

The main sources of contributions are those received from private enterprise and community groups to fund research projects and community services and contributed assets and goods and services received for a nominal amount. Contributions exclude Australian Government grants and user charges.

Other grants and contributions comprise only a small share of total grant revenue (0.9 per cent in 2022–23).

4.4.3 Royalty revenue

The state earns royalties from the extraction of coal, base and precious metals, bauxite, petroleum and gas, mineral sands and other minerals. Royalties ensure a share of the proceeds of the extraction of non-renewable resources are returned to the community. Land rents are also earned from pastoral holdings, and mining and petroleum leases.

There is a high degree of uncertainty associated with estimates of commodity prices, which can have significant impacts on royalty revenue. Risks to commodity export volumes, in particular coal, also have the potential to impact Queensland’s royalty estimates, although changes to export volumes may in turn impact prices.

The Revenue and Expense Assumptions and Sensitivity Analysis (Appendix C) outlines key parameter assumptions, and the sensitivity of coal royalty estimates to individual changes in price, volume and exchange rate parameters.

Coal and oil prices have risen substantially since the 2021–22 Queensland Budget, providing a short-term boost to revenues. However, the recent spike in prices is primarily driven by a range of short-term supply side factors and disruptions. As such, prices are expected to return to more sustainable levels in 2023, but the timing and extent of the decline remains uncertain. Forecast royalties and land rents are detailed in Table 4.6.

Table 4.6 Royalties and land rents¹

	2020–21 Actual \$ million	2021–22 Est. Act \$ million	2022–23 Budget \$ million	2023–24 Projection \$ million	2024–25 Projection \$ million	2025–26 Projection \$ million
Coal	1,740	7,290	5,480	3,297	3,539	3,699
Petroleum ²	298	1,185	1,626	1,116	1,025	996
Other royalties ³	499	483	538	505	488	494
Land rents	126	176	190	193	198	203
Total royalties and land rents	2,662	9,135	7,832	5,112	5,251	5,392
Notes:						
1. Numbers may not add due to rounding.						
2. Includes liquefied natural gas (LNG).						
3. Includes base and precious metal and other mineral royalties.						

Box 4.6 Progressive coal royalty rates

Coal royalties are designed to ensure all Queenslanders receive a fair and appropriate return on the state's valuable and limited natural resources.

The royalty rate for coal is determined based on the average price per tonne of coal sold, disposed of or used in a royalty return period.

Since 1 October 2012, the highest marginal royalty rate applicable to Queensland coal royalties has been a rate of 15 per cent, payable on that part of the average price per tonne exceeding A\$150.

Given the exceptional surge in coal prices experienced across 2021 and early 2022, with spot metallurgical coal prices reaching as high as around A\$900 per tonne, the current royalty structure does not provide a fair return to Queenslanders during periods of such high prices.

To ensure Queenslanders receive a fair return on the use of the state's valuable and limited natural resources in periods of high prices, the government is introducing 3 new tiers to the coal royalty structure, with effect for coal sold, disposed of or used on or after 1 July 2022:

1. an additional tier with a rate of 20 per cent on that part of the average price per tonne that is more than A\$175 but not more than A\$225
2. a further tier with a rate of 30 per cent on that part of the average price per tonne that is more than A\$225 but not more than A\$300
3. a further tier with a rate of 40 per cent on that part of the average price per tonne that is more than A\$300.

This is estimated to generate additional royalty revenue of around \$1.2 billion over the 4 years ending 2025–26. However, a substantial proportion (around \$765 million) will be in 2022–23, as coal prices are expected to return to longer run prices over the next year.

The addition of the new tiers is not expected to have any material impacts on the coal industry or viability of producers, given the increases are applied only at relatively high prices.

Based on unit export values over the past 10 years, average hard coking coal prices have only been higher than A\$175 per tonne around half the time, while average thermal coal prices have only been above A\$175 per tonne around 2.5 per cent of the time over this period (based on monthly averages, only observed in 3 months over the 10 year period ending February 2022) (Chart 4.7).

