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Australia

Director
Production Tax Incentives Unit
Corporate and International Tax Division
Treasury, Langton Cres Parkes ACT 2600

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Dear Treasury

Re: Critical Minerals Production Tax Incentive - Consultation paper

Tesla welcomes the opportunity to respond to the Treasury Department's Critical Minerals Production Tax Incentive Consultation paper (consultation). The recently legislated Future Made in Australia package is a significant milestone to support greater on-shore value-adding and ensure Australia can generate both greater wealth from our critical resources, as well as build sovereign capability as mineral supply chains scale and re-route in real time.

Tesla's mission is to accelerate the world's transition to sustainable energy. Australia has a unique and critically important role in the global energy transition – underpinned by batteries that power our homes, our grids, and our electric vehicles. Every EV across the globe comes from Australia in large part: 80% of the lithium and 50% of the Nickel in Tesla's batteries globally comes from Australia. In 2023 alone, Tesla purchased over $4.3 Billion worth of Australian minerals.

This is one of the great opportunities of our century. Tesla commends the Australian Government for seizing the opportunity by supporting industry to take minerals as far down the value chain as possible **but recommends the PTI implementation is brought forward to 2025/26 to maximise value**.

The PTI policy has set an important and clear benchmark for mineral processing – and **the PTI can and should apply not just to first-stage refining, but also encompass precursor and active material production** (aligning with similar Inflation Reduction Act production credit incentives). It is also important to note that time-limiting the 10% credit to 10 years will take some edge of Australia's competitiveness relative to comparable global schemes – and as such it will be important to **build in optionality to calibrate both the % credit and duration limitations** should the PTI scheme uptake be lower and slower than expected.

The PTI is an important first step – a strong equalising signal to global markets – but Tesla recommends the Federal Government continue to explore all options and approaches to rapidly increase Australian supply of battery minerals. Critical metals and mineral supply are of such fundamental importance to the world's energy transition that it merits particular focus beyond operational cost incentives – including **streamlined environmental permitting, improving access to infrastructure, accelerating firmed renewable capacity, providing skilled and available workforce, and improving Australia's capital cost and construction environment**. Further details on each of these points are provided in the submission that follows.

Tesla thanks the Government, and in particular Treasury and DISER officials, for recognising the vital role critical mineral supply chains play. We look forward to continuing to be a constructive partner in these efforts and working with Government to progress this flagship policy.

Sincerely,

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General Comments:

A production tax incentive (PTI) is a significant lever to improve commercial viability of projects in Australia and Tesla commends Treasury for exploring this policy in detail. Tesla has been transparent about the cost differential that Australia faces relative to the global policies and the opportunity cost we face without ambitious and immediate policy support (see Tesla Chair Robyn Denholm's speech at Minerals Week in 2023[1]). As framed, this PTI policy will help support closing the gap on operating costs to make it significantly more attractive for upstream battery supply chain investment in Australia.

This has been successfully demonstrated by the USA's production tax credits under the IRA[2] – with a rapid increase in project investments and announcements (including Tesla's lithium refinery in Texas[3]) that can access 10% credits indefinitely, and provides clear regulatory precedents Australia can leverage.

An Australian PTI will support both established global companies, and local emerging companies to progress detailed feasibility on type, size and location of plant, potential partners, and accelerate final investment decisions for on-shore refining (and potentially mid-stream precursor and cathode investments – if eligible – see comments below). However, every month and year delayed is a potential project lost and implementation should be brought froward to 2025/26 to maximise near-term benefits for Australia.

