA*, https://www.nera.org.au/Our-vision Australian Government (2020) *Partnering with Australia on Innovation, Science and Research*, https://www.industry.gov.au/sites/default/files/2018-10/partnering-with-australia-on-science-innovation-and-research.pdf

Hunter Valley rail network - coal

The Federal Government-owned Australian Rail Track Corporation (ARTC) is responsible for the Hunter Valley coal rail network. $160.9 million in new capital expenditure was spent in the last reported year. This sum is included in federal calculations. The ARTC 2021 Annual Report states that the Hunter Valley coal chain is the world's largest thermal coal export operation, which in 2020-21 transported 166 million tonnes of coal, down from 179 million tonnes in 2019-20, the majority to the Port of Newcastle for export.[44]

CONCESSIONAL FINANCE

Export Finance Australia

Export Finance Australia (EFA, previously Export Finance and Insurance Corporation/EFIC), Australia's export credit agency, has a long record of funding disastrous resource projects, with historic involvement in Papua New Guinea's Ok Tedi mine and the Panguna mine that sparked the Bougainville civil war. More recently the organisation — and, therefore, Australian taxpayers — backed the PNG LNG project, which has contributed to armed conflict in PNG's highlands and materially damaged PNG's economy.[45]

EFA's 2019-20 annual report included funding for the oil and gas industry, including loans and financial services to gas company Senex and Ensight Pty Ltd, a company whose list of clients consists almost exclusively of multinational fossil fuel producers.

Fossil fuel subsidies in the EFA 2020-21 annual report do not include specific fossil fuel projects, but instead support a number of private companies that provide mining support services such as transport and decommissioning, equipment and machinery to coal, oil and gas operations. Support from EFA to these companies comes in the form of bonds, export line of credit and export contract loans to Australian and international companies. New fossil fuel-related transactions from the EFA 2020-21 annual report total $17.6 million, classified as partly dedicated to fossil fuels. EFA has an overall exposure to the LNG industry of $400.8 million, included as a total value wholly dedicated to fossil fuels.

[44] Australian Rail Track Corporation (2021) *ARTC Annual Report 2020/21*, https://www.artc.com.au/uploads/ART10515_Annual_report_2020_21_cover_and_spreads_V10_WEB-1.pdf

[45] Fletcher & Campbell (2017) Submission: Export Finance and Insurance Corporation Amendment (Support for Commonwealth Entities) Bill 2016 [provisions], https://australiainstitute.org.au/report/export-financeand-insurance-corporation-amendment-support-for-commonwealth-entities-bill-2016-provisions/; Fox (2018) Papua New Guinea's massive LNG project fails to deliver on economic promises, https://www.abc.net.au/news/2018-04-30/png-lng-project-fails-to-deliver-on-economic-promises/9710136.

Northern Australia Infrastructure Facility

The Northern Australia Infrastructure Facility (NAIF) is a $5 billion fund that issues loans to infrastructure projects across sectors in northern Australia, including Queensland, Northern Territory and Western Australia.[46] An additional $2 billion was allocated to NAIF in January 2022, bringing total available funding to $7 billion.[47] It gained notoriety in 2016 due to links to the Adani coal project, and while it has since distanced itself from the most controversial projects, it continues to issue subsidised loans to fossil fuel projects.

NAIF's 2020-21 annual report includes new funding for fossil fuel projects – the Chichester Solar Gas Hybrid Project in Western Australia and the Olive Downs South Coking Coal Project in Queensland's Bowen Basin, with total funding of $212 million.

Funding for the Chichester Solar Gas Hybrid project will fund a new solar field to support Forescue Metals' iron ore mines in the Pilbara. The project also includes new transmission to connect existing mining operations to the Newman gas-fired power station and battery facility.[48] NAIF's funding commitment to the project is $37 million this year and up to $90 million over a tenor period of 9 years. Funding is classified as partly dedicated to fossil fuels.

Funding for the Olive Downs South project will enable an open-cut coal mine in the Bowen Basin, which is expected to yield up to 15 million tonnes of coal per annum.[49] Funding for the project is $175 million, while the project has a capital value of $1 billion. NAIF funding for the project is classified as wholly dedicated to fossil fuels.

NAIF has loaned $300 million for the Darwin Ship Lift project, partly dedicated to fossil fuels. This figure is included in the total/capital value estimates for Federal fossil fuel subsidies, while the balance of the project is funded by the Northern Territory Government. See Northern Territory section for more detail.

[46] NAIF (n.d.) *Investing for impact across the north*, https://naif.gov.au/

[47] Australian Government (2022) *Extra $2 billion for the North to boom*, https://minister.infrastructure.gov.au/littleproud/media-release/extra-2-billion-north-boom

[48] Alinta Energy (n.d.) *Chichester Project - Alinta Energy*, https://www.alintaenergy.com.au/nsw/about-alinta-energy/power-generation/chichester-project/

[49] Queensland Government (2021) *Olive Downs Project*, https://www.statedevelopment.qld.gov.au/coordinator-general/assessments-and-approvals/coordinated-projects/completed-projects/olive-downs-project

Queensland

Queensland produces the most coal of any state and more gas than every state except Western Australia.[50] Of the 69 new coal projects listed on the Australian Government's Major Projects list, 44 are in Queensland.[51] New gas projects are slated for the North Bowen and Galilee Basins that could result in more than 400 million tonnes of emissions.[52] A feasibility study for the Bowen Basin gas pipeline, which received funding of $5 million in the Queensland 2020-21 Budget, claims optimistically that opening new supplies of gas "contribute towards Queensland's transition to a low-carbon economy".[53]

Despite Queensland continuing significant subsidies for coal, the Chief Executive of the pro-coal Queensland Resources Council and former federal mining minister Ian Macfarlane told an ABC podcast in March 2022 that coal-fired power could be over in Australia within 10 years.[54] Indeed, research by the Queensland Conservation Council in June 2021 found that the state's publicly owned coal power stations would be unprofitable by 2023-24 due to competing clean energy projects and falling wholesale prices.[55] Budget papers forecast no dividends from electricity generation from 2022-23 onwards.[56]

It is these publicly owned coal mines and power stations that receive the bulk of the Queensland Government's assistance to fossil fuel production and consumption, which in 2021-22 totalled $593 million in direct payments and another $71 million in tax-based concessions to fossil fuel industries, as shown in Table 6 below.

[50] Australian Government (2021) *Australian Energy Statistics 2021,* Table I: Australian production of primary fuels, by state and territory, physical units, https://www.energy.gov.au/publications/australian-energy-update-2021

[51] Australian Government - Office of the Chief Economist (2021) *Resources and Energy Quarterly - December 2021*, https://publications.industry.gov.au/publications/resourcesandenergyquarterlydecember2021/index.html

[52] 350.org (2021) *GAS-TASTROPHE: the climate impact of the Government's strategic gas basins*, https://350.org.au/gas-tastrophe-the-climate-impact-of-the-governments-strategic-gas-basins/

[53] Queensland Government (2022) *Bowen Basin pipeline study*, https://www.resources.qld.gov.au/mining-exploration/initiatives/bowen-basin-pipeline

[54] Bevan, O'Callaghan, & Mitchell (2022) *Coal-fired power could be over 'within the decade' concedes lobbyist Ian Macfarlane*, https://www.abc.net.au/news/2022-03-04/coal-fired-power-could-end-within-10-year-says-ian-macfarlane/100850994

[55] Queensland Conservation Council (2021) *Forecast of Generation, Revenue and Costs for CS Energy and Stanwell 2020-21 to 2024-25*, https://www.queenslandconservation.org.au/queensland_taxpayers.

[56] QLD Budget 2021-22, Budget Strategy and Outlook, p. 179

Table 6: Queensland Government 2021-22 fossil fuel subsidies

Dedication to fossil fuels	2021-22 Budget spending	2021-22 tax concessions	Total 2021-22 assistance
Wholly	$325,215,000	$0	$325,215,000
Primarily	$105,263,000	$47,500,000	$152,763,000
Partly	$162,884,000	$23,700,000	$186,584,000
Total	**$593,362,000**	**$71,200,000**	**$664,562,000**

Source: Queensland Government (2021) Budget Papers 2021-22

A number of fossil fuel subsidies in Queensland are classified in the budget papers as 'ongoing', due to public ownership of utilities and ports in Queensland. The total estimated value, including capital values of non-ongoing projects and forward estimates for ongoing 2021-22 projects and programs, is $1.96 billion, shown in Table 7 by dedication to fossil fuels. This is the amount that the Queensland Government anticipates it will spend in the longer term on projects that were funded this year.

Table 7: Queensland Government total value of 2021-22 projects/programs

Dedication to fossil fuels	Capital values/forward estimates
Wholly	$932,485,000
Primarily	$465,364,000
Partly	$562,093,000
Total	**$1,959,942,000**

Source: Queensland Government (2021) Budget Papers 2021-22

COAL MINES AND POWER STATIONS

Swanbank E Power Station

Swanbank E is a 385 MW gas-fired power station operated by state-owned CleanCo in South East Queensland.[57] Swanbank E was mothballed in 2014 but brought back online in 2017

[57] CleanCo Queensland (n.d.) *Factsheet Swanbank E Power Station*, https://cleancoqueensland.com.au/wp-content/uploads/Documents/Assets_and_Projects/Factsheet_Swanbank-E.pdf

with financing from the Queensland Government.[58] In February 2021 CleanCo, which operates the Queensland Government's zero emissions project investments, wrote off the $35 million value of Swanbank E to zero and expects net losses from operating Swanbank E until its expected retirement in 2036.[59] The budget allocates $15.2 million to Swanbank E for overhauls, maintenance and upgrades of generator units, classified as wholly dedicated to fossil fuels.

Kogan North Gas Field

Gas from the Kogan North Gas Fields in the Darling Downs Region will supply Swanbank E gas-fired power station, operated by CleanCo.[60] The development is a joint venture between CleanCo and Arrow Energy, agreed in October 2020.[61] The budget allocates $24.6 million to the project, classified as wholly dedicated to fossil fuels.

CS Energy – Callide and Kogan Creek

Callide Power Station is a 1,525 megawatt (MW) black coal-fired power station in Biloela, Central Queensland, operated by government-owned CS Energy.[62] Callide Power Station comprises three power stations – Callide A, Callide B and Callide C – that deliver energy to the National Electricity Market.

In May 2021, an explosion and fire at unit C4 at Callide C Power Station caused widespread blackouts affecting almost 500,000 homes for several hours from southern Queensland to Cairns.[63] Callide C is one of the state's newest power stations, a "supercritical" plant built in 2001, which broke down eight times in 2020.[64] Energy lost in the blackout was replaced by energy from the Wivenhoe pumped-hydroelectric power station and Swanbank E gas-fired power stations.[65]

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[58] Morrison (2021) *Queensland writes off Swanbank E gas-fired power plant*, https://www.argusmedia.com/en/news/2184709-queensland-writes-off-swanbank-e-gasfired-power-plant

[59] Ibid.

[60] CleanCo Queensland (2021) *CleanCo Annual Report FY21*, https://www.cleancoqld.com.au/wp-content/uploads/2021/09/CleanCo-Annual-Report-20214.pdf

[61] Ibid.

