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Dear David

The Australian Sustainable Business Group (ASBG) welcomes the opportunity to comment on the Review of the EPA's Load-Based Licensing scheme.

This submission was prepared with the assistance of ASBG's Policy Reference Group and ASBG's members.

Should you require further information, clarification or details on the submission please contact me on 02 9453 3348.

**Yours Sincerely**



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# AUSTRALIAN SUSTAINABLE BUSINESS GROUP'S

Submission on

Review of the Load-Based Licensing Scheme

December 2016



Sydney, Brisbane

## EXECUTIVE SUMMARY

The Australian Sustainable Business Group (ASBG) welcomes the opportunity to further comment on the *Review of the EPA's Load-Based Licensing scheme* (LBL Review).

ASBG considers the draft LBL Review follows a path of strengthening and expanding the LBL scheme, which especially capture fine and very fine particulates and all other holders of Environment Protection Licences (EPL). Key issues considered in this submission include:

- The LBL Review has an overwhelming trend to substantially increase revenue, by multiple means, including increasing the EPLs exposed, including administrative fees, doubling the Pollutant Fee Unit, in replacement of discontinuation of the FRT, increasing the types of pollutants captured, moving to abatement-cost-of-damage settings etc. Added together these proposed massive increases in pollution tax come at a time where the EPLs paying them are subjected to considerable international competition. LBL is a blunt instrument, compared to others available to the EPA, which if the proposed increases occur, will serve more to close sites, rather than encourage cost effective emission reductions. ASBG, therefore recommends the increase in LBL revenue be capped with increases to include only new EPLs added to the scheme.
- Movement to a abatement-cost-of-damage level of fees under LBL is not supported. Very few international load schemes are at this level, and those that are recycle all the money back to load paying sites on an efficiency basis. Differences between compliance cost and current levels load fees would likely result in closure of sites, especially those who cannot pass on costs due to competition. ASBG members consider other mechanisms used by the EPA, such as Pollution Reduction Programs (PRP) can achieve better outcomes which consider cost implications. To that effect the usefulness of LBL is questioned as it has limited success and can be replaced by other tools available.
- Combination of Pollutant Weightings and Critical Zones is not supported, but a more detailed zone matrix is to a limited degree. A caveat is the matrix should be reviewed by the Technical Review Panel for its scientific merit.
- Removal of the Fee Rate Threshold (FRT), with any increases in the Pollutant Fee Unit to be on a revenue neutral basis. The LBL Review suggests doubling the Pollutant Fee Unit (PFU) which is unfair as the FRT only applies to a limited number of LBL sites.
- Adding Administrative fees and LBL fees only has merit where the LBL fee is less than the Administrative fee. Sites that currently only pay the LBL fee will then be subjected to the Risk Based Licensing penalty system which would require revision, due to its unfair penalty multiplier impact if applied to large administrative fee payers.
- Use of an LBL threshold to EPLs has merit provided that some EPLs are exempt, the thresholds are reasonable and the measurement of exceeding the threshold is kept simple and of low compliance cost.
- Use of Load Limits should cease. The Load Limit, where necessary, can be enforced using PRPs or other EPL conditions. If such limits are to apply they should consider the planning consent limits and grandfathering issues.
- The option of using green-offsets is welcomed and could be extended to cover a variety of issues which may include emissions not covered under LBL. Hence LBL loads could be off-set against, other pollutants provided an appropriate conversion is made available.
- Reduction in compliance costs is welcomed, and can be considered as a group of measurement options under the Load Calculation Protocol (LCP) and linked to the sites' Risk Ranking.

- The use of 3<sup>rd</sup> party audit on load calculation is not accepted as the administrative fees are designed for the EPA to undertake this. Review of all calculations is also not considered necessary, with auditing limited to where flags are triggered. Review of LBL performance should be part of the overall compliance auditing process and not isolated to LBL issues.
- The Technical Review Panel (TRP), being an independent body should have a much expanded role, covering the LCP, Pollutant Weightings, Critical Zones, green offsets and Load Reduction Agreements and more. The TRP is independent and provides additional confidence in the science used to determine many issues. Freeing up the TRP process is also welcomed.
- A revised and more flexible LCP is welcomed permitting a range of measurement options with a focus on low cost and proportional accuracy depending on the scale of loads and fees.

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- Expand the role of the TRP to include assessment of Pollutant Weightings, Critical Zones, process and methodologies put forward by LBL sites, under the LBL and other areas.
  - Permit TRP to approve a set of measurement. Monitoring, processes, off-sets, programs and load reduction agreements.
  - Permit the EPA Board to appoint members of the TRP, subject to the nominations process under s43 POEO (General) Regulation 2010. 23
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- Cost effective measurement and estimation techniques
  - The use of the Technical Review Panel to assess substantial new techniques or techniques it has accepted and can be applied to multiple sites Green-offset measurement from LBL emitters
  - Other non-LBL pollutants which permit comparisons of environmental impact A protocol on accuracy and flexibility for measurement of load depending on the scale of fees and other factors described in this section. 25

# 1 INTRODUCTION

The Australian Sustainable Business Group (ASBG) welcomes the opportunity to comment on the *Review of the EPA's Load-Based Licensing scheme (LBL Review)*.

The [Australian Sustainable Business Group](#) (ASBG) is a leading environment and energy business representative body that specializes in providing the latest information, including changes to environmental legislation, regulations and policy that may impact industry, business and other organisations. We operate in NSW and Queensland and have over 130 members comprising of Australia's largest manufacturing companies. Members were fully involved in the development of this submission and ASBG thanks them for their contribution.

ASBG strives to assist regulatory agencies to prepare more efficient regulatory process, with the outcome of achieving practical, efficient, low cost solutions to achieve high environmental outcomes. This is achieved by feedback from members, mostly senior environment managers, who must implement the new controls in a cost effective and pragmatic manner where possible.

The Load-Based Licensing scheme (LBL) has been in operation since 1998. Over that time the collection of load fees has dropped considerably from collecting over \$70m in 2003 from NO<sub>x</sub> emissions alone to \$20.85m<sup>1</sup> pa in total load fees paid. This drop has continued despite the halving of the Fee Rate Thresholds (FRT) in 2007 and increases in the Pollution Fee Unit (PFU) amount. Reductions in the LBL fees directly relate to a reduction in emissions from sites subjected to LBL fees. However, these reductions are due to, in the vast majority of cases to industry closure. Only a small amount is due to actual reductions in real emissions. ASBG also notes lowering of LBL emissions in the 5 years after the introduction of the scheme was also, in part largely due to more accurate monitoring of emissions, rather than actual reductions.

Nevertheless, the LBL Review seeks to increase revenue in multiple ways. The largest increase in revenue is flagged to come from the mining sector which has not been included under LBL. Using a simple estimation technique and data from Appendix E, ASBG estimate that mining alone could derive an addition \$17m in revenue and this is not considering other increases in PFU, PW especially for PM<sub>10</sub>, PM<sub>10-2.5</sub> and PM<sub>2.5</sub>, inclusion of Administrative fees and FRT abandonment fee increases. ASBG considers all these fees if adopted would easily double the revenue under LBL. As discussed LBL has been poor at achieving emission reductions overall and especially compared to PRPs.

LBL also differs in a major way from most other internationally applied emission taxes. In Europe most schemes are revenue neutral, recycling the money's collected back into the industrial payers. In some schemes it comes back as an efficiency incentive based on energy per unit of emission. This recycling is predicated on improving performance and lowering emissions. LBL is a simple tax offering only a financial punitive incentive, with no reinjection of moneys back to the emitters. Hence, if the LBL reaches too high a level in operational taxes the simple accounting answer is to close the site. For businesses it is a question of can a new facility elsewhere be built that can provide greater returns? It is not an issue of loss making nor greater emissions. Note that the latest technology plants and processes are generally less polluting as well, but are not economically viable in NSW due to very high establishment and operational costs. It can be simply cheaper to locate overseas and perform better economically and environmentally. NSW simply misses out on these opportunities.

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<sup>1</sup> Derived from Figure 3-14 LBL Review p104. Note this includes emissions from one oil refinery, which has since closed.



Since 1999 NSW has seen the closure of two oil refineries, flat glass manufacturing site, carbon black manufacturing, a coke production plant, a coal fired power plant, aluminum smelters, cement kilns and the list goes on. This does not include reductions in the capacities of most of the major industrial sites in NSW. As a consequence, there is in NSW and across Australia far lower emitting sites than there were 17 years ago when LBL commenced. While LBL will continue its relevance in controlling existing sites is diminishing as the mix of industry changes.

These charts show the reduction in the emissions of NO<sub>x</sub> in the Sydney Basin air shed from 2008 to 2014. As shown industry NO<sub>x</sub> emissions has shrunk from 12.1% to 7.9% of the total sources of NO<sub>x</sub>. Motor vehicles make up the vast majority of NO<sub>x</sub> emissions which is the main limiting precursor to ground level ozone formed from photochemical smog.

