Northern direction: If NSW had the Queensland coal royalty system

If NSW had adopted Queensland's progressive coal royalty system in 2021-22 it would have raised an additional $2.8 billion. For 2022-23 this figure is estimated at between $4.2 billion and $6.2 billion.

Authors: Matt Saunders, Rod Campbell
Date: March 2023

INTRODUCTION

The Perrottet Government in NSW is heading to an election with a promise not to change coal royalties,[1] a position that is shared by the opposition,[2] to the delight of the mining industry.[3] By contrast, in 2022, the Queensland Government improved its coal royalty scheme to ensure additional government revenue is generated in times of high coal prices. The changes were announced in June 2022 and commenced operation on 1 July 2022.[4]

This briefing note estimates the changes to royalty revenue that NSW would have generated had the state adopted reforms similar to Queensland.

[1] Bernasconi (2023) *NSW mining royalties frozen while coal companies navigate price cap*, https://www.abc.net.au/news/2023-02-07/nsw-mining-royalties-frozen-coal-companies-navigate-price-cap/101938894

[2] Chan (2022) *NSW has no plans to introduce coal royalties*, https://www.australianmining.com.au/nsw-has-no-plans-to-introduce-coal-royalties/

[3] NSW Mining (2023) *Rate freeze welcome as royalties hit record for NSW*, https://www.nswmining.com.au/news/2023/2/rate-freeze-welcome-as-royalties-hit-record-for-nsw

[4] Dick (2022) *New progressive royalties for record Queensland coal prices*, https://statements.qld.gov.au/statements/95467

COAL ROYALTIES IN NSW AND QUEENSLAND

In NSW, royalty rates do not change with price. A flat rate is applied to the value of coal produced depending on the type of coal mine. Under the current policy, open cut mines pay a royalty of 8.2% of the sale value of the coal. Underground mines pay 7.2%, and deep underground mines at 6.2%.[5]

Coal royalty rates were last changed in NSW in 2008, some 15 years ago, when they were increased by 1.2 percentage points for each mine type to their current levels.[6]

The Queensland coal royalty scheme is progressive - as the coal price increases, the rate of royalty increases at staggered intervals. The higher royalty rates apply only to the portion of the price above the relevant threshold.

Queensland's royalty system had been progressive before the changes in 2022, but with only three different rates as coal prices increased. The old maximum rate, 15%, applied at prices over $A150/tonne. The announced change added three additional tiers over $A175/tonne, with the new maximum rate, 40%, applying to prices over $A300/tonne (Table 1).

Table 1: Queensland coal royalty rates, new rates from 1 July 2022

Coal price	Old	New
Up to $100/t	7%	7%
Next $50/t (up to $150)	12%	12%
Next $25/t (up to $175)	15%	15%
Next $50/t (up to $225)	15%	20%
Next $75/t (up to $300)	15%	30%
Above $300	15%	40%

Source: Queensland Government, *Budget Paper 2 - Budget Strategy and Outlook 2022–23*

At any price, the highest royalty rate applies only to that part of the price above the relevant threshold. For example, with a coal price of $A350/tonne the maximum rate of 40% is applicable. But that rate applies only to the portion of the price above $A300/tonne. That is, 40% multiplied by $50/tonne multiplied by the volume of coal output at that price. The lower rates apply to the parts of the price below $A300/tonne. This structure means that for prices over $100/tonne, the *average* rate

[5] Deductions can further reduce the final value of royalties paid but are omitted here for simplicity.

[6] NSW Parliamentary Research Service (2012) *Issue Backgrounder: A history of mineral and petroleum ownership and royalties in NSW,* https://apo.org.au/sites/default/files/resource-files/2012-10/apo-nid31512.pdf

of royalty is lower than the marginal rate. Table 2 provides a summary of the average and marginal royalty rates at various prices.