[62] CS Energy (n.d.) *Callide Power Station*, https://www.csenergy.com.au/what-we-do/generating-energy/callide-power-station/callide-power-station

[63] Smee (2021) *Queensland power plant explosion causes mass outages across state*, https://www.theguardian.com/australia-news/2021/may/25/queensland-power-plant-explosion-causes-mass-outage

[64] Smee (2021) *Coal-fired power plant that caused Queensland blackouts broke down eight times in past year*, https://www.theguardian.com/australia-news/2021/may/26/coal-fired-power-plant-that-caused-queensland-blackouts-broke-down-eight-times-in-past-year

[65] Smee (2021) *Coal-fired power plant that caused Queensland blackouts broke down eight times in past year*

CS Energy wrote down the value of the Callide B and Callide C generators by $191.7 million and $161.7 million respectively in December 2020, a move driven by electricity prices.[66] In September 2021, after the failure of unit C4, CS Energy reported a net loss of $266 million and would pay no dividends to the government this financial year.[67]

The budget allocates $53.6 million to Callide Power Station, $16.5 million to Kogan Creek Power Station and $2.4 million to Kogan Creek Mine, totalling $72.5 million classified as wholly dedicated to fossil fuels.

Stanwell Corporation & Power Station

Stanwell Power Station is a 1,460 MW coal power station that supplies electricity to the National Electricity Market, using black coal sourced from the Curragh Mine in Blackwater, Central Queensland.[68] In December 2020, Stanwell Corporation wrote down the value of both Tarong Power Stations and Stanwell Power Station by a total $719.5 million.[69]

In April 2021, Stanwell Corporation revealed plans to transition away from fossil fuels and towards renewables, including trying to increase flexibility of supply and the possibility of coal generating units being taken offline for parts of the year.[70]

The budget allocates $74.4 million to Stanwell Power Station's ash storage plan, control systems upgrades, overhauls and other projects. Funding is also allocated generally to Stanwell Corporation Limited for information communications, software upgrades and other capital projects, amounting to $11.5 million, classified as wholly dedicated to fossil fuels.

Meandu mine & Tarong Power Station

Meandu coal mine is operated by state-owned Stanwell and services Stanwell's coal-fired Tarong Power Stations. Meandu has five working pits and produces up to seven million tonnes of coal each year.[71] Meandu mine is also used to deposit ash waste from Tarong

[66] Mazengarb (2020) *Queensland budget delivers $500m renewables fund, as coal plant revenues slump*, https://reneweconomy.com.au/queensland-budget-delivers-500m-renewables-fund-as-coal-plant-revenues-slump-94819/

[67] Peel (2021) *Queensland energy generator dividends slump*, https://www.theaustralian.com.au/nation/politics/queensland-energy-generator-dividends-slump/news-story/8f29a7e8a6e37065362ec0ee3784a03b

[68] Stanwell (n.d.) Stanwell Power Station, https://yhejitl3sl24wn203q4vn14z-wpengine.netdna-ssl.com/wpcontent/uploads/FactSheet-Stanwell-MAY-2018.pdf

[69] Mazengarb (2020) *Queensland budget delivers $500m renewables fund, as coal plant revenues slump*

[70] Smee (2021) *Australia's third-largest carbon emitter says it must transition to renewables and curtail coal plants*, https://www.theguardian.com/australia-news/2021/apr/21/stanwell-corporation-australia-third-largest-carbon-emitter-says-it-must-transition-to-renewables-and-curtail-coal-plants

[71] Stanwell (n.d.) Meandu Mine, http://www.stanwell.com/wp-content/uploads/Fact-sheet-Meandu-MineAUGUST-2016.pdf

Power Stations.[72] Stanwell committed to expand Meandu mine in August 2021, increasing pit size by 7% but maintaining the mine's total production rate, to ensure feedstock for Tarong and Tarong North power stations.[73] The budget allocates $50 million to Meandu Mine, classified as wholly dedicated to fossil fuels.

Tarong Power Stations are among Queensland's largest electricity generating sites, comprised of four units each capable of producing 350 MW and a 443 MW unit.[74] In December 2020, Stanwell Corporation wrote down the value of both Tarong Power Stations and Stanwell Power Station by a total $719.5 million.[75] The budget allocates $31.9 million to Tarong Power Stations for transformer replacement, ash off take projects, low temperature reheater replacement, overhauls and other projects, the same projects as in the 2020-21 budget, classified as wholly dedicated to fossil fuels.

ABANDONED MINES

The Queensland Government uses the Abandoned Mine Sites Management Policy (AMLP) to manage mine sites that are considered abandoned when there is no current mining tenement or environmental authority.[76] The AMLP is managed jointly by Queensland Treasury, the Department of Natural Resources, Mines and Energy and the Department of Environment and Science, to minimise hazard exposure to surrounding areas, control environmental impacts, minimise maintenance and monitoring requirements and also investigate "opportunities to commercialise abandoned mines and/or repurpose the land".[77] Re-commercialisation of abandoned mines was also flagged in the Queensland Resources Industry Development draft plan, published in December 2021, though the mines identified for that pilot program are not fossil fuel mines.[78] In 2018 the Department of Natural Resources, Mines and Energy identified 120 priority abandoned mines with a disturbance area of 10,300 hectares.[79] Abandoned mines are allocated $1 million in the budget. Funding is considered partly dedicated to fossil fuels as abandoned mines for

[72] Ibid.
[73] Hunt (2021) *Stanwell to expand Meandu coal mine*, https://www.miningmonthly.com/life-cycle-end-of-life-management/news/1415088/stanwell-to-expand-meandu-coal-mine
[74] Stanwell (n.d.) *Our power stations*, https://www.stanwell.com/energy-assets/our-power-stations/
[75] Mazengarb (2020) *Queensland budget delivers $500m renewables fund, as coal plant revenues slump*
[76] Queensland Government (n.d.) *Abandoned Mines Management Policy*, https://www.dnrme.qld.gov.au/__data/assets/pdf_file/0008/1454939/policy-abandoned-mines.pdf
[77] Ibid.
[78] Queensland Government (2021) *Re-commercialisation of abandoned mines*, https://www.resources.qld.gov.au/mining-exploration/initiatives/re-commercialisation-of-abandoned-mines
[79] Queensland Government (2018) *Achieving improved rehabilitation for Queensland: addressing the state's abandoned mines legacy*, https://s3.treasury.qld.gov.au/files/8243_Abandoned-Mines-Discussion-Paper_v61.pdf

remediation include some coal mines, such as the Hopeland (ex-Linc Energy) mine, while a large number are old gold rush era mining sites.[80]

PORTS

Fossil fuel subsidies in the budget include funding for a number of ports in Queensland. Queensland's port sector is a significant recipient of budget infrastructure funding to support both imports and exports. Port-related budget funding is granted to the Port of Townsville Limited, Far North Queensland Ports Corporation Limited, Gladstone Ports Corporation Limited and North Queensland Bulk Ports Corporation Limited. These port companies manage both fossil fuel (gas, coal, oil/petroleum products) and non-fossil fuel imports and exports, such as timber, sugar, cargo, agricultural and food products, and minerals.

Far North Queensland Ports Corporation Limited

Far North Queensland Ports Corporation Limited, trading as Ports North, owns and manages the Port of Cairns and other small ports in Far North Queensland, and trades a range of products. Petroleum products as a percentage of total imports in the Port of Cairns increased dramatically in the financial year 2021 to 78%, up from 40% in 2020.[81] Funding of $9.8 million in the budget for Far North Queensland Ports Corporation is partly dedicated to fossil fuels and goes to general cargo consolidation, plant, equipment, minor works and site decontamination.

Gladstone Ports Corporation Limited

Gladstone Ports Corporation Limited operates the Port of Gladstone, Port Alma and the Port of Bundaberg. Fossil fuel trade occurs primarily through the Port of Gladstone, which is by far the largest of all Gladstone ports. Coal and LNG make up 83% of exports from the Port of Gladstone while also importing a small amount of LP gas, petroleum coke and other petroleum products.[82] Funding for Gladstone Ports Corporation goes to Auckland Point projects, environment, information system, quarry and marine projects, ship loader replacement and the RG Tanna Coal Terminal projects, totalling $102 million in the budget classified as primarily dedicated to fossil fuels. The Queensland Government announced $60

[80] Ibid.

[81] Ports North (2021) *Ports North Annual Report 2020 | 2021*, https://os-data-2.s3-ap-southeast-2.amazonaws.com/portsnorth-com-au/bundle1/ports_north_annual_report_2020-2021_digital.pdf
Ports North (2020) *Annual Report 2019 2020*, https://os-data-2.s3-ap-southeast-2.amazonaws.com/portsnorth-com-au/bundle1/200928_pn_ar_fy2020_website_version.pdf

[82] Gladstone Ports Corporation Limited (2022) *Cargo Statistics Selections*, https://content3.gpcl.com.au/viewcontent/CargoComparisonsSelection/

million for a new coal shiploader in February 2022, to "secure the capacity of the RG Tanna terminal for another 25 years"[83] – this funding will appear in the next budget papers and is not included in current calculations.

North Queensland Bulk Ports Corporation Limited

North Queensland Bulk Ports Corporation operates the Ports of Mackay, Weipa, Abbot Point and Hay Point. Hay Point is the largest metallurgical coal export port in the world and Abbot Point is the Australia's northern most coal export port.[84] Petroleum is the largest throughput for the Port of Mackay.[85] Overall trade through North Queensland Bulk Ports declined by 11% in 2020-21, with coal making up 87% of throughputs for all North Queensland Bulk Ports. 75% of coal exports through the Ports are metallurgical coal and 25% is thermal coal, with coal trading volumes down through both Abbot Point and Hay Point Ports.[86]

Fossil fuel funding in the budget goes to projects for Abbot Point, Hay Point and the Port of Mackay for general development, business improvements and a range of small projects. Funding for Abbot Point and Hay Point projects are classified as wholly dedicated to fossil fuels, while other projects are classified as primarily or partly dedicated to fossil fuels. Funding for the Louisa Creek Acquisition Program is also included – the Louisa Creek residential area near Hay Point is soon to have a number of houses demolished to allow for expansion works.[87] Fossil fuel subsidies for North Queensland Bulk Ports Corporation is $12.3 million in the budget.

Port of Townsville

The Port of Townsville is a major Queensland port, through which companies including Shell, Mobil, Caltex, BP, Ampol, Amco, HC Sleigh and Vacuum Oil Pty have been importing oil and petroleum products since the 1930s.[88] The Port of Townsville imports and exports a range of products, including cement, vehicles, sugar, timber, agricultural products and minerals.[89]

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[83] Queensland Government (2022) *New coal shiploader secures Gladstone's export future*, https://statements.qld.gov.au/statements/94411

[84] North Queensland Bulk Ports Corporation (2021) *North Queensland Bulk Ports Annual Report 2020/21*, https://nqbp.com.au/__data/assets/pdf_file/0024/37707/NQBP-Annual-Report-2020_21_-Final_PDF-Print.pdf

[85] North Queensland Bulk Ports Corporation (2021) *North Queensland Bulk Ports Annual Report 2020/21*
North Queensland Bulk Ports Corporation (2022) *Throughputs*, https://nqbp.com.au/trade/throughputs

[86] Ibid.

[87] Petith & Miko (2022) *From 200 to 31 homes: The town that may soon disappear*, https://www.couriermail.com.au/news/queensland/mackay/nqbp-to-demolish-8-louisa-creek-homes-for-coal-terminal-expansion/news-story/b2a1cdaab722df70561790bb207f8ab4

[88] Port of Townsville (n.d.) *Port History*, https://www.townsville-port.com.au/about/port-history/

[89] Ibid.