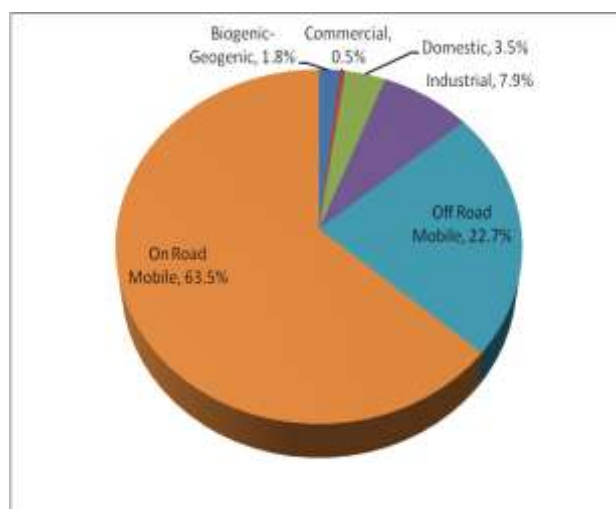
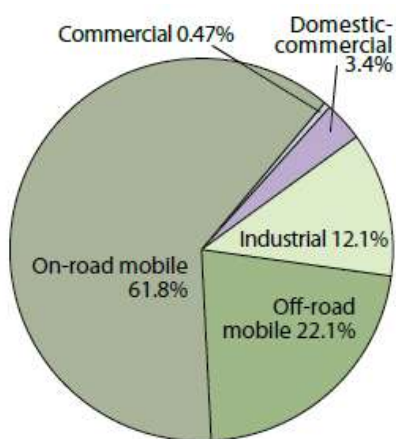


Chart 1 - NO<sub>x</sub> Emissions In the Sydney Basin air-shed 2008    Chart 2 - NO<sub>x</sub> Emissions In the Sydney Basin air-shed 2014  
 – Source EPA Air Emissions Inventory

Much of industrial emissions are combined in EPA data especially that shown in the LBL Review. ASBG considers this display of data misleading as purposely captures the coal fired electrical power generation plants including as far as Bayswater. Much research has been undertaken regarding the contribution of NO<sub>x</sub> emissions from power stations which show minimal mixing of the Hunter River and Sydney Basing air-sheds. Chart 3 shows an estimation of the contribution of Sydney Basin air-shed based industry to the total in the GMR region using NO<sub>x</sub>.

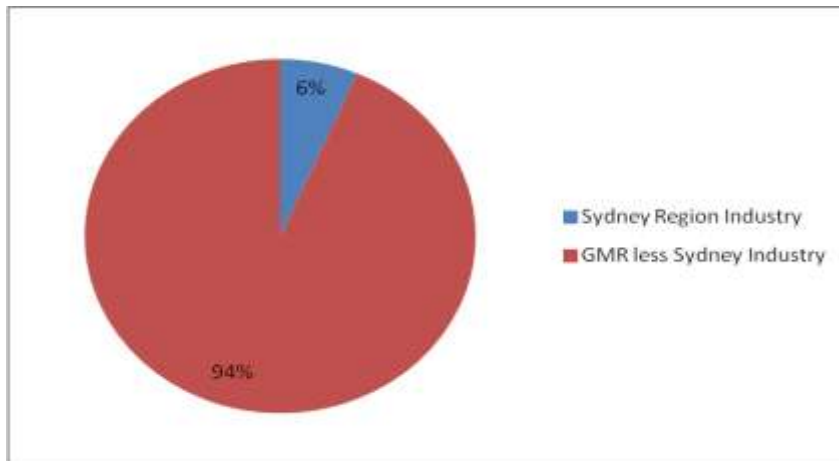


Chart 3 – NO<sub>x</sub> contribution from Sydney Industrial Sites<sup>2</sup> to the GMR

As can be seen taking the power stations out, Sydney’s remaining industry only contributes 6% of this total GMR emission. LBL review focus solely on the emissions from the GMR, however, the main health impact from poor air quality is summarised in the following from the EPA’s Action for Air 2009 document:

*National standards for ozone are exceeded in Sydney as are particle standards in some regional areas. These exceedances generally occur between two and 20 days per year. Current and projected ozone and particle levels are a concern in view of growing.*<sup>3</sup>

NO<sub>x</sub> the main revenue earner under LBL, only manages to capture less than 7%<sup>4</sup> of NO<sub>x</sub> in the Sydney Basin air shed. It was much higher, but with the closure many high emitting industrial sites the main pollution sources are diffuse with motor vehicles dominating. EPA is somewhat hamstrung in that it has only influence over motor vehicles as they are governed at the National level. However, there are many diffuse sources with are major sources of air pollution including:

- Wood fired heaters
- Motor vehicles
- Other transport
- Hazard reduction burns
- Traffic on dirt roads

Even with shrinking industrial activity and their emissions in the Sydney area ozone levels continue to rise as shown in Figure 2<sup>5</sup>. Its rise is due to a complex set of sources including increased motor vehicle kilometers travelled and spikes from bushfires. Whatever the reasons for these upward trend industrial emissions have declined and are becoming a minor and decreasing contributor to this issue, yet are the only source subject to load fees and concentration restrictions.

<sup>2</sup> Estimated from 2015 [NPI data](#). This includes Sydney Industry only with basic metal refining in the Illawarra region as well. The Illawarra was included as it may contribute to Sydney’s air-shed quality. GMR includes all sources including motor vehicles and other non-industrial sources.

<sup>3</sup> Action For Air 2009, DECCW Executive Summary <http://www.epa.nsw.gov.au/resources/air/actionforair/09712ExecutiveSummary.pdf>

<sup>4</sup> The total Sydney Industrial NO<sub>x</sub> emissions were estimated at 7.9%, those subjected to LBL fees would be portion of this percentage.

<sup>5</sup> Figure 2 Air Quality Trends in Sydney, Chief Scientist: [http://www.chiefscientist.nsw.gov.au/\\_data/assets/pdf\\_file/0003/52986/Road-Tunnels\\_TP02\\_Air\\_Quality\\_Trends\\_in\\_Sydney.pdf](http://www.chiefscientist.nsw.gov.au/_data/assets/pdf_file/0003/52986/Road-Tunnels_TP02_Air_Quality_Trends_in_Sydney.pdf)

Figure 2: Maximum annual average pollutant concentrations recorded at the monitoring stations in Sydney during 1994-2012.

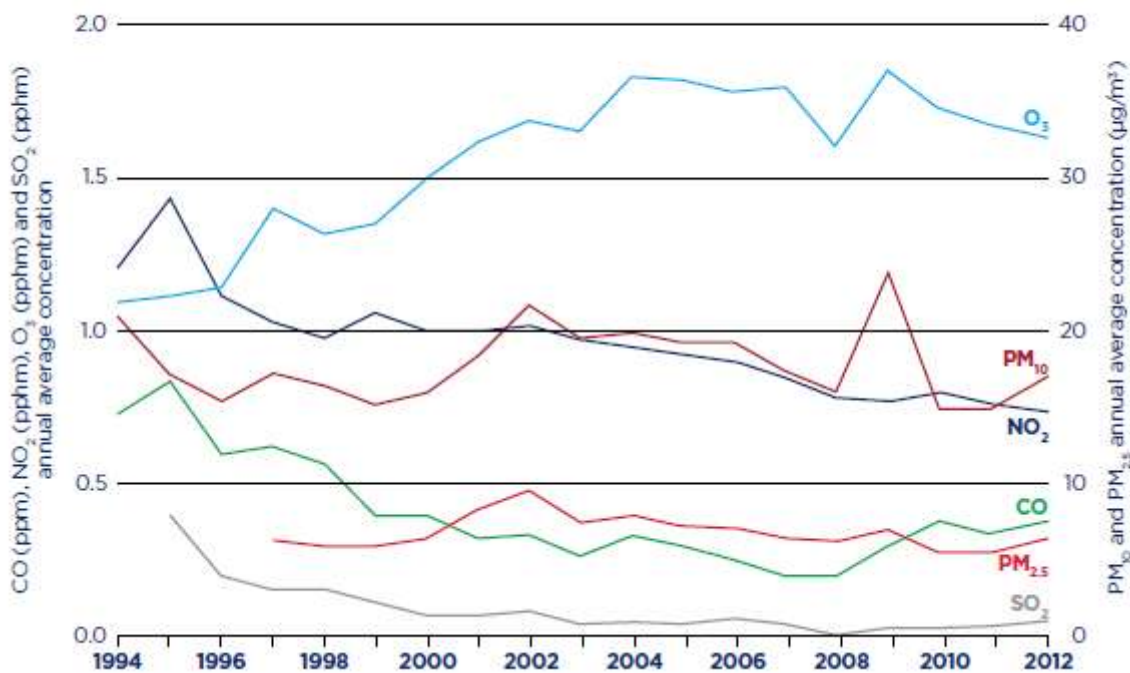


Figure 2 also shows that particulate matter pollution is in general improving. However, the LBL Review and the Clean Air in NSW papers stress increased attention to reducing particulate matter, especially PM<sub>2.5</sub>. This focus on PM<sub>2.5</sub>, is largely due to the recent World Health Organizations' reports<sup>6</sup> on the extrapolated increased death rates due to particulate pollution. WHO, estimates 3 million additional deaths are caused worldwide by particulate pollution.

As a consequence, the LBL Review uses this report to propose supporting massive increases in the load fees from particulate matter, what at a minimum is greater than 600%. However, looking at the sources of particulate matter in the most stressed air shed – Sydney, especially around the Liverpool area, finds industrial sources are again very much in the minority. Figure 3 *Top 10 Sources of PM10 in Sydney* is from an NSW EPA shows that industrial sources are around 7.9%. The main source is Solid Fuel Burning Domestic largely wood heaters. In terms of control wood heaters have only recently had regulations passed, which only require new heaters to meet emission standards. Installed wood heaters are grandfathered and no controls, replacement is required. It would seem the EPA has been controlling air emissions on industrial sites since the Clean Air 1961 came into force 55 years ago. However, the [Protection of the Environment Operations \(Clean Air\) Amendment \(Solid Fuel Heaters\) Regulation 2016](#) only commenced 16 November 2016.

<sup>6</sup> WHO Estimates on Air Pollution Exposure and Health Impact <http://www.who.int/mediacentre/news/releases/2016/air-pollution-estimates/en/>

Top 10 human-made PARTICULATE MATTER 2.5µm sources

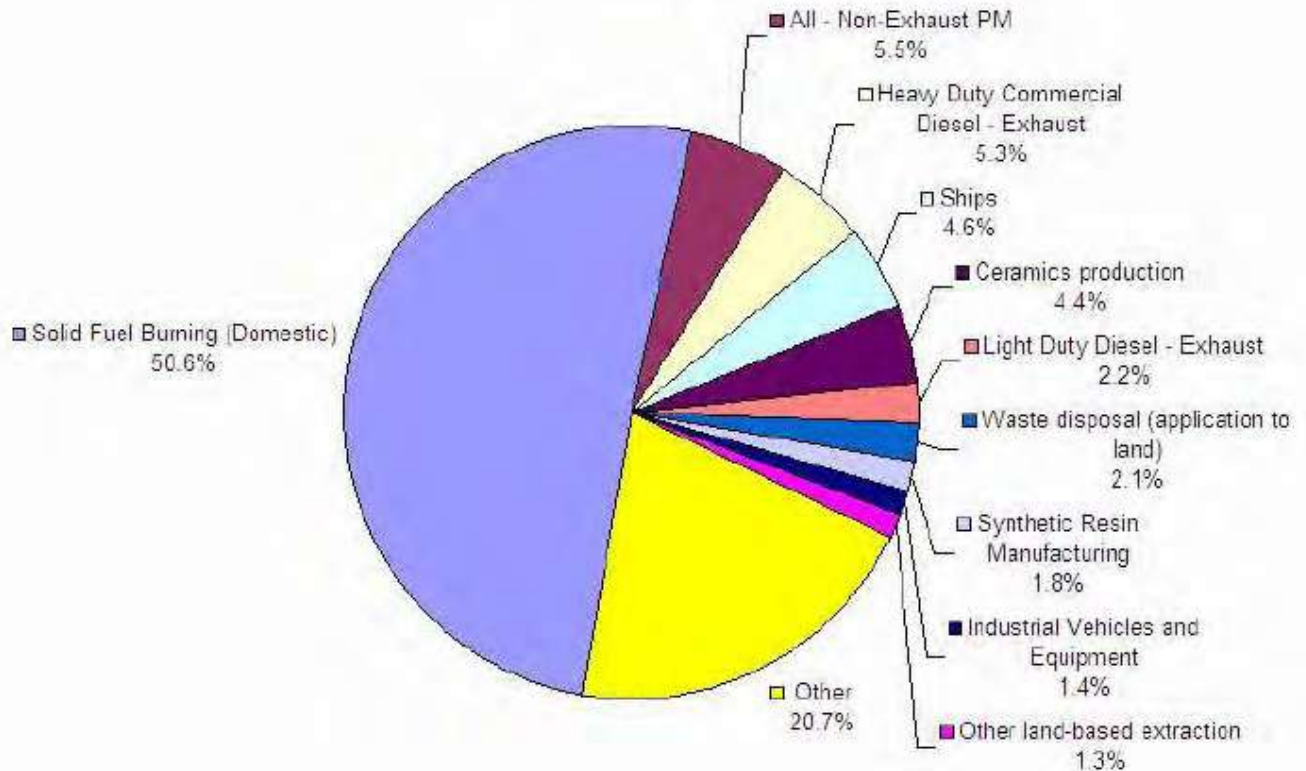


Figure 3 Top 10 Sources of PM10 in Sydney<sup>7</sup>

ASBG considers the current regulatory controls heavily target industrial sources and lightly deal with other sources in the Sydney Basin air-shed, NSW's most stressed and repeatedly failing air quality standards. If the NSW Government is serious in addressing the main health issues by better managing the Sydney Basin air-shed, tightening controls on the major sources should be its priority rather than increasing controls on a small contributor to poor air quality.

Overall ASBG is concerned proposed LBL tax increases will be largely impacting on industrial establishments, which cannot pass on costs. Additionally, more industrial sites close and shrink LBL scheme is losing relevance as to its impact on reducing pollution, at the same time, detracting in the investment of new industry in NSW.

<sup>7</sup> Senate Standing Committee On Community Affairs Inquiry Into The Impacts On Health Of Air Quality In Australia – Report from NSW EPA 14/3/14

## 2 COST BENEFIT ASSESSMENT

### 2.1 LBL Effectiveness

ASBG considers LBL has little effect on the level of pollutants emitted from sites. Along with other drivers the main reductions in EPL site emissions has been site closures and job losses. Reductions of emissions brought on purely from LBL fees are few in example and % reduction in overall emissions. Members argue that the Pollution Reduction Programs (PRP) have a much larger impact on site process emissions, which do not result in closure as they are a much sharper instrument.

LBL covers a very small portion of NO<sub>x</sub> and other air pollution emissions which affect Sydney, the most stressed air-shed in NSW. ASBG is in no doubt the electricity generation sector will challenge their contribution to particulate emissions as they have already done so with their contribution to NO<sub>x</sub> in the Sydney Basin air-shed.

ASBG questions the continued on-going use of LBL, where other methods such as PRPs and licence controls may make fairer, more efficient reductions in emissions than under the compliance cost heavy LBL scheme. LBL reviews' Figure C1 shows that LBL has a much lower influence on emissions reduction than EPA's other tools and process improvements and upgrades.

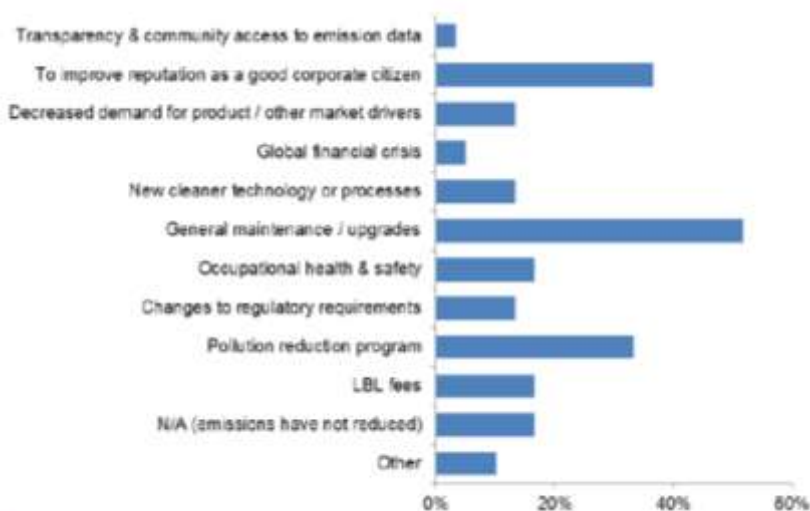


Figure C-1: If your emissions have reduced, what are the reasons?

The LBL Review has an overwhelming trend to increase revenue, by multiple means, including:

- Moving to *abatement costs* settings and or *cost of damage*
- Increasing application of LBL to all EPLs, perhaps excepting a threshold
- Including administrative fees
- Doubling the Pollutant Fee Unit in replacement of discontinuation of the FRT
- A general doubling of the PFU, described as *a moderate increase*
- Increasing the types of pollutants captured – adding PM<sub>2.5</sub> and PM<sub>10-2.5</sub>

Added together these will result in considerable revenue raising push under LBL at a time where the EPLs paying are subjected to considerable international competition, with many already closed. ASBG estimates that all these added together would increase load fees and administrative fees considerably, around 130% to potentially well over 1,000% for many existing LBL paying sites. These proposed potential tax and administrative cost increases are

massive. Given other recent cost increases that such LBL paying sites are faced with, such as 50% increases in electricity costs and 40% in gas prices, the LBL tax increases are another reason not to have industry in NSW. It is imperative the NSW government closely consider the overall economic impacts flowing on from the proposed massive tax increases that LBL the Review is strongly suggesting.

ASBG has provided its views on the LBL Review, despite its position above, as it has intuitional momentum and is likely to continue. As a consequence, considering the difficult economic environment currently and deteriorating in the future, that ASBG calls for minimal changes to current LBL fees especially to those exposed to this tax. There is some merit in apply it to a broader set of sites. ASBG considers this approach still unfair as the major sources of air pollutants, especially in stressed air sheds go untaxed.

### ***Recommendation R1***

***The increase in LBL revenue be capped with increases to include only new EPLs added to the scheme.***

## ***2.2 Regulatory Impact Assessment***

ASBG notes the LBL Review when assessing the Options, it provides the Pros and Cons. However, these generally only consider the costs to the EPA and not to LBL licence holders. Additionally, they do not consider the benefits from expected reduced emissions as LBL will deliver little change other than promote site closure. Ignoring the non-government impacts is a practice of poor regulatory reform. ASBG argues that LBL is and will be far less effective at reducing emissions and merely a process in which costs raised on licence holders. Again ASBG points to the main process which has reduced industrial emissions has been to close down emitting sites. Surely the NSW Government would prefer a far more surgical approach where jobs losses are minimised and emissions are reduced? Nevertheless, many of the arguments put forward to increase LBL fees is based on the premise that any emission reduction from EPL holders is good for the environment, consequently there is no need to consider the financial benefits from the small emissions reductions LBL has provided and is likely to provide in the future.

ASBG contends that other existing tools, such as Pollution Reduction Programs (PRP) are far more effective at reducing emissions and keeping EPL holders continuing in business. PRPs are sharp tools, negotiated on-on-one with EPL holders, where cost impacts are clear as are emission reduction outcomes. LBL in contrast by its design is a blunter instrument, attempting, by way of a finer zoning, to achieve a less blunt outcome. Regardless of such changes ASBG is of the view that other instruments could achieve better emissions reductions at lower cost than LBL does and will do in the future.

ASBG accepts that LBL has considerable institutional momentum and is unlikely to be repealed. Consequently, the focus must be on having a quality cost-benefit assessment. It should not one where the figures are adjusted to suit options based on rhetoric where the outcome justifies the means. LBL can be changed to result in improved environmental performance achieved at low costs to EPL holders.

Also not considered are the costs on EPL holders. While the ACIL and BDA reports consider cost of abatement schemes, none considers the cost impacts on EPL holders. No attempt was made to consider the tipping point where the cost of compliance and fees under LBL will cause sites to close or materially shrink.

