ENERGY ROADMAP AMENDMENT BILL 2025

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Queensland Energy Roadmap Amendment Bill 2025

Submission to Queensland's Governance, Energy and Finance Committee

The proposed Energy Roadmap could increase Queensland's emissions by 310 million tonnes to 2050, almost a years' worth of Australia's national emissions. This increase from the electricity sector will impose abatement costs of perhaps $98 billion on other parts of the economy. The $1.6 billion Electricity Maintenance Guarantee is likely to be insufficient to maintain aging fossil fuel power generation assets.

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Summary

Queensland's Energy Roadmap Amendment Bill 2025 should not be passed. The measures it proposes are likely to increase the state's greenhouse gas emissions by perhaps 310 million tonnes to 2050. This is nationally significant, equivalent to nearly a years' worth of Australia's emissions.

The Energy Roadmap does not appear to alter Queensland's goal of net zero by 2050. This means that the additional emissions will need to be abated in other sectors of the Queensland economy. Based on NSW Treasury abatement cost estimates, this will impose approximately $98 billion in additional abatement costs on the rest of the Queensland community.

This dwarfs the $26 billion that the Energy Roadmap proposes in capital savings from running Queensland's old generators for longer.

Even if Queensland abandons its net zero commitment, this will simply transfer this cost to the wider Australian community.

The Electricity Maintenance Guarantee proposes to spend only $1.6 billion over the next 5 years to maintain Queensland's aging coal, hydro, and gas generators. But the government has spent $2 billion over the last 5 years maintaining these generators. Rather than maintenance costs falling, as these generators reach the end of their technical lives, these costs will increase.

The Energy Roadmap has been touted as saving Queensland households, but it will end up costing them more. At the same time, it will increase emissions and cause more damage to the environment. The new Energy Roadmap is a lose/lose for Queenslanders.

Introduction

The Australia Institute welcomes the opportunity to make a submission to the Queensland Parliament Governance, Energy and Finance Committee and its inquiry into the Energy Roadmap Amendment Bill 2025.

The Bill should not be passed and the Energy Roadmap as drafted should be either abandoned or significantly replanned. The proposal to extend the life of the state's coal-fired electricity generation would cause a nationally-significant increase in greenhouse gas emissions. In this submission, we make a rough estimate that the proposal could increase emissions by 310 million tonnes to 2050.

As far as we can tell, the Energy Roadmap does not alter the wider Queensland Government policy to achieve net zero emissions by 2050. If Queensland maintains this commitment, then increasing emissions by 310 million tonnes in the electricity sector means that other parts of the state economy will need to achieve 310 million tonnes of additional greenhouse gas abatement. Based on NSW Treasury abatement cost estimates, this will impose approximately $98 billion in additional abatement costs on the rest of the Queensland community.

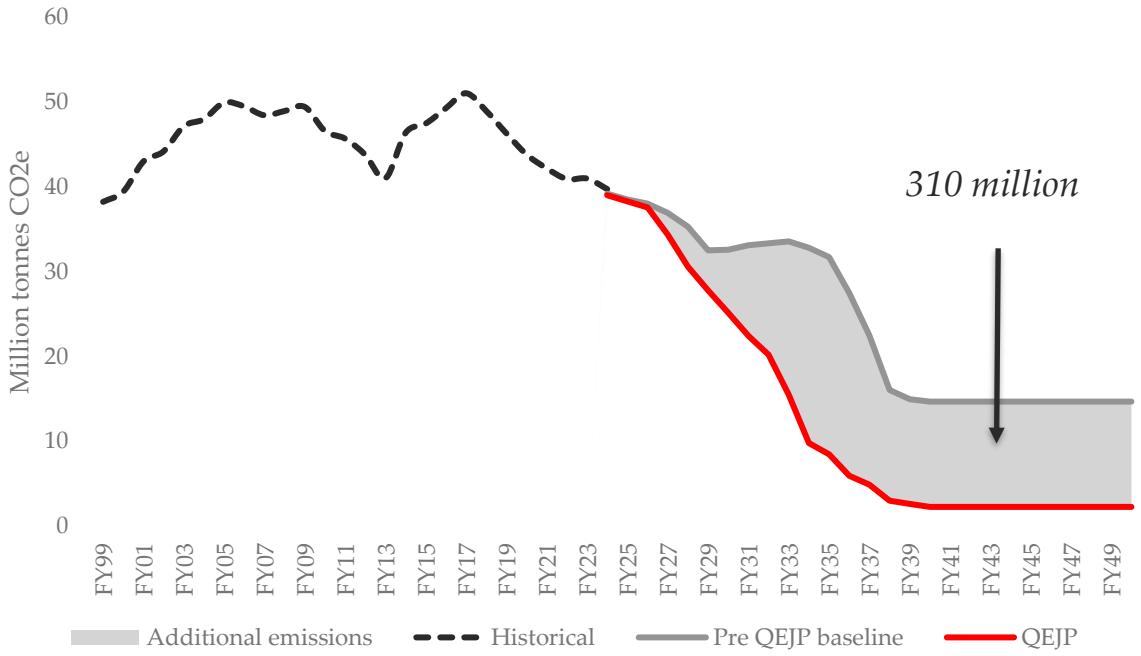
If Queensland does abandon its net zero commitment, this cost will be borne partially by Queenslanders and by the wider Australian community. Either way, the abatement costs that the Energy Roadmap will impose are much larger than the claimed $26 billion in capital savings.