Liquid fuel was the largest import in 2020-21, comprising 42% of total imports, a 2% increase compared to 2019-20.[90]

As with the 2020-21 budget, the channel capacity upgrade is the largest fossil fuel subsidy to the Port of Townsville at $65.3 million, classified as partly dedicated to fossil fuels. The Townsville Channel Capacity Upgrade (TCCU) will deliver 62 hectares of reclaimed land for port operations and widen the shipping channel to allow access to larger vessels and increase trade capacity for the region. The project is set to reach capital dredging stage in 2022.[91] The TCCU has also previously received funding from the Australian Government.

Other funding for the Port of Townsville goes to plant, equipment and minor works, road network upgrades and wharf facilities upgrades, all classified as primarily for fossil fuels totalling $3.3 million.

INDUSTRIAL PRECINCTS

Gladstone State Development Area

The Gladstone State Development Area connects major rail and roads to processing facilities and ports for large industrial activities, including a number of fossil fuel-related activities. The Gladstone State Development Area includes Australia Pacific LNG, Santos Gladstone LNG, Queensland Curtis LNG and Southern Oil's northern oil refinery.[92] The budget dedicates $1 million to the Gladstone State Development area and identifies a capital value of $11.6 million, classified as primarily dedicated to fossil fuels.

Salisbury Plains Industrial Precinct

The Salisbury Plains Industrial Precinct is located within the Abbot Point State Development Area and is identified by the Queensland Government as suitable for supporting infrastructure for the Adani/Carmichael Rail, Adani Abbot Point Coal Terminal, GVK Hancock Rail and Queensland Coal Investment projects.[93] Industries considered suitable for the area include a LNG facility, fuel storage and associated infrastructure, and extractive industries.[94]

[90] Port of Townsville (2021) *Annual Report 2020-21*, https://s3-ap-southeast-2.amazonaws.com/os-data-2/townsville-port-2/bundle13/annual_report_2020-21.pdf

[91] Port of Townsville (n.d.) *Project Schedule*, https://www.townsville-port.com.au/projects-development/channel-upgrade/project-schedule/

[92] Queensland Government (n.d.) *Gladstone State Development Area*, https://www.statedevelopment.qld.gov.au/coordinator-general/state-development-areas/current/gladstone-state-development-area

[93] Economic Development Queensland (n.d.) *Salisbury Plains Industrial Precinct*, https://industrial.edq.com.au/Salisbury-Plains-Industrial-Precinct-property-for-sale

[94] Economic Development Queensland (n.d.) *Salisbury Plains Industrial Precinct*

The budget dedicates $500,000 to the Salisbury Plains Industrial Precinct and identifies a capital value of $7 million, classified as primarily dedicated to fossil fuels.

Townsville Regional Industrial Estate

Budget papers refer to spending on the Townsville Regional Industrial Estate, which appears to be within the Townsville State Development Area. The Townsville State Development Area serves the Port of Townsville and nearby roads and rails that provide access to industrial and resource development areas.[95] The Townsville State Development Area is currently home to a number of industrial facilities, including Origin Energy's Mt Stuart gas-fired peaking generator plant.[96] The budget dedicates $200,000 to the Townsville Regional Industrial Estate, the same amount dedicated in the previous budget, and identifies a capital value of $3.5 million, classified as primarily dedicated to fossil fuels.

RAIL

Mount Isa Line

The Mount Isa Line transports copper, lead, zinc, silver and phosphate rock, responsible for 75% of Queensland's non-coal mineral output.[97] However, the Mount Isa Line Infrastructure Master Plan identifies that "current interest in developing substantial coal deposits in the Northern Galilee Basin underwrite the unprecedented growth opportunities for the Mount Isa Line".[98] The Port of Townsville is the primary destination for the majority of products transported on the Mount Isa Line.[99] The budget allocates $16.3 million for works on the Townsville-Mount Isa Rail Line for maintenance and $24.9 million to the Mount Isa Line for capacity and resilience improvements, with a total project cost of $50 million, classified as partly dedicated to fossil fuels.

[95] Queensland Government (n.d.) *Townsville State Development Area*, https://www.statedevelopment.qld.gov.au/coordinator-general/state-development-areas/current/townsville-state-development-area

[96] Ibid.

[97] Queensland Rail (2012) *Mount Isa Line Rail Infrastructure Master Plan*, https://www.queenslandrail.com.au/business/acccess/Documents/Maps/QR4159.1%20Infrastructure%20Master%20Plan%202012_Updated_LR.pdf

[98] Ibid.

[99] Ibid.

Maintenance of below rail assets - North Coast Line & West Moreton rail

The West Moreton rail line predominantly carries coal, including that from the Surat Basin mine and the New Acland Mine.[100] The West Moreton system connects Brisbane to west and south western regions, including as a major artery to the Darling Downs.[101] The North Coast Line is a freight and passenger line predominantly transporting sugar, grain and livestock, but also links the Mount Isa Line to the Port of Townsville.[102] Funding for the North Coast Line and the West Moreton rail system are for the maintenance of below rail assets, at $38.3 million each in 2021-22. Funding for the North Coast Line is classified as partly dedicated to fossil fuels and funding for the West Moreton rail system is classified as primarily for fossil fuels.

CONCESSIONS

Concessions in the Queensland budget include targeted discounts, rebates and subsidies for Queenslanders and businesses. These are listed in the Concessions Statement and include both direct budget outlays (fee subsidy payments) and forgone revenue (i.e revenue lost through reduced fees and charges). Only concessions above the minimum materiality threshold of $50,000 forgone revenue are included in the Concessions Statement.[103]

Fossil fuel subsidies include concessions by port corporations to organisations and businesses. Concessions delivered by Government-Owned Corporations (GOC) related to fossil fuels include:

- Far North Queensland Ports Corporation Limited, partly dedicated to fossil fuels (oil), worth $3.7 million;
- Gladstone Ports Corporation Limited, primarily dedicated to fossil fuels (various), worth $39.6 million;
- North Queensland Bulk Ports Corporation Limited, primarily dedicated to fossil fuels (various), worth $1.6 million; and

[100] Queensland Rail (2016) *West Moreton System Information Pack - Issue 3.1*, https://www.queenslandrail.com.au/business/acccess/Documents/West%20Moreton%20System%20Information%20Pack%20-%20Issue%203.1%20-%20October%202016.pdf

[101] Queensland Rail (n.d.) *West Moreton system*, https://www.queenslandrail.com.au/forbusiness/the-regional-network/west-moreton-system

[102] Queensland Rail (2016) *North Coast line system*, https://www.queenslandrail.com.au/forbusiness/the-regional-network/north-coast-line-system

[103] Queensland Government (2021) *Queensland Budget 2021-22 – Budget Strategy & Outlook | Budget Paper No. 2*

- Port of Townsville Limited, primarily dedicated to fossil fuels (oil), worth $6.3 million.

All of the above GOCs also provide concessions via Concessional Leases (Industry, Commercial and Community) to industry participants that are below commercial rates. Gladstone Ports Corporation Limited also provides Concessional Port Charges where port charges are contracted at significantly below market rates.[104]

Additional GOC concessions as part of the government's COVID-19 response are delivered to eligible organisations and businesses, including temporary reductions to commercial leases, fees and other charges. COVID-19 concessions were listed in the budget for all GOCs mentioned above, but this year only for Far North Queensland Ports Corporation. The Concessions Statement identifies that GOC concessions below the minimum materiality threshold of $50,000 forgone revenue were also delivered by CS Energy, Stanwell and CleanCo, which own and operate fossil fuel related projects and sites as detailed previously.

The Mount Isa Line Incentive Scheme subsidises eligible freight users to reduce rail costs and promote the use of rail for freight and developing the North West Minerals Province. This concession is classified as partly subsidising fossil fuels (coal specifically), worth $20 million in the budget.

[104] Ibid.

Western Australia

Western Australia is the nation's largest oil and gas producer, accounting for 51% of natural gas and 74% of crude and condensate production in Australia.[105] The coal industry in WA is comparatively small, producing only 1.2% of Australia's saleable coal.[106]

Majority of the oil and gas produced in Western Australia is exported, while all coal produced is used domestically, primarily in energy production.[107] Fossil fuels made up 68% of energy generation in 2021, with 39% of this coming from coal; only 32% of energy generation was from renewables.[108]

The dominance of the fossil fuel industry in the state's energy generation and export industry is reflected in the level of assistance it is provided by the WA Government. Table 8 shows that the WA Government is to spend a total of $839 million on assisting fossil fuel industries, with $108 million budgeted for 2021-22. This is down from $135 million in 2020-21.

Table 8: Government of Western Australia 2021-22 fossil fuel assistance

	2021-22 Expenditure	Capital value/forward estimates
Coal	$20,000,000	$254,786,000
Gas/Oil	$66,324,000	$497,842,000
Various	$21,752,000	$86,300,000
Total	**$108,076,000**	**$838,928,000**
Wholly	$45,109,000	$482,100,000
Primarily	$5,945,000	$0
Partly	$57,022,000	$356,828,000
Total	**$108,076,000**	**$838,928,000**

Source: Government of Western Australia (2021) Budget Papers 2021-22

[105] Government of Western Australia (2021) *2020-2021 Economic indicators resources data, http://www.dmp.wa.gov.au/About-Us-Careers/Latest-Statistics-Release-4081.aspx*

[106] Australian Government (2021) *Resources and Energy Quarterly, December 2021, Historical Data*, https://publications.industry.gov.au/publications/resourcesandenergyquarterlydecember2021/index.html

[107] Government of Western Australia (2021) *Major commodities resource data*; Government of Western Australia (2021) *2020-21 Economic indicators resource data*, https://www.dmp.wa.gov.au/About-Us-Careers/Latest-Statistics-Release-4081.aspx

[108] McConnell et al (2021) *Energy, Western Australia*, https://opennem.org.au/energy/wem/?range=1y&interval=1w

ELECTRICITY SUPPLY

The majority of total project spending on fossil fuels in the Western Australian budget relates to electricity provision via the state's publicly owned power companies. A total of $571 million has been allocated to building or upgrading gas and coal-fired power stations, with $59.5 million to be spent in 2021-22.

Synergy

Western Australia's major energy supplier, Synergy, is state-owned, and a large portion of its generation portfolio comprises coal, gas and liquid fuel.[109] The Government plans to spend $39 million on upgrading and maintaining fossil fuel power stations in the state, a sum that was considered wholly dedicated to fossil fuels in this analysis. The Collie and Muja coal-fired power stations received a total of $20 million for upkeep in 2021-22 and a total of $255 million in capital spending. Gas-fired power stations Cockburn, Pinjar and Kwinana are in line to receive a total of $172 million in capital spending, with $19 million in 2021-22. Public expenditure on these fossil fuel power stations has increased by 48% between 2020-21 and 2021-22.

Onslow Power Station

In partnership with Chevron, state-owned power company Horizon Power constructed a distributed energy resource (DER) microgrid over the last four years to delivery energy to Onslow, a beach town of over 800 people in the state's Pilbara region. The Onslow DER project involves a mix of power sources and technology, including a solar farm, battery storage, transmission line, substation and a gas-diesel power station.[110] The project aims to generate 50% of the energy supplied to the town from renewables, but the remaining will be generated from natural gas resources.[111]

The Government spent $93 million to build the gas-fired power station in 2017-18 and constructed the solar farm and battery in 2019. In 2021-22, the Government spent an additional $4 million on power station upgrades. As this funding is also dedicated to renewable energy, it was classified as partly dedicated to fossil fuels in this analysis.

