

**Standing Committee on Treaties**  
Answers to questions on notice  
**Agriculture, Water and the Environment Portfolio**

**Inquiry:** Minamata Convention on Mercury  
**Question No:** IQ21-000081  
**Hearing Date:** 09 August 2021  
**Division/Agency:** Environment Protection Division (EPD)  
**Topic:** Consideration of alternative plans  
**Hansard Page:** 10, 14-15  
**Question Type:** Spoken

**Mr Wilson and Mr Sharma asked:**

Mr JOSH WILSON: I agree with your assessment, Chair, it seems strange. I'm interested in whether the department can either tell us today or let us know on notice if, in considering seeking the exemption/extension to 2023, any sort of alternative plan was considered. There are obviously environmental and health benefits from phasing out these mercury lights sooner rather than later, but there are, in fact, other kinds of efficiencies—economic operational efficiencies. It seems to me that there could well have been a different plan contemplated that would have seen some assistance provided that would get us to conform to the general expectations of the treaty rather than find ourselves in the group which I think the chair very aptly described as an 'odd group' requiring extension to 2023. Could you tell us now, or could you take on notice, whether there was contemplation of an alternative industry support and lighting conversion plan that would have seen us conform with the expectations of this treaty.

Ms Lynch: Yes, certainly. My colleague Ms Douglass may wish to add additional information here about consultation with some of the energy sector, specifically. One thing I will add is that the Lighting Council did supply evidence that there's about a 25 per cent reduction year on year—this is outlined in the RIS for this matter—so we certainly are seeing the rapid phase-out of these particular products. To some extent, where the recommended option lands is to try and find a balance to avoid any sort of disproportionate regulatory burden or impost on industry. I will invite Ms Douglass to add further comments.

Ms Douglass: Thank you for the question. I suppose it's important to note that as part of the transition, because of the energy efficiency gains, there has been quite a lot of work happening through the Department of Industry, Science, Energy and Resources through the National Energy Productivity Plan. We are aware that in previous years there has been work with industry experts to map out transition advice for the distribution network service providers and local councils to assist them in transitioning more rapidly.

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CHAIR: You could take this on notice. We'd like to see the advice you received from the peak industry body—that is, Lighting Council Australia—about its ability to comply or not, or preference in terms of compliance with the Minamata Convention, particularly the advice which has informed our decision to potentially seek an exemption for three years on the importation of HPMVs. We would like to see that on notice, particularly an indication of when that advice was first provided. If you could also take on notice any advice that state and territory governments have provided to you seeking such an exemption. Because, my initial instinct is, to seek an exemption for any treaty happens and it's allowed for under the treaty, but the fact is that no other developed country or OECD country is seeking a similar exemption. I don't think that Australia is in a particularly unique position in the distribution of our lighting mix. I would like to see quite a strong justification for why we would be seeking such an exemption. One submission from an industry body about the cost of a transition process that's inevitable—it has to happen anyway—doesn't strike me as a particularly compelling justification for going

and doing this. If you can take on notice those elements.

Subsequent to that, we obviously need to go through some legislative changes following this committee's report and the government's decision to ratify. What is the rough time line that we would expect to be ratifying? I noticed in the regulatory impact statement you have a notional dash line around 2023. Is that when you expect this treaty would enter into force for Australia?

Ms Powell: Yes, that is roughly the time frame. We are dependent on state and territory counterparts to make some small regulatory and policy changes. We're dependent on those changes occurring before our foreign minister can sign the instrument of ratification. As you would be aware, Australia's treaty-making process dictates that we need to have all the regulations and policies in place in order to meet the obligations before we can actually sign the instrument of ratification. While it is quite difficult to pin down a specific date, we are working towards very early in 2022 to be able to sign that instrument of ratification. Once we have signed the instrument, the treaty enters into force for Australia three months afterwards.

**Answer:**

Annex A (Part 1) of the Minamata Convention lists mercury-added products to be phased out, and the associated phase-out dates. High Pressure Mercury Vapour (HPMV) lamps, which are used in streetlighting, are listed with an manufacture, import and/or export phase-out deadline of December 2020.

The Australian Government's current timeframe for ratification will see the Convention enter into force for Australia around March 2022. If no extension is sought, the importation of HPMV lamps would be prohibited at that time.

An exposure draft Regulation Impact Statement (RIS) and associated cost-benefit analysis (CBA) were released for public comment from December 2016 to March 2017. This RIS and CBA assessed the phase out of HPMV lamps in line with the treaty phase out date, which at that time was several years away.

Twenty-nine submissions were received to the exposure draft RIS. Feedback relating to this issue raised by stakeholders included:

- Energex and Ergon Energy (subsidiaries of Energy Queensland) supported the reduction of mercury for the purpose of improving human health and reducing environmental impacts. However, they advised that preventing the import of mercury streetlight bulbs after 2020 would have a significant financial impact on Energy Queensland, which they were not able to bear. The submission recommended an extension on the import of mercury vapour lamps to at least 2025.

Follow-up meetings were held with Energy Queensland, the Queensland Department of Energy and Water Supply, and the Australian Energy Regulator. The Department advised Energy Queensland that sources for the import of mercury vapour lamps would likely be reduced due to ratification of the Convention by other countries, and that the Department understood other jurisdictions were generally well-placed to comply with treaty obligations.

- Lighting Council Australia (the peak body for Australia's lighting industry) supported Australia's ratification of the Minamata Convention and noted their members had agreed with the exposure draft RIS option 2, which included a phase out of HPMV lamps by 2020 in line with Convention obligations.

Lighting Council Australia further advised that LEDs are the most practical replacement for HPMV streetlights.

To finalise the Regulation Impact Statement and cost benefit analysis, in 2020 the Department conducted targeted stakeholder consultation with entities that would be directly affected by

ratification (in particular by the phase-outs of mercury-added products listed in Annex A). This consultation determined that the only stakeholders significantly affected would be the streetlighting sector. The Department held numerous, in-depth discussions with streetlighting stakeholders, and received verbal advice. Stakeholders consulted included:

- Lighting Council Australia;
- Institute of Public Works Engineering Australasia (IPWEA);
- Energy Networks Association and the Australian Energy Council (membership covers every electricity distribution network in Australia);
- peak local government bodies in Western Australia, Queensland, New South Wales and Victoria; and
- main roads departments in WA, Queensland, New South Wales and Victoria.

The final RIS recommends Australia ratify the Minamata Convention and seek a three-year import exemption for HPMV lamps through to December 2023. The following advice from stakeholders consulted in 2020 informed this recommendation:

- During this round of consultation the Lighting Council of Australia revised their earlier advice, stating that asset owners and operators require market certainty and adequate forewarning to plan, budget and implement LED upgrades. To ensure streets and roads are not left without light when HPMV lamps become unavailable, they recommended Government consider the option of a three-year import exemption.
- The RIS estimates there are approximately 500,000 HPMV streetlights still installed across Australia, with the greatest proportion in Queensland and Western Australia (Table A4 of the RIS refers).
- Across Australia, the operation and ownership of streetlights is fragmented and complex. Local governments or state agencies generally own streetlights and pay the associated power bills, however the streetlights are operated by the electricity distribution networks. It can take several years to negotiate and implement an upgrade between parties.
- Advice from WA and Qld operators was that a longer transition time would allow for better planning, providing enough time to import sufficient globes to keep streetlights operating until they can be transitioned to LEDs, but avoiding a rush to stockpile that could result in poor planning and over-stocking. Hasty stockpiling would likely lead to more HPMV lamps needing to be disposed of at the end of their life.

It is important to note that while the regulatory environment would enable imports of HPMV lamps through to 2023, industry suppliers have advised that HPMV lamps are becoming increasingly difficult and expensive to source. It is anticipated that streetlighting operators will be motivated to transition earlier if they can.

The cost/benefit analysis performed by the Department identified a benefit could be achieved by driving a faster transition to LEDs (by the end of 2023 at latest) than previously scheduled by the remaining HPMV users, but not as soon as the anticipated ratification date. This would strike a balance between the up-front replacement costs incurred sooner for operators, and the energy savings gained by transitioning at the earliest practicable time.