The $1.6 billion Electricity Maintenance Guarantee is also problematic. It does not appear to be additional to the usual budgeted capital spending on coal, gas and hydro generation assets. Unless it is additional, or 'new money', then it represents at best business-as-usual spending, or potentially a significant underestimate of the cost of maintaining aging generation assets.

Emissions increases

Extending the life of Queensland's coal-fired power stations and slowing the transition to renewable energy will increase greenhouse gas emissions and worsen global warming. To give an indication of the additional emissions of this proposal, we have compared the Palaszczuk Government's 2022 Queensland Energy and Jobs Plan (QEJP) with what was then considered a likely future baseline, shown in Figure 1 below:

Figure 1: Additional emissions from reversing the Queensland Energy and Jobs Plan (QEJP)



Source: Queensland Government (2022) *Queensland Energy and Jobs Plan*, https://web.archive.org/web/20240313113501/https://media.epw.qld.gov.au/files/Queensland_Energy_and_Jobs_Plan.pdf . See also Joshi (2025) *'Pragmatism' and positivity — two bad ideas helping Queensland's deadly coal plan*, https://www.crikey.com.au/2025/10/20/queenslands-deadly-coal-plan/

In Figure 1, the difference between the two trajectories is 310 million tonnes of CO_2 equivalent. This estimate comes from applying the percentage change estimates in the Palaszczuk Government's modelling to historic state emissions data.

To put this in context, Australia's emissions in 2023 were 467 million tonnes.[1] This proposal will increase emissions by the equivalent of eight months of all of Australia's emissions.

[1] Net Zero Authority (2025) *2023 Annual Progress Report*, https://www.climatechangeauthority.gov.au/2023-annual-progress-report

Additional abatement costs

One aspect of Queensland's climate policy that the bill does not appear to alter is the current commitment to net zero emissions by 2050. If this commitment remains in place, the extended life of Queensland's coal-fired power stations will impose abatement costs on the rest of the Queensland community. Even if the net zero commitment is abandoned, net zero is unlikely to be abandoned nationally and costs will be imposed on the wider Australian community.

This is because under a net zero emissions policy, increasing emissions in the coal-fired power sector will mean emissions have to be reduced elsewhere in the economy. It therefore imposes an opportunity cost on Queensland that should be included in a state-focused cost benefit analysis or regulatory impact statement.

This point has been explicitly made by government agencies in NSW. The NSW Net Zero Commission has written:

> The Commission is concerned about the risks to the state's targets from increased emissions in the resources sector…**Any emissions increases associated with extended or expanded projects would require all other sectors to make greater emissions reductions if the state is to meet its emissions reduction targets.** The emissions increases pose a major challenge for the state's regulatory arrangements.[2] (**bold** added)

Similarly, the NSW Environment Protection Agency wrote in a submission on a Hunter Valley mine expansion:

> Without changes to avoid or mitigate some of the forecast GHG emissions, this proposal [the Hunter Valley Operations coal mine extension] may contribute to other parts of the NSW economy having to reduce emissions faster for NSW to remain on track to meet the legislated Net Zero Emissions target in 2050.[3]

With emissions constrained, new emissions from extending coal-fired power will need to be abated by some other part of the community. The direct emissions impose an abatement cost that is incurred by the rest of the state community. The current bill would increase Queensland's emissions and impose a greater abatement task, and greater abatement costs

[2] NSW Net Zero Commission (2024) *Annual report*, p12, https://www.netzerocommission.nsw.gov.au/2024-annual-report

[3] NSW EPA (2024) *HVO North and South Open Cut Coal Continuation Projects - EPA Comments to Response to Submissions*, https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-11826681%2120240523T223654.578%20GMT

on the rest of Queensland. This cost should be included in a cost benefit analysis or regulation impact statement.