The justification for such major expenditure in a relatively small town may relate to the siting of a "marine support base" for the offshore oil and gas industry here in 2017. This

[109] Synergy (2022) *Power stations*, https://www.synergy.net.au/About-us/Who-we-are/What-we-do/Electricity-generation/Power-stations

[110] Horizon (2020) *Onslow Distributed Energy Resources Management System (DERMS),* https://www.horizonpower.com.au/your-community/getting-future-ready/onslow-distributed-energy-resources-management-system-derms/

[111] Horizon Power (2021) *Annual Report 2020-21*, https://www.horizonpower.com.au/about-us/our-performance/

project is estimated to be worth $121 million[112], including a $16.8 million loan from the Federal Government's Northern Australia Infrastructure Facility, included and discussed further in the Federal Government chapter.[113]

Esperance Power Station

A controversial 22 MW gas-fired power station is being built in Esperance[114] as part of a wider Esperance Power Project, which includes renewable energy.[115] The Esperance power project will cost the Government $12 million in 2021-22, this is the last year of funding with the total capital value totalling $16.6 million. The cost of switching from the reticulated gas supply in 2022 is likely to be borne by residents of Esperance, who will need to buy new appliances and fittings.[116] As the project also funds wind and solar energy this funding is considered only partly dedicated to fossil fuels for the purposes of this analysis.[117]

PORTS

The main ports involved in handling WA's oil and gas trade are the Fremantle, Kimberly and Pilbara port authorities. In Western Australia's budget, these state-owned port authorities allocated $31 million in 2021-22 and $179 million in capital works that at least partly benefit the oil and gas sector.

Fremantle Port Authority

Fremantle Port's "principal bulk cargo" is petroleum products, with liquid bulk accounting for 48% of its imports and 8% of its exports.[118] In the budget, the Port's Kwinana Bulk Terminal and Bulk Jetty (in the Outer Harbour) received over $24 million for a range of infrastructure works including equipment and electrical upgrades, concreting and asset replacement works.[119] As the terminal and jetty are not exclusively used by the oil and gas

[112] Government of Western Australia (2021) *Budget Statements, Budget Paper No.2 – Volume 2*, p 820,
[113] Northern Australia Infrastructure Facility (2017) *Onslow Marine Support Base,* https://naif.gov.au/what-we-do/case-studies/onslow-marine-supply-base-omsb-investment-decision/
[114] Smith (2020) *Esperance power station approval calls WA Government process into question*, https://www.abc.net.au/news/2020-09-20/esperance-power-station-approval-dap-panel-shire-state-process/12678912
[115] Horizon (2020) *Esperance Power Project: cleaner, greener*, https://www.horizonpower.com.au/our-community/projects/goldfields-esperance/epp/
[116] Smith (2022) *Esperance residents face uncertainty over household energy supply,* https://www.abc.net.au/news/2022-02-05/esperance-gas-horizon-state-government-reticulated-pipe/100806586
[117] Government of Western Australia (2021) *2021-22 Budget Statement, Budget Paper No. 2 – Volume 2*, p 818, https://www.ourstatebudget.wa.gov.au/budget-papers.html
[118] Fremantle Port (2021) *Annual Report 2021*, p 36 https://www.fremantleports.com.au/publications
[119] Government of Western Australia (2021) *2021-22 Budget Statement, Budget Paper No. 2 – Volume 2*, p 641, https://www.ourstatebudget.wa.gov.au/budget-papers.html

industry, this funding was considered partly dedicated to the fossil fuel industry and funding for the inner harbor which mostly supports container shipping is not included.

Kimberly Port Authority

Broome Port, operated by the Kimberly Port Authority, supports offshore oil and gas operations and exports in north Western Australia.[120] In 2021-22, the port received $661,000 for electrical upgrades, which is estimated to cost $1.4 million in capital spending. The funding for the port is considered partly dedicated to fossil fuels, as the port is used for the import and export of other goods as well.

Pilbara Port Authority

The Pilbara Port Authority encompasses the ports of Ashburton, Dampier and Port Hedland, which are large bulk exporters.[121] Port Dampier and Ashburton export 39% of Australia's LNG.[122] The Port of Ashburton accommodates LNG and other hydrocarbon-based processing and natural gas processing for Western Australia's domestic gas supply.[123] The port received $6 million in 2021-22 for infrastructure construction projects, which is estimated to cost a total of $32 million to complete. As other resource sectors make use of this infrastructure, this funding was classified as primarily dedicated to the industry.

INFRASTRUCTURE AND OTHER SUPPORTIVE SPENDING

The WA Government funds a range of projects that subsidise oil and gas production, transportation, consumption, and export infrastructure. These include:

- The Gorgon Gas Carbon Dioxide Injection Project, is owned by multinational oil giant Chevron and is one of the world's largest LNG projects (and also one of the largest drivers of Australia's recent emission increases[124]). It is located off the northwest coast of WA and extracts approximately 15.6 Mt of LNG a year. The Gorgon project includes a CCS operation, which was constructed in 2018 with a $60 million subsidy from the Federal Government but faces ongoing performance issues.[125] For reasons

[120] Kimberly Port Authority (2020) *Port of Broome history*, https://www.kimberleyports.wa.gov.au/about-port-of-broome/port-of-broome-history

[121] Pilbara Port Authority (2020) *2020-21 Annual Report*, https://www.pilbaraports.com.au/about-ppa/publications/annual-report

[122] Pilbara Port Authority (2020) *2020-21 Annual Report*, p 11, https://www.pilbaraports.com.au/about-ppa/publications/annual-report

[123] Pilbra Ports Authority (2022) *Port of Ashburton*, https://www.pilbaraports.com.au/ports/port-of-ashburton

[124] Saddler (2018) *National Energy Emissions Audit – October 2018*, https://australiainstitute.org.au/report/national-energy-emissions-audit-october-2018/; Government of Western Australia (n.d.) *Gorgon carbon dioxide project*, https://www.dmp.wa.gov.au/Petroleum/Gorgon-CO2-injection-project-1600.aspx

[125] Swann (2018) *Gorgon-tuan Problem*, https://australiainstitute.org.au/report/gorgon-tuan-problem/

that are not detailed in the budget papers, the Gorgon CCS project will receive $500,000 from the state budget over the next four years.

- The Dampier-to-Bunbury pipeline, which is Australia's longest gas pipeline, running 1600 km from Dampier to Bunbury and transporting around 700-800 terajoules of gas a day. [126] Although the pipeline is privately owned, the budget allocates $3.8 million in 2021-22 and $21 million in capital spending; this sum is for the purchase of land to widen the pipeline corridor.[127]
- The 353 km long Mid West Pipeline, which transports gas from the Dampier-to-Bunbury pipeline to generate power for mining and minerals processing at Windimurra.[128] The pipeline is co-owned by the state-owned power company Horizon and private energy infrastructure business AP Pipelines. The WA Government is investing $300,000 in 2021-22 to connect the pipeline to the liquefied natural gas production plant in Mount Magnet, thus supplying power to nearby gold mining companies.
- The Future Energy Cooperative Research Centre, supports the LNG industry with research, education and training. [129] With the support of the Federal Government, the centre is planning to establish the LNG Futures Facility, a 10-tonne-per-day LNG plant to be based at Kwinana. In the budget, the centre received $1.2 million, wholly dedicated to LNG.

DEPARTMENT OF MINES, INDUSTRY REGULATION AND SAFETY

The Department of Mines, Industry Regulation and Safety is responsible for providing advice and regulatory services to industry, and for ensuring that the state's natural resources are "developed and managed responsibly". [130] The Department coordinates a range of initiatives which support fossil fuel research and development:

- In 2021-22, $1.2 million was allocated to the Exploration and Incentive Scheme (EIS), which supports the resource sector with exploration, drilling, mapping and data collection. The EIS includes an "Energy Analysis Program" specific to petroleum and

[126] Australian Gas Infrastructure Group (n.d) *About DBP*, https://www.dbp.net.au/about-dbp/; Australian Gas Infrastructure Group (n.d) *Dampier Bunbury Pipeline*, https://www.agig.com.au/the-pipeline

[127] Government of Western Australia (n.d) *Dampier to Bunbury pipeline*, https://www.dplh.wa.gov.au/projects-and-initiatives/dampier-to-bunbury-pipeline

[128] APA (n.d.) *Mid-West Pipeline*, https://www.apa.com.au/our-services/gas-transmission/west-coast-grid/mid-west-pipeline/

[129] Andrews (2020) *Investing in Australia's mining and energy future*, https://www.minister.industry.gov.au/ministers/karenandrews/media-releases/investing-australias-mining-and-energy-future

[130] Government of Western Australia (2020) *2020-21 Budget Statements, Budget Paper No. 2 – Volume 1*, p 248, https://www.ourstatebudget.wa.gov.au/budget-papers.html

geothermal companies.[131] The EIS is an ongoing initiative in which the WA Government has invested $50 million since 2017-18.[132] The funding for EIS was classified as partly dedicated to fossil fuels, as this assistance is also extended to other natural resources including, gold, nickel and copper.[133] However, in 2021 the Co-funded Energy Analysis Program, one of the EIS programs, almost exclusively provided grants to petroleum companies.[134]

[131] Western Australian Government (n.d.) *Exploration Incentive Scheme (EIS)*, https://www.dmp.wa.gov.au/Petroleum/Exploration-Incentive-Scheme-2251.aspx

[132] McGowan and Johnston (2020) *$8.2 million in COVID-19 recovery funding for resources and exploration*, https://www.mediastatements.wa.gov.au/Pages/McGowan/2020/08/8-point-2-million-dollars-in-COVID-19-recovery-funding-for-resources-exploration.aspx

[133] Government of Western Australia (2015) *Exploration Incentive Scheme creates millions in benefits to WA*, http://www.dmp.wa.gov.au/News/Exploration-Incentive-Scheme-5059.aspx

[134] Government of Western Australia (2021) *EIS government co-funded Energy Analysis Program, 2021-22,* https://www.dmp.wa.gov.au/Geological-Survey/EIS-government-co-funded-Energy-28761.aspx

Northern Territory

Subsidies to the unconventional gas industry in the Northern Territory made headlines through 2021-22, with the Federal Government making an exploration grant to a Liberal Party-linked company.[135] This grant was successfully contested in court by the Environment Centre NT and ruled invalid,[136] before being re-made in early 2022.[137] This Federal money is included in the Federal section and is not included in the estimates below.

While the Territory's onshore gas industry is only in its early stages, Darwin hosts processing facilities for several offshore LNG export projects, which look set to benefit from new shipping facilities funded by Territory and Federal governments. The largest component of NT fossil fuel subsidy estimates, however, relates to the NT Government-owned Power and Water Corporation, which has committed billions to the Blacktip gas project in the Bonaparte Gulf near Wadeye and the Northern Gas Pipeline from Tennant Creek to Mt Isa in Queensland.

Table 9: NT government 2020 fossil fuel subsidies

NT budget fossil fuel assistance	2021-22 expenditure	Total/forward estimates
Wholly	$51,100,000	$3,513,142,000
Primarily	$0	$43,400,000
Partly	$89,925,000	$100,000,000
Total	**$141,025,000**	**$3,656,542,000**
Gas	$51,100,000	$3,556,542,000
Oil and gas	$89,925,000	$100,000,000
Total	**$141,025,000**	**$3,656,542,000**

Sources: Budget Papers, PWC annual reports

[135] Mazengarb (2021) *Pitt slammed for $21m handout to Liberal Party linked Beetaloo gas projects*, https://reneweconomy.com.au/pitt-slammed-for-21m-handout-to-liberal-party-linked-beetaloo-gas-projects/

[136] Mazengarb (2021) *Federal Court voids Beetaloo gas drilling grants, ruling they are legally invalid*, https://reneweconomy.com.au/federal-court-voids-beetaloo-gas-drilling-grants-ruling-they-are-legally-invalid/

[137] Knaus (2022) *Coalition announces new $19m Beetaloo Basin gas support after previous grants ruled invalid*, https://www.theguardian.com/australia-news/2022/feb/23/coalition-announces-new-19m-beetaloo-basin-gas-support-after-previous-grants-ruled-invalid

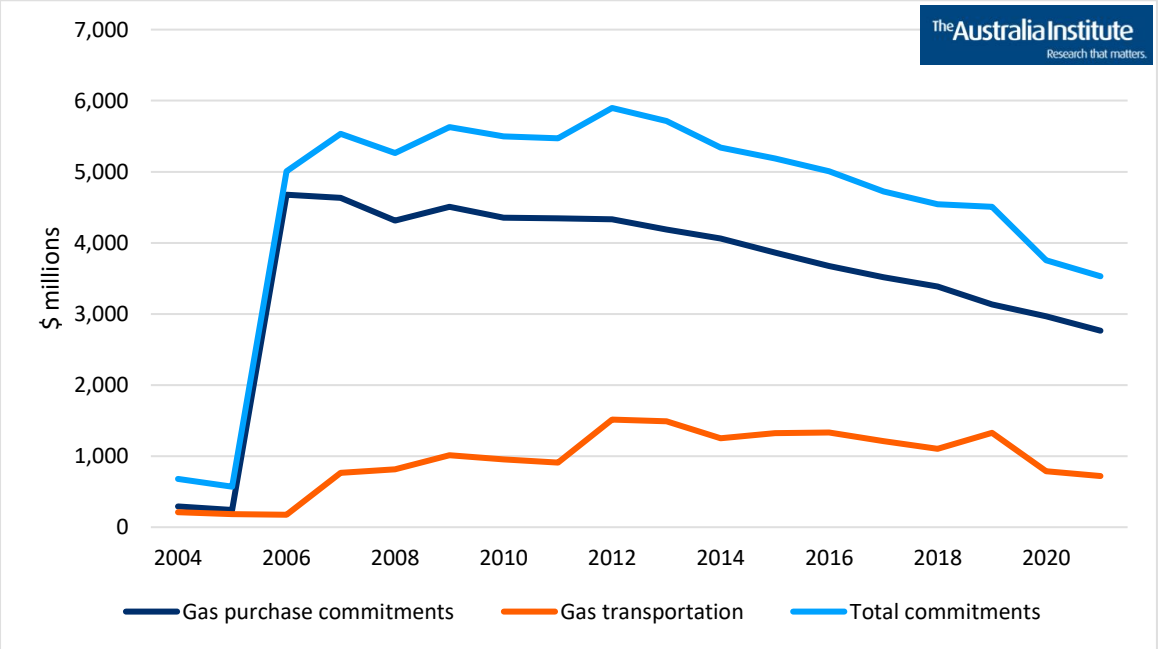
POWER AND WATER CORPORATION

The largest item in Table 9 is the purchase agreements that PWC has in place to purchase gas from the Blacktip project owned by Italy-based oil company Eni. As highlighted in the NT budget papers:

> A financial risk to the Territory budget is Power and Water Corporation's long-term gas purchase, sales and transportation agreement. The fixed price nature of the contracts, volatility of the market price of gas, uncertainty in relation to both pricing and volume from as yet unsecured sales contracts are risks to the Corporation's ability to sell the gas at a competitive price.[138]

PWC's multi-billion dollar commitment to gas purchases from Blacktip was essential for the project's development, procuring far more gas than the Territory needed. The latest PWC annual report shows that this commitment has now declined to $2,764 million in purchase commitments and $720 million in gas transport commitments, as shown in Figure 10 below.

Figure 10: Power and Water Corporation gas commitments



Source: PWC annual reports

PWC has subsidised the Blacktip project by hundreds of millions if not billions of dollars since committing to buy its gas in 2006. Far more gas was committed to than the NT needed. This was clear to PWC and NT Government decision makers at the time, with the NT Utilities Commission noting in 2006:

[138] NT Government (2021) *Budget Paper 2,* p. 84

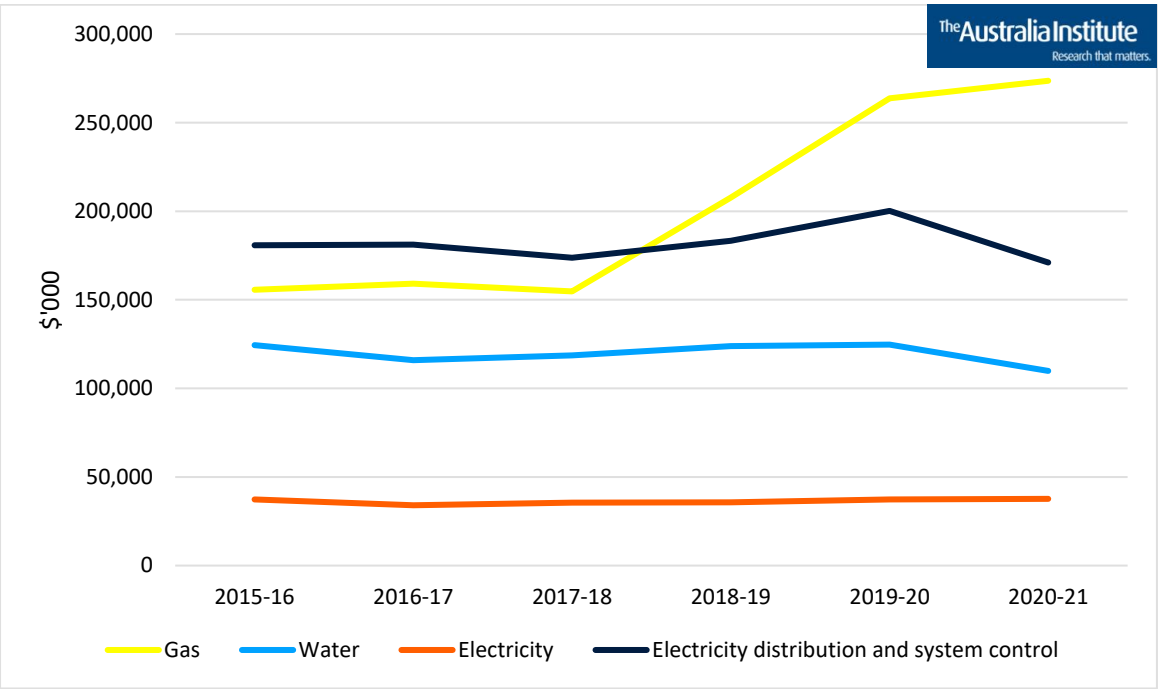
> Contract quantities available from Blacktip will be in excess of projected requirements under the Commission's high growth scenario through to 2015-16 and beyond.[139]

NT taxpayers paid for large quantities of gas that they could not use or sell, or as PWC puts it:

> The current gas contracts relating to the sale and purchase of gas have resulted in Power and Water previously paying for gas that will be delivered in future years.[140]

While a detailed estimate is beyond the scope of this report, the loss on take-or-pay agreements with Blacktip was estimated at a total of $375 million by a prominent supporter of the gas industry, former NT News Business Editor Ashley Manicaros.[141] With the similarly-subsidised Northern Gas Pipeline now in operation, PWC is able to sell Blacktip gas to buyers in Queensland. This saw PWC's gas sales increase by over $100 million in two years, as shown in Figure 11 below.

Figure 11: PWC sales revenue, selected streams



Source: PWC annual reports

[139] NT Utilities Commission (2006) *Annual power system review December 2006*, https://utilicom.nt.gov.au/__data/assets/pdf_file/0008/743039/2006_PSR_final.pdf

[140] PWC (2021) *Annual report*, p9, https://www.powerwater.com.au/about/what-we-do/our-plans-and-values/past-corporate-reports

[141] Manicaros (2017) *Business Confidential*, NT News 3 May 2017, p. 15. This column does not appear to be on the NT News site. The Australia Institute also has personal correspondence with Mr Manicaros regarding this figure.

As shown in Figure 11, the Northern Territory Government-owned PWC now collects over $270 million per year in gas sales revenue. In 2019-20 the gas sales area posted a net profit for the first time, contributing to the Corporation's overall $176m profit. The good times did not last long. PWC made an "unbudgeted" $29 million loss in 2020-21 due to "a number of factors including lower than expected revenue results in gas of $39 million…

> The revenue side of our operations has however been disappointing. A shortfall in gas sales through new contracts not materialising has been largely responsible, however we are optimistic these sales will eventuate to further strengthen Power and Water's financial performance.[142]

PWC's gas business represents not only a cost to the NT taxpayer and a subsidy to a multi-national fossil fuel company, but it presents the NT Government with a major conflict of interest. The government cannot impartially assess controversial gas projects when it owns a gas supplier of this size. Renewable energy projects now present a "risk" to NT government revenue, as is clear in PWC reports:

> The corporation has in place long term contracts to procure gas and associated transport charges. The fixed price nature of the long term gas contracts; the volatility in the market price of gas; the pricing and volume risk from as yet unsecured contracts or contracts currently under negotiation; increasing competition in the gas supply market; and more recently the potential impact from the displacement of gas by renewables over time are risks to the corporation's ability to sell the gas at a price higher than the cost of gas and transport.[143]

The unexpected revenue loss by the Gas Sales team of $39 million has been included in Table 9 as a cost in this budget year. As the Gas Sales team is financially marginal, this likely approximates the loss made by that part of the business. The total outstanding gas purchase and gas transport commitments, almost $3.5 billion are included as the total/capital value of the long term assistance provided to gas production and sales by these commitments.

GAS ROADS

In addition to the exploration grants mentioned above, the Federal Government is subsidising onshore gas by funding the NT Gas Industry Road Upgrades. This project has total cost of $217 million, with $173.6 million coming from the Federal Government, included in the Federal Government section. The remainder is assumed to come from the NT Government and is included in capital value estimate in this section. $58 million in 2021-

[142] PWC (2021) *Annual report*, p. 6, https://www.powerwater.com.au/about/what-we-do/our-plans-and-values/past-corporate-reports

[143] PWC (2021) *Annual report*, p. 61, https://www.powerwater.com.au/about/what-we-do/our-plans-and-values/past-corporate-reports

22 spending appears in the Northern Territory budget papers, but is footnoted as being Commonwealth money and is not included in Table 9 as NT Government spending this year.

DARWIN SHIP LIFT

The NT Government, in conjunction with the Federal Government's Northern Australia Infrastructure Facility, is building ship maintenance facilities that will partly benefit the oil and gas industry:

> The Territory has entered into a loan facility agreement with the Northern Australia Infrastructure Facility (NAIF) to borrow $300 million for the Darwin ship lift and marine infrastructure project. The project is estimated at $400 million and will enable the maintenance and servicing of Defence and Australian Border Force vessels, along with commercial and private vessels, including from the oil, gas and marine industries.[144]

Budget papers state that $89.9 million will be spent on the ship lift project in 2020-21. This has been included in Table 9 in 2021-22 spending partly attributable to fossil fuel industries. The $100 million total contribution from the NT Government is included in the total/capital value column as partly attributable, while the NAIF's $300 million contribution is included in the Federal Government section.