We note the other big barriers and uncertainties on permitting timeframes, land and labour availability, and escalating capital costs remain – i.e. a PTI is not a panacea – it is necessary but not sufficient. It does not remove the need to address other project and investment barriers and challenges:

1. The first is site availability and permitting. Because the refining industry will need to scale rapidly, jurisdictions that can offer short and certain permitting for sites will be at a significant advantage. This need not reduce environmental outcomes if sites are identified and approved in advance, anticipating the unprecedented expansion required in coming years. Australia's existing and established 'Strategic Industrial Areas' have long and uncertain permitting timeframes (best estimates place approvals around 12- 18 months) – assuming they have the space (which many don't – e.g. Kwinana SIA). Progressing projects in new SIAs will take twice as long, with even higher costs[4].
2. The next challenge is cost of operations. Refining is an energy-intensive industry; large refineries will use more than 10 GWh annually. A high and unstable cost of electricity may make the industry unviable in Australia; whereas planning for significant renewable energy zones that can service likely refining locations and industrial hubs could increase Australia's competitiveness significantly.
3. A third major challenge is labour availability. While Australia has a highly skilled workforce in adjacent industries, it's likely that government assistance will be required to ensure workforce availability can be aligned with likely sites for refining.
4. Capital construction costs are also higher in Australia than in neighbouring APAC countries, but we note that whilst the PTI does not support capital cost inclusions, there are existing Australian Government schemes (upfront grant funds and concessional loans) that are being provided to help address this differential. We also note that for typical mineral refining plants, operating costs are ~80% of the total project cost stack – so a PTI is still helpful to overall project financing.

[1] https://www.afr.com/companies/mining/why-australia-could-lose-the-race-on-critical-minerals-20230905-p5e21j
[2] https://www.charged-the-book.com/na-ev-supply-chain-map
[3] https://www.tesla.com/blog/tesla-lithium-refinery-groundbreaking
[4] https://www.afr.com/companies/mining/chinese-technicians-parachuted-in-to-fix-ailing-wa-lithium-plant-20240227-p5f85w

Detailed comments on proposed design arrangements:

1. **Refundable** - support (i.e. not requiring facilities to have tax liability before providing incentive)

2. **Credit 10%** - support as starting baseline that aligns with cost modelling, but important to note if credit duration is limited to 10 years, this immediately starts reducing Australia's competitiveness relative to the cost comparison conducted against unlimited production tax credits and portfolio of IRA schemes in US and Canada's upfront investment credits and grants. If we are to put our best foot forward and be as competitive as we can, important to calibrate both % credit amount and duration limitations alongside other levers such as upfront grants, loans, permitting reforms, infrastructure build, and accelerating renewable deployments (see pt 6)

3. **Eligibility costs** – support but more clarity needed on:
    a. inclusion of utilities (e.g. energy, but does that include electricity and gas feed; waste, water, waste water etc); reagents (e.g. to initiate and facilitate specific chemical reactions, such as acid digestion and precipitation) and consumables (e.g. sulfuric acid and sodium hydroxide that are consumed in the refining process)
    b. whether shipping is included or not as part of logistics and transport costs
    c. if feedstock will always be out and for all projects; noting (i) contention of IRA guidance on this issue; and (ii) if mid-stream projects are eligible (see pt 4 below) may need nuance to definition of 'feedstock' and/or further clarity to define exclusion to be solely on 'mined raw materials'. Based on (i) and (ii) this further reinforces the need for flexibility on % credit level or inclusion that is outside legislation

4. **Credit Base Scope**: Appears PTI is targeted for only initial refining stage. Suggest it can easily expand under same 10% PTI framework to include subsequent value adding steps that are 'mid-stream' (e.g. producing precursor (pCAM) and Cathode active materials (CAM):
    a. This would align with current 45X IRA guidance (that includes both initial refining and active material processing)
    b. Mid-stream is often left out between loan/grant programs targeting upstream mining/refining and the downstream battery component and cell manufacturing / assembly (e.g. in the National Battery Strategy). But mid-stream is a huge opportunity for Australia and one that can easily co-locate with refineries within existing industrial hubs, leveraging the same workforce, skills, and infrastructure (gas, electricity, water, chemical feedstocks etc) and capture value locally rather than just moving one-step down the value chain from mining to refining and then shipping these powders separately offshore to let other countries gain benefits of further processing and combining before it enters battery factories
    c. If Mid-stream is included in scope, the output of a refinery (e.g. nickel sulphate or lithium hydroxide) would become a processing input (a 'material feedstock') and needs to be included as an eligible cost to maintain competitiveness with US, Canada incentives for midstream.