The failure of Australia's carbon offset schemes, and most offset schemes globally, mean that simply using offset market prices to estimate the cost of abatement is not accurate. It is likely because of the problems around offsets that NSW Treasury provides an estimate of actual abatement costs based on discussion with major industrial facilities in the NSW economy. These estimates are shown in Table 1.

Table 1: NSW Treasury estimates of NSW abatement costs (AUD per tonne)

FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37
$130	$131	$133	$137	$146	$164	$196	$240	$284	$316	$334	$343	$347

FY38	FY39	FY40	FY41	FY42	FY43	FY44	FY45	FY46	FY47	FY48	FY49	FY50
$349	$350	$350	$350	$350	$350	$350	$350	$350	$350	$350	$350	$350

Source: NSW Treasury (2025) *Carbon emissions in the Investment Framework*, https://www.nsw.gov.au/departments-and-agencies/nsw-treasury/documents-library/tpg24-34

The NSW Treasury abatement cost estimates are based on analysis of "a shortlist of decarbonisation solutions most relevant to New South Wales by considering policy alignment, abatement potential, deployment readiness, and enabling infrastructure and capabilities." From this analysis NSW Treasury estimates abatement costs of volumes of abatement in different years.

While the underlying analysis of the NSW Treasury study does not appear to be available, it likely presents more useful values that offset market values because:

- Market prices are affected by demand and supply of offsets rather than abatement cost.
- Offset markets are strongly influenced by changes to regulation and legislation.
- Offset markets, including Australia's, have been shown to include many methods of low integrity.[4] The dubious additionality of many land-based offset methods is highlighted in the climate JER.

There does not appear to be a similar abatement cost analysis for Queensland, but NSW values are likely to be a useful comparison for Queensland given the broadly similar economies and landscapes.

[4] Long (2022) *Insider blows whistle on Australia's greenhouse gas reduction schemes,* https://www.abc.net.au/news/2022-03-24/insider-blows-whistle-on-greenhouse-gas-reduction-schemes/100933186

In assessing the costs of emissions from extended coal-fired power stations, these values reflect the abatement costs that will be imposed by the extensions on the state community. So, it is these values that should be applied to the additional emissions in a cost benefit analysis or a regulation impact statement.

Using estimates of additional emissions and the abatement cost of carbon in Table 1, we calculate the total cost to be $98.7 billion to 2050.

This is the cost of extra abatement that Queenslanders will bare if the state extends coal-fired power while maintaining a net zero 2050 policy. Alternatively, if this policy is also abandoned by Queensland, this cost will be incurred by the rest of Australia.

The Queensland Government has claimed that a slower transition to new electricity generation outlined in the Energy Roadmap will have capital savings of $26 billion out to 2035.[5] This they claim will save households $1,035 per year.

As explained below, there are serious doubts about whether the government has properly accounted for the maintenance costs of running aging generators. But even assuming the $26 billion figure is correct, this "saving" is far smaller than the $98.7 billion in additional abatement costs that will be imposed on other sectors. This means that Queenslanders will be worse off under the new Energy Roadmap.

[5] Queensland Treasury (2025) *Queensland Energy Roadmap 2025*, https://www.treasury.qld.gov.au/files/Queensland-Energy-Roadmap-2025-25-043.pdf

Is the Electricity Maintenance Guarantee optimistic?

A central part of the Energy Roadmap is the "Electricity Maintenance Guarantee". This is a proposal to spend $1.6 billion on extending the lives of state-owned coal, hydro, and gas-fired electricity generation assets over five years.

Based on the available documents, the $1.6 billion does not appear to be new spending that would be additional to the typical capital spending to maintain and extend state-owned generation assets. If it is not 'new money', then it actually represents business-as-usual spending at best, or at worst a significant underestimate of the cost of extending these assets.

It is important to understand that the Queensland Government already provides considerable financial support for fossil fuel generators, producers and major users in the state. An estimate of this assistance is made in The Australia Institute's annual report on fossil fuel subsidies in Australia,[6] which is based on Queensland's budget papers. The budget papers include a project-by-project breakdown of public spending on Queensland's gas, hydro, and coal fired power stations and related infrastructure. Table 2 below summarises this expenditure for the last five financial years. A more detailed breakdown is provided in the appendix to this submission:

Table 2: Queensland public expenditure on coal, hydro, and gas generators maintenance and sustaining projects

Year	$ millions
2021-22	$312
2022-23	$244
2023-24	$467
2024-25	$498
2025-26	$498
Total	$2,018

Sources: Queensland Budget Paper 3, various years. See appendix for details.

