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RE: DRAFT NSW EPA REGULATORY STRATEGY

Thank you for the opportunity to comment on the draft NSW EPA Regulatory Strategy.

Zeromow is a non-profit initiative helping to create awareness of the benefits of making the switch to clean, zero-emission battery-electric mowing and gardening tools. The vision of Zeromow is to see the rapid transition to battery-electric equipment (mowers, trimmers, chainsaws, leafblowers etc), powered by 100% renewable energy.

Landscape and mowing operations are a significant contributor to air and noise pollution, greenhouse gas emissions and solid and toxic waste.

I hope you will take the following into consideration in finalizing the NSW EPA Regulatory Strategy.

Environmental and health impacts of petrol powered landscape/mowing equipment

Air Pollution: Fossil fuel powered machines are especially high polluters relative to their engine size and usage. Non-Road Spark Ignition (petrol) Engines and Equipment (NRSIEE), which include outdoor lawn and garden maintenance equipment, can contribute up to 10% of overall level of air pollution including particulate matter, oxides of nitrogen, volatile organic compounds, carbon monoxide and a range of other air toxin.¹

The collective emissions from fossil-fuel powered machines contribute significantly to primary health risks, including lung disease, such as asthma,

¹ Department of Environment and Energy, Australian Government, 'Reducing Emissions from Non-road spark ignition engines and equipment: Decision regulation impact statement', 2016 <http://www.environment.gov.au/protection/air-quality/non-road-spark-ignition-engines-and-equipment>

bronchitis, emphysema and lung cancer. Health risks apply not only to operators of petrol-powered tools who have repeated direct exposure to harmful air pollutants, but to the community at large.

Highly polluting petrol equipment is used extensively to maintain grounds in schools, universities, hospitals, retirement villages, parks, roadsides, sports fields, golf courses, business parks, apartment buildings and homes. Unlike vehicles that emit all their air pollution over a big stretch of road, equipment such as leaf-blowers, mowers or grass trimmers often deposit it all in one front or backyard.

The World Health Organisation states that “air pollution is now the world’s largest single environmental health risk”². There is no safe level of air pollution.

Waste: The operation and maintenance of fossil fuel powered mowing equipment contributes to solid and toxic waste. Residual oil can end up in landfill or spilled on the ground. Harsh chemical solvents are sometimes used to clean petrol engine carburetors, spark plugs, fuel and air filters, as well as decks and the exterior of engines.

Noise: The use of petrol powered landscape maintenance equipment produces prolonged and frequent periods of loud noise, especially in spring and summer, and often on a daily basis in residential areas, schools, universities, hospitals, shopping centres, workplaces etc. WHO identifies that there are significant health effects and impacts on quality of life from exposure to environmental noise, including noise induced hearing impairment, disturbance of rest and sleep interference with communication and social interaction and the creation of stressful levels of frustration.³

Current Emission Standards

In 2017 Australia introduced a National Product Emission Standard (NPES) that placed regulations on emissions from NRSIEE to be phased in over a number of years. Australia was many years behind the rest of the world in introducing such regulations, and had become a dumping ground for highly polluting petrol equipment.

Battery electric alternatives barely got a mention in the NPES, and were not investigated. The regulations only apply to new petrol equipment and do nothing to address the highly polluting equipment already in existence.

² The World Health Organisation, ‘7 Million premature deaths annually linked to air pollution’, <http://www.who.int/mediacentre/news/releases/2014/air-pollution/en/>

³ Berglund, B., Lindvall, T., and Schwela, D. H., *Guidelines for community noise*, World Health Organisation, Occupation and Environmental Health Team, 1999, Geneva <http://www.who.int/phe/en/>

Meanwhile, other country jurisdictions are talking about phasing out fossil-fuel powered equipment altogether. California for example, is currently pushing for a full prohibition on the sale of new petrol powered lawn and garden tools by 2025.

The NPES regulations don't come anywhere near close enough to eliminating pollutants from outdoor equipment, let alone tackling associated waste and noise pollution or greenhouse gas emissions. It is way past the point we should be just talking about 'lowering' emissions. We need to be talking about stopping and eliminating emissions altogether.

Australia, and NSW, lag way behind in addressing this issue.

Benefits of switching to zero-emission battery electric equipment

Transitioning grounds maintenance equipment from petrol to clean electric would eliminate, or radically reduce, almost every air pollutant produced, along with the associated adverse health impacts on individuals, communities and the planet. It would also save millions of dollars in potential health costs.⁴

There are now high performance, affordable, cordless battery-electric alternatives available to replace petrol based tools. They can deliver petrol-like performance without the harmful emissions.

Battery-electric tools create *zero* smog, *zero* carcinogenic VOCs, *zero* toxic particulates and *zero* greenhouse gases. They don't need petrol, oil, spark plugs or filters so eliminate those waste streams from entering landfills, soil and water. They require little maintenance, save money, and are 40-70% quieter than petrol equivalents.⁵

How the EPA could help

Anything at all that the EPA can do to hasten the phase out of fossil-fuel powered landscape and mowing equipment would be welcomed, whether it is regulatory improvements and reform, advocacy and/or working with local government and other agencies.

The EPA could play an important role in helping to progress policies and incentives to increase the uptake of zero emission battery powered equipment such as:

- The provision of improved consumer information.
- Encouraging the procurement of battery electric equipment for government landscape maintenance operations and contractors, who can then lead by example.

⁴ Department of Environment and Energy, Australian Government, '*Reducing Emissions from Non-road spark ignition engines and equipment: Decision regulation impact statement*', 2016.

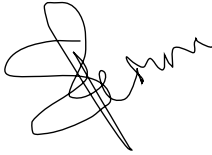
⁵ American Green Zone Alliance (AGZA), <https://www.agza.net>

- Providing buyback, exchange or trade-in schemes so that old petrol equipment can be replaced with zero emission alternatives.⁶
- Providing rebates or discounts for battery electric equipment to be made available through pre-authorized dealerships.
- Allowing commercial operators who use battery equipment to commence operations earlier in the morning, especially during the heat of summer.
- Introducing a form of accreditation or certification for commercial and residential grounds maintenance that is performed with low-impact, zero emission equipment and people-powered tools. For example, the AGZA Green Zone Certification Program in California.⁷

Demand for outdoor mowing and gardening equipment in Australia is projected to increase in the coming decade, along with Australia's population growth. Emissions from the landscape and mowing maintenance sector will continue to increase unless urgent action is taken.

I hope the EPA will take the above into consideration before finalizing the Regulatory Strategy.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Sally Perini', with a stylized flourish at the end.

Sally Perini

Director
Zeromow Pty Ltd

⁶ South Coast Air Quality Management District, LA, <http://www.aqmd.gov/home/programs/commmunity/community-detail?title=lawn-equipment>

⁷ American Green Zone Alliance (AGZA) <https://agza.net/>