The increased return to Queenslanders received during future periods of high prices will help enable the provision of essential infrastructure and services to meet the needs of Queenslanders across all regions of the state.

Historical changes in coal royalty rates and tiers

It is also important to recognise that coal companies have experienced a long period of stability in terms of the royalty regime, without any changes to royalty rates or price tiers in Queensland over almost a decade since October 2012, despite prices rising substantially over that time.

This follows a range of changes to the royalty regime prior to that period, with at least 6 major changes made to coal royalty rates over the previous 20 years.

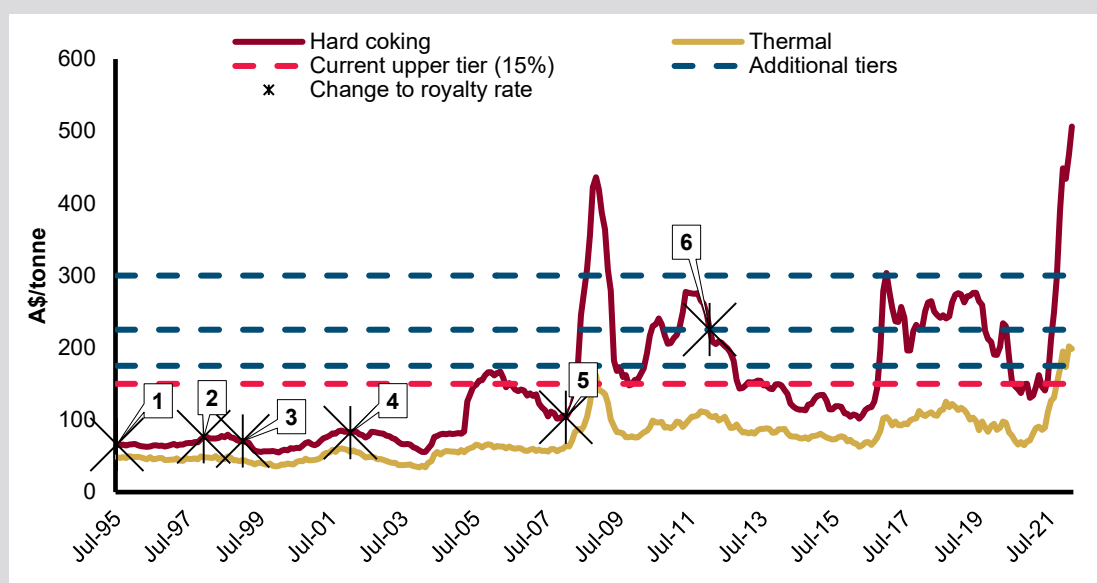
This included the introduction in 2008 of a second tier with a new top rate of 10 per cent over A\$100 per tonne, and in 2012 the introduction of a 3 tier system of 7 per cent up to A\$100 per tonne, 12.5 per cent above A\$100 up to A\$150 per tonne, and 15 per cent above A\$150 per tonne.

However, prices have increased substantially over the last few decades, from well under A\$100 per tonne in the 1990s, with an underlying persistent upward trend in prices over time, including previous periods of exceptionally high prices.

As such, the changes being made are timely and appropriate to ensure the state’s coal royalty regime continues to provide a fair return to Queenslanders during future periods of high prices.

Chart 4.7 outlines the extent to which major changes have been made to the coal royalty rates since the 1990s.