5. **Eligible entities** – support policy design; with confirmation this would include existing refineries and processing plants to be eligible (provided they operate and access the credit within the open window), as these plants should not be disadvantaged and are all continuing to expand and ramp to meet initial production targets and plans.

6. **Duration** - understand the balancing act and need to mitigate open-ended budgetary costs (i.e. funding structurally uncompetitive industries forever); but if the objective is to be cost competitive with comparable jurisdictions (e.g. US, Canada et al.), then may need to look at what other levers can be used to stay competitive (e.g. build out of low-cost, abundant renewable energy infrastructure to minimise energy costs over coming decade in parallel). Given IRA has no duration; and Canada has upfront 30% investment tax credit discount on capital costs – this is what underpinned many of the cost models that showed a 10% cost differential (e.g. Tesla / Mandala's AMEC modelling[5]):
    a. To stay competitive and match IRA's PTC, ideally PTI is uncapped in duration – noting the absolute volume of projects to progress is still likely to be small (~10 based on AMEC data)
    b. otherwise increasing duration to 15 or 20 years will provide industry greater certainty; noting that if time-restricting, then % gap modelled will inevitably be affected (noting time value of money), E.g. some illustrative NPV calcs:
        i. 10% PTI makes Aus competitive with US and Canada (assuming no end-date); for typical LiOH plant, as shared in modelling[5]
        ii. 10% PTC in Aus that is time limited to 10 years, would require increasing PTI to ~16% all things being equal (assuming 5% interest rate) – or additional support considerations on construction, feedstock, labour or utility cost drivers
    c. Given the impact the % credit amount has on relative attractiveness of the policy, recommend making a disallowable instrument where the Minister can set and upward adjust the % in regulations e.g. Minister has power to adapt and revise (only) upwards the % based on industries response to the scheme and volume (or lack of) proposals that progress to production. Note – prospect of downward revisions should be avoided to ensure investor certainty and credibility of the scheme throughout the duration.
    d. As noted above, early implementation maximises benefits and every effort should be made to accelerate time frames ahead of the proposed 2027/28 financial year (which is over 5 years after the IRA was implemented).

7. **Compliance** – support, noting that we are largely agnostic to whether it's a Production *Tax* Incentive, or simply a Production Incentive (often these are used interchangeably).
    a. We understand there are cost and benefit trade-offs with each approach, but main goal is to close the cost delta; and so long as it is reasonably simple to administer and map into global cost models that compare building plants in Aus vs US or elsewhere then the actual outworking's of how the credit comes back is less important; and
    b. lower admin and legal and tax requirements to comply is always helpful to global businesses trying to manage amongst already complex supply chains and should form part of the government's design criteria.

[5] https://amec.org.au/wp-content/uploads/2024/02/AMEC-Production-Tax-Credit-November-2023-Report_vF2.pdf

8. **Community benefits** – support the policy intent of this specification and recognise in return for tax-payer funds projects must be incentivised to create diverse workforces – e.g. through best endeavours to support under-represented workers and maximise community benefits:
    a. Recommend this can be designed as to encourage transparent reporting on key metrics across apprenticeships, workforce diversity, community engagement milestones etc so they are actively monitored and measured for each project - but should avoid any form of upfront mandate or specific eligibility criteria thresholds (e.g. X% of staff must be of Y criteria at commencement) as this will complicate the key objective of this policy - making Australia more attractive to invest in, and could stall projects that are otherwise ready to go
    b. Most likely that for refining projects, Australia will need to attract intellectual property and labour from overseas until domestic capability is built – this may take decades. If we want to compete we need to act fast, and there's already a shortage of skilled refinery and chemical operators (and is a highly competitive sector – competing with high paying fly-in fly-out roles), let alone when broken down into sub categories and mandated per category
    c. In contrast to wind/solar projects (and to a certain extent downstream manufacturing), upstream refineries are *very* location bound and reliant on specialist skills – i.e. need to minimise logistics from mine-site and are essentially restricted to pre-existing industrial hubs with good access to electricity, gas, water, feedstock etