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Corporate and International Tax Division
The Treasury
Langton Crescent
PARKES ACT 2600
Via email: PatentBoxConsultation@treasury.gov.au

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Dear Mr Fischer

A patent box and low emission technology

Low Emission Technology Australia welcomes the opportunity to make a submission to the discussion paper on the design of a patent box scheme. It focuses on the benefits of such a scheme for the low emission technology sector.

LETA is a A\$550 million fund established in 2006 by the Australian black coal industry to invest in technologies that significantly reduce emissions and support the transition to a low emission global economy, in line with the Paris Agreement. LETA partners with government, research institutions, universities and industry locally and internationally to develop projects that reduce and remove carbon emissions from large scale industrial processes such as power generation, steel and cement manufacturing, mining, and future energy sources such as hydrogen. Pertinently, LETA is currently invested in two projects that involve deployment of infrastructure with intellectual property (IP) rights registered overseas.

With global commitments to net-zero increasing, many experts agree that to achieve this ambitious goal all available and prospective technologies for lowering emissions will be required. Similarly, the COVID-19 pandemic has refocused government's attention on domestic capability and manufacturing which has resulted in renewed drive towards rebuilding local jobs and capability and encouraging local innovation.

A patent box could encourage new innovation and thereby attract investment and increase beneficial externalities such as domestic jobs and expertise in low emission technology (LET). However, within this sector there are some challenges, specifically:

- LET opportunity costs are comparatively high in Australia
- demonstration and deployment take significant time and can be cost prohibitive.

LET opportunity costs are comparatively high in Australia

LETA is currently working on two projects that will locate infrastructure assets in Australia whose IP is registered overseas. We also regularly engage with global industries working to develop technology to lower emissions, most commonly in the energy production sector. However, these technologies may also apply to other hard-to-abate sectors including heavy transport, manufacturing, construction and resources.

The IP we are investing in has been developed overseas because the cost of labour is low, the requisite skill and know how to develop the assets is accessible and commensurate government concession schemes are available. However, we invest in bringing this IP to Australia not only to support the transition to a low emission economy but importantly to help de-risk future investments in LET and establish the regulatory and policy frameworks to support future emission reduction projects. This incurs significant costs but will help to accelerate development and deployment of LET.

A good example of our approach is the work we have been doing with 8Rivers Capital to assess the feasibility of locating an Allam-Fetvedt Cycle (Allam Cycle) in Queensland. Developed in Texas the Allam Cycle is a revolutionary technology that has the potential to produce electricity at lower cost than conventional power generation, capture and reuse carbon dioxide, making it near-zero emission. At the same time, it can also produce hydrogen for under A\$2.

By investing in the work required to assess the feasibility of this technology we are helping to lower the risk associated with a first of a kind technology and provide decision makers with new options for meeting decarbonisation ambitions while supporting existing industry and possibly creating new industry.

Demonstration and deployment take time and can be cost prohibitive

LETA has invested more than A\$300 million in low emission technology. The reality is that achieving commercial deployment requires a series of projects at progressively larger scale; from relatively modest scale pilots, to medium scale demonstrations, and then first of a kind full scale operation. Each step in this progression has significant technical risks and cannot be expected to deliver a financial return to investors. Nor do these steps necessarily qualify for patent box concessions. Only after a number of large-scale projects have been operating for some time could the technical risks be reduced to an acceptable level, and the cost structures known with sufficient certainty, to ensure bankable technology packages that could be deployed on a commercial basis and the IP secured.

A more holistic method of supporting growth in the low emission/clean technology sector may be to address skill shortages in addition to providing financial incentives which may help to offset costs. For example, financial incentives need not be only restricted to a patent box, the United States currently administers a carbon oxide sequestration credit (or 45Q) which incentivises investment in carbon capture and storage (CCS) technologies by monetizing storage of CO₂. We acknowledge this has some similarities to the Australian Emission Reduction Fund's carbon credit units but as an alternative mechanism a tax credit could be used to support a business that invests to demonstrate and deploy new LET IP in Australia without the requirement to have that IP registered here.

For businesses that are currently at advanced stages of LET development and deployment — there has already been a substantial commitment of time, funds and the assets are considered pre-commercial — a patent box scheme is likely to be of benefit if the IP is registerable in Australia. However, we would encourage the government to work closely with relevant businesses to develop the right parameters for eligibility to ensure the benefits are realised. This is especially important for those IP developers who are also currently utilising international support to develop the IP.

In conclusion, LETA is working to see a range of technologies deployed as soon as possible to move Australia and the world to a more sustainable low emission future. Policy measures designed to increase investment in low emission technology are necessary if the government is to succeed in leveraging co-investment from the private sector to complement its investment of A\$18 billion in LET over the next decade.

We do see value in a patent box, but its application may be limited in the LET sector. We recommend the government consider ways to incentivise businesses that bring IP from overseas and further develop it for application in Australia and as a consequence incur costs but help to de-risk the application of low emission technology that supports industry and contributes to decarbonisation ambitions.

LETA welcomes further discussions on this topic, if you have any questions, please contact Marina Polita on 0417 826 722 or Marina.Polita@letaaustralia.com.au.

Yours sincerely



Mark McCallum
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