Chart 4.7 Historical average coal prices



Notes:

1. 1994: standard rate of 7 per cent of value for exports.
2. 1997–98: base special royalty (BSR) was introduced for certain mines. Where BSR applied, the coal royalty rate was 5 per cent, with 7 per cent applying to any excess tonnage.
3. 1999: standard 7 per cent royalty applied from 1 July 2000 (no reduction where BSR paid). BSR was reduced to \$3.00 per tonne (ending June 2000).
4. 2002: deductions for rail freight and road haulage ceased to apply.
5. 2008: additional tier added, with rate of 7 per cent applied up to A\$100 per tonne, and a 10 per cent rate applied over A\$100 per tonne.
6. 2012: further changes to tier structure: 7 per cent applied to a value of up to A\$100 per tonne, 12.5 per cent to values from over A\$100 to A\$150 per tonne, and 15 per cent to values above A\$150 per tonne.

Source: ABS International Trade in Goods and Services (unpublished)

Coal royalties

A large proportion of Queensland's royalties and land rents comes from coal mining and the majority of this revenue is attributable to the hard-coking coal used in global steel production.

The lower level of royalties collected from thermal coal mining compared with hard-coking coal reflects the smaller volume of thermal coal mined in Queensland, the lower values per tonne of thermal coal and the 3-tiered coal royalty rate system, where lower value coal is subject to a lower average royalty rate. In 2021, coking coal represented almost 75 per cent of coal exported from Queensland.

Coal royalties are expected to total \$7.290 billion in 2021–22. The increase has been driven by significant increases in global coal prices, which have been reflected in price rises for Queensland coal exports. On a year-average basis, the premium hard coking coal price is estimated to be US\$364 per tonne in 2021–22, an increase of more than 200 per cent on 2020–21.

A key driver of the recent surge in coal prices has been China's strong demand for coal from other exporters (due to its reduced importation of Australian coal), which appears to have temporarily distorted global market dynamics, leading to a shortage in supply.

Coal prices have also been impacted as a result of European buyers reducing their purchases of Russian coal following the commencement of the Russia-Ukraine conflict.

COVID-19 and weather-related supply shortages are also impacting prices. Significant weather events globally included:

- weeks of heavy rain in September and October 2021 affecting coal mines in Mongolia and China
- heavy rains and mudslides crippled various coal infrastructure in Canada
- heavy rains in Indonesia in late 2021 which delayed shipments.

In addition, a number of weather events impacted on Australian supply. For example, heavy rainfall linked to La Niña weather conditions disrupted Australian supply, especially in New South Wales, leading to a declaration of force majeure in March 2022 at the Port Kembla Coal Terminal (72km south of Sydney).

In addition, there have been some coal mine closures, for example:

- Moranbah North (supplying metallurgical coal) was temporarily closed after an incident in late March 2022 (operations restarted on 31 May 2022)
- Gregory coal mine (supplying metallurgical coal) reopening was delayed after an incident in September 2021 (operations expected to resume in September quarter 2022)
- Curragh coal mine (supplying metallurgical and thermal coal) was temporarily closed in November 2021 (mine reopened after 3 weeks).

The above events caused considerable disruption, which along with labour constraints resulted in tighter supply putting additional upward pressure on prices.

This has been further exacerbated by restocking demand due to power plants/steel mills drawing down their stockpiles of coal.

However, the primary factors and disruptions that have driven the recent spike in global coal prices are expected to be temporary in nature. COVID-19 and weather-related issues are expected to subside, resulting in an easing of the supply constraints and thus lessening the upward pressure on coal prices.

Further, China has begun to reduce its coal import volumes and rely more on its own domestic supply, driven by the recent slowdown in the Chinese economy. This is expected to moderate the global market distortions currently impacting prices.

In addition, prices of steel products globally have grown more slowly than prices for coal. For example, across the year ending 31 May 2022, average steel rebar prices were around 19 per cent higher than the previous year while the average price of steel products was around 21 per cent higher. In comparison, over the year ending 31 May 2022, average premium hard coking spot prices were around 221 per cent higher than the previous year.

The slower growth in steel prices will potentially lead to reduced profit margins for steel producers, given metallurgical coal is a key input into steel making. This implies that the current high hard coking coal prices are not sustainable in the longer term and downward pressure on coal prices is expected in the near term.