**Standing Committee on Treaties**  
Answers to questions on notice  
**Agriculture, Water and the Environment Portfolio**

**Inquiry:** Minamata Convention on Mercury  
**Question No:** IQ21-000082  
**Hearing Date:** 09 August 2021  
**Division/Agency:** Environment Protection Division (EPD)  
**Topic:** Shirtan - assessment of the environmental toxicity  
**Hansard Page:** 11  
**Question Type:** Spoken

**Mr Wilson asked:**

Mr JOSH WILSON: Can we take that in the context of what was a very slow and belated ratification of this treaty. There are 131 countries ahead of us on this convention, including 30 of the 37 OECD countries. We were conducting consultations that began back in 2010. There were six different consultations. In the material we've got, there were no submissions to those consultations that opposed ratification—so we've taken all this time. But for the ratification of this treaty, we saw the registration and use of this mercury-containing fungicide which put 4½ thousand kilograms of mercury into the Australian environment?

Ms Powell: Thank you for that question. I think I can respond, at least in part, by giving you an understanding of how important the use of Shirtan was in terms of the time line for ratification. Certainly you've highlighted a very significant issue. Shirtan was used for a long time in the sugarcane industry as a fungicide and was valued highly by sugarcane farmers as a very effective fungicide. It was part of the consultation for the original regulatory impact statement, which involved significant consultation with the sugarcane farming industry and, more broadly, farming associations. It proved to be quite a big sticking point. So it was quite a milestone when Shirtan was deregistered last year. It meant that we were able to forge ahead with ratification much faster than we were looking at previously. Aside from the other issues that Ms Lynch mentioned earlier about how we had intended to proceed with ratification initially and coupling it with our new framework for environmental management of industrial chemicals, Shirtan was quite a significant issue and a lot of consultation went on between the department and the farming industry around the time of the release of the first of the consultation RIS.

Mr JOSH WILSON: I'd be interested if you could provide us with some further information specifically on Shirtan—how it was used and the assessment of the environmental toxicity that has resulted. It is a bit difficult in what we are being presented here: Australia is clearly an international laggard on this convention, and it seems to have been driven by a couple of instances of special pleading that probably could have been addressed in a different way.

**Answer:**

Shirtan Liquid Fungicide (Australian Pesticides and Veterinary Medicines Authority (APVMA) approval no. 49572) was first registered in 1997. It was used for control of Pineapple disease in sugar cane, by treating sugar cane setts prior to planting.

The APVMA (and its predecessor, the National Registration Authority or NRA) had not specifically commissioned or conducted an assessment of the environmental toxicity of the use of Shirtan Liquid Fungicide, as it was a repack of an existing registered product previously approved under NSW and QLD registrations. The use of this product was consistent with the recommendations of an environmental assessment report on mercurial fungicides dated 19 December 1990 and the 1995 NRA Board decision to deregister all mercury-based pesticides, except for those registered for use on sugar cane. This decision confirmed that use of Shirtan Liquid Fungicide in accordance with instructions, met the statutory test that it

*“would not be likely to have an unintended effect that is harmful to animals, plants or things or to the environment”.*

On 2 June 2020, the remaining active constituent approvals containing mercury were voluntarily cancelled at the request of the holder. On 16 June 2020, the registration and label approvals for Shirtan Liquid Fungicide were cancelled. Possession and use of the cancelled product in accordance with its label instructions was permitted for 12 months from the date of cancellation to manage the remaining stocks out of the supply chain.

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**Inquiry:** Minamata Convention on Mercury  
**Question No:** IQ21-000083  
**Hearing Date:** 09 August 2021  
**Division/Agency:** Environment Protection Division (EPD)  
**Topic:** Data - proportion of recycled facilities  
**Hansard Page:** 14  
**Question Type:** Spoken

**Senator Rice asked:**

Senator RICE: Similarly, if we had a rapid transition out of mercury lighting to LED lighting, which has got a very significant benefit in terms of carbon emissions, then our mercury emissions would reduce?

Ms Lynch: Not so much in terms of emissions, on that front, but certainly from the mercury that is contained within the light. So, at the point at which it's disposed, yes.

