

Fracking and slacking

NT Government subsidies to onshore oil and gas

The NT Government provides a range of subsidies and assistance measures to onshore oil and gas. While the Fracking Inquiry highlighted non-recovery of some administration costs, analysis of budget papers shows \$94 million of assistance measures over the last decade. Subsidies of \$10m per year look set to continue. Fracking Inquiry forecasts suggest royalties will never cover these costs without more infrastructure that will also require subsidy. The NT Government has subsidised such infrastructure in the past, with \$4.4 billion in purchase commitments assisting the Blacktip project and Northern Gas Pipeline. These projects impose significant costs on NT taxpayers.

Discussion paper

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Summary

The onshore oil and gas industry in the Northern Territory is subsidised by the Territory Government. This was highlighted by the NT Fracking Inquiry which showed that costs of administering the industry are not recovered by the fees paid according to the Territory's budget papers. Costs of administering the applications, fees and titles of the industry average \$2.7 million while fees paid are almost certain to be less than \$500,000 per year. The Fracking Inquiry recommended implementing a cost-recovery fee system but, two years on, these reforms are "still at the planning stage".

The Fracking Inquiry only scratched the surface of assistance to onshore oil and gas shown in the NT Government budget papers and beyond. Wider administrative costs, including running the Fracking Inquiry, implementing its recommendations and improving assessment capacity, have cost the Territory Government \$11.6 million over the last decade.

The NT Government goes far beyond just administering the onshore oil and gas industry. It actively promotes it, "spearheading" major projects with multi-million dollar promotion budgets. This looks set to continue with a Gas Taskforce having been re-established with an annual operating budget of \$800,000 and \$5 million each year to "pursue gas projects". This ongoing commitment to "pursue" gas projects with taxpayer money represents a significant new subsidy to the gas industry.

A major form of subsidy is publicly funded exploration initiatives aimed at the onshore oil and gas industry. Federal and Territory governments consistently devote at least \$4 million per year to this form of support. Promotional spending totals approximately \$60 million over the last decade.

In all, NT budget papers show that \$94 million has been directed at assistance for the onshore oil and gas industry over the last decade, summarized in the table below:

Summary of budget paper assistance measures

Form of assistance to onshore oil and gas (2010-11 to 2019-20)	\$million
Under recovery of DPIR administration costs	\$22.0
Wider administration costs	\$11.6
Industry promotion subsidies	\$60.4
Total	\$94.0

To put \$94 million over ten years, or \$9.4 million each year in context, this money could be pay the salaries of around 100 mid-career medical, education and other essential service officers, summarized in the table below:

Service worker salaries and onshore gas industry assistance

	Median NT salary	Salaries paid by \$9.4m
Aboriginal health practitioner	\$99,906	94
Rural medical practitioner	\$184,961	51
Nurses	\$90,252	104
Corrections officer	\$79,169	119
Firefighter	\$88,787	106
Teachers	\$100,261	94
Community service worker	\$57,775	163

The subsidies paid to the onshore oil and gas industry are unlikely to ever be recovered according to the Fracking Inquiry's commissioned economic analysis. The most likely scenario under that analysis is for the industry to fail to commercialize, bringing zero royalties. This was the case even before the corona virus pandemic delayed NT projects and dampened the outlook for all oil and gas projects.

The Fracking Inquiry's consultants estimated under the most likely production scenario, royalties would only begin to exceed the \$10 million per year cost of administering and subsidising the onshore oil and gas industry around 2027. With average payments of \$11.9 million, industry royalties would never reach the levels of support and unrecovered administration cost that NT (and to some extent Commonwealth) governments have incurred over the last decade.

The consultants considered scenarios with higher production and royalty revenue to be less likely, partly because significant infrastructure would be required to transport higher volumes of gas. Private companies are unlikely to fund such infrastructure on commercial terms, but the NT Government has a history of funding infrastructure and making purchase commitments to subsidise the oil and gas industry. For example, it spent \$359 million subsidising infrastructure for the offshore gas industry between 2008-09 and 2013-14.

Another example is subsidisation of the Blacktip project and the Northern Gas Pipeline, via the NT Government's wholly-owned Power Water Corporation (PWC). PWC made a \$4.4 billion financial commitment to purchase gas over 25 years, knowing it could not use or sell this quantity of gas. Gas transport commitments have reached nearly \$2 billion, much of which is likely to assist the Northern Gas Pipeline. Still more gas pipeline projects and related studies are being commissioned. The NT public looks set to subsidise the oil and gas industries for many years to come.

ACKNOWLEDGEMENT

Thanks to Frack Free NT for their financial contribution to this research.

Introduction

The corona virus pandemic has slashed demand for oil and gas and forecasts suggest low prices could continue for several years. Proponents of onshore gas projects in the Northern Territory immediately postponed their projects,¹ highlighting the economically marginal nature of these projects, and their inability to deliver benefits to shareholders, let alone the NT community.

Yet the perception that expansion of the oil and gas industry brings economic benefit to the Northern Territory is widespread in the Territory's political leaders and public service. This view has even entered the very publications that prove otherwise. For example, this quote from the Northern Territory budget papers is both factually incorrect and surrounded by examples that contradict it:

Economic modelling by ACIL Allen Consulting, commissioned by the scientific inquiry, reported there are likely to be significant economic benefits to the Territory and Australian economies from hydraulic fracturing as well as increases in taxation revenue.²

The NT's Scientific Inquiry into Hydraulic Fracturing (Fracking Inquiry) did commission economic modelling from ACIL Allen, but that modelling did not suggest that significant economic benefits were "likely". In fact, the most likely outcome, according to ACIL Allen, was that the shale gas industry would fail to commercialise and that there would be no economic benefit and increase in taxation revenue at all.

That this misinterpretation of ACIL Allen's results occurred in the Territory's budget papers is ironic, as it is the budget papers that show how much the gas industry costs the Territory Government and how little the gas industry pays. The onshore oil and gas industry pays far less in fees that it costs to administer. Millions in subsidies are used to 'promote' the industry. Billions have been committed to purchase agreements and infrastructure provision that subsidise oil and gas at the expense of the wider community.

While the authors of the budget papers may not see the subsidies to oil and gas in their own work, the Fracking Inquiry did highlight some of the budgetary costs of the onshore oil and gas industry. Further examination reveals millions more.

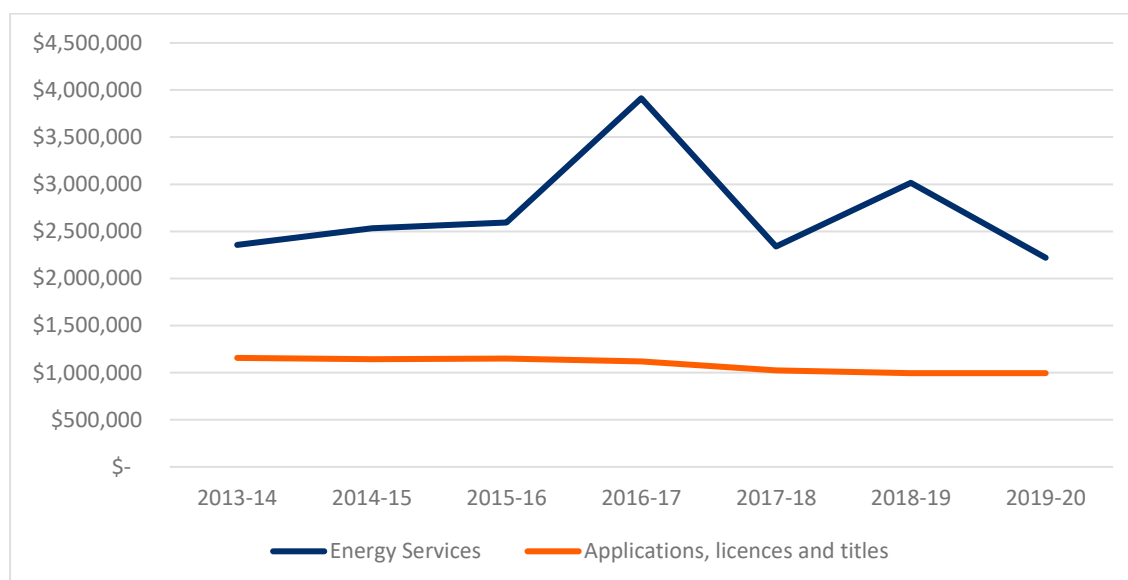
¹ McLennan (2020) *Fracking comes to an abrupt halt in the NT*, <https://www.katherinetimes.com.au/story/6710441/fracking-comes-to-an-abrupt-halt-in-the-nt/>

² NT Treasury (2018) 2018-19 Budget Overview, p4. https://treasury.nt.gov.au/__data/assets/pdf_file/0010/678493/2018-19-Budget-Overview-book.pdf

Fracking Inquiry and admin costs

The NT Fracking Inquiry highlighted community concern that any eventual regulator of an unconventional gas industry would not be adequately resourced to perform the difficult job of regulating an industry in remote places across a large, sparsely populated area. It recommended that policies be put in place to ensure costs are recovered from the industry noting that current fees paid by gas companies “would not cover the full costs of regulating any onshore gas industry.” The Inquiry pointed to the Territory Government budget papers showing the costs of the Energy Services division and the revenue generated from licences, titles and other fees charged to the resource industry. As shown in Figure 1 below, these costs are at least double the generated revenues:

Figure 1: Energy Services costs & resource industry application, licence & title fee revenue



Source: Agency Budget Statements, years for which Energy Services costs are separately reported.

The difference between oil and gas industry fees and the costs of administering the industry is even greater than shown in Figure 1 above, as fee revenue here is all fee revenue from the minerals and energy industries. Revenue from the onshore oil and gas industry is far lower. While not reported separately, the order of magnitude of these payments can be estimated from public information around exploration permits.

Applying for an exploration permit costs around \$5,280. These last for five years before being renewed at a cost of \$2,080.³ The numbers of new permits issued is usually low, with budget papers showing 55 permits were on issue between 2013-14 and 2016-17 when this measure stopped being reported. Assuming these 55 permits were issued evenly over time,

³ See Fracking Inquiry (2018) Final Report, Table 14.2. <https://frackinginquiry.nt.gov.au/inquiry-reports/final-report>

each year would see 11 being renewed at a cost of \$22,880. An annual fee is charged for exploration permits of \$92 per graticular block, which is roughly 3km². According to the Fracking Inquiry's report, the most prospective three developments from Origin, Santos and Pangaea have exploration permits covering 1,300km²,⁴ generating annual fees of \$39,000.

A detailed estimate of the costs and revenues relating to the Energy Services Division is beyond the scope of this paper. However, it is clear that most of the revenue in Figure 1 is generated by the wider mining industry, with the contribution of onshore oil and gas almost certain to be less than \$500,000 per year. Costs of administering the applications, fees and titles of the industry average \$2.7 million over the years covered by Figure 1.

Two years on from the Inquiry's report and despite the NT Government committing to implement all recommendations of the Fracking Inquiry, the latest update on implementation says that these reforms are "still at the planning stage."⁵

COSTS OF BASELINE STUDIES

The Inquiry also recommended that "Strategic Regional Environmental and Baseline Assessment" (SREBA) studies be carried out and that these costs also be recovered from the industry. The latest progress report suggests headway has been minimal:

The costs associated with the SREBA are also to be recovered from industry. The need for significant upfront expenditure, to enable necessary scientific studies and onground engagement with effected communities, must be met before production and predictable revenue streams are generated. The model for the recovery of these very significant costs is yet to be developed or discussed with industry and presents a major body of work in the coming year.

The costs of the SREBA studies are uncertain. One proposed project for an assessment of stygofauna (animals that live in groundwater) in the Beetaloo Basin has a budget of over \$300,000 with contributions from the NT Government, Federal Government, Charles Darwin University and gas companies.⁶ The total costs of these studies would run into the millions if not tens of millions. The Federal Government has put \$30.4 million into geological and bioregional assessment programs that are likely to overlap with SREBA studies.⁷

⁴ Ibid, Table 6.2

⁵ Ritchie (2019) October 2019 Quarterly update, https://cmsexternal.nt.gov.au/__data/assets/pdf_file/0009/767043/dr-ritchie-etter-october2019-quarterly-update.pdf

⁶ GISERA (2019) Characterisation of the stygofauna and microbial assemblages of the Beetaloo sub-Basin, NT, https://gisera.csiro.au/wp-content/uploads/2019/07/Water-18_Project-Order.pdf

⁷ CSIRO (2019) Geological and Bioregional Assessment Program, <https://www.csiro.au/en/Research/LWF/Areas/Water/Resources-sector/Geological-Bioregional-Assessments>

These are critically important studies that must be completed before any fracking takes place, yet are clearly not being paid for by the industry. These studies will not be able to be recovered from the gas industry in ACIL Allen's most likely scenario that fracking fails to commercialise.

OTHER ADMIN COSTS OF ONSHORE OIL AND GAS

Indeed, millions for responses to the 2018 Fracking Inquiry can be seen in the Territory budget papers, highlighting that the Fracking Inquiry only considered a small part of the costs of regulating and administering the onshore oil and gas industry. Aside from the administration of titles, etc, by the Energy Services Division, approximately \$11.6 million have been spent on administering and regulating onshore gas in the Territory over the last decade, as shown in Table 1 below:

Table 1: Administration and regulation of onshore gas in NT Budget Papers

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	Total
Dpt of Chief Minister											
Implement Fracking Inq						\$600,000			\$1,700,000	\$600,000	\$2,900,000
Implementing recommendations of Fracking Inqs⁸				\$260,000	\$890,000		\$3,050,000				\$4,200,000
Dpt of Env & Natural Resources											
Increasing the capacity for assessment, licensing and regulation of water use by mining and petroleum activities										\$166,667	\$166,667
Increasing the capacity to process environmental approvals from major projects									\$308,667	\$308,667	\$617,333
Implementing recommendations of Fracking Inq									\$1,130,000	\$880,000	\$2,010,000
SREBA studies										\$1,000,000	\$1,000,000
Department of Primary Industry and Resources											
Improve approval timeframes and water monitoring assessments of higher risk sites							\$366,667	\$366,667			\$733,333
Total											\$11,627,333

Source: Agency Budget Statements

Table 1 likely represents an underestimate. It is likely that substantial resources from within the Department of Environment and Natural Resources outside of these items are used for the regulation of onshore gas and oil. The Department of Primary Industry and Resources is also likely to devote resources to onshore oil and gas outside of the Energy Services Division and exploration subsidies discussed below.

Note Table 1 includes items that do not relate exclusively to gas administration, such as improving approval times and water monitoring in high risk sites. In these cases one third of the original budget item has been estimated as the portion dedicated to onshore gas. The basis for this is other subsidies that address the wider minerals, oil and gas sector, discussed below, tend to allocate around one third of their resources to onshore gas. This is imprecise, but the objective here is not to provide an exact figure, but a demonstration of the order of magnitude of costs involved in administering the industry that are not recovered and are in addition to those highlighted by the Fracking Inquiry.

⁸ Note there have been two separate inquiries into unconventional gas, one headed by Allan Hawke, a former senior federal public servant, the second headed by Rachael Pepper, a judge of the NSW Land and Environment Court.

Costs of industry promotion

The Fracking Inquiry highlighted the conflict of interest that parts of the NT administration are responsible for both the promotion of onshore gas and oil development and for regulating this development. The Inquiry recommended:

That prior to the grant of any further exploration approvals, in order to ensure independence and accountability, there must be a clear separation between the agency with responsibility for regulating the environmental impacts and risks associated with any onshore shale gas industry and the agency responsible for promoting that industry.⁹

The Independent Oversight body considers this separation to have been achieved by:

[Transferring] responsibility for the Petroleum (Environment) Regulations 2016 ...from the Minister for Primary Industry and Resources, to the Minister for the Environment and Natural Resources. This includes the responsibility for approving [Environmental Management Plans]. This will ensure that both the environmental and economic aspects of the hydraulic fracturing are considered impartially.¹⁰

While this may comply with the letter of the Inquiry's recommendation, the spirit of the recommendation is contradicted by ongoing conflicts of interest within both Department of Primary Industry and Resources (DPIR) and Department of Environment and Natural Resources (DENR).

According to the 2019-20 budget papers, DPIR is simultaneously responsible for the "administration of exploration applications and permits and compliance" while its "Investment attraction and promotional events" program aims to:

Promote investment opportunities and facilitate development to increase the Territory's competitiveness in growing mineral and petroleum industries.¹¹

Beyond this investment promotion role, DPIR also oversees subsidised exploration programs that also aim to promote onshore oil and gas and other mineral industries.

Similarly, DENR has as its first listed "strategic issue":

⁹ Fracking Inquiry (2018) Final Report, p431.

¹⁰ Richie (2019) *May 2019 Update on implementation of recommendations for hydraulic fracturing*, https://cmsexternal.nt.gov.au/__data/assets/pdf_file/0008/700856/dr-ritchie-may-2019-update.pdf

¹¹ 2019-20 Budget Paper 3: Agency Budget Statements, p260

Undertaking baseline environmental assessments to support the environmentally sustainable development of the hydraulic fracturing industry in the Territory.¹²

That is to say that the department with an aim of supporting the development of onshore gas is also charged with protecting the environment from the potentially serious impacts of that same industry.

While the fracking inquiry focused on cost recovery of administrative costs, it ignored the still greater costs of industry promotion and subsidisation, shown in Table 2 below:

¹² 2019-20 Budget Paper 3: Agency Budget Statements, p200

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	Total
Dpt of Chief Minister											
Gas project promotion	\$546,800	\$1,238,250	\$958,750		\$12,776,000	\$11,394,000					\$26,913,800
DTBI											
Re-establish NT Gas Taskforce									\$500,000	\$820,000	\$1,320,000
Land Development Corporation											
Brewer estate						\$3,000,000					\$3,000,000
Department of Primary Industry and resources											
Resourcing the Territory/CORE	\$1,300,000	\$1,266,667	\$1,266,667	\$1,316,667	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$17,150,000
Study on gas to diesel							\$500,000				\$500,000
Charles Darwin University (Territory funded)											
Northern Australia Oil and Gas Centre			\$1,466,667								\$1,466,667
Geoscience Australia (Federal)											
Exploring for the Future							\$2,512,500	\$2,512,500	\$2,512,500	\$2,512,500	\$10,050,000
											\$60,400,467

Sources: Budget Paper 3: Agency Budget Statements, Geoscience Australia (n.d.) *Exploration for the Future*, <https://www.ga.gov.au/eff/about>

Table 2 above shows that around \$60.4 million has been spent promoting or subsidising the onshore oil and gas industry over the last ten years.

The most consistent funding has gone to subsidising exploration activity. DPIR's Resource Industry Development Program subsidises the mineral and energy sector by "promoting investment opportunities" in the "minerals and petroleum industries" and by providing "quality information and advice to national and international stakeholders".¹³ The program has a total budget of \$11.3 million in this budget year.

How much of that is devoted to the onshore oil and gas industry is unclear from public documents. At least \$2 million is likely to be specific to onshore gas in more recent years, through the Resourcing the Territory Initiative.¹⁴ This initiative averages \$6.5 million per year and is a continuation of an earlier program called Creating Opportunities for Resource Exploration (CORE).

CORE "included 2 million per annum for an accelerated program to assess the Northern Territory's (NT) shale gas resources."¹⁵ Table 2 assumes that the \$2 million per year budget for onshore oil and gas continues unchanged from CORE to Resourcing the Territory. We assume there was no change to the onshore oil and gas budget despite an increase in the overall budget of the program from \$6 million to \$6.5 million per year.

The CORE budget of \$6 million per year with \$2 million devoted to onshore oil and gas informs several calculations in this analysis. Where government programs subsidise or regulate the wider mining and petroleum sector, but including a specific aim of assisting onshore oil and gas, we assume that this same ratio applies - that 1/3 of program benefits are specific to onshore oil and gas.

A broadly similar subsidy of exploration is the Federally-funded Exploring for the Future program. The program has a budget of \$100.5m over 4 years. Its website lists 20 projects, two of which are NT onshore gas projects. The calculation in Table 2 assumes each project listed on the programs website receives equal funding.

There are several one-off items that work to subsidise or promote onshore oil and gas. A \$500,000 study on turning natural gas into diesel is likely to be aimed at the onshore industry as all offshore production (aside from the Blacktip project) is used for Liquefied Natural Gas (LNG) exports. \$3 million was spent on an industrial estate specifically to assist onshore oil and gas in Central Australia. Territory and Federal Governments and the gas industry fund the Northern Australia Oil and Gas Centre at Charles Darwin University which

¹³ Budget Paper 3: Agency Budget Statements, several years, for example 2016-17, p139

¹⁴ NT Government (2019) *About Resourcing the Territory*, <https://resourcingtheterritory.nt.gov.au/about>.

¹⁵ NT Government (2019) *Previous initiatives*, <https://resourcingtheterritory.nt.gov.au/about/previous-initiatives>

opened in 2012. The figure in Table 2 is based on one third of the Territory Government's funding of buildings and facilities.¹⁶

The remaining items in Table 2 are in the Department of the Chief Minister (DCM) and Department of Trade, Business and Innovation (DTBI). The DCM budgets often include items for major project promotion. In 2010-11, 2011-12 and 2012-13 these items specifically mentioned facilitating onshore gas in their goals. In each case the line item total budget has been divided by the number of separately listed goals. Promotion of onshore gas was the first or second listed goal in these years. The largest promotion expenses were in 2014-15 and 2015-16 when the DCM spent \$12.8 million and \$11.4 million on "Strategic oil and gas initiatives including securing a gas pipeline connecting the Territory to eastern gas markets". Interestingly this spending is only noted in the 2015-16 budget papers, not the 2014-15, which has a significantly smaller budget for that output area in the DCM. The Northern Gas Pipeline is discussed further below.

The final items listed in Table 2 are under DTBI, the re-establishment of the NT Gas Taskforce. The Taskforce is supposed to guide the implementation of the Government's Gas Plan. The Plan consists of:

- Expansion of Darwin LNG processing and export.
- Increasing petroleum service and supply industries.
- Establishing gas-based processing and manufacturing operations.
- Increasing research and training capacity for the petroleum industry.
- Contributing to Australia's energy security.¹⁷

The Taskforce is to be re-established with \$820,000 this year and according to the Treasurer's budget speech:

Up to \$5 million per year will be available to the task force to pursue gas projects. There is also \$1 million for strategic studies, including for gas developments in the Beetaloo Sub-basin, Darwin Harbour and Middle Arm.¹⁸

This ongoing commitment to "pursue" gas projects with taxpayer money represents a significant new subsidy to the gas industry. This is likely to be directed largely to the onshore industry with major efforts to begin operations in the Beetaloo Basin, highlighted in the NT

¹⁶ CDU (2018) *Northern Australia Oil and Gas Centre: Fuelling our future*, https://www.cdu.edu.au/sites/default/files/engit/docs/cdu_481_nacog_brochure_2018_297x210_f_web.pdf; PTM Group (n.d.) *Construction of North Australian Centre for Oil and Gas*, <https://www.ptmgroup.com.au/project/case-study/construction-north-australian-centre-oil-gas/>; ABC (2018) Northern Australian Centre for Oil and Gas, <https://www.abc.net.au/news/2018-09-17/north-australian-centre-for-oil-and-gas/10252870?nw=0>

¹⁷ NT Government (2019) *Northern Territory gas strategy: five point plan*, <https://business.nt.gov.au/publications/strategies/northern-territory-gas-strategy>

¹⁸ Budget Paper 1: Speech and Appropriation Bill 2019-20, p6

Gas Strategy, while specific new offshore projects are not widely discussed. It is not clear whether funding for studies is for SREBA or whether it is recurring or limited to the 2019-20 budget year.

The re-establishment of the Taskforce actually began in the 2018-19 budget year, with the 2019-20 budget papers estimating \$500,000 spent in 2018-19. Confusingly the 2019-20 Budget Paper 2 states under a list of “recurrent commitments”:

\$1 million in 2018-19 and \$0.8 million in 2019-20 ongoing for the gas taskforce to implement the Five Point NT Gas Strategy and support strategic oil and gas industry development

The confusion around the initial budgets of the Taskforce may relate to a relatively slow start. Almost two years on from its re-establishment there is little information in the public domain about its activities. Even its membership is unclear, aside from being headed by Paul Tyrell, a former senior NT public servant.¹⁹ It is possible that membership includes four NT public service executives whose reported salaries sum to around the operational budget of the Taskforce. Their job titles suggest roles in the Energy Services division, although no similar increase in spending is apparent in the budget papers.²⁰

Regardless of budget paper inconsistencies, the Taskforce has an operational budget of \$800,000 per year, \$5 million each year to pursue gas projects and other funding available for commissioning research. This represents a significant new and ongoing subsidy to the oil and gas industry.

Summing up

Figure 1 suggests that the costs of running the Energy Services Division exceed the revenue that it generates by an average of \$2.2 million per year. Table 1 outlines that wider administrative costs relating to the onshore oil and gas industry sum to at least \$11.6 million. Table 2 shows that \$60.4 million have been spent subsidising and promoting the industry over the last decade. In total this sums to \$94 million over the last decade, as shown in Table 3 below:

¹⁹ Manicaros (2018) *NT Gas Task Force set to be headed by Paul Tyrell*, <https://www.ntnews.com.au/news/northern-territory/nt-gas-task-force-set-to-be-headed-by-paul-tyrell/news-story/1c352a23b6aadb5c4ddcc1e82ed19a9b>

²⁰ Smith (2019) *NT executives paid top dollar to focus on gas industry, but some experts doubt it will stack up*, <https://www.abc.net.au/news/2019-06-18/gas-fracking-northern-territory-executive-public-service-solar/11219234>

Table 3: Summary of budget paper assistance measures

Form of assistance to onshore oil and gas (2010-11 to 2019-20)	\$million
Under recovery of DPIR administration costs	\$22.0
Wider administration costs	\$11.6
Industry promotion subsidies	\$60.4
Total	\$94.0

Sources: Budget papers, see also Figure 1, Table 1 and Table 2.

Beyond the totals shown in Table 3, with the NT Gas Taskforce, exploration subsidies and minimal progress on cost recovery, levels of subsidy around \$10 million per year look set to continue.

To put this expenditure in context, rather than assisting the onshore oil and gas industry, it could be directed towards salaries for essential services workers. In Table 4 below, NT Government rates of pay for the most junior, most senior and median positions are compared with average assistance to the onshore oil and gas industry of \$9.4 million per year:

Table 4: Service worker salaries and onshore gas industry assistance

	Junior salary	Junior salaries in \$9.4m	Median salary	Median salaries in \$9.4m	Senior salary	Senior salaries in \$9.4m
Aboriginal health practitioner	\$60,059	157	\$99,906	94	\$143,500	66
Rural medical practitioner	\$76,836	122	\$184,961	51	\$234,068	40
Nurses	\$60,347	156	\$90,252	104	\$158,399	59
Corrections officer	\$59,875	157	\$79,169	119	\$121,482	77
Firefighter	\$69,255	136	\$88,787	106	\$133,181	71
Teachers	\$50,404	186	\$100,261	94	\$161,606	58
Community service workers ²¹	\$47,545	198	\$57,775	163	\$81,540	115

Source: NT Government (2020) Current rates of pay, <https://ocpe.nt.gov.au/employment-conditions-appeals-grievances/rates-of-pay>

Table 4 shows that if subsidies to the onshore oil and gas industry were eliminated, the salaries of around 150 junior, 100 mid-career or 60 senior service workers could be paid.

²¹ Or other workers within General NTPS – physical stream.

Alternatively, \$94 million could have been put into transitioning the NT's energy system from gas towards solar. At an average price of \$5,640 for a 5kW system,²² 16,667 houses could have been given rooftop solar energy.

²² Solar Choice (2019) *Solar power in Darwin, NT – Compare prices & installers*, <https://www.solarchoice.net.au/blog/solar-power-darwin-nt>

Future revenue

With the NT Government budget papers showing almost \$100 million spent on subsidising and administering the onshore oil and gas industry, the obvious question is how much might the industry contribute to the community in the coming years. The NT Fracking Inquiry commissioned economic modeling that addressed this issue and made relevant estimates.

It is worth noting that this analysis was commissioned and published well before the corona virus pandemic hit oil markets. Oil industry analysts from Credit Suisse and Rystad Energy recently described to a webinar with the NT Energy Club and WA Petroleum club that 42% of Australia's current gas production and 67% of undeveloped resources are uneconomic at current prices. Describing drilling costs in the NT's Beetaloo Basin as "ridiculous", the analysts expected no investment decisions to be made for at least one and possibly several years.²³

Under these circumstances, economic benefits of onshore oil and gas in the NT look even more unlikely than had been predicted by the Fracking Inquiry's consultants.

ACIL ALLEN STUDY

The NT Fracking Inquiry commissioned modellers from consultancy ACIL Allen to estimate the economic impacts of developing unconventional gas in the Northern Territory.²⁴ ACIL Allen is one of the preferred consultants of oil and gas companies and lobby groups.²⁵

ACIL Allen explored four possible future scenarios for the NT unconventional gas industry:

- "Calm" where the shale gas industry fails to commercialise after some years of exploration.
- "Breeze" where 36 petajoules (PJ) of gas is produced per year.
- "Wind" with 150 PJ produced per year.
- "Gale" with 365 PJ produced per year.

²³ WA Petroleum Club (2020) Webinar with Dan Levy (Rystad) and Saul Kavonic (Credit Suisse) 9 April 2020.


²⁴ ACIL Allen (2017) The economic impacts of a potential shale gas development in the Northern Territory, <https://frackinginquiry.nt.gov.au/news?a=456788>

²⁵ See for example ACIL Allen (2016) Narrabri Gas Project: Economic Impact Report, <https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-6456%2120190228T035910.913%20GMT>; ACIL Allen (2015) A snapshot of Chevron's realised and forecast economic benefits in Australia, https://www.acilallen.com.au/uploads/files/projects/163/ACILAllen_Chrevon2015.pdf, ACIL Allen (2016) Economic contribution of Gippsland Basin Joint Venture, <https://www.exxonmobil.com.au/News/Newsroom/About-the-Gippsland-Basin-Joint-Venture>

To put this in context the Blacktip project, which supplies almost all of the NT’s gas use and was the main rationale behind the Northern Gas Pipeline, produces around 37 PJ per year.²⁶ The huge Inpex Ichthys offshore project produces around 500 PJ per year of LNG.²⁷

ACIL’s analysis made an assessment of the probability of these scenarios occurring, shown in Figure 2 below:

Figure 2: ACIL Allen Scenario Probability Matrix

FIGURE ES 7 ACIL ALLEN DEVELOPMENT SCENARIO PROBABILITY MATRIX 

INDUSTRY DEVELOPMENT SCENARIO	Production Profile	Production Cost Regime	POLICY SCENARIO PROBABILITY MATRIX		
			PERMANENT MORATORIUM	PARTIAL LIFT	FULL LIFT
BASELINE	Nil Shale Production	N/A	CERTAIN	MODERATE	LOW
SHALE CALM	Exploration occurs Failure to commercialise	N/A	ZERO	VERY HIGH	VERY HIGH
SHALE BREEZE	Scenario 1 Target production: 36PJ per annum	High cost	ZERO	MODERATE	HIGH
SHALE WIND	Scenario 2 Target production: 150PJ per annum	Moderate cost	ZERO	LOW	MODERATE
SHALE GALE	Scenario 3 Target production: 365PJ per annum	Low cost	ZERO	VERY LOW	LOW

SOURCE: ACIL ALLEN CONSULTING

Source: ACIL (2017) *The economic impacts of a potential shale gas development in the northern territory*, page IX

ACIL Allen’s probability matrix is very important in the context of their report. It states that the ‘Shale Calm’ scenario, where gas exploration occurs but does not lead to commercial gas development, is the most likely outcome. The only other outcome considered of ‘high’ likelihood is the ‘Shale Breeze’ scenario with a full lift of the moratorium. The ‘Shale Gale’ scenario, is the least likely to occur.

ACIL Allen estimated payments to the NT Government under each of these scenarios. They emphasise that benefits to the Territory Government “largely occur through the form of royalty payments.” In the most likely “calm” scenario, zero royalties are paid. The “breeze” scenario averages \$11.9 million per year in royalty payments, as shown in Figure 3 below:

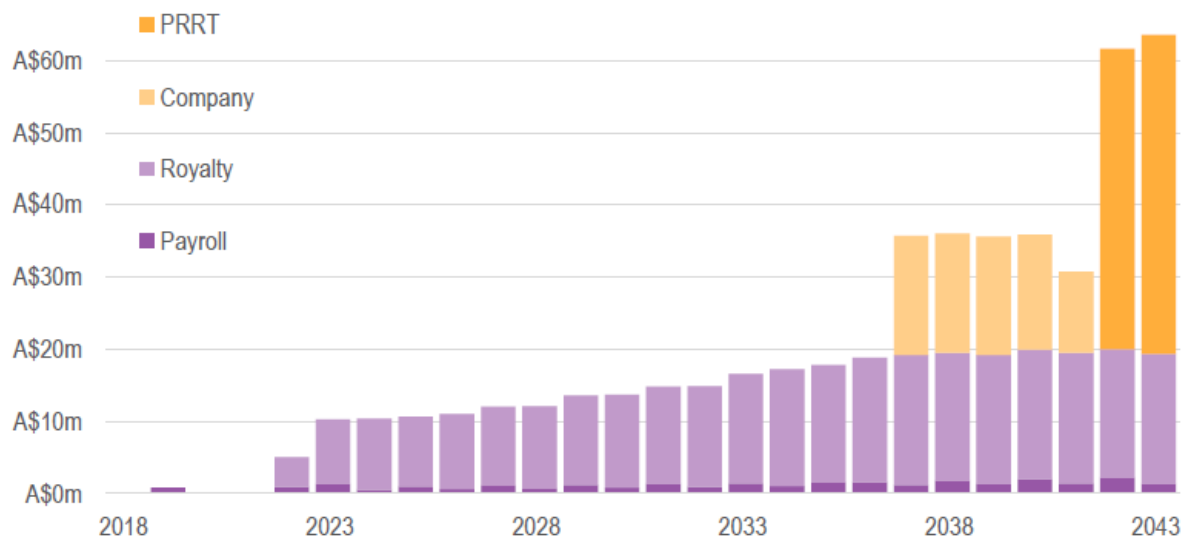
²⁶ Eni (2016) *Eni in Australia*,

https://www.eni.com/assets/documents/eni_australia_2016_eng_ese_web_pagine_singole.pdf

²⁷ Inpex (2019) *INPEX-operated Ichthys LNG Project achieves important financial milestone*,

<https://www.inpex.com.au/media/afhau3hp/2019-12-20-inpex-australia-media-release-ichthys-lng-project-financial-completion.pdf>; Bobby Strain Group (2017) *LNG conversion factors*, http://www.bobby-strain-group.com/BSG_LNG.htm

Figure 3: ACIL Allen Breeze scenario royalty and tax payments:



Source: ACIL Allen (2017)

As shown in Figure 3, ACIL Allen estimate that royalties paid to the NT government would only begin to exceed the \$10 million per year cost of administering and subsidising the onshore oil and gas industry in around 2027. With average payments of \$11.9 million, industry royalties would never reach the levels of support and unrecovered administration cost that NT (and to some extent Commonwealth) governments have incurred over the last decade. Only with substantial petroleum resource rent tax (PRRT) payments in the 2040s might this expenditure be recovered. Substantial risk and uncertainty surrounds large payments so far in the future.