Current forecasts assume no Queensland coal is being exported to China over the forward estimates, however any changes to the current trade relationship with China could lead to the price of coal unwinding sharply. Developments in the Russia/Ukraine conflict could also lead to a significant downward risk to coal prices in the future.

The above commentary is supported by analysis from the Office of the Chief Economist for the Australian Government's Department of Industry, Science, Energy and Resources¹ which made several points in regard to metallurgical coal prices.

- *A series of weather disruptions affecting coal mines in Mongolia and China resulted in upward price movements in late 2021, with the largest effect following weeks of heavy rains in September and October.*
- *Non-weather supply disruptions have also picked up early in 2022, with infrastructure bottlenecks constraining output in Russia, and COVID impacts starting to affect output from Australia. On top of this, the Russian invasion of Ukraine sent prices to new records in March.*
- *It is expected that disruptions will ease on some fronts over the remainder of 2022, allowing prices to start correcting. Over the outlook period, hard coking coal prices are expected to ease back from a war-affected peak of around US\$460 a tonne in the March quarter 2022, to reach US\$172 a tonne by the March quarter 2023. Prices are then expected to stabilise at around US\$150 a tonne towards the end of the outlook period.*

While the issues discussed above indicate that coal prices are expected to decline significantly in time, the precise timing and magnitude of such a decline is not known. Treasury has taken an appropriately conservative approach to its coal forecasts and assumed prices will normalise in 2023.

¹ Australian Government (Department of Industry, Science, Energy and Resources, *Office of the Chief Economist - Resources and Energy Quarterly March 2022, 2022* www.industry.gov.au/req accessed 6 June 2022

Given the expectation of substantially lower coal prices over subsequent years compared with the prices seen in late 2021 and the first half of 2022, coal royalty revenue is forecast to decline by almost 25 per cent in 2022–23 and by a further 40 per cent in 2023–24.

This largely reflects an expected 43.4 per cent fall in 2022–23 in hard coking coal prices (to US\$206 per tonne) and a further fall in prices in 2023–24 (returning to US\$160 per tonne).

Coal royalty revenue is forecast to grow by 7.3 per cent in 2024–25 and by a further 4.5 per cent in 2025–26 with crown export coal tonnages¹ forecast to gradually increase over this period. This largely reflects the continued recovery in global economic activity from the COVID-19 pandemic.

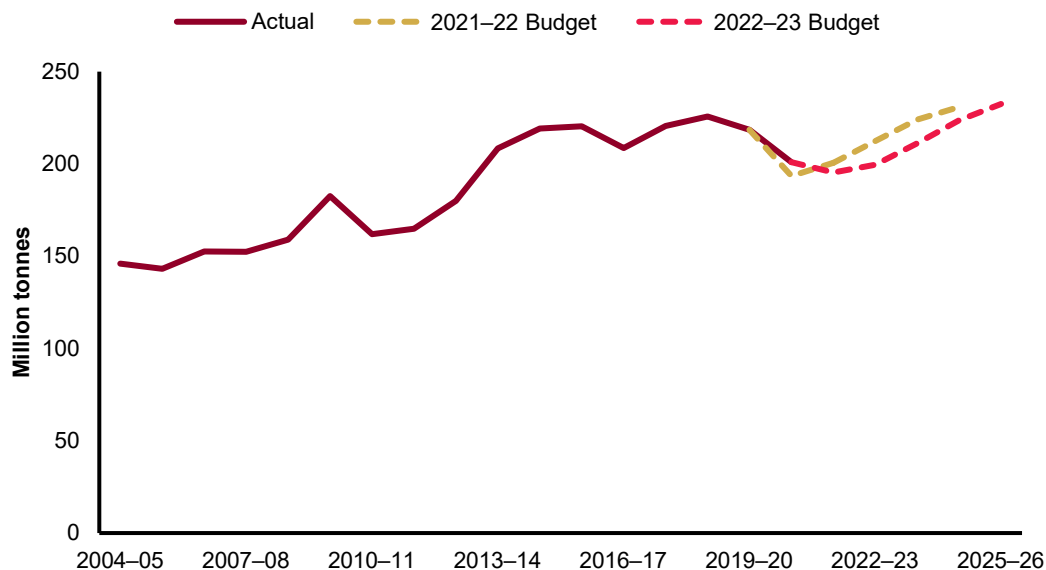
Chart 4.8 shows coal export tonnage forecasts compared to the 2021–22 Queensland Budget outlook. This highlights that coal export tonnages have been revised downwards by around 4 per cent over the 4 years ending 2024–25, driven by the supply side issues discussed earlier and softer global demand.