INVESTMENT TERRITORY

Investment Territory is a part of the Department of Chief Minister and Cabinet, charged with facilitating "major projects and significant investments in the Territory". As part of its remit it will "Lead the coordination and delivery of the Territory's gas strategy and development of a gas-based manufacturing industry."[145] This year's budget papers do not break down Investment Territory's $23.9 million budget, but in past years a budget of $5 million per year has been allocated to the Territory's "Gas Taskforce" which appears to have been subsumed into Investment Territory. $5 million has been included in Table 9 as wholly attributable to the export gas industry.

MINES AND ENERGY

The Department of Industry, Tourism and Trade Mines and Energy group includes two programs that subsidise the gas industry.

[144] NT Government (2021) Budget Paper 2, p. 92
[145] NT Government (2021) Budget Paper 3, p. 15

The Resource Industry Development Services program has a budget of $10.5 million this budget year. This appears to include the $6.5 million per year Resourcing the Territory exploration initiative, that provides "geoscience, investment attraction and exploration stimulus programs".[146] Seven of the 18 projects assisted in the latest exploration grants round are in the Beetaloo Basin and another is to Central Petroleum.[147] This program is the successor to an earlier program "Creating Opportunities for Resource Exploration" that provided $2 million per year to the onshore gas industry.[148] Table 9 assumes that this $2 million annual subsidy to onshore gas continues under Resourcing the Territory, wholly dedicated to the export gas industry. Arguably, this could be categorized as assistance to the domestic gas industry, however, most discussion around large scale onshore gas focuses on eventual export as LNG in either new facilities or backfilling for existing operations.[149]

The Energy Development program works to:

> Advance the Territory's economic development and energy security through administration of exploration applications and permits, licences, resource management, operational approvals and regulatory activities, including monitoring and compliance under the Petroleum Act 1984 and Energy Pipelines Act 1981.[150]

A recommendation of the NT Government's 2018 Fracking Inquiry was that the expense of this program should be recovered from gas companies. The NT Government committed to implement all recommendations of the Fracking Inquiry, yet four years later consultations have only recently begun. With policy development still underway, the under recovery of costs looks set to continue. This coincides with a major increase in the budget of this program, as shown in Figure 12.

[146] Resourcing the Territory (2020) *About Resourcing the Territory*, https://resourcingtheterritory.nt.gov.au/about

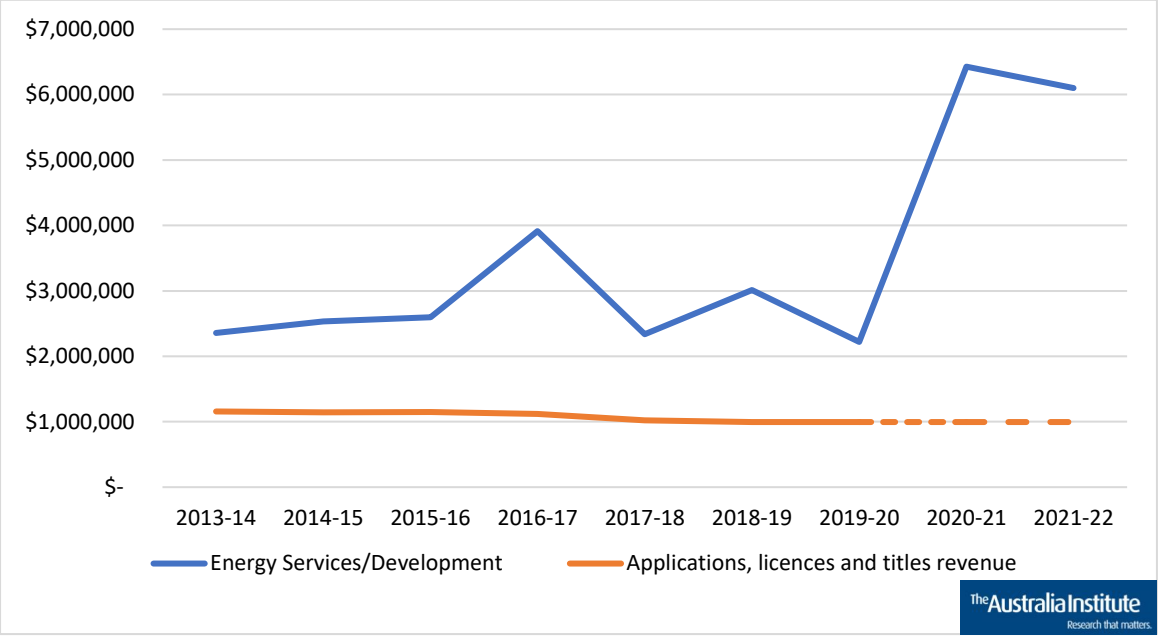
[147] Resourcing the Territory (2021) *Successful applications to Round 14 (2021) geophysics and drilling collaborations program*, https://resourcingtheterritory.nt.gov.au

[148] Resourcing the Territory (2019) *Previous initiatives*, https://resourcingtheterritory.nt.gov.au/about/previous-initiatives

[149] See for example NT Government (2020) Northern Territory gas strategy: five point plan, https://cmc.nt.gov.au/advancing-industry/northern-territory-gas-strategy. The NT-based processing and manufacturing discussion is unlikely to eventuate, see Campbell (2020) *Why onshore gas will not help manufacturing in the NT*, https://australiainstitute.org.au/post/fracking-cant-fire-up-nt-manufacturing/

[150] NT Government (2021) Budget Paper 3, p92

Figure 12: Energy Services/Energy Development budget



Source: NT Budget papers, various years

As shown in Figure 12 above, the budget for Energy Services, now re-named Energy Development has tripled in recent years, with no justification given. Revenue from applications, licence and title fees is no longer reported separately in the Northern Territory budget papers, reducing transparency, and there is no reason to expect a major increase in this revenue given the impact of the pandemic on the NT onshore gas industry.[151] Table 9 includes this estimated $5.1 million gap in cost recovery as an annual, wholly-devoted subsidy to the export gas industry. No value is included for forward estimates, with the assumption that an effective cost-recovery process will be implemented.

[151] Claughton et al. (2020) *Mining exploration and service companies hit by coronavirus restrictions*, https://www.abc.net.au/news/rural/2020-04-07/covid19-mine-explorers-and-service-sector/12125518

Victoria

Victoria's fossil fuel industry consists primarily of brown coal mines and power stations in the Gippsland region. The state has long-running offshore oil operations and a moratorium on onshore conventional gas exploration ended in 2021.[152] Unconventional gas exploration is still banned.

Fossil fuel subsidies related to the brown coal industry are primarily for site rehabilitation and the Victorian Government's Earth Resources Regulator. Some assistance appears to still be provided to the gas industry via the Victorian Gas Program, although there is no apparent funding in the 2021-22 budget. Encouragingly, the Victorian Government is developing a Gas Substitution Roadmap, which aims to reduce gas use, although fossil hydrogen and hydrogen-blending with fossil gas are potential parts of this plan.[153]

Table 10: VIC Government 2021-22 fossil fuel subsidies

VIC budget fossil fuel assistance	2020-21 expenditure	Capital values/forward estimates
Wholly	$13,000,000	$100,000,000
Primarily	$0	$0
Partly	$66,200,000	$264,800,000
Total	**$79,200,000**	**$364,800,000**
Coal	$13,000,000	$100,000,000
Gas	$0	$0
Various	$66,200,000	$264,800,000
Total	**$79,200,000**	**$364,800,000**

Source: VIC Government (2021) *Budget Papers 2021-22*

RESOURCES OUTPUTS

The Department of Jobs, Precincts and Regions 'Resources Output' encompasses funding for exploration and mining licenses, industry geoscience data packages for petroleum, minerals, extractives and the CarbonNet project. 'Resources outputs' is the largest fossil fuel-related budget item.

[152] Victorian Government (2021) *Restart of onshore conventional gas industry in Victoria*, https://earthresources.vic.gov.au/projects/onshore-conventional-gas-restart

[153] Victorian Government (2021) *Update on Victoria's Gas Substitution Roadmap*, https://engage.vic.gov.au/help-us-build-victorias-gas-substitution-roadmap

CarbonNet is a CCS network project in Gippsland that was established in 2010 as part of the Australian Government's Carbon Storage Taskforce and National Low Emissions Coal Initiative. This initiative identified the Gippsland Basin as the most appropriate choice for a long term carbon storage project in Victoria both due to technical requirements and close proximity to major coalfields, electricity generators, industrial processors and suitable offshore and onshore storage sites; "[Victoria's] largest sources of CO_2 are all located within a 15km radius…It offers an opportunity for shared infrastructure and a multi user CCS network".[154]

More than a decade later CarbonNet is not operational and currently claims to be in "Stage Three (Project Development and Commercial Establishment)".[155] The project site claims to have the capacity to store five million tonnes (Mt) of CO_2 per year for 25 years.[156] This is a tiny fraction of the emissions from Victoria's coal-fired generators Loy Yang A and B and Yallourn, which in 2016 emitted 43 Mt CO_2-e representing 38% of Victoria's greenhouse gas emissions.[157]

Resources output is an ongoing program with $66.2 million budgeted in 2021-22, dedicated partly to fossil fuels.

HYDROGEN ENERGY SUPPLY CHAIN PILOT PROJECT

The Hydrogen Energy Supply Chain (HESC) Pilot Project in Gippsland's Latrobe Valley was announced with joint State, Federal and foreign funding in April 2018,[158] to produce hydrogen from brown coal. The project builds on decades of attempts to convert brown coal to more transportable energy sources. The pilot phase was completed in January 2022 when liquefied hydrogen was loaded onto the world's first liquefied hydrogen carrier and shipped to Japan.[159]

The HESC Project does not intend to use CCS to capture emissions produced during the pilot phase of the project, is "considering carbon offsets to mitigate the CO_2 produced by

[154] Global CCS Institute (2015) *The CarbonNet Project: A Historical Perspective*, https://www.globalccsinstitute.com/archive/hub/publications/155928/carbonnet-project-historical-perspective.pdf, p. 9.
[155] Victorian Government (2022) *The CarbonNet Project*, https://earthresources.vic.gov.au/projects/carbonnet-project/about-the-project
[156] Ibid.
[157] Victorian Government (2018) *Victorian Greenhouse Gas Emissions Report,* https://www.climatechange.vic.gov.au/__data/assets/pdf_file/0033/395079/Victorian-Greenhouse-Gas-Emissions-Report-2018.pdf
[158] Parkinson (2018) *Turnbull's brown coal hydrogen horror show: $500m for 3 tonnes*, https://reneweconomy.com.au/turnbulls-brown-coal-hydrogen-horror-show-500m-for-3-tonnes-70932/

[159] Hydrogen Energy Supply Chain (2022) Dawn of Australia's Hydrogen Industry, https://www.hydrogenenergysupplychain.com/dawn-of-australias-hydrogen-industry/

gasification and gas refining process", and identifies CarbonNet as a potential CCS solution during the HESC commercial phase.[160]

Victorian Government funding for HESC is $13 million in 2021-22, dedicated wholly to fossil fuels, with a total $50 million each from the Victorian and Federal Governments over the life of the project. Contributions from the Japanese Government and Kawasaki Heavy Industries consortium take the total estimated value of the project to $496 million.[161] Only the Victorian and Australian Government spending is included in our calculations, considered wholly dedicated to fossil fuels.