The “wind” and “gale” scenarios see royalty payments increase to \$34.4 million per year and \$69 million per year respectively. While these scenarios would cover the Territory’s tendency to subsidise the onshore oil and gas industry, they require hundreds of millions, if not billions of dollars to be invested in new pipelines and other infrastructure to connect these large volumes of gas with export facilities in Darwin and Gladstone, Queensland, as well as the East Coast market.

ACIL Allen’s model assumes that a private company extracting gas in the NT would contract with a private company to build all necessary infrastructure. In reality, much of these costs are likely to fall on the NT government, its taxpayers and/or the customers of its state-owned utility company, Power Water Corporation (PWC).

NT Government subsidies to oil and gas infrastructure

The NT Government has a long history of subsidising the infrastructure and other needs of the oil and gas industry. The NT Government spent \$359 million subsidising infrastructure for the offshore gas industry between 2008-09 and 2013-14.²⁸ For example, the Marine Supply Base to service the offshore oil and gas industry cost taxpayers over \$100 million.

Industry lobby groups often object to the use of the term “subsidy” relating to taxpayer provision of industry infrastructure, which may later attract usage fees. However, Treasuries from the big mining states of Queensland and Western Australia make it clear that government spending on industry infrastructure is a subsidy and reduces the capacity of the government to invest in services such as health and education:

Some costs may also 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. For many projects directly related to assisting mining industry development, such as land acquisitions for state development areas, the expected timeframes for cost recovery are extremely long (sometimes decades). The opportunity cost of this use of limited funds is a real cost to government and the community.²⁹

In 2010 net present value terms, the cost of Western Australia’s assistance to 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.³⁰

²⁸ Peel et al (2014) Mining the age of entitlement: State government assistance to the minerals and fossil fuel sector, <https://www.tai.org.au/content/mining-age-entitlement>

²⁹ Queensland Treasury (2013) *Response to Terms of Reference for Commonwealth Grants Commission 2015 Methodology Review*, https://www.cgc.gov.au/sites/default/files/documents/2015%20Review%20Report/General%20Consultation/State%20submissions%20on%20the%20terms%20of%20reference/State%20responses/R2015%20-%20CGC%20Email%20to%20State%20Under%20Treasurers%20-%20QLD%20Response.pdf?acsf_files_redirect

³⁰ WA Treasury (2011) *GST Distribution Review WA Submission*, p13, http://www.gstdistributionreview.gov.au/content/submissions/downloads/interim_reports/WASubmission.pdf

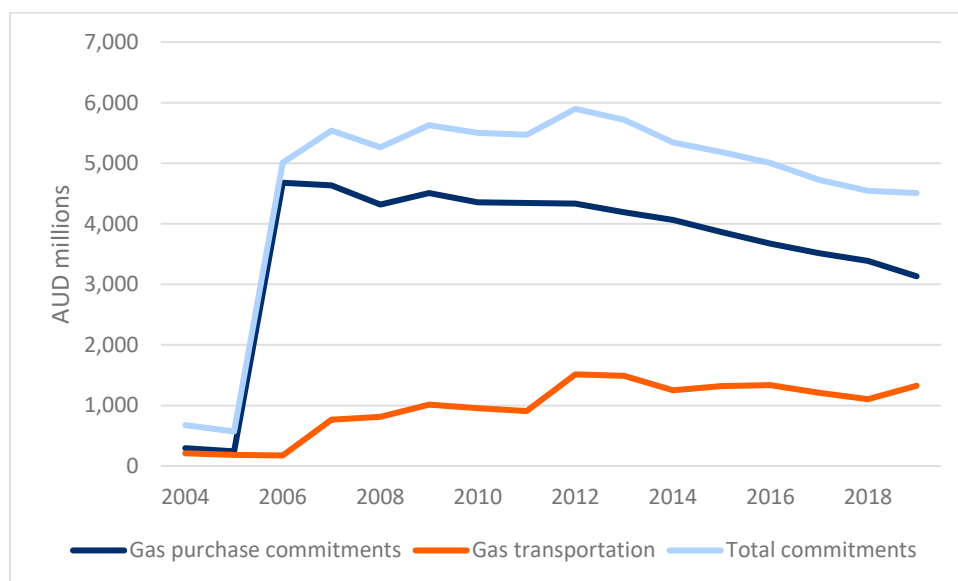
Like these states, when the NT government provides infrastructure or other subsidy arrangements for the resource sector, this reduces its capacity to direct resources to essential services like health and education.

MORE EXAMPLES OF GAS SUBSIDIES: BLACKTIP, NORTHERN GAS PIPELINE AND BEYOND

The NT has subsidised the development of the Blacktip project and the Northern Gas Pipeline. Blacktip is an offshore oil and gas development developed by Italian company Eni. It is in Commonwealth waters, off Wadeye, meaning it pays no royalties for the gas it extracts, while Eni has not paid Australian corporate tax in any year for which ATO data is available.³¹

Blacktip's original commercial customer was Rio Tinto/Alcan's alumina refinery at Gove, East Arnhem Land. When Rio backed out of this deal the NT Government's PWC stepped in to save the project, dramatically increasing the value of the corporation's commitments with a \$4.4 billion dollar deal to buy gas from the Blacktip project, as shown in Figure 4 below:

Figure 4: PWC gas purchase and transport commitments



Source: PWC annual reports

Figure 4 shows that PWC's gas purchase commitments leapt from less than \$300 million in 2004 and 2005 to \$4.7 billion in 2006 following the deal with Blacktip developers Eni. This was a massive increase on the deal envisaged by PWC in 2005 when they wrote:

³¹ ATO (2019) *Corporate tax transparency*, <https://www.ato.gov.au/business/large-business/corporate-tax-transparency/>

Negotiations are under way for a 20-year gas supply agreement from 2009, with a potential value of more than \$1.5 billion.³²

At that point, Blacktip was the last of five gas fields considered. Eni describe this deal as:

In 2006, Eni signed a Gas Sale Agreement with the Northern Territory Power and Water Corporation to meet a demand of 23 PJ/a per annum, starting in 2009 and increasing to 37 PJ/a, for a total quantity of nearly 750 petajoules over a period of 25 years, with room for growth as the gas market develops.³³