Table 2 (and tables in the appendix) show that over the current and previous four financial years, Queensland has spent over $2 billion in capital expenditure extending the life of these assets. This expenditure is not routine operation and upkeep, but new investment needed to extend the life of these generators. This expenditure has opportunity cost for the Queensland Government, reducing its capacity to invest in clean energy or other social

[6] For the 2025 edition, see Grudnoff and Campbell (2025) *Fossil fuel subsidies in Australia 2025*, https://australiainstitute.org.au/report/fossil-fuel-subsidies-in-australia-2025/

services. As Queensland Treasury remarked in a submission to the Commonwealth Grants Commission:

> Governments face budget constraints, and spending on mining [or fossil fuel] 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.[7]

It is in this context that the Energy Roadmap's Electricity Maintenance Guarantee should be viewed. The 'Guarantee' claims that $1.6 billion over five years will be spent on the maintenance of the state-owned coal, hydro, and gas assets. Two points should be noted here:

- All of Queensland's current and future expenditure extending the life of fossil fuel-fired power stations represent fossil fuel subsidies that slow climate action and reduce the capacity of the Queensland Government to invest in renewable energy or other aspects of social spending.
- The $1.6 billion claim seems optimistic – this is less money than was spent on the same assets in the last 5 years.

This is to extend the life and maintain the reliability of these generating assets. However, maintaining aging generators will become more expensive over time. The consequence of this will be less affordable power. Alternatively, less money can be spent on maintenance, but this will come at the cost of reliability.

The Electricity Maintenance Guarantee price tag of $1.6 billion over five years shows us that the Government believes this is how much maintenance will cost. The Roadmap says:

> The Government has provided upfront approval of all investments required by state-owned generators, Stanwell, CS Energy and CleanCo, to implement five-year asset management plans. The Guarantee delivers all required overhaul and sustaining capital expenditure needed to ensure plant safety, statutory compliance, asset integrity and performance.[8]

The major problem with the Electricity Maintenance Guarantee is that $1.6 billion is unlikely to be sufficient to maintain the coal, hydro, and gas generators. In the preceding five years more than $1.6 billion was spent on maintaining these generators. For the five years from 2021-22 to 2025-26, the Queensland Budget Papers show that $2 billion was spent on sustaining projects and overhauls for the coal, hydro, and gas generators.

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[7] Queensland Treasury (2014) *Queensland Treasury Response to Commonwealth Grants Commission 2015 Methodology Review*, R2015 - CGC Email to State Under Treasurers - QLD Response.pdf

[8] Queensland Treasury (2025) *Queensland Energy Roadmap 2025*, https://www.treasury.qld.gov.au/files/Queensland-Energy-Roadmap-2025-25-043.pdf

Conclusion

While the Queensland Government claims the new Energy Roadmap will reduce costs to Queensland households, our analysis shows that costs are likely to increase for most of the state's community. We urge the Committee to recommend against the passage of the Bill.

Appendix

Overhaul and sustaining projects for Queensland Government owned coal, hydro, and gas power stations and related infrastructure in 2021-22

Item title	Budget line payment 2021-22
Korgan North Gas Field	$24,556,000
Swanbank E Power Station	$15,159,000
CS Energy - Callide Power Station	$53,575,000
CS Energy - Kogan Creek Power Station	$16,548,000
CS Energy - Kogan Creek Mine	$2,422,000
Stanwell Power Station	$74,398,000
Tarong Power Station	$31,938,000
Meandu Mine	$50,092,000
Stanwell Corporation – ICT hardware & software upgrades; Other Capital Projects	$11,462,000
Wivenhoe major overhauls	$17,084,000
Wivenhoe other projects	$9,450,000
Kareeya Hydro other projects	$4,190,000
Barron Gorge Hydro other projects	$1,488,000
Koombooloomba Dam other projects	$128,000
Total	$312,490,000

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

Overhaul and sustaining projects for Queensland Government owned coal, hydro, and gas power stations and related infrastructure in 2022-23

