GLENCORE

23 December 2016

LBL Review
Regulatory Reform and Advice Branch
Environment Protection Authority
PO Box A290
Sydney South NSW 1232

By online submission
Dear Sir/Madam,

Re: Review of the Load-based Licensing Scheme

Glencore

Glencore Coal Assets Australia Pty Limited (Glencore) is recognised as Australia's largest coal producer with 13 coal mining complexes across New South Wales (NSW) and Queensland. Our managed production in 2015 totalled 92Mt of quality thermal and coking coal for export via five key coal chains and ports.

Glencore is the largest coal producer in **NSW** with 8 operations located in the Hunter Valley, Newcastle and the Western and Southern coalfields producing around 53.2Mt in 2015. Glencore is a significant contributor to the NSW economy and community and in 2015:

- employed over 4,794 on site personnel;
- contributed over $1.17 billion in wages, taxes and royalties;
- expended over $2.96 billion on goods and services and investment, and
- achieved strong safety, environmental and community performance.

Glencore prides itself on its commitment to being an industry leader in environment and community performance. We accept that the mining industry is a heavily regulated industry as a result of its potential environmental and community impacts, however we do feel that changes in regulation and policy, should be underpinned by a number of key principles which at least include being evidence based and accurately costed.

Prior to the 'Dust Stop' series of Pollution Reduction Programs being imposed on Hunter Valley mining operations, Glencore had commenced its own Air Quality Improvement Project (AQIP) in 2010. This highly successful project allowed the Glencore sites to assess the best options for minimising air quality impacts and led to improved practices at sites including the installation of dedicated air quality/noise/weather forecasting systems that now are used as common practice across the industry to assist in planning and allowing sites to be proactive regarding air quality. The project was recognised as being valuable to Glencore as a company with respect to its 'social license to operate' irrespective of any regulation being imposed and with the implementation of this project preceding the 'Dust Stop' series of Pollution Reduction Programs, this showed a clear demonstration of Glencore's commitment to environmental improvement. Follow up assessment works were completed in 2014 to analyse the success of the AQIP and emission estimate reductions were derived following implementation of AQIP measures. The results indicated that were significant reductions in air emissions as a consequence of improving dust management across Glencore's open cut operations.

Private Mail Bag 8, Singleton, NSW 2330
567 Broke Road, Singleton, NSW 2330
T + 61 2 6570 2416 F + 61 2 6570 2520 www.glencore.com

Glencore Coal Assets Australia Pty Limited ACN 163 821 298

Load-based Licensing Applicability

Mining is not covered by the existing load-based licensing (LBL) scheme for valid reasons, including the complexities in applying LBL to fugitive dust emissions and the availability of more suitable regulatory mechanisms to minimise emissions from mining operations, such as the successful 'Dust Stop' series of Pollution Reduction Programs imposed on coal mining operations and the Hunter River Salinity Trading Scheme (HRSTS) that has allowed the open market to determine the price of credits for operators within the HRSTS.

While the Issues Paper states that it will investigate '*potential inequities*' of some industries being excluded from the LBL scheme, there is no evidence to suggest that an unfair burden has been placed on licensees that are subject to LBL compared to those who are regulated with alternative tools, which have been shown to be effective in reducing pollution and which impose a significant regulatory burden on licence holders. For example, Deloitte Access Economics has estimated that the cost of complying with existing air quality regulation alone for the NSW coal industry is $168 million annually.

Any proposals to increase environmental regulation must be considered very carefully, since it contributes to regulatory costs and will affect the competitiveness and commercial viability of the NSW mining industry. The options for reforming the LBL scheme contained in the Issues Paper indicate an underlying intent to substantially increase costs incurred by NSW industry by broadening the scheme to include additional industries, moving to substantially increase pollutant fees and removing the incentive of administrative/load fee discount.

Overall, given the significance of some of the proposals contained in the Issues Paper, Glencore believe that the analysis in relation to the LBL scheme's effectiveness to date is not adequate in relation to the following:

- reduced industry output when referring to a reduction in emissions when considering the performance of the LBL scheme;
- the environmental impact of mining-related emissions;
- the heavy reliance on NPI data;
- the practicality of including mining within the LBL scheme; and
- the environmental benefits that including mining within the LBL scheme would deliver.

Glencore believe that applying the LBL scheme to mining would be ineffective, complex and inefficient. The NSW Minerals Council has undertaken a review and has found no precedent in any jurisdiction for the use of a similarly designed system being imposed on mining operations to manage fugitive air quality emissions.

The success of the LBL scheme is unclear

The objectives of the LBL scheme include to "*reduce pollution in a cost-effective and timely manner*." A well designed system should be capable of having its performance measured against its objectives. However, the Issues Paper notes that the LBL scheme may not have been the "*catalyst for change*" and that improvements due to LBL specifically "*cannot easily be determined*". Without this capability there cannot be any confidence that a revised system will be any more effective.

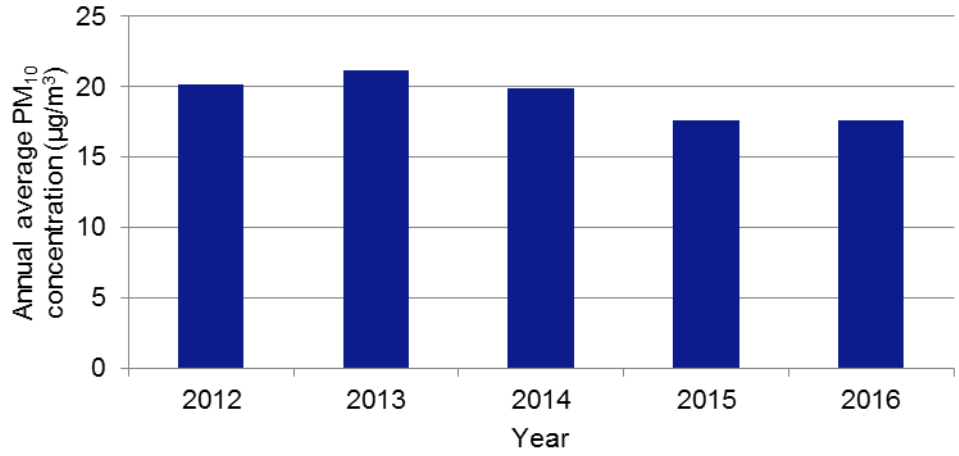
While the Issues Paper states that "*A review of trends in this data shows that LBL licensees are releasing most assessable pollutants in lower quantities than eleven years ago when considered as total loads release across NSW as a whole*", it does not properly analyse all reasons for this decline. During the time that the LBL scheme has been operating there has been a decline in manufacturing and coal fired power generation and reduced production and shutdown of facilities could be the primary driver for emission reductions rather than incentives of reducing LBL fees through reducing emissions.

LBL is unsuitable to apply to fugitive dust emissions

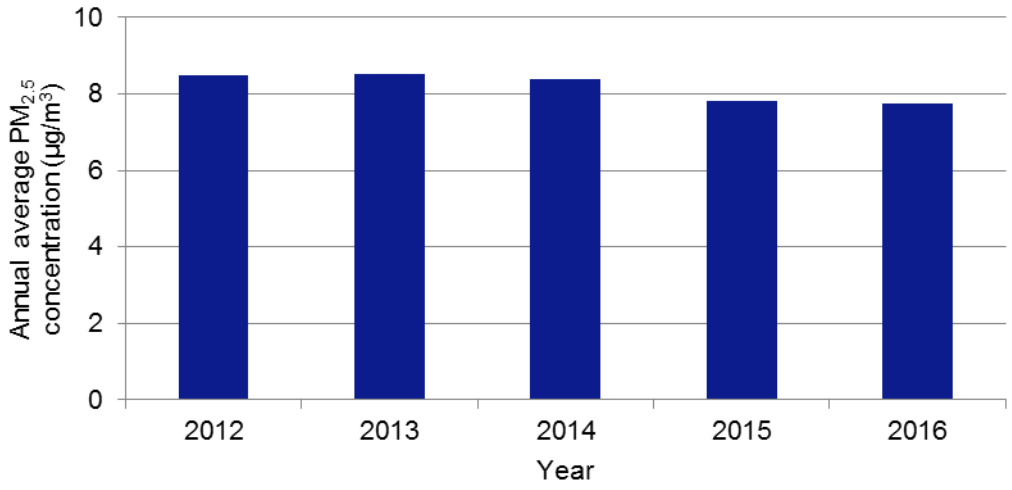
The reliance on National Pollutant Inventory data to provide an indication of the impact of mining operations is concerning. There is a range of high quality monitoring data that contradicts the Issues Paper's claim in relation to PM_{10} emitted from mining operations that "*standard regulatory approaches are producing*

diminishing returns and cumulative impacts are expected to develop or worsen unless new complementary environment protection measures are put in place". Monitoring data in the Upper Hunter shows a general improvement in air quality over the last five years, despite mining not being subject to LBL and coal production increasing.

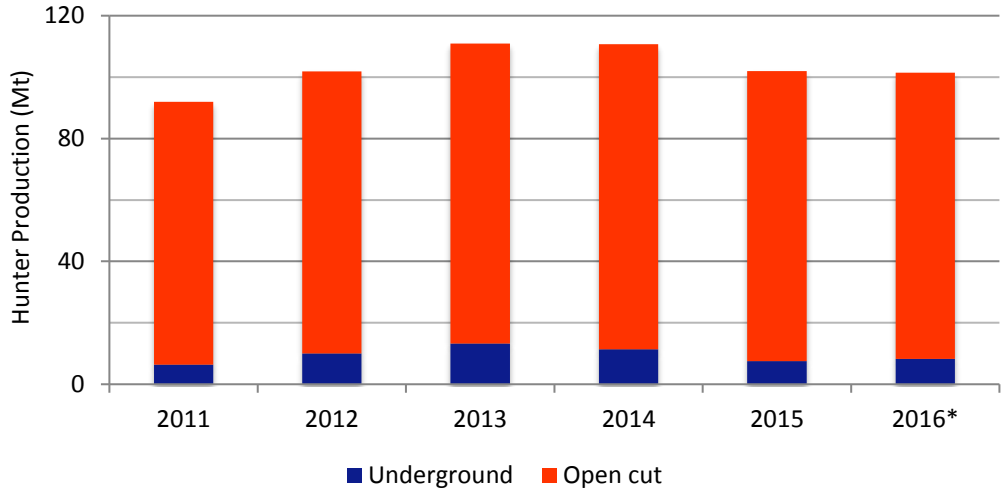
The evidence that growth in emissions is not necessarily leading to higher concentrations of particulate matter can be seen when reviewing the PM_{10} and $PM_{2.5}$ monitoring data from the Upper Hunter Air Quality Monitoring Network (UHAQMN). Data available from the UHAQMN between 2012 and 2016 and the PM_{10} and $PM_{2.5}$ average across the entire network for each year is shown below.



Annual PM_{10} concentration across the Upper Hunter network (2012 – 2016)



Annual $PM_{2.5}$ concentration across the Upper Hunter network (2012 – 2016)



2016 - Annualised estimate based on data available*

Hunter Valley Saleable Coal Production (Coal Services, 2016)

With the exception of 2013, when there was significant bushfire activity across NSW, which increased the annual average, concentrations for both PM_{10} and $PM_{2.5}$ have been decreasing even though production has been increasing and then maintained at 2012 levels for the last two years, emission calculations may suggest that emissions from mining have been increasing. This is a clear indication that, in the case of mining, increasing estimated emissions do not necessarily equate to increased impacts. If one of the desired outcomes of the LBL scheme is to reduce the impacts on human health by decreasing emissions, then relying on the NPI calculations to support a case for inclusion is problematic.

While the Issues Paper states that "*The EPA will consider a range of relevant information sources (including the results of relevant studies) and data when considering whether any additional pollutants or activities should be included in the LBL scheme*", it is unclear why this readily-available data was not considered in the Issues Paper. Furthermore, the 8-year-old coal production forecasts referenced in the Issues Paper from the 2009 ACIL Tasman report that relied on 2008 ARTC coal transport forecasts to demonstrate projected industry growth are significantly out of date.

Fugitive dust emissions are difficult to quantify as they are generated from a variety of diffuse sources and are heavily influenced by a wide range of variables including meteorological factors that are outside mine operators' control. Estimation techniques generally use conservative assumptions that overestimate emissions to account for uncertainty and lack the resolution to reflect incremental improvements in emissions performance. As a result, LBL is inappropriate to apply to fugitive dust emissions from mining, agriculture, and other extractive industries. The claim in the Issues Paper that "*improvements in emissions estimation have been made for a broad range of industry sectors, including diffuse emissions from mining activities*" since the scheme was introduced is incorrect. Whilst new research has been conducted, published emission estimation techniques remain largely unchanged.

The Issues Paper has directed little attention to the distinction between emissions and air quality impacts. A given quantity of particulate emissions on a mine site will generally have a lower impact that the same quantity of emissions as an industrial facility in urban areas due to the greater distances between mining operations and population centres. Some dust emissions from mining projects will not even leave the site boundary, or will fall on properties owed by the mining operation due to the distance from receivers.