Except the gas market did not develop and PWC was left with far more gas than it needed. This was clear to PWC and NT Government decision makers at the time, with the NT Utilities Commission noting in 2006:

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.³⁴

PWC's annual reports soon began to make reference to "surplus gas" and efforts to sell it:

The Gas Supply Unit (GSU) will continue to endeavour to sell PWC's surplus gas entitlements to new gas customers in the Northern Territory market.³⁵

Again, these new customers never did materialize, at least not in sufficient numbers to buy the 'surplus' gas. Instead, the Northern Gas Pipeline was developed to sell this gas:

The Northern Gas Inter-connector Pipeline (NGP) will enable the sale of Power and Water's surplus gas to the eastern seaboard. The Northern Territory Government spearheaded the development of the NGP linking the Amadeus Gas Pipeline to Mount Isa. Jemena Northern Gas Pipeline Pty Ltd (Jemena) successfully tendered to build, own and operate the 12 inch, 623km gas pipeline.³⁶

The 'spearheading' of the NGP involved the expenditure of \$24 million in the Department of the Chief Minister, as discussed above, all in order to sell gas that the Territory did not need.

³² PWC (2005) *Annual Report*, <https://www.powerwater.com.au/about/what-we-do/our-plans-and-values/past-corporate-reports>

³³ Eni (2016) *Eni in Australia*, https://www.eni.com/assets/documents/eni_australia_2016_eng_ese_web_pagine_singole.pdf

³⁴ 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

³⁵ PWC (2015) Annual Report, p48, https://www.powerwater.com.au/__data/assets/pdf_file/0019/5392/Power-and-Water-Annual-Report-2014.pdf

³⁶ PWC (2016) Annual report, p35, https://www.powerwater.com.au/__data/assets/pdf_file/0021/5394/Power-and-Water-Annual-Report-2016.PDF

Perhaps most unusual is that this figure includes \$2.5 million to pay unsuccessful tenderers for expenses in preparing their final proposals.³⁷

More important than the expenditure of the Chief Minister's Department, Figure 4 also shows that PWC has over \$1.3 billion dollars committed to gas transport, a substantial part of which is likely to be devoted to the Northern Gas Pipeline. While Jemena may own the \$800 million pipeline,³⁸ it is PWC's customers and owners that will pay for it.

Commitments to purchase and transport gas make up almost all of the off-balance sheet commitments that PWC has made. These commitments are far greater than the on-balance sheet liabilities of PWC, which grew from \$420 million in 2004 to almost \$2 billion in 2019.

To summarise, PWC and the NT Government paid for a large amount of gas that it could not sell. It commissioned and will indirectly pay for a major pipeline to be able to sell the surplus gas. That pipeline still has some capacity, or at least capacity to expand, so ACIL Allen envisages an unconventional gas industry that will take advantage of that capacity. The chicken-and-egg nature of gas expansion and infrastructure provision continues with the NT Government calling for prefeasibility studies on a pipeline from the Beetaloo Basin to Darwin.³⁹ This pipeline would see taxpayers and/or PWC customers subsidising probably hundreds of millions of dollars worth of infrastructure for the gas industry. Again.

³⁷ NT Auditor General (2016) *November 2016 Report to the Legislative Assembly*,
https://ago.nt.gov.au/reports/2016_November.pdf#page=252

³⁸ Jemena (2017) *\$800 million gas pipeline to bring Northern Territory gas to the east coast*,
<https://jemena.com.au/about/newsroom/media-release/2017/gas-pipeline-to-bring-northern-territory-gas-to-th>

³⁹ McLennan (2020) *Pipeline would 'fulfil Territory's gas vision' - Govt says*,
<https://www.katherinetimes.com.au/story/6706802/pipeline-would-fulfil-territorys-gas-vision-govt-says/>

Conclusion

The non-recovery of administration costs, millions spent on industry promotion and hundreds of millions, possibly billions, committed to infrastructure and purchase contracts illustrates a fundamental point about the oil and gas industry in the NT – it is not driven by conventional market economics based on supply and demand. It is driven by subsidies and non-transparent agreements between the gas industry and the government.

This was neatly explained by an employee of Eni in a paper about the Blacktip project:

Early thinking was that [Blacktip] was not large enough to cater for an LNG development, but might be well suited to an onshore gas supply to industry or for power generation. A key difficulty was that the discovery was so remote from any significant industry or population centre. Darwin was the nearest sizeable population with any significant energy demand (100,000 population), 400 km distant (as the crow flies) and the only sizable industrial customer was at Gove in northeast Arnhem Land, some 1,000 km away, via the only feasible onshore pipeline route.

With expected contingent resources of about 900 Bcf, however the Blacktip discovery had potential and so work began in earnest to achieve its commercialisation.⁴⁰

Blacktip was never “commercialised”. It relies on a deal with the NT Government, a deal which has cost Territorians unknown but significant amounts of money. This piece serves to demonstrate the mindset of the gas industry in the NT – if there is gas there, it should be dug up and sold regardless of whether a market demands it, or communities support it. This mindset is reflected in the Government’s task force, gas plan and other initiatives that defy economics, the views of Territorians and good environmental policy making.

While the Blacktip and Northern Pipeline costs to the NT community remain hidden behind commercial agreements, this paper has shown numerous examples of millions of dollars in assistance being given to the onshore oil and gas industry that appear each year in the budget papers. Even before the corona virus pandemic, the NT budget was facing challenges in providing the services that Territorians expect and deserve. Now that the pandemic is having impacts around the globe, it is clear tha the Territory needs industries that make a clear economic contribution without risking health, environment and community cohesion. This cannot be said for the onshore oil and gas industry.

⁴⁰ Kernaghan (2008) *Early social impact management of an oil and gas development in a NT Aboriginal Society— A Case Study*,
<https://static1.squarespace.com/static/575d0df0b654f9dd8867585e/t/5d8d7d48bd8c0f7f2490f8c2/1569553750452/Blacktip+SIA+Paper+2008.pdf>