[160] Hydrogen Energy Supply Chain (n.d.) *Community and sustainability*, https://hydrogenenergysupplychain.com/community-and-sustainability/

[161] Australian Government (2018) *Local jobs and a new energy industry for the LaTrobe valley*, https://www.minister.industry.gov.au/ministers/cash/media-releases/local-jobs-and-new-energy-industry-latrobe-valley

South Australia

South Australia has long been a leader in renewable energy generation and has a commitment to achieving 100% renewable electricity. Currently around 50% of electricity generation is renewable and the other half from gas.[162] The state no longer has a coal fired power station, so the fossil fuel sector is largely the oil and gas industry. Assistance measures from the state government centre on infrastructure upgrades and industry advocacy.

The Federal Government is perhaps more active in subsidising fossil fuel projects in South Australia than the state government. A $15 million dollar grant was made to Santos' Moomba CCS project under the Federal Technology Investment Roadmap, included in the federal section. Furthermore, Santos' project has been registered under the federal Emissions Reduction Fund (ERF), even though questions remain as to its eligibility.[163]

Santos' CCS project has paved the way for other fossil fuel producers to access the ERF. At the site of South Australia's last coal mine, Leigh Creek, there is now a proposal for underground coal gasification. The project hopes to use CCS and gain funding from the ERF.[164]

Table 11: Government of South Australia 2021-22 fossil fuel subsidies

SA budget fossil fuel assistance	2021-22 expenditure	Capital values/forward estimates
Wholly	$19,000,000	$57,727,000
Primarily	$215,000	$1,100,000
Partly	$17,793,000	$71,172,000
Total	**$37,008,000**	**$129,999,000**
Gas/oil	$26,067,000	$86,235,000
Various	$10,941,000	$43,764,000
Total	**$37,008,000**	**$129,999,000**

Source: Government of South Australia (2021) *Budget Papers 2021-22*

[162] Australian Government (2021) *Australian Energy Update 2021*, https://www.energy.gov.au/publications/australian-energy-update-2021

[163] Ogge et al (2021) *Santos' CCS scam*, https://australiainstitute.org.au/report/santos-ccs-scam/

[164] Leigh Creek Energy (2021) *Emissions Reduction Fund Support*, October 19 2021, https://www.lcke.com.au/News/category/asx-announcements

PORTS

Port Bonython Jetty Refurbishment

Port Bonython is the site of a gas and diesel importation and distribution hub and the jetty is leased by the state to Santos who use it to export LPG, crude oil and naphtha. The proposed expenditure in the 2021-22 budget was $19 million, with the estimated total cost at $57 million.[165]

Port Bonython is also a part of South Australia's potential hydrogen export plans. While largely focused on renewable energy, there is also interest from fossil fuel companies such as Santos and Origin.[166] In a 2021 media release, Santos CEO Kevin Gallagher announced Santos' intentions to use Port Bonython for an unreliable CCS scheme that would involve Japanese and Korean customers shipping CO_2 to Australia for underground storage.[167]

DEPARTMENT OF ENERGY AND MINING

Energy Resources Subprogram

The Mineral Resources and Energy agency situated within the Department of Energy and Mining is responsible for regulating, managing and supporting the development of South Australia's mineral, petroleum and renewable energy assets.[168] To this end, the agency oversees a range of subprograms that assist the gas and oil sectors in South Australia. The agency's $10.9 million budget has been included as partly supporting fossil fuel industries.

Electricity and Gas Technical and Safety Regulation subprogram

This ongoing subprogram was allocated $6.8 million in the budget, which partly assists the gas industry through the development of biogas and hydrogen as a fuel, without specific commitment to green hydrogen.[169]

[165] Government of South Australia (2021) Budget Paper 3 p 117, https://www.statebudget.sa.gov.au/budget-papers

[166] Parkinson (2022) *South Australia names partners to $13 billion hydrogen hub as poll hangs in balance*, https://reneweconomy.com.au/south-australia-names-partners-to-13-billion-hydrogen-hub-as-poll-hangs-in-balance/

[167] Santos (2021) *Santos welcomes CCS and hydrogen focus*, https://www.santos.com/wp-content/uploads/2021/04/210421-Release-Santos-welcomes-CCS-and-hydrogen-focus.pdf

[168] Government of South Australian (2021) Budget Paper 4, Volume 2, p 107, https://www.statebudget.sa.gov.au/budget-papers

[169] Government of South Australian (2021) Budget Paper 4, Volume 2, p 106 https://www.statebudget.sa.gov.au/budget-papers

HyLogger 4 technology spectral geoscience

The HyLogger 4 technology will allow for "improved identification of geological samples, support increased private mineral and energy exploration expenditure and services to the oil and gas industry, as well as attract more financial investment in South Australia".[170] The 2021-22 budget allocated a total of $1 million over 5 years to the HyLogger 4 technology project, primarily devoted to supporting fossil fuel industries.[171]

[170] Government of South Australia (2021) Budget Paper 5 p35 https://www.statebudget.sa.gov.au/budget-papers

[171] Government of South Australia (2021) Budget Paper 5 p35 https://www.statebudget.sa.gov.au/budget-papers

New South Wales

New South Wales is the second largest coal producing state in Australia, behind Queensland. The state has 39 operating coal mines that produce around 242 million tonnes of coal per year, mainly in the Hunter Valley, but also around Mudgee, Gunnedah, Wollongong, and Lithgow.[172] The gas and oil industries are far smaller, however the NSW Government has plans to expand the gas industry, recently approving a major project in Narrabri. Under this project Santos has approval to drill up to 850 coal seam gas wells over 20 years.[173]

Accordingly, the coal industry receives the majority of fossil fuel assistance in New South Wales. The largest component of assistance goes to the Mining, Exploration and Geoscience agency, which aims to secure a future for coal in New South Wales, particularly through investment in carbon capture and storage.

Table 12: NSW Government 2021-22 fossil fuel subsidies

NSW budget fossil fuel assistance	2021-22 Expenditure	Capital values/forward estimates
Coal	$36,025,000	$145,600,000
Gas/oil	$24,000,000	$77,600,000
Various	$31,550,000	$105,700,000
Total	**$91,575,000**	**$328,900,000**
Wholly	$9,925,000	$70,000,000
Primarily	$39,850,000	$141,000,000
Partly	$41,800,000	$117,900,000
Total	**$91,575,000**	**$328,900,000**

Source: NSW Government (2021) *Budget Papers 2021-2022*

MINING, EXPLORATION & GEOSCIENCE AND NSW RESOURCES REGULATOR

The Department of Regional NSW oversees two agencies — Mining, Exploration and Geoscience (MEG) and NSW Resources Regulator (RR) — that coordinate support for the fossil fuel industry in NSW. The responsibilities of these agencies include administrative

[172] Coal Services (2021) *Statistics,* https://www.coalservices.com.au/mining/statistics-2/

[173] The NSW Government (2021) *Narrabri Gas*, https://pp.planningportal.nsw.gov.au/major-projects/projects/narrabri-gas

functions such as carrying out safety and title assessments, but a key objective is to drive growth and attract investment in the New South Wales mining industry.[174] For example, MEG collect and disperse geological mapping data, promote Australia's resources globally to secure investment opportunities and last year released a strategy for the future of gas.

In the budget, MEG and RR received:

- $26 million for the legacy mine program, which is responsible for rehabilitating mines to improve safety and reduce health risks. This program currently tracks over 600 sites abandoned by companies, including legacy coal mines in the Lower Hunter.[175] The Government has dedicated an additional $47.5 million over four years to deliver projects at 20 high and extreme-risk legacy mine sites.[176]
- $15.7 million to improve assessments and enhance the Titles Management System. This will help with processing exploration and mining titles more efficiently.
- $16 million to grow investment in mining and exploration by acquiring, synthesising and delivering data, promoting the State's resources, providing market information to support mineral and petroleum exploration and mining. This includes:
    - $2.2 million over two years for Round 4 of the Cooperative Drilling Program to remove barriers for explorers,
    - Developing the state's first Critical Minerals Strategy, to 'unlock the industry's potential', and
    - Mapping mineral deposits and data acquisition.[177]

COAL INNOVATION NSW

Coal Innovation NSW is an advisory council responsible for managing the Coal Innovation Fund. The council is made up of representatives from the coal and energy industries, resource institutes and the NSW Government. The council and fund were established by the *Coal Innovation Administration Act 2008* with the objective of incentivising the research and development of technologies to lower emissions from coal production and consumption.[178]

The fund has dispensed three rounds of grant funding since 2009 and was worth $70 million in 2021. The NSW Government's 2021-22 budget announced $39.7 million to be spent over four years, to fund research grants and continue the operation of the advisory council.

[174] Regional NSW (2022) *2020-2021 Annual Report*, https://www.regional.nsw.gov.au/about-us/Reports-and-publications

[175] The NSW Government (2021) *NSW Budget 2021-22 Regional NSW*, p. 21, https://www.budget.nsw.gov.au/budget-papers

[176] The NSW Government (2021) *NSW Budget 2021-22*

[177] The NSW Government (2021) *NSW Budget 2021-22 Regional NSW*, p. 13, https://www.budget.nsw.gov.au/budget-papers

[178] Regional NSW (2021) *Annual Report – Coal innovation NSW funding – 2020-21: Income, expenditure and project evaluation*, https://www.regional.nsw.gov.au/meg/industry-support/coal-innovation

Based on the distribution of past grants this funding will support a range of projects, in particular the development of CCS methods, which make up 68% of projects funded.[179] For example, last year the New South Wales CO2 Storage Assessment Program surveyed and identified sites within the Darling Basin to store CO_2 captured from coal-fired power stations. The program is now considering and testing drilling target.

TALLAWARRA B GAS POWER STATION

The Tallawarra Power station is a 435 MW gas-fired power station based in the Illawarra, owned and operated by Energy Australia. Despite the NSW Government's recent commitment to halve emissions by 2030, they have committed $24 million in 2021-22 and $78 million in capital to expand the Tallawarra gas power-station.[180] They have argued that this new gas-fired power station will help bolster electricity capacity when the Hunter Valley Liddell coal-fired power plant retires.

The plant will be a dual fuel peaking plant, capable of using both natural gas and green hydrogen in its operation. It is estimated to be operational in 2023-24 and capable of 300 MW of output.[181] This is a joint Federal and state government project, with the Federal Government dedicating $5 million in capital value.[182]

GREEN WASHING NET ZERO

Late 2021 the NSW Government committed to halve its greenhouse gas emissions (below 2005 levels) by 2030.[183] An increase on the previous goal of 35% emissions reduction by 2030. To this end, the Government has released multiple policy documents outlining the transition to net zero. This includes a strategy for electric vehicle uptake and expanding hydrogen generation, a net zero plan for 2020-2030 and an electricity infrastructure roadmap. While much of the policy in these documents is dedicated to actual renewable energy and decarbonisation of the economy, the Government has also reinforced its

[179] Regional NSW (2021) *Annual Report – Coal innovation NSW funding – 2020-21: Income, expenditure and project evaluation*, https://www.regional.nsw.gov.au/meg/industry-support/coal-innovation
[180] The NSW Government (2021) *NSW Budget 2021-22 Regional NSW*, p. 35, https://www.budget.nsw.gov.au/budget-papers
[181] Deputy Premier John Barilaro (2021) *Australia's first green hydrogen and gas power plant*, https://www.nsw.gov.au/media-releases/australias-first-green-hydrogen-and-gas-power-plant
[182] The Hon Angus Taylor MP (2021) *Tallawarra B power station to be built*, https://www.minister.industry.gov.au/ministers/taylor/media-releases/tallawarra-b-power-station-be-built
[183] The NSW Government (2021) *NSW set to halve emissions by 2030*, https://www.nsw.gov.au/media-releases/nsw-set-to-halve-emissions-by-2030

commitment to gas investment, coal technologies and fuels such as ethanol and methanol as part of the transition.[184]

The Electricity Infrastructure Roadmap lays out the government's plan for constructing new electricity infrastructure needed to replace retiring coal-fired generation plans. However, this plan still includes using gas peaking plants and generators to meet demand.[185] The funding for the implementation of these transition plans is difficult to disaggregate, and so has not been included in the calculation of the fossil fuel subsidies for the purposes of this report.