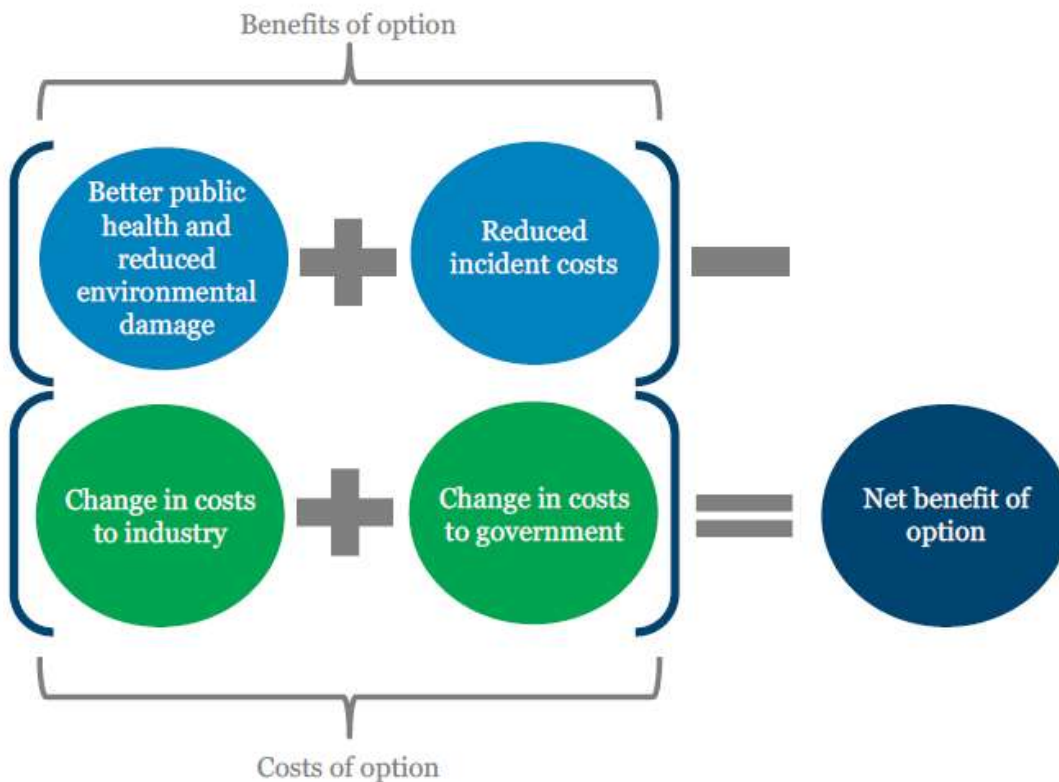
The next phase of the LBL is to prepare draft regulation with a cost-benefit under the Subordinate Legislation Act 1989. However, in the past ASBG has seen poor cost benefits based on considerable under assessment of cost impacts on industry. The ACIL and BDA report both contain cost of abatement information which should be transferable to the expected costs impacts of the proposed LBL changes. Another factor commonly missing from RIS is the cost of job losses, health impact of unemployment and the knock on impacts on local communities when a major employer is lost.

The benefits are generally associated with extrapolated health benefits, which consider the total impacts of a particular pollutant, especially natural pollutants. For example, the recently reported direct deaths from



thunderstorm asthma and bush fires, both of which cause spike increases in particulate pollution especially in the PM2.5 range. Further spike particulate emissions are also generated from hazard reduction burns which are not subjected to EPL type controls. However, the Clean Air for NSW paper does finally recognize their impacts and is flagging making some controls on such emissions. Though a level playing field should capture hazard reduction burns under EPL with LBL criteria, then a fairer cost would be derived from this practice.

Figure 1 is a graphic from a Victorian Cost Benefit approach and is one which should be applied to the EPA Regulatory Impact Statement process along with the draft Regulation.



**Recommendation R2**

The Regulatory Impact Statement must:

- Include the expected additional costs on LBL paying sites under the new expanded scheme.
- Consider the potential for site closures if the scheme’s average fees increase by a material amount.

**2.3 Focus of Load Fees**

In 2014 industrial NO<sub>x</sub> emissions contributed to approximately 7.9% of the total emissions<sup>8</sup> in the Sydney Basin air shed and that motor vehicles contributed 86.2%. ASBG contends the focus of load fees on industry is miss-focused and will serve to further reduce investment in NSW industry and fail to deal with the health impacts of air pollution especially in NSW’s stressed air shed. There is no argument that Sydney’s south west area centered around Liverpool receives the worst air pollution in NSW if not Australia.

Based on the above should not motor vehicles be subject to more control? The argument that vehicles are controlled using Australian Design rules, which is outside NSW’s jurisdiction. This is limited argument when considering load and the stressed Sydney Basin air-shed. ASBG considers that while industry as a whole emitted 7.9% of NO<sub>x</sub> in 2014, the LBL paying sites probably contributed to less than 5% of this total. Considering that

<sup>8</sup> See Chart 2

more industrial sites have and are about to close in the Sydney Basin air shed area, this figure will shrink to well less than 5%.

A comparative look, in Table 1 at the emissions controls of motor vehicles vs Licensed sites shows the disparity of only claiming load fees from such sites.

<b>Table 1 – Air Pollution Control – Motor Vehicle v Licensed Sites</b>					
<b>Control method</b>	<b>Concentration at end of pipe</b>	<b>Concentration on ground</b>	<b>Measurement</b>	<b>Consideration of locational issues</b>	<b>Load fees</b>
<b>Motor Vehicles</b>	<input checked="" type="checkbox"/> ADRs set emission concentrations and fuel efficiency. Vehicles follow the laboratory test cycle but perform at lower standards in real driving conditions.	<input checked="" type="checkbox"/> Not undertaken but calls for GLC controls for road tunnels are common	<input checked="" type="checkbox"/> Undertaken at registration checks.	<input checked="" type="checkbox"/> None	<input checked="" type="checkbox"/> Motor vehicles escape from load fees. Motor vehicles operating on an EPL site subjected to LBL fees may be also captured and could pay load fees in the future
<b>Sites with EPLs</b>	<input checked="" type="checkbox"/> Required under the POEO (Clean Air) Regulation with stringent testing and monitoring required.	<input checked="" type="checkbox"/> Sites to be developed and potentially in operation are subject to the ground level concentrations at the nearest receptor under the Approved Methods	<input checked="" type="checkbox"/> Measurement method vary from ensuring proper maintenance is being done so the equipment performs to within its design to comprehensive and continuous testing on sites paying load fees	<input checked="" type="checkbox"/> Stressed air sheds are covered by both Licence concentration limits and critical zones under LBL	<input checked="" type="checkbox"/> It is a proposed option to expand LBL to all sites holding EPLs

If the NSW EPA wishes to better control air pollutants it should focus on the main sources, rather than continue to penalize and restrict a shrinking source. The difficulty is in sending the right market signals to encourage overall emission reduction practices.

There are international practices which target motor vehicles apart from their emission design requirements including:

- The mayors of Paris, Madrid, Athens and Mexico City announced plans on Friday to take diesel cars and vans off their roads by 2025.
- 20 EU states tax motor vehicles on their CO<sub>2</sub> emissions and sometimes other emissions.

Other arguments such as the impact on Australian made vehicles is mute as this industry will have virtually disappeared next year. Constitutional issues are also easy to overcome. While concentration and environmental performance cannot be directly targeted, application of a load fee can be from environmental grounds. A suggested means to control motor vehicles could simply be an addition registration fee based on:

- Location of the vehicle – rural to receive a low fee rate
- Kilometers travelled – obviously linked to fuel consumed and hence emissions
- Type of model and engine – electrical vehicles could be exempt, hybrids at low cost all the way up to large heavy diesels



Ideally such an emissions tax would be off-set in a reduction in other taxes on motor vehicles. While the approach suggested is focused on non-CO<sub>2-e</sub> emission — NO<sub>x</sub>, PM and VOCs, a carbon price could be added using a variation to the formula. Application of load fees on motor vehicles would provide an incentive for motorists to:

- Use their vehicle less often as it is based on kilometers travelled.
- Replace their vehicle with one of lower emissions, especially favouring electrical vehicles and hybrids.

Reducing air pollution in other means will be the main spinoff from such a program. Fees collected can be hypothecated to a range of programs and grants focusing on improving air quality especially in stressed air sheds. ASBG considers such an approach better balanced and tackling Sydney's and other stressed air-sheds directly. Controlling PM2.5 in the stressed Sydney Basin air-shed could be addressed with some of the revenue from motor vehicles, such as a buy back or replacement of wood heaters with ones that meet the new air quality limits in the Solid Fuels Heaters Regulation.

### 3 LBL SETTINGS

LBL has had a small effect on the level of pollutants emitted from sites despite the claims in the LBL Review. Along with other drivers— e.g. PRPs, Clean Air Regulation etc— the main reductions in EPL site emissions has been site closures and resulting job losses. Reductions of emissions brought on purely from LBL fees are few in example and % reduction in overall emissions. Members argue that the Pollution Reduction Programs (PRP) are more precisely targeted and have a larger impact on site process emissions than LBL. Because PRPs are a negotiated directly with the site, economic impacts can be considered and are subject to Licence appeals process, of which LBL is not. Consequently, they do provide targeted emission controls not result in closure as they are a much sharper instrument.

LBL covers a very small portion of NO<sub>x</sub> and other air pollution emissions that affect Sydney, the most stressed air-shed in NSW and is probably less than 5% of NO<sub>x</sub> emissions. ASBG is in no doubt the electricity generation sector will challenge their contribution to particulate emissions in the Sydney Basin air-shed as they have already done so with their contribution to NO<sub>x</sub> when LBL was first established.

ASBG questions the continued on-going use of LBL, where other methods such as PRPs and other Licence controls may make fairer, more efficient reductions in emissions, with economic checks than under the heavy costs of the LBL scheme. LBL reviews' Figure C1 shows that LBL has a much lower influence on emissions reduction than EPA's other tools and process improvements and upgrades.

The LBL Review has an overwhelming trend to dramatically increase revenue, by multiple means, including increasing the EPLs exposed, including administrative fees, doubling the Pollutant Fee Unit, in replacement of discontinuation of the FRT, increasing the types of pollutants captured, moving to abatement costs settings etc. Added together these will result in considerable revenue raising push under LBL at a time where the EPLs paying are subjected to considerable international competition, with many already closed.

ASBG has provided its views on the LBL Review, despite its position above that it, as it has intuitional momentum and is likely to continue.

#### 3.1 *Pollutants and Weightings*

Combining the pollutant weighting with the location of the emission may make the LBL process simpler, but it could cause issues with other proposals under the Review paper. Having a set of pollutant weightings makes it easier to balance off-sets between different pollutants. This could extend to pollutants, which are not under LBL such as greenhouse gases etc, that are not locational sensitive.

Under option 2 the paper states:

*Under this option, pollutant weightings could be increased for the reduced list of pollutants that remain in LBL. This would act as a greater incentive and driver to reduce emissions of the pollutants of greatest concern,..'*

ASBG considers a cornerstone of LBL is its basis in a scientific approach to setting pollutant weightings. Just because there are fewer pollutants under Option2 does not mean these should be set at higher rates. This sounds like it to a means to simply balance the books if not increase revenue, rather than a scientific and balanced approach to emissions control. It also expresses an approach that an emission reduction is beneficial regardless of the cost, which undermines the Regulatory Impact Assessment process.

Originally the pollutant weightings were set using the [Delphi Technique](#), which was explained in the 1996 LBL Draft Operational Plan as *...uses direct questioning of 'experts' to elicit value, opinions and knowledge on complex, hard to quantify issues.* Or in other words the Pollutant Weightings were decided upon by a panel of EPA internal experts back in 1996.

Critical zones were generally assigned according to population density. Having an approach where a matrix is used to fine tune the use of both weightings and zones is of concern. Fine tuning of both appears to improve the accuracy of an already inaccurate system that is based on guesstimates. ASBG is concerned that some members may be unfairly targeted if the matrix proposed is fine grained that it distinguishes individual or a small number of licensed sites. At this level community pressures can skew a matrix setting which detracts from a scientific approach, targeting a specific site or set of sites. While community issues need to be addressed by the EPA, they should not be considered under LBL. Community issues should be managed with other complaints based method used by the EPA under existing practices such as PRPs for EPL holders and ring fenced away from broad schemes such as LBL. Hence, there are limits for the scale for critical zones such as application to air-sheds and river catchment systems. Going down to finer scales, it would appear the use of PRPs is the appropriate mechanism.

ASBG considers both the pollutant weightings and zones require a strong scientific basis. To this effect ASBG considers the use of the independent Technical Review Panel (TRP) has a major role to play here. It should be put to use to re-evaluate and assign Pollutant Weightings and Critical Zones or at a minimum be a review process for the levels the EPA proposes as replacements. Such use of the TRP is in part supported under s4.5.3.

A common argument used to increase the controls on licensed sites is that industry has to do its share of pollution reduction. However, EPL licenses are doing the heavy lifting, but now in most environmentally stress areas only represent a small proportion of most pollutants. A fairer approach is for the EPA to also require more controls on non-licensed urban diffuse sources of LBL pollutants. The EPA cannot continue to turn its back on non-licensed site emissions as these make up the majority of pollutants of concern in mass and public exposure.

### **Recommendation R3**

- ***Pollutant Weightings and Critical Zones should remain separate.***
- ***A finer scale, but limited minimum area Critical Zone weighting system based on a matrix has merit, but limited to environmental zones such as air sheds or river systems.***
- ***Any new Critical Zone weightings system be developed on a scientific basis and not on local social community concerns.***
- ***Both the Pollutant Weightings and Critical Zone matrix be reviewed by the Technical Review Panel.***
- ***Application of increased Critical Zone weightings be undertaken where there is a cumulative effect also be accompanied by an EPA policy or program to also reduce diffuse sources of the LBL pollutant as well where diffuse sources in the area represent more than 25% of the total zone load for that zone.***
-

## 3.2 Abatement Cost Approach and Revenue Recycling

A main issue put forward is the setting of LBL fees at cost of abatement or cost of damage. Such a position was postulated when LBL was first introduced. In many cases the cost of abatement was, and still is, so high that plant closure would be the outcome if applied. Only those sites not subject to competition could pass on such costs to consumers.

### 3.2.1 Alternative Schemes – Revenue Recycling

ASBG noted the two research papers:

- Load-Based Licensing Fee Comparison – ACIL Allen
- Comparative Review of Load Based Licensing fee systems – DBA Group

While a direct pollutant fee rate is somewhat comparable with other countries, the BDS report cites the Swedish NO<sub>x</sub> scheme as a standout in both being the only load based scheme worldwide to generate significant emission reductions, it also to recycles all the revenues back to those who pay it, less administrative costs. For example:

Sweden is one of Europe's lowest electrical energy costs of 5.2 c/KWhr. It also has the highest NO<sub>x</sub> air fees at around \$8,500/tonne. The electrical sector is not affected as it is virtually fossil fuel use free, largely due to hydro nuclear and wind making up over 90% of its generation<sup>9</sup>. Also most industries in the EU have access to numerous grant, incentive and employment schemes, which amounts to considerable non-tariff barriers for competitors outside of the EU.

An important difference, the Swedish NO<sub>x</sub> Act<sup>10</sup> scheme returns the collected revenues back to the NO<sub>x</sub> fee paying generators less an administrative cost. The refund is proportional to KWhr/NO<sub>x</sub>. So those who make more energy per kg NO<sub>x</sub> can even make a profit. Due to the types of processes which are captured – processes other than fossil fuel grid electricity generation – and the high cost and incentives, it has been the only scheme to claim a reduction in NO<sub>x</sub> emissions. Also, like LBL, the scheme only captures 6.5% of Sweden's NO<sub>x</sub> emissions. A contributor to the reductions in Sweden is the slowing down and closures of captured industries, with at least one glass plant closing after the introduction of the NO<sub>x</sub> tax.

While the scheme has generated good NO<sub>x</sub> reductions it is not comparable with LBL which does not provide any refund to payers of LBL tax. Sweden's NO<sub>x</sub> scheme is revenue neutral and far more industry friendly scheme than LBL which is only cost punitive and not efficiency rewarding. The BDA report states:

*Air pollution fee revenues are overwhelmingly applied to national environmental programs or anti-pollution measures, or are 'recycled' back to licensees through subsidies for pollution abatement.*

<sup>9</sup> See [https://en.wikipedia.org/wiki/Electricity\\_sector\\_in\\_Sweden](https://en.wikipedia.org/wiki/Electricity_sector_in_Sweden)

<sup>10</sup> See The Swedish NO<sub>x</sub> Tax Fact Sheet: <https://www.oecd.org/env/consumption-innovation/43211635.pdf>

*Notably, the early French scheme offered generous investment subsidies for new technological investment,...*

Overall the Swedish NO<sub>x</sub> scheme air emission fee has some merit and success. While the fee is lauded as having a fee at or above the cost of abatement it is one to drive efficiency with a revenue neutral basis. Again having a tax, as under LBL with no refund or incentive approach and using an abatement cost level, would be more likely to close emitting companies rather than support abatement activities as under the Swedish or other European schemes. Also the recycling of the fees encourages innovation and investment into lower cost abatement processes and methods.

It is also difficult to compare load fees from Europe as considerable other industry protection arrangements and competitive advantages exist in the EU, which permit price pass on or other rebates are provided to compensate. In contrast, the current LBL offers a simple tax, with no compensations, limited price reduction programs such as Load Offset Agreements and potentially a green offset arrangement. Also in the LBL scheme at best proposes a set of grants funded by the fees collected, which are unlikely to be available or viable for the LBL load paying sites. There is no guarantee that all the LBL revenues will be available, hence a partial return at best is to be expected. This last point is a major difference between the Swedish NO<sub>x</sub> scheme and the proposal for the NSW's LBL scheme.

LBL Review s4.4.3 proposes to recycle a portion, not all, of revenue collected from load fees back to supporting the scheme's objective of reducing the load — an objective uncommonly reached. In reviewing the options provided and considering the support for a green-offsets program ASBG considers:

- Such a revenue recycling program should only apply to LBL fee participants, preferably for that specific pollutant
- An emissions performance based refund, similar to the Swedish NO<sub>x</sub> model, where emission efficiency is rewarded against the other load paying participants of the same pollutant
- All LBL fees—less administrative costs— be recycled back to only the LBL fee paying sites to assist in their emission reductions.

Too often ASBG has seen collected moneys from environmental fees and levies kept under consolidated revenue, with token amounts reinvested in the area where these taxes and environmental issues they purport to manage apply. Limiting the recycling back to the problem areas should better deal with these areas. Otherwise such investments focus on other areas and fail to address the pollutant at issue. ASBG recalls the raiding of approximately \$80m from the *Waste Management and Minimisation Fund* to purchase new land for State forests. Additionally, only a small proportion of total funds collected by the waste levy have been recycled back to the waste sector. At best this has run at approximately 10% and worst less than ¼% pa over the last 15 years. Currently no LBL fees are provided as cash incentives to the LBL participants.

### **3.2.2 Use of the Technical Review Panel**

Under s4.4.1 Option 3 proposes funding an LBL Technical Unit and or the Technical Review Panel. While there is some merit in improving the technical capability of the EPA in this area, it should be limited to administration of the scheme. Too often ASBG members have seen assistance units in both the EPA and Office of the Environment, over-ruled by the compliance section. At times the EPA looks self contradictory

with one part encouraging a cleaner production methods and approach with innovative practices, while the compliance section ruling it out from a highly risk adverse culture, with an outcome of say *no* or *set very low limits*. Additionally, many members find the EPA in particular unhelpful in interpretation of environmental policy with a “*hire a consultant/lawyer to interpret our policy/laws*” outcome.

Unless the EPA undergoes a cultural shift, technical assistance and training programs would be not be practical, but err on the side of caution and environmental protection. Members would be in general better off spending their LBL fees on bringing technical advances ideas to the EPA and arguing with the compliance area or licence condition.

However, as the TRP is an independent body, free from the EPA’s risk adverse culture, it is in a better position to have its role increased, to also review new innovative processes, projects and methods as well as its current role on monitoring and measurement under the LBL Protocol. It is well placed to undertake scientific assessment of a range of issues, improving confidence in the process and removing EPA cultural issues.

### 3.2.3 Use of Cost of Abatement or Cost of Damage

The LBL Review states:

*‘It is proposed to design the scheme so that liable pollutant load fees match abatement or damage costs (or are approaching these costs) for pollutants of concern in specific geographical areas.’*

Assessment of the range provided by the ACIL Allen report on some of the pollutants if adjusted to reflect *cost-of-abatement* (CoA) or *cost-of-damage* (CoD) approach described. The results have caused considerable concern among ASBG members including:

- NO<sub>x</sub> - LBL current \$30/t to \$424/t summer NO<sub>x</sub>
  - CoA \$550/t to \$19,941/t
  - CoD \$130/t early rural, \$2,428/t urban; \$19,941/t (NSW power plants)

#### **Resulting NO<sub>x</sub> load fee increase range:**

- **1.3 to 47 times increase based on summer NO<sub>x</sub>**
- **6 to 50+ times increase based on NO<sub>x</sub>**
  
- PM10 & PM2.5 - LBL current \$574/t
  - CoA \$31K/t to \$525K/t (diesel \$3,637/t to \$104K/t )
  - CoD \$65K/t to \$301K/t

#### **Resulting NO<sub>x</sub> load fee increase range: 6 to 50+ times increase**

Put simply these would be outrageous tax increases to impose on any sector of society.

The BDS report concludes that load fees internationally have not been able to action any significant emission reductions, except for the Swedish NO<sub>x</sub> scheme. The question is why is the NSW EPA pushing CoA and CoD where it has been demonstrated that it will in general not work. Such large price increases are just not feasible unless there is a counter rebate of similar proportion as provided in the Swedish scheme.

In conclusion, LBL like virtually all other load schemes serve as revenue raising tax measure. It should not be used as a means to force emission reduction, as the outcomes will be in many cases closure of the site.

### 3.2.4 Impact of LBL on Air Emission Loads

The LBL Review states:

*(p53) LBL fees would continue to effect licensees' consideration of pollution abatement options, especially when upgrades or augmentation is needed due to other factors such as plant expansions.*

But under Load Limits (s4.2.4) the LBL Review says:

*...where load limits had been applied [85% of licences]:*

- *the assessable load emitted was less than 25% of the load limit in 58% of cases*
- *the assessable load emitted was less than 50% of the load limit in 78% of cases*
- *the assessable load emitted was between 50% and 100% of the load limit in 19% of cases*
- *load limits were exceeded in only 3% of cases; the majority from the sewage treatment industry.*

This latter quote is indicative of the shrinking industrial sector and shrinking emissions. Environmental licensing and planning restrictions apply makes NSW very unattractive to investing in new sites and the expansion of production to licensed sites where costs cannot be passed on to customers. Again the approach of the LBL scheme is to increase its punitive approach and offer little incentive and no support for improving emissions performance unlike schemes which operate in overseas countries competing with NSW companies. The discussed approaches to increase the Pollution Fee Unit, the Fee Rate Threshold, pollutant and Critical Weightings to a cost of abatement level is signal to NSW LBL sites, which cannot pass on these costs, to move out of the state.

### 3.2.5 Trade Exposed Emitters

Under Australia's old Carbon Tax system there was recognition for Emissions Intensive Trade Exposed (EITE) sites. The Federal Government recognized international competition that certain industrial sites and types could not pass on costs by a carbon tax, consequently provided reductions and discounts from the Carbon Tax.

More recently an ASBG member reported that its electricity prices for 2017 are to increase by 50% and gas prices by 40%. Such dramatic escalation in pricing is a major blow to the competitiveness of NSW industry and business. For many years the Minister for Industry, Resources and Energy, has applied, as the latest example, the [Energy Savings Scheme \(Electricity Load Exemptions\) Order 2016](#) under the Electricity Supply Act 1995. This Order applies is used in connection with an industry or activity that is both emissions intensive and trade exposed and 90% exempts them from the 5% surcharge which funds the Energy Savings Scheme. It appears one part of the NSW Government recognises trade exposed industry and provides a 90% by-pass of another tax, this time on electricity and gas consumption.

Currently, there is no such recognition of emissions and trade exposure and the impacts of LBL fees on such sites. Increasing the LBL fee rates to reflect abatement costs will simply transfer trade exposed industry out of NSW.

If significant LBL cost increases were to be imposed, the ASBG would recommend a trade exposed assessment process to accompany it. Otherwise LBL can easily be the additional cost impost which makes it more attractive to produce outside of NSW.

Consequently, relief from the LBL fees should reflect ASBG’s Recommendation 1.

### 3.2.6 Air Sheds and Impacts

Another issue with an abatement-cost-of-damage approach is by its design ignores the location aspects of an emission source if Critical Zones are combined with pollutant weightings. A reason that the large coal fired power plants are located well away from the Sydney Basin air-shed is to prevent their emissions causing impacts from reaching the far more stressed Sydney Basin air shed. By adopting an abatement-cost-of-damage approach and making it an economic necessity, for example, to scrub NO<sub>x</sub> /PM from these large, but remote emitters undermines the Critical Weightings provisions under the current LBL. Such action is likely to further increase electricity prices across eastern Australia.

This is also addressed under s2.1 where Critical Zones at a finer scale must be based on a scientifically sound basis. Cross contamination between air-sheds needs to be properly scientifically assessed. Past reports<sup>11</sup> on transfer of NO<sub>x</sub> from the Hunter to the Sydney Basin air-shed showed minimal mixing. Chart 4<sup>12</sup> shows the Percentage of time that power stations contribute to ozone concentrations in the Sydney Basin air-shed.

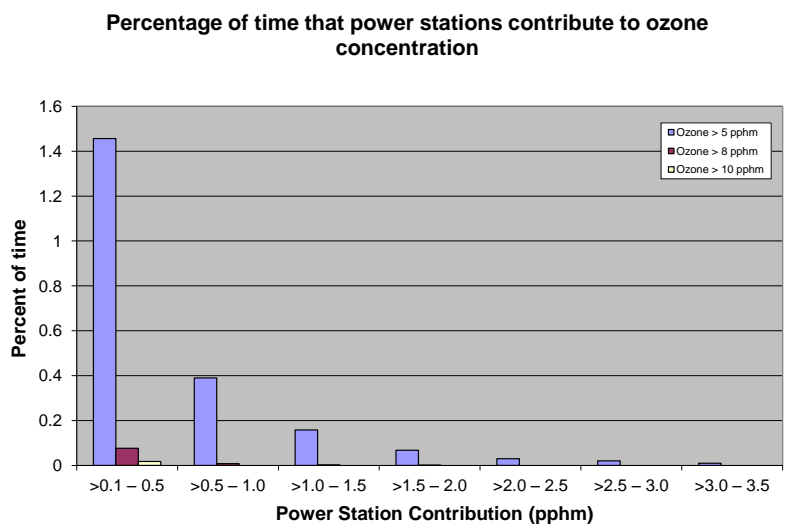


Chart 4 Percentage of time that power stations contribute to ozone concentrations in the Sydney Basin air-shed

<sup>11</sup> Inter-Regional Transport of Air Pollutants Study, Hugh Malfroy paper presented to AEBN’s POEO Conference 15 August 2002

<sup>12</sup> NO<sub>x</sub> Inter-Regional Transport (IRT) Study, CSIRO TAPM modelling 1999



The above chart shows that the Hunter regional power stations contributed to Sydney's air shed ozone levels approximately 1% for less than 1.4% of the time. Such research clearly demonstrates little inter-regional transport between the Hunter basin and Sydney Basin air-sheds. It also strongly suggests that there are at least two air-sheds in the Greater Metropolitan Region (GMR),

As a consequence, ASBG considers the use of the GMR as a basis for air pollution policy can lead to misleading conclusions that the area is one air-shed and not multiple. Added to this there are very rare references to the Hunter air-shed, but the GMR and to a lesser extent the Sydney Basin air shed are considered and reviewed widely. Use of the GMR by the EPA to set air policy is strongly reflected in the LBL Review and in the Clean Air for NSW documents. ASBG considers it would make for better scientific understanding to identify all the air-sheds in the GMR, rather than as commonly done, collate them together under the broad assumption the GMR is one air-shed.

At the commencement of the LBL scheme from 1998 to 2004 there was a NO<sub>x</sub> Reference Group, comprising of the EPA and representatives of the main LBL payers for NO<sub>x</sub> fees. This committee was abandoned by the EPA around 2004, to the dismay of its members and not reformed despite requests to do so. ASBG considers the proposed cost increases described under the LBL Review are so large and specifically target NO<sub>x</sub>, PM and certain water pollutants that a similar consultative committee be formed covering the top 5 LBL revenue collecting pollutants. This will aid in better communications and understandings between top LBL fee payers and their representative bodies and the EPA.

**Recommendation R4:**

- ***Abatement-cost-of- damage fees under LBL not be used as they would more likely close sites than result in abatement through installment, advancement and innovation.***
- ***If an abatement-cost-of-damage fee process or significant fee increases are adopted, then provisions be made for alternative lower rates for trade exposed industry and or on a site-by-site basis.***
- ***Form a on-going consultative committee comprising of the EPA and the representatives of the sites paying for the top 5 LBL revenue generating pollutants.***
- .

### **3.3 Fee Rate Threshold**

The Fee Rate Threshold (FRT) is an arbitrary figure which has the effect of doubling the LBL tax on a per mass basis.

Its impact of doubling the fee rate above a production level amount, which remains equivalent for an activity under POEO Act Schedule 1, tends to punish larger emitters assuming that there is some magic action for larger process that exceed the FRT, above which they can reduce their emissions per unit of operations by half.

In 2007 the FRT was universally cut by 50% with no scientific justification other than an argument that a higher cost would result in lower emissions. Such arbitrary moves, which was imposed resulted in surprise economic shock to NSW business, with many were caught unaware of the full consequences of this change. ASBG affected members recall their LBL feed virtually doubling that year due to this harsh change. This was seen as simple revenue raising, industry punishment and a lazy Government. It could have been done with some scientific

justification, sector research to identify where the FRT could be applied more effectively given appropriate technologies available.