Table 2: Queensland marginal and average royalty rates, old and new policy

	Old Policy			New Policy		
Price, $A/tonne	Royalty/t $A	Marginal Rate	Average Rate	Royalty/t, $A	Marginal Rate	Average Rate
$50	$3.50	7%	7%	$3.50	7%	7%
$100	$7.00	7%	7%	$7.00	7%	7%
$150	$13.00	12%	9%	$13.00	12%	9%
$175	$16.75	15%	9.6%	$16.75	15%	10%
$200	$20.50	15%	10.3%	$21.75	20%	11%
$250	$28.00	15%	11.2%	$34.25	30%	14%
$300	$35.50	15%	11.8%	$49.25	30%	16%
$350	$43.00	15%	12.3%	$69.25	40%	20%
$400	$50.50	15%	12.6%	$89.25	40%	22%
$500	$65.50	15%	13.1%	$129.25	40%	26%
$600	$80.50	15%	13.4%	$169.25	40%	28%

Source: Author's calculations based on Queensland Government, *Budget Paper 2*

Table 2 shows that, for example, at $350/tonne the marginal royalty rate is 40%, but the average rate is only 20%, compared to 12.3% under the old policy.

Overall, the changes to Queensland royalty rates make no difference for coal producers at prices up to $A175/tonne. If the Queensland budget paper price forecasts for thermal coal in 2022-23 are correct ($A173/tonne) then the new royalty structure will generate no additional revenue from thermal coal exports. The policy change is likely to have no impact on thermal coal mines under usual price conditions, as noted in the Queensland Budget Papers.[7] Further revisions to the system should be considered to ensure the Queensland community gets value from coal production as climate policy impacts coal markets.

Previous research by The Australia Institute,[8] following on from research by Buckley,[9] found that if the new rates had applied retrospectively, Queensland would have generated $7.4 billion in additional revenue from exports in 2021-22. The research also found the new rates applied in 2022-23 under three different coal price scenarios:

[7] Queensland Government (2022) *Budget Paper 2 - Budget Strategy and Outlook 2022–23*, p.104, https://budget.Queensland.gov.au/budget-papers/

[8] Saunders & Campbell (2022) *From Russia with Love: Coal Profits from the War in Ukraine,* https://australiainstitute.org.au/report/from-russia-with-love/

[9] Buckley (2022) *Windfall Profits: Time to Fix Loopholes and Subsidies to Serve Australians Better* https://climateenergyfinance.org/our-work/report-item/

BAU, *Low* and *High* price scenarios are likely to generate between $1 billion and $4.3 billion in additional revenue (Table 3).

Table 3: Additional revenue impacts of new Queensland coal royalty rates, $ million

		Projection: 2022-23		
	2021-22	BAU	LOW	HIGH
Coking Coal	$6,953	$1001	$1,429	$3,291
Thermal Coal	$410	$0	$0	$1,042
Total	**$7,363**	**$996**	**$1,429**	**$4,333**

Source: Queensland Government and author's calculations

IMPACTS ON NSW ROYALTY REVENUE OF ADOPTING THE QUEENSLAND SYSTEM

To estimate the NSW revenue impacts from adopting the Queensland royalty system for the previous financial year, 2021-22, we apply the Queensland royalty rates to the relevant export prices and NSW volumes published by the Department of Industry Science and Resources (DISR).[10]

In 2021-22 NSW exported 144 MT of thermal coal and 26MT of coking coal. Implied export prices ranging from $A118/tonne to $A378/tonne from DISR's *Resources and Energy Quarterly* were used as the reference export prices (Table 4).

Table 4: Calculation of NSW royalty revenue, 2021-22

	Sep–21	Dec–21	Mar–22	Jun–22	Annual
Exports: Met (MT)	7	7	6	6	26
Exports Thermal (MT)	42	37	32	33	144
Prices: Met ($A/t)	$118	$236	$224	$329	
Prices: Thermal ($A/t)	$146	$204	$245	$378	
Exports: Met ($m)	$786	$1,627	$1,438	$2,105	$5,955
Exports: Thermal ($m)	$6,091	$7,527	$7,756	$12,593	$33,967
Existing Royalty ($m)	$536	$713	$716	$1,144	$3,108
QLD Royalty Rates ($m)	$584	$1,037	$1,205	$3,068	$5,894
Impact ($m)	$48	$325	$489	$1,923	**$2,785**

Source: Analysis of Department of Industry Science and Resources (2022)

[10] DISR (2022) *Resources and Energy Quarterly*, https://www.industry.gov.au/publications/resources-and-energy-quarterly

Table 4 shows that in 2021-22 close to $2.8 billion in additional royalty revenue could have been generated if NSW had the Queensland scheme in that financial year.