Item title	Budget line payment 2022-23
CS Energy - Callide Power Station	$45,037,000
CS Energy - Kogan Creek Power Station	$30,338,000
CS Energy - Kogan Creek Mine	$1,226,000
Stanwell Power Station	$50,384,000
Tarong Power Station	$66,691,000
Meandu Mine	$21,042,000
Kogan North Gas Field	$13,628,000
Swanbank E Power Station	$4,353,000
Wivenhoe overhauls	$3,065,000
Wivenhoe other projects	$4,606,000
Kareeya Hydro other projects	$2,022,000
Barron Gorge Hydro other projects	$1,051,000
Koombooloomba Dam other projects	$166,000
Total	$243,443,000

Source: Queensland Government (2022) *Budget Papers 2022-23*

Overhaul and sustaining projects for Queensland Government owned coal, hydro, and gas power stations and related infrastructure in 2023-24

Item title	Budget line payment 2023-24
Kogan North Gas Fields	$29,550,000
Swanbank E Power Station	$12,900,000
Callide Power Station	$185,915,000
Kogan Creek Power Station	$20,057,000
Kogan Creek Mine	$14,350,000
Tarong Power Station	$77,200,000
Stanwell Power Station	$60,900,000
Nebo Power Plant: primary plant replacement	$2,655,000
Nebo Power Plant: secondary systems replacement	$5,519,000
Calvale and Callide B	$1,185,000
Meandu Mine	$29,522,000
Wivenhoe major overhauls	$5,827,000
Wivenhoe other projects	$10,251,000
Kareeya Hydro other projects	$6,886,000
Barron Gorge Hydro other projects	$3,282,000
Koombooloomba Dam other projects	$659,000
Total	$466,658,000

Source: Queensland Government (2023) *Budget Papers 2023-24*

Overhaul and sustaining projects for Queensland Government owned coal, hydro, and gas power stations and related infrastructure in 2024-25

Item title	Budget line payment 2024-25
Swanbank E major overhauls	$21,097,000
Swanbank E other projects	$4,911,000
Kogan North Gas Fields development	$6,934,000
Callide Power Station enhancements, overhauls, refurbishment and rebuild	$108,267,000
Kogan Creek Power Station enhancements, overhauls and refurbishment	$25,539,000
Kogan Creek Mine developments and refurbishment	$20,057,000
Barcaldine Power Station Upgrade	$44,483,000
Tarong Power Station – Overhauls	$75,716,000
Stanwell Power Station – Overhauls	$31,371,000
Meandu Mine - Dragline Overhaul	$1,467,000
Tarong Power Station - Other Sustaining Projects	$55,635,000
Stanwell Power Station - Other Sustaining Projects	$21,540,000
Meandu Mine - minor works	$45,377,000
Tarong Power Station - Cooling Tower Refurbishment	$85,000
Meandu Mine - Development Program	$3,241,000
Meandu Mine - Ash Management	$100,000
Kareeya Hydro other projects	$11,595,000
Barron Gorge Hydro other projects	$5,737,000
Koombooloomba Dam other projects	$944,000
Wivenhoe major overhauls	$5,620,000
Wivenhoe other projects	$7,966,000
Total	$497,682,000

Source: Queensland Government (2024) *Budget Papers 2024-25*

Overhaul and sustaining projects for Queensland Government owned coal, hydro, and gas power stations and related infrastructure in 2025-26

Item title	Budget line payment 2025-26
Swanbank E sustaining projects	$5,062,000
Kogan North Gas Fields development	$28,387,000
Kogan Creek Power Station sustaining projects	$56,355,000
Kogan Creek Power Station overhauls	$8,931,000
Callide C Power Station overhauls	$50,593,000
Callide B Power Station sustaining projects	$40,016,000
Callide C Power Station sustaining projects	$30,210,000
Callide B Power Station overhauls	$1,859,000
Kogan Creek Mine developments and refurbishment	$2,685,000
Stanwell Power Station - overhauls	$8,000,000
Stanwell Power Station - drains reclaim dam project	$1,000,000
Stanwell Power Station - other sustaining projects	$25,396,000
Tarong Power Station – overhauls	$40,654,000
Tarong Power Station - stator rewind project	$5,250,000
Tarong Power Station - cooling tower refurbishment	$6,371,000
Tarong Power Station - other sustaining projects	$27,773,000
Meandu Mine - dragline overhaul	$23,446,000
Meandu Mine - truck and shovel program	$30,643,000
Meandu Mine - development program	$3,055,000
Meandu Mine - minor works	$56,189,000
Barron Gorge Hydro sustaining project	$16,188,000
Kareeya Hydro sustaining projects	$10,947,000
Wivenhoe sustaining projects	$11,571,000
Wivenhoe major overhauls	$7,509,000
Total	$498,090,000

Source: Queensland Government (2025) *Budget Papers 2025-26*