The LBL Review states: *. It has been difficult to obtain Australia-specific information which can inform each FRT factor. Ensuring these numbers are current requires them to be reviewed on a regular basis.*

Given the across the board approach doubling of the FRT, ASBG estimates it has the same effect as increasing the Pollutant Fee Unit (PFU) by around 30 to 50%. Consequently, ASBG agrees with Option 1 the FRT be discontinued. However, the simple doubling of the PFU would disproportionately increase revenue collected. A large number of sites do not exceed the FRT and are not exposed to a doubling of the LBL fee rate. Hence, revenue neutral approach to the removal of the FRT is considered fair, which should be calculable from LBL data is acceptable.

#### **Recommendation R5**

- ***The Fee Rate Threshold (FRT) should be discontinued.***
- ***Increase in the Pollutant Fee Unit to offset the FRT be increased in a revenue neutral manner..***

### **3.4 Administrative Fee Inclusion**

This section deals with the current practice that EPL sites pay either the LBL fee OR the Administrative fee, whichever is higher. The proposal is to replace the OR with AND, which has considerable consequences.

In section 4.3.7 Administrative /Load Fee Discounts the LBL Review paper considers this approach is eroding the effectiveness of the LBL fee incentive. This argument has some merit in one direction, that where the administrative fee is higher than the LBL fee no LBL fee is payable. If tied to the other option of having a threshold level for LBL fee payment, then paying an administration fee and the LBL fee as well there is some incentive to reduce emissions. ASBG notes that the

However, this approach, which argues for an administration fee and LBL fees to both apply, ignores the larger end, where large LBL fee payers pay no administrative fee, just the LBL fee. In this area LBL impact is not eroded at all as the full fee applies. Also if applied where the administrative fee and LBL fee applies where LBL exceeds the prior, this triggers the application of Risk Based Licensing with excessive and very high penalties on top of issued penalties and actions.

As a consequence, ASBG accepts the argument where the administrative fee is greater than LBL fees the LBL fees can also be applied, subjected to a threshold for the LBL emissions.

ASBG does not support the position to add administrative fees onto LBL fees where LBL fees exceed the administrative fees. If applied this should trigger a major review of the Risk Based Licensing scheme.

An example of the heavy outcome can be given in this example:

Company A has an Administrative fee of \$240,000 pa, but pays \$1m in LBL fees. If the administrative fee was to be included and the large site incurred two \$4,000 penalty notices, its administrative fee would double under the Risk Based Licensing scheme to \$480,000. Hence, two minor infringements result in a 60-fold increase in fees.

This is why ASGB successfully argued against adding the two fees together as put forward with the initial Risk Based Licensing scheme. Applying the Administrative fee to those who exceed the administrative fee threshold is considered a purely punitive action with un-recognised addition punitive results from the Risk Based Licensing scheme.

#### **Recommendation R6**

- ***That LBL fees can be applied in addition to administrative fees if they are lower than administrative fees only.***
- ***Where LBL fees are higher than administrative fees only the LBL fees should apply.***
- ***LBL be based on reasonable threshold level's below which no LBL fees apply for below that threshold.***

### **3.5 LBL Threshold Concept**

ASBG considers the LBL Threshold concept has merit. However, there is concern that the cost of measurement is a significant issue and this cost should be minimised as per s4.4.1.

The Threshold concept is where the measurement and payment of LBL fees for a particular substance is based on a quantity, rather as currently, required under the POEO (General) regulation. Cost of compliance, especially measurement of such emissions can easily exceed the LBL fees. For example:

*Company A spends over \$40,000 p.a. on the measurement of one LBL pollutant, but pays less than \$1,000 in LBL fees for that pollutant.*

This is an extreme example, as there are other reasons for the extent of such measurement from this company. Nevertheless, it does demonstrate that the cost of measurement can easily exceed the LBL fees.

Hence, use of a Threshold would require a staged assessment approach which could vary depending on the LBL substance. ASBG would like to see an assessment process of how close a site comes to the threshold can be determined by three levels of measurement/assessment:

1. A written document demonstrating that the sites emission will be far below the threshold, if not zero. This could be based on basic processes used, raw materials used etc. This is similar to the system used for ignoring certain TCLP testing under the EPA's Waste Guidelines.
2. A simple estimation technique is used to determine if the site's emission is >50% of the threshold
3. A more detailed measurement process to determine if the threshold is exceeded where 2 shows > 50% or their site takes this option based on its opinion of its emissions.
4. The Technical Review Panel should be available as a means to review the standard methods for measurement of thresholds.

Another issue in setting thresholds is at what level should the trigger be set? Given that the current method of use of the administrative fee as a threshold, there is a guide as to the thresholds which can be set. Use of the administrative fee, is a blunt method for setting a threshold, but provides a reasonable rule-of-thumb in the ranges for thresholds should be. ASBG considers that the setting of such thresholds should be based on:

- The substance's pollutant weighting
- The Critical Zone weighting

- The cost of monitoring
- Would be greater than the smallest administration fee applied for that activity

The threshold should also be reasonable and reflect at least 5 times the monitoring cost for the minimum trigger point. Another approach could be to set a dollar amount for these thresholds.

Another concern is the list of pollutants to be checked can be a cost issue. This list can be reduced according to the scale and risk ranking of the site. Where some pollutants are removed from the LBL list, these can be managed at the site level by the use of PRPs or other conditions under site's EPL.

### **Recommendation R7**

***Use of LBL substance thresholds is supported provided that:***

- ***A reasonable set of cost effective methods can be used to determine if thresholds are exceeded.***
- ***A reasonable methodology used to set thresholds, where in particular the cost of measurement is less than 10% the LBL fee.***
- ***A reduce set of pollutants is provided, which can be further reduced by considering scale and risk ranking of the site.***

Application to all Schedule 1 activities appears too blunt as a number of obvious activities should be exempt, hence Option 2 and Option 4 are considered to have merit.

## **3.6 Load Limits**

ASBG considers the use of load limits to be a function of the planning consent conditions. It is planning consent which establishes the maximum production capacity of a site, with the Environment Protection Licence (EPL) reflection this requirement. Hence, the setting of load limits which are linked to lower production levels is considered a duplicitous action by the NSW Government. Having an emission load linked to production is a provision provided via grandfathering of the pollution control equipment and operational processes at time of construction, generally shortly after planning consent has been issued. ASBG notes that under *the POEO (Clean Air) Regulation 2010* grandfathering provision has been discontinued for equipment installed before 1 July 1979. As a consequence, a prescient of grandfathering has been set which will shortly stand 40 years. Hence, the application of load limits below this to air, water and other criteria would be a breach of this precedent.

Nevertheless, ASBG has no objection to individual license voluntarily entering into Pollution Reduction Programs (PRP) or Environmental Improvement Programs (EIP) which may replace the older equipment and permit cleaner production.

The LBL Review states there is no current Load Limit Policy; however, there has been such a policy in the past which was tied to the planning consent level of production<sup>13</sup>. In addition, ASBG members have reported abuse of the LBL Load limit policy by EPA officers. One case was where load limits were set at less than 70% production capacity, in effect limiting that site to that level of production. Other examples include sites achieving lower concentrations and loads per unit production, only to find Load Limits applied to their new lower load level. Such actions provide a disincentive to improve efficiency and serve to stifle installation of

<sup>13</sup> Copies of this policy are available from ASBG.

cleaner production practices as tighter load and concentration limits are often the reward from the EPA for positive environmental actions. Load Limits should not be able to be cranked down at the whim of the EPA, but firmly based on the planning consent levels and or strong scientific argument, such as cumulative issues.

Considering these issues with Load Limits ASBG considers them redundant as PRPs and other controls effective at controlling load available to the EPA.

#### **Recommendation R8**

- ***That the Load Limit provision be abandoned.***
- ***Where cumulative issues exist these can be address by use of PRPs and other controls on EPLs.***
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### **3.7 Pollutant Fee Unit**

The evidence is that now LBL captures a small shrinking proportion of mass of air and water pollution due to the much shrunken size of larger industry it targets. Considering that 96% of NO<sub>x</sub> emissions from the GMR area (see Chart 3) are not in the Sydney Basin air-shed, there is some argument to deal with these separately. Consequently, its effectiveness is very blunt. For example, EPLs which are captured under LBL for NO<sub>x</sub> emissions in the Sydney Region has shrunk from around 15% of the total NO<sub>x</sub> emissions to less than 7%, probably much lower. Additionally, there are few examples of where lowering of emissions occurred due to LBL fees, but many examples due to closures of large emitters and the loss of those higher paying jobs.

The Pollution Fee Unit (PFU) is a blunt instrument which treats all pollutants with the same brush. A more surgical approach would be leave the PFU unchanged and consider individual pollutants and their location. Abandonment of the FRT is the only reason ASBG can see to vary the PFU at this stage.

#### **Recommendation R9**

***Keep the Pollutant Fee Unit at its current status and rate.***

### **3.8 Green Offsets**

ASBG considers the Green Offsets approach has merit and should be explored. Details on how the policy can work should include input from LBL emitters. So the basis for the Green Offsets program would permit a reduction in the assessable load at a site in exchange for actions off-site. The LBL Review cites uncertainties could be included, but these appear less on an issue compared to biodiversity offset scheme.

Ideas on some actions which could be included:

- Particulate matter reduction from replacement of wood fired heaters
- Reduction of indoor air pollution by replacement of un-flued heaters in public buildings with flued or low emission heaters
- Planting of trees along main roads, which serve to capture particulates and reduce local particulate, NO<sub>x</sub> and other emissions
- Replacement of smaller older boilers, entirely or just burners with lower emissions versions

Given the use of Pollutant Weightings, there is scope for cross pollutant green off setting, for example, swapping NO<sub>x</sub> for PM reductions even air-for-water reductions.