Senator RICE: But you can't tell me what happens to those lights. We are told that, yes, there's a recycling program, but we don't know what proportion of those lights actually participate in that recycling program?

Ms Lynch: Yes, that's correct. We may need to take on notice whether we have any additional data for you about the proportion of recycled facilities. But, certainly, mercury waste needs to be treated in very specifically licensed facilities. There are five of those facilities in Australia that are either for waste disposal or for storage.

Senator RICE: Just to reflect on this more straightforwardly, if you actually remove them completely from our lighting, then you don't have to worry about whether they're being recycled or not through those waste facilities?

Ms Lynch: That's correct.

**Answer:**

Lamp recycling can help reduce the amount of mercury being sent to landfill. Across Australia there are specialised recyclers of mercury-containing waste. These recyclers process a range of mercury-containing products including lighting. The Department does not have data on the volume of High Pressure Mercury Vapour (HPMV) lamps used for streetlighting that are recycled through these facilities.

FluoroCycle is a voluntary product stewardship arrangement that seeks to increase the national recycling rate of waste mercury-containing lamps, including HPMV lamps and a range of other types of lamps. Established in 2010, the program targets the commercial and public space sectors where the bulk of waste lamps are generated.

Administered by the Lighting Council Australia, FluoroCycle's operations are funded by a recycling levy paid by members. To demonstrate their commitment to recycling waste from mercury-containing-lamps, businesses, government agencies and other organisations join FluoroCycle as signatories.

More than half of Australia's utilities (Ausgrid, ActewAGL, CitiPower, Powercor, Endeavour Energy, Essential Energy, Jemena and SA Power Networks) are signatories to Fluorocycle. These utilities own approximately 80%-90% of public lighting.

***Distribution of lighting recyclers and collectors***

<p><b>New South Wales / Australian Capital Territory</b> Recyclers/collectors (EPA Licensed):</p> <ul style="list-style-type: none"> <li>• Ecocycle</li> <li>• Cleanaway</li> <li>• Lamp Recyclers</li> </ul> <p>Collectors</p> <ul style="list-style-type: none"> <li>• SUEZ Australia</li> <li>• Veolia Environmental Solutions</li> </ul>	<p><b>Queensland</b> Recyclers/Collectors (EPA Licensed)</p> <ul style="list-style-type: none"> <li>• Ecocycle</li> <li>• Cleanaway</li> </ul> <p>Collectors</p> <ul style="list-style-type: none"> <li>• CDS Recycling</li> <li>• Lamp Recyclers</li> <li>• SUEZ Australia</li> <li>• Veolia Environmental Solutions</li> </ul>
<p><b>Victoria</b> Recyclers/Collectors (EPA Licensed)</p> <ul style="list-style-type: none"> <li>• Ecocycle</li> <li>• Cleanaway</li> <li>• Lamp Recyclers</li> </ul> <p>Collectors</p> <ul style="list-style-type: none"> <li>• SUEZ Australia</li> <li>• Veolia Environmental Solutions</li> </ul>	<p><b>Western Australia</b> Recyclers/Collectors (EPA Licensed)</p> <ul style="list-style-type: none"> <li>• Ecocycle</li> <li>• Cleanaway</li> </ul> <p>Collectors</p> <ul style="list-style-type: none"> <li>• Lamp Recyclers</li> <li>• SUEZ Australia</li> <li>• Veolia Environmental Solutions</li> </ul>
<p><b>South Australia</b> Recyclers/collectors (EPA Licensed)</p> <ul style="list-style-type: none"> <li>• Ecocycle</li> <li>• Cleanaway</li> </ul> <p>Collectors</p> <ul style="list-style-type: none"> <li>• Lamp Recyclers</li> <li>• SUEZ Australia</li> <li>• Veolia Environmental Solutions</li> </ul>	<p><b>Northern Territory</b> Recyclers/Collectors (EPA Licensed)</p> <ul style="list-style-type: none"> <li>• Ecocycle</li> <li>• Cleanaway</li> </ul> <p>Collectors</p> <ul style="list-style-type: none"> <li>• Lamp recyclers</li> <li>• NTRS</li> <li>• SUEZ Australia</li> <li>• Veolia Environmental Solutions</li> </ul>