NSW's net zero plan involves a whole program dedicated to deploying low emissions technologies and infrastructure to reduce the emissions associated with high emitting industrial facilities. One of the examples scenario's used is a Ventilation Air Methane project to capture methane emissions from underground coal mining.[186]

Fossil fuel subsidies are increasingly being allocated within broader decarbonisation projects. This makes them difficult to identify, isolate and calculate. The New South Wales fossil fuel industry is benefiting from the funding under these net zero plans and programs, however they have not been included in the calculation of assistance in this report.

[184] The NSW Government (2020) NSW Electricity Infrastructure Roadmap, https://www.energy.nsw.gov.au/government-and-regulation/electricity-infrastructure-roadmap; The NSW Government (2021) *Net Zero Industry and Innovation Program*, https://www.energysaver.nsw.gov.au/reducing-emissions-nsw/net-zero-industry-and-innovation

[185] The NSW Government (2020) *Electricity Infrastructure Roadmap,* https://www.energy.nsw.gov.au/government-and-regulation/electricity-infrastructure-roadmap

[186] The NSW Government (2021) *Net Zero Industry and Innovation Program*, p. 37, https://www.energysaver.nsw.gov.au/reducing-emissions-nsw/net-zero-industry-and-innovation

Tasmania

Tasmania's energy system is dominated by the state's long-established hydroelectricity system. In November 2020, Tasmania reached 100% renewable electricity, two years earlier than expected, when the Granville Harbour wind farm came online.[187] Renewable generation generally exceeds the state's demand and is exported via Basslink to the mainland.[188] Tasmania now aims to generate 200% of its electricity demand with renewable energy.

While Tasmania is not without fossil fuel infrastructure and projects,[189] no direct funding could be identified in the Tasmanian budget 2021-22. Two initiatives discussed below have the potential to assist fossil fuel exploration, but appear unlikely to provide benefit to any existing or prospective projects.

Geoscience Initiative

The Geoscience Initiative program is funded to increase investment attractiveness through improved geoscience information and de-risk minerals exploration. The Geoscience Initiative allows Minerals Resources Tasmania "to provide support for industry in the exploration and identification of Tasmania's mineral resources via a refreshed Geoscience Initiative."[190] While fossil fuels are included within the scope of Minerals Resources Tasmania this initiative does not specify that coal, gas or petroleum reserves will be targeted for development. No funding was specifically allocated to the Geoscience Initiative in the budget 2021-22.

Resources Policy and Regulatory Services – Mineral Resources

Funding to Mineral Resources Tasmania is for resource identification, mineral exploration, sustainable land use planning and infrastructure development.

[187] Marchant (2020) *Tasmania is now powered entirely by renewable energy*, https://www.weforum.org/agenda/2020/12/tasmania-renewable-energy-sustainable-hydropower/
[188] Mazengarb (2020) *Tasmania declares itself 100 per cent powered by renewable electricity*, https://reneweconomy.com.au/tasmania-declares-itself-100-per-cent-powered-by-renewable-electricity-25119/
[189] Of the coal projects in the state, Midland Energy appears to be defunct, while the Hard Rock project claims to be transitioning to become a coal to hydrogen project, https://hrcm.com.au/
[190] Tasmanian Government (2021) *Tasmanian Budget 2021-22 no.2 Volume 1 p334*, https://www.treasury.tas.gov.au/budget-and-financial-management/2021-22-tasmanian-budget

Mineral Resources Tasmania assists “existing and prospective mining companies by providing relevant information on the geology and mineral prospectivity of Tasmania…[and] provide a stimulus for a sustainable mining industry”.[191]

The budget 2021-22 funds Mineral Resources Tasmania $11 million in 2021-22 and $37 million over four years.

[191] Tasmanian Government (2021) *Mineral Resources Tasmania*, https://www.mrt.tas.gov.au/about_us

Australian Capital Territory

The ACT does not produce any coal, gas or oil and the 2021-22 budget does not contain any subsidies for fossil fuels. The territory has been powered by 100% renewable electricity since 2020 and the Government has committed to zero emissions and to phase out fossil gas by 2045, the most ambitious target in Australia.[192] The ACT 2021-22 budget contains a range of initiatives to assist renewable energy and lowering carbon emissions, including:

- A 'Phasing Out Fossil Fuel Gas Transition' package of works that prevents new gas mains networks connections in residential developments.
- Allocating the first $5 million of the $50 million Vulnerable Household Energy Support Scheme, helping low-income homeowners and public housing tenants cut their energy bills with subsidies to switch from fossil fuel gas to efficient electric appliances.
- $12.8 million over four years for the Emergency Service Agency's Vehicle Replacement Program, which will include the addition of nine zero-emissions vehicles to the emergency services fleet.

[192] ACT Government (2021) *Investing in climate action to protect CBR*, https://www.act.gov.au/our-canberra/latest-news/2021/september/investing-in-climate-action-to-protect-cbr

Conclusion

In 2014, The Australia Institute published a report on state government assistance to the broader mining industry, titled *Mining the age of entitlement*.[193] That report estimated that assistance worth $18 billion had gone to the mining industry over six years.

The response to that report was intense. Industry spokespeople were outraged. Conservative columnists were aghast. The mining peak bodies commissioned a report in response claiming that mining and fossil fuels were not subsidised at all in Australia.[194]

At that time, the mining industry's fight against the Rudd/Gillard Government's mining and carbon taxes had just been won and the industry had convinced much of Australia —and, seemingly, even itself — that it was, to quote then-Treasurer Joe Hockey, a "lifter not a leaner" in the Australian economy. The very existence of mining and fossil fuel subsidies was rejected by industry and its supporters in media and politics.

How things change. By the time the 2020-21 version of this report was published government policy of subsidising mining and fossil fuels had become overt. Long-running controversies such as subsidies to Adani's coal mine, tax (non) payments by the gas industry and loss-making fossil fuel electricity generators had become so widely recognised that our report's conclusion asked whether there would be any response from industry at all.

The report received considerable media attention, but pushback was minimal. Former Resource Minister Matt Canavan disputed whether the term subsidy should be applied to the Fuel Tax Credits Scheme and infrastructure provision, but far from disputing the existence of subsidies said that "government should be helping encourage [fossil fuel exports]."[195] However, there was no industry outrage, commissioned reports or other serious response.

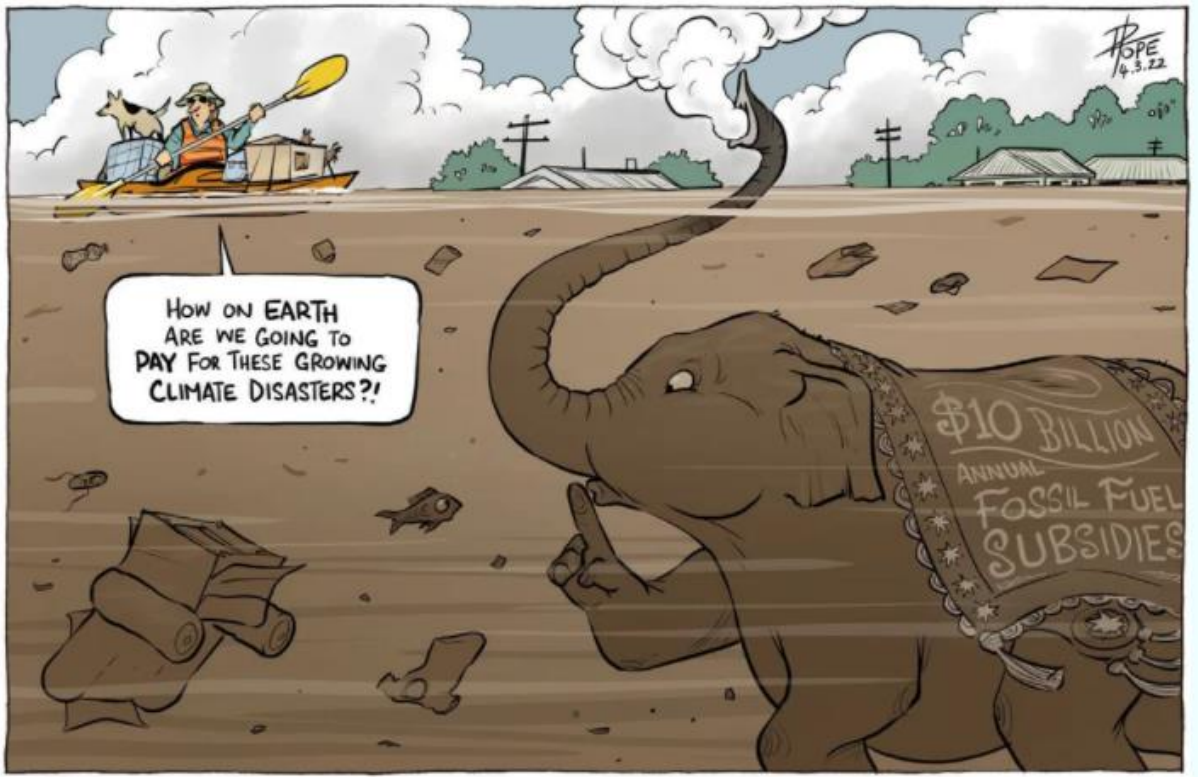
On one hand, this is a good thing. It is long past time that Australians were able to discuss fossil fuel subsidies without being forced into a false debate about their existence. The figures from the last report are now widely used without dispute, as shown in Figure 13 below.

[193] Peel et al (2014) *Mining the age of entitlement: State government assistance to the mining and fossil fuel sector,* https://australiainstitute.org.au/report/mining-the-age-of-entitlement/

[194] Castalia (2014) *Mining the Age of Entitlement? Report Prepared for the Australian Mining and Resources Sector*, No active links found, available on request.

[195] Glenday (2021) *Calls to phase out fossil fuel subsidies after speculation about net-zero emissions target*, https://www.abc.net.au/news/2021-04-26/scott-morrison-climate-change-fossil-fuel-subsidies-net-zero/100094506

Figure 13: Canberra Times cartoon by David Pope, 4 March 2022



Source: Canberra Times 4-March 2022. See also Australia Institute Facebook page: https://www.facebook.com/story.php?story_fbid=10158849455354397&id=100162559396&m_entstream_source=timeline&_rdr

But on the other hand, there is a danger that these figures become so accepted that they become unable to provoke the public outrage that they should cause. The fossil fuel industry appears to be taking this approach, perhaps being so confident of its power in Australia that it does not need to respond to one more shocking statistic in Australia's climate and energy debates.