Queensland's coal export volumes have held up well despite restrictions on Chinese coal imports from October 2020. By November 2021, almost 90 per cent of the reduction in Queensland export tonnages to China had been offset by increased exports to India (up 17.2 million tonnes (Mt) to 58.1 Mt), Japan (up 11.5 Mt to 47.8 Mt) and South Korea (up 8.9 Mt to 32.7 Mt).

However, sustained exceptionally high prices for both metallurgical and thermal coal in late 2021 and so far in 2022 have tempered global demand for coal, resulting in a decline in export tonnages since late 2021. Coal export volumes peaked at 225 Mt in 2018–19. This is not expected to be reached again until 2025–26.

¹ Excludes coal where royalties are not paid to the Queensland Government, that is, private royalties.

Chart 4.8 Export coal tonnages¹



Note:

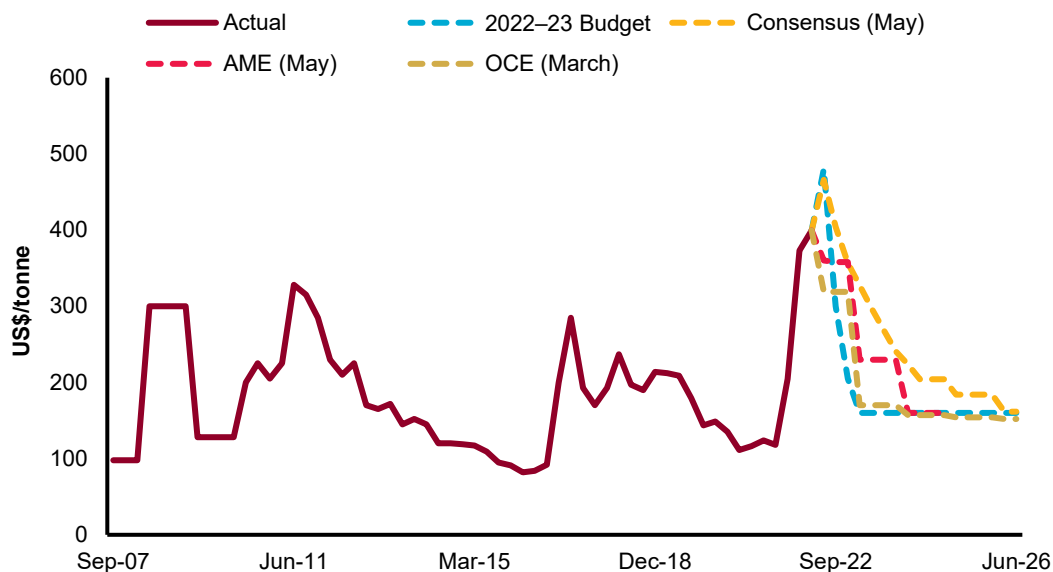
1. Includes coal exports where royalties are not paid to the government, i.e. private royalties. This will not align with tonnages presented in Appendix C which exclude private royalties.