Glencore has been required to implement best practice dust management at its operations in line with the requirements of Pollution Reduction Programs issued by the NSW EPA and have already significantly reduced emissions. Given these operations are operating at best practice, the ability to identify additional cost effective emissions reductions is questionable, which would lead to any LBL fee essentially being an unavoidable tax on production.

The impact of mining related air emissions will vary widely depending on the location of the mine and its environmental context. Even within the same region, two mines can have significantly different impacts depending on the geology of the mine and subsequent mine layout, proximity to population centres together with local topography and meteorology. Incorporating this variability into the LBL scheme would make it inherently more complex and inequitable.

There is no evidence to support applying LBL to mine water discharges

Where mine water discharges present environmental risks there is already significant regulation in place. Of particular note is the HRSTS, a highly effective 'polluter pays' regulatory tool that manages the impacts of mine water discharges through a market based mechanism for the purchase of credits at auction and availability of trading between credit holders. The discharge availability under the HRSTS is dependent on there being enough flow within the Hunter River to trigger a discharge opportunity and the campaign based nature of discharge events show that the scheme has been effective in managing water quality over a long period of time.

Mines that are not captured within the HRSTS have location-specific water discharge criteria that are developed on a case-by-case basis to protect the water quality of the receiving waters and in some cases, operations are required to install water treatment infrastructure at significant expense in order to meet these discharge criteria.

For example, at Glencore's Ulan Coal Mine, located in the Western Coalfield north of Mudgee, the operation is licensed to discharge water into the Goulburn River in accordance with licence conditions that set limits on the volume of discharge and the pollutants contained in discharge water. The licence conditions also require water quality monitoring to assess performance against those limits.

To meet its licence conditions, Ulan Coal Mine has invested around $50 million in water infrastructure and employs a dedicated water management team to operate and maintain the water management facilities.

Ulan Coal Mine has taken these steps in consultation with the NSW EPA. They demonstrate the significant resources directed to managing water quality impacts under the existing regulatory framework and raises the question of what additional benefit the application of a load based licensing fee would deliver.

There must be clear scientific evidence of cumulative impacts; a comprehensive understanding of the cause of those cumulative impacts; and appropriate regulatory controls across all sources contributing to the cumulative impacts to ensure the burden of pollution reduction is spread equitably across different sources. The "emerging evidence" that metals in mine water discharges require additional regulatory measures requires much further investigation to identify if additional measures are required. Even then, an assessment of whether LBL would be the best regulatory measure would need to be demonstrated.

Conclusion and recommendations

The current regulatory framework for mining NSW is comprehensive and has been demonstrated to deliver environmental improvements and meet environmental outcomes.

The NSW mining sector is currently one of the most heavily regulated industry sectors within NSW. Along with EPA; the Department of Planning and Environment through planning approvals; and the Department of Resources and Energy through mining lease obligations also provide strong oversight across air, noise, water and rehabilitation management for mining operations. This rigorous approach to regulation of the mining industry has assisted in driving continual improvement to mitigate impacts from mining.

Rather than being '*complementary*' to other regulatory tools, the addition of LBL to the existing regulatory framework for mining risks complicating the regulatory framework and creating an ineffective, ineffective, complex and inequitable regulatory regime.

The LBL scheme remains an inappropriate regulatory tool to apply to fugitive dust emissions, demonstrated by the lack any comparable precedent, and is unnecessary given the availability of more

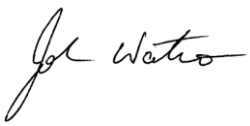
suitable regulatory tools already available the EPA, and thus the EPA should not pursue the extension of the LBL scheme to include fugitive dust emissions.

There is no evidence to suggest that there is a gap in the existing regulatory framework for mine water discharges and the Issues Paper does not present a case for the extension of LBL to mine water discharges. Glencore does not believe the extension of the LBL scheme to include mine water discharges is warranted.

The preparation of any proposal paper and supporting cost benefit analysis should be undertaken in close consultation with affected industries to ensure options and assumptions are realistic.

We thank you for the opportunity to make this submission and would welcome the chance to discuss the points raised in our submission.

Yours sincerely,



John Watson
Environment & Climate Change Manager
Glencore Coal Assets Australia
0428 746 707
john.watson@glencore.com.au