To estimate this figure for the current 2022-23 financial year, Table 5 (below) uses the published prices for the first quarter of the year and **high** and **low** price forecasts for the three remaining quarters.

The **high** coal price forecast is based on average futures prices.[11] The **low** price is the NSW and Queensland government price forecast of $A173/tonne[12] for thermal coal. The NSW coking coal export price is assumed to be 10% higher than the thermal coal price, reflecting the fact that the state's coking coal exports are of lower quality than the premium hard coking coals that constitute most of Australia's coking coal exports.

For export tonnages, it is assumed that coal exports for 2022-23 will be the same as 2021-22 volumes. This simplifying assumption is consistent with the low growth in coal exports forecast in the NSW budget papers and by DISR.[13]

Using the two price forecasts leads to a **high** and a **low** estimate of the revenue impacts of adopting the Queensland royalty scheme. Table 5 outlines the prices, volumes, and forecast royalty impact for 2022-23.

Table 5: Impacts of adopting Qld royalty scheme, low & high scenario, 2022-23

	Sep–22	Dec–22	Mar–23	Jun–23	Total
Export Volumes (MT)	43	43	43	43	**170**
LOW: Prices ($A/t)	466.1	175.7	175.7	175.7	
HIGH: Prices ($A/t)	466.1	272.8	272.8	272.8	
LOW: NSW Royalty ($m)	$1,750	$600	$522	$544	**$3,416**
HIGH: NSW Royalty ($m)	$1,750	$932	$811	$844	**$4,338**
LOW: Qld Royalty ($m)	$5,574	$745	$649	$675	**$7,642**
HIGH: Qld Royalty ($m)	$5,574	$1,803	$1,570	$1,634	**$10,581**
LOW: Impact ($m)	$3,824	$145	$126	$131	**$4,226**
HIGH: Impact ($m)	$3,824	$871	$759	$790	**$6,244**

Source: Author's calculations using DISR 2022

[11] barchart.com (2023) *ICE Newcastle Coal Mar 23*, www.barchart.com/futures/quotes/LQ*0/futures-prices?viewName=main

[12] For Queensland see Queensland Government (2022) *Budget Paper 2 - Budget Strategy and Outlook 2022–23.* Since the publication of the NSW 2022-23 Budget, the mid-year Budget Review outlined an upward revision to the royalty revenue forecast implying a higher coal price is also forecast. The higher forecast prices are not published in the mid-year review and so cannot be used.

[13] DISR (2022)

The calculations and analysis suggest that if NSW had adopted the Queensland royalty scheme for 2022-23 then between $4.2 billion and $6.2 billion in additional royalty revenue could have been generated from coal exports.

The difference between the high and low price scenarios is relatively small since both share the same historically high actual price in the September quarter. In turn, the low price scenario highlights one of the strengths of the Queensland scheme in that it can generate exceptional revenue off short term price spikes. Even if prices dip back to the low prices forecast in the NSW budget papers the single quarter price spike generates over $3.8 billion in additional revenue compared to the existing policy. Without the Queensland royalty scheme the revenue is simply additional profits to the multinational mining companies operating in the state.

CONCLUSION

The projected increase in royalty revenue of up to $6.2 billion is a significant sum that could be used in a range of areas. It could be spent on renewable electricity generation and related technologies to help aid the transition away from coal. Similarly, the money could be directed into the *Royalties for Rejuvenation Fund* to aid the transition to cleaner energy in areas that are currently heavily involved in the coal industry.[14]

The *Royalties for Rejuvenation Fund* is a recently established fund of the NSW government to help regions transition away from coal. Currently, the fund is meant to receive only $25 million a year, an amount that would be spread over four different coal producing regions – the Hunter Valley, Central West, North West and the Illawarra. An injection of $6 billion would provide a massive funding boost just as Australia starts to get serious about tackling climate change.

The existing $25 million a year should continue, as it can form a baseline injection into the fund with any upside in future coal prices passed into the fund via the reformed royalty scheme.

[14] NSW Government (2022) *Royalties for Rejuvenation Fund*, https://www.nsw.gov.au/regional-nsw/programs-and-grants/royalties-for-rejuvenation-fund