#### **Recommendation R10**

- **Develop a green offsets policy to complement the LBL scheme.**
- **Explore the use of the policy for cross pollutant offsetting.**
- **Develop the policy with LBL participant input.**

### **3.9 Minimising Compliance Costs**

A common issue with environmental compliance, not just with LBL, is the cost of monitoring. ASBG has repeatedly asked for improved flexibility in the application of monitoring and measurement for sites with Environment Protection Licences (EPL). LBL due to its accounting practices generally requires a more accountable measurement than for say meeting concentration limits. Use of the Technical Review Panel (TRP) has aided in many cases, in obtaining alternative measurement methods, which are far lower in cost than required under the LBL Load Calculation Protocol or other EPA stipulated methods. Nevertheless, there are many examples where the cost of measurement exceeds the LBL load fee by many times; there is even an example of a 40 fold difference.

ASBG commends the approaches suggested in s4.4.1 and makes further suggestions in which to expand this including:

- Where high measurement compliance costs exceed the LBL fee alternative estimation techniques be used or as an option a minimum flat fee be provided as an option. If the threshold option for LBL substances be adopted, then this threshold would provide a floor under which no LBL load fee applies.
- Under the Risk Based Licensing scheme, sites with Risk Level 1, are permitted a minimal measurement regime. Expanding this to LBL monitoring and measurement would also permit such sites simpler estimation techniques in which to measure their loads. Hence, increased flexibility can be provided according to a site's risk ranking.
- Use of continuous monitoring to measure LBL load has been a common practice for larger emitters. Continuous monitoring are notoriously costly both in capital and operation costs. However, where there is considerable data showing links to a raw material use, such as a fuel, then provision should be permitted for the continuous monitoring to be replaced by an emissions methodology and occasional grab sampling.
- For water sampling it is not unusual to see a river or creek at a corner of multiple EPL holders undertaking the same sampling and analysis from virtually the same point in the stream.

ASBG also understands the new electronic licence hub will make many components of licence compliant more easily managed by EPL holders, which is welcomed.

#### **Recommendation R11**

- **Include a range of optional methods in which EPL holders can choose to reduce their monitoring and compliance costs.**
- **The range of options to be linked to the risk ranking of the site..**

### **3.10 Compliance Assurance**

Linked in with the process to reduce compliance costs is s 4.5.1 Compliance Assurance. This approach on the surface of having EPA or third party audits appears contrary to s 4.4.1. Already EPL sites must report their monitoring data on their websites under s66(6) POEO Act. In addition, false reporting of information, including LBL data to the EPA is subject to Tier 2 penalties and PINs up to \$15,000 per offence. Taking this into consideration with the size and reputation of an EPL site would tend to have a reverse effect; smaller emitters more likely to cheat than larger ones who have far more to lose if detected. The other issue is also similar, with smaller sites are less competent internally resulting in errors, though this can cut both ways.

Use of third party audits has the advantage of cutting EPA costs of administration, but can add substantially to the cost of LBL participants, especially if their LBL fees are small. However, the whole concept of having administration fees is to cover the cost of administration of the EPL. Additionally, ASBG cannot see why LBL load assessments have to be separated from other EPA compliance activities. Members also note the EPA has in the past been very vigilant in assessing the accuracy of LBL fees when a refund is requested.

#### **Recommendation R12**

- ***The EPA should assess compliance of an EPL as a whole process.***
- ***Third party, compliance audits should be limited to the use of mandatory audits..***

### **3.11 Administrative Flexibility**

ASBG appreciates the time lag and processes required to review regulation. While the *POEO (General) Regulation 2010* is subject to review under the *Subordinate Legislation Act 1989*, this process seems to occur about every 7 years.

Use of LBL fee changes which can be enacted under publication in the NSW Government Gazette by the EPA can work if the regulatory changes are discussed and reasonable. Nevertheless, the benefit of having LBL fees set under the General Regulation provides LBL liable companies a reasonable level of predictability for budgeting purposes and future directions.

ASBG has seen considerable changes with no public discussion or warnings, especially in changes to air policy. Changes to the *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* in 2006 were considerable by the introduction of ground level concentrations, with no discussion or warnings that this was to occur. After which the EPA has imposed these as operational conditions in an *ad hoc* manner on a number of sites. Similarly, the odour thresholds were also included under the Approved Methods, again with little warning and public discussion. There was also the example where the *POEO (Clean Air) Regulation 2010* incorporated a surprise change. Reducing the oxygen reference level from 11% to 3% for many combustion processes had the impact of immediately reducing the pollution concentrations by 55%. While there was an extensive consultation paper prepared there was no mention of this change, which appeared in the final Regulation.

Some sections within EPA are upfront and clear in their intentions while others are not. The end result is that ASBG cannot support a gazetted change in certain LBL settings given the history of EPA's actions.

#### **Recommendation R13**



- ***LBL fee settings to be only varied under a regulatory change process subject to the usual public consultation and regulatory review processes..***

### **3.12 Technical Review Panel**

Under s4.5.3 improving the effectiveness of the Technical Review Panel, ASBG would support the expansion of its role. In handing the appointments to the EPA Board rather from the Minister, this could be supported provided the same nomination process is kept under s43 POEO (General) Regulation 2010. Accordingly, ASBG would support simplification and support for the TRP.

ASBG also supports the expansion of the TRP to review processes and methods for cost-effective reduction of emissions. Hence, new process which complements Load Reduction Agreements, Green-offsets and other innovative methods can be put forward to the TRP for assessment. Having an independent TRP is essential in that it will provide confidence that other Government processes cannot interfere with a technical decision making process. Additionally, members of the TRP should be permitted the same legal protections that Government decision making officers are provided.

#### **Recommendation R14**

- ***Expand the role of the TRP to include assessment of Pollutant Weightings, Critical Zones, Load Calculation Protocol, process and methodologies put forward by LBL sites, under the LBL and other areas.***
- ***Permit TRP to approve a set of measurement and monitoring, processes, off-sets, programs and load reduction agreements.***
- ***Permit the EPA Board to appoint members of the TRP, subject to the nominations process under s43 POEO (General) Regulation 2010.***

### **3.13 Load Calculation Protocol**

Under s4.6 the LBL review asks if the Load Calculation Protocol (LCP) will require change. ASBG considers a considerable review and redesign is required especially if other options are taken up. For example if a threshold rather than a set pollutant is used, then the LCP could also cover the methods to test if the threshold is exceeded.

ASBG notes that the LCP purpose is to list the generic measurement and estimation methods for LBL load calculations. Participants also have the option to take additional measurement and estimation techniques to the Technical Review Panel (TRP), which should continue.

ASBG considers it is neither the number nor the complexity of the monitoring methods which requires consideration, but the cost of compliance with the method. Hence, provision of more options and newer lower cost methods is preferable to that of simply reducing the number. Nevertheless, cutting out old methods which are replaced by lower cost and of equal or better accuracy is worthwhile.

Members also report the EPA can be far more interested in completion of load calculation in strict adherence to the method, for example, not rounding until the last step or concern over errors of less than 1%. Use of estimation techniques is common throughout accounting practices, such as depreciation amounts or valuation



of assets. If estimation techniques are used they can be checked for approximate accuracy by simple variation limits as for example used by the Australian Taxation Office (ATO). While there is an obvious need to keep records, the question is how detailed and accurate should these be? If an estimation technique is used and it generally overestimates the actual emissions by 10%, then should not completing the estimation load to within say 1% accuracy be sufficient? ASBG believes an accuracy provision be permitted which could range from +- \$100 for a small LBL payer, say less than \$5,000 to larger amounts, say \$500 for larger emitters. While all attempts should be made to be accurate, the EPA should be flexible for minor errors, as chasing these consumes resources from both the EPA and the LBL participants. If a threshold level for LBL is used such flexibility will become a necessity as the number of LBL reporting sites increases considerably.

Accuracy for LBL load calculations should consider:

- Use of estimation techniques or direct measurement.
- Accuracy of the data obtained used in the estimation technique – natural gas measurement in pipe is far more accurate than forklift distance travelled of emissions.
- The safety (over estimation) factor, if available for errors for estimation techniques.
- The scale of the LBL fee paid, which also reflect the combined load and pollutant weighting and zone.
- Has the data been obtained by a third party or in-house?
- Cost of assessing the estimation and or measurement technique.
- The Risk Ranking of the site. Level 1 sites should have the simplest and lowest cost form of acceptable measurement.

Permitting the changes to the LCP via reporting in the Government Gazette is not opposed provided the changes to significant measurement and estimation techniques are reviewed by the TRP. In addition, if a LBL participant receives an alternative estimation technique, via application to the TRP, which can be applied to others sites, then this new technique should be added to the LCP.

The LCP can also be a basis for calculation of green-offsets. If this practice is extended to beyond the same pollutant, then LCP is one area where such comparisons between pollutants can be based.

Use of the National Pollutant Inventory (NPI) handbooks as an estimation technique should at best be an option. NPI handbooks are notoriously inaccurate and tend to overestimate the emissions. This difference has led to conflict between LBL and NPI reported loads, with EPL holder required to explain to the EPA.

### ***Recommendation R15***

***Review of the Load Calculation Protocol (LCP) to include:***

- ***Cost effective measurement and estimation techniques***
- ***The use of the Technical Review Panel to assess substantial new techniques or techniques it has accepted and can be applied to multiple sites***
- ***Green-offset measurement from LBL emitters***
- ***Other non-LBL pollutants which permit comparisons of environmental impact***
- ***A protocol on accuracy and flexibility for measurement of load depending on the scale of fees and other factors described in this section.***

## 4 CONCLUSION

Use of the recycling of revenue from LBL fees back to the scheme participants will provide additional incentives and funding to achieve real reductions in pollutants, without the need to close or shrink current LBL affected sites. Taking consideration of trade exposure will ensure the balance between LBL fees and jobs in these sectors.

Adoption of a reasonable threshold level, assessed by a protocol, where all EPL holders are subject to paying LBL fees above this threshold will be balanced by low cost approaches in determining if a site is liable. This will also be reflected in a reduced set of pollutants subjected to LBL. Where sites have issues with delisted substances these can be addressed by PRP or other EPL conditions.

An expanded TRP will ensure greater confidence in the use of a scientific approach to the setting of LBL parameters.

Should further information or explanation of the contents of this submission be required please contact Mr Andrew Doig on 02 9453 3348.