Source: Unpublished ABS trade data and Queensland Treasury

Chart 4.9 shows hard coking coal price forecasts compared to the average quarterly price forecasts from the latest Consensus Economics forecasts, as well as forecasts from AME and the Department of Industry, Science, Energy and Resources’ (Australian Government) Office of the Chief Economist (OCE).

This comparison shows that the expected sharp decline in coal prices from current levels is broadly consistent with the expectations of other key forecasters that global coal prices will be substantially lower over coming quarters and years.

Chart 4.9 Coking coal price forecasts



Sources: Consensus Economics, AME, OCE and Queensland Treasury.

An ongoing risk to coal export volumes over the medium to longer term is that Japan and South Korea have committed to achieving net zero CO₂ emissions by 2050, while China has committed to achieve this by 2060. This may lead to an earlier reduction in thermal coal consumption in these countries than previously expected. In addition, South East Asia is generally moving away from coal fired power due to limited finances to fund coal fired power projects.

However, as outlined above, the majority of Queensland’s coal exports are metallurgical coal, with thermal coal only representing around 26 per cent of total coal exports in terms of volumes and 17 per cent in terms of values (based on 2021 export data).

Petroleum royalties

Compared to coal, petroleum royalties make up a smaller share of total royalties, though petroleum royalties have grown strongly as the export industry has matured.

Oil prices factor strongly into petroleum royalty forecasts. Most of the LNG produced in Queensland is sold under long-term contracts linked to oil prices, while the production level of the 3 major LNG plants is expected to be relatively stable across the forward estimates.

In 2021–22, revenue from petroleum and gas royalties are estimated to total \$1.185 billion, 87.7 per cent higher than forecast at the 2021–22 Queensland Budget.

This is driven by the recent surge in oil prices, which rose from a low of US\$6 per barrel on 21 April 2020 to over US\$100 per barrel in 2022. Across 2021–22, the average (lagged)¹ price of oil is expected to increase to US\$77 per barrel.

This also reflects 2021–22 being the first full year under the new volume-based royalty model, which replaced the previous wellhead model in October 2020.

The faster than expected recovery in the global economy has seen oil consumption grow at a faster rate than oil production, drawing down inventories and boosting oil prices to elevated levels, even prior to the Russian invasion of Ukraine. However, the commencement of the Russia-Ukraine conflict exacerbated the upward pressure on global oil prices, which increased from US\$103 per barrel on 23 February 2022 (the day before the invasions) to a peak of nearly US\$140 per barrel in early March 2022.

Reflecting the persistent elevated prices, the average (lagged) price of oil across 2022–23 is expected to increase to US\$96 per barrel. As a result, petroleum royalties are forecast to grow by a further 37.1 per cent in 2022–23.

Oil production is expected to overtake oil consumption in 2022, which should put downward pressure on prices. Therefore, oil prices are expected to moderate from current levels over the forecast period reaching US\$75 per barrel from September quarter 2024 onwards.

Reflecting the expected return to more sustainable oil prices, petroleum royalty revenue is expected to decline by 31.3 per cent in 2023–24, followed by falls of 8.2 per cent in 2024–25, and 2.8 per cent in 2025–26.

Other royalties

Other royalties include revenue from metals mined in Queensland such as copper, lead and zinc, and other minerals including bauxite.

Revenue from other royalties is estimated to total \$483 million in 2021–22, 3.1 per cent lower than in 2020–21. This is largely driven by higher shipping costs, partially driven by COVID-19 related disruptions, which can be deducted from the mining revenue that is subject to royalty.

Revenue from Other royalties are expected to grow by 11.2 per cent in 2022–23 driven by a rise in bauxite royalties as bauxite volumes and values increase.

Other royalties are expected to decline by 6.0 per cent in 2023–24 and then by a further 3.4 per cent in 2024–25 because of declining prices across major base and precious metals.

¹ Published Brent oil prices are lagged by 4 months to better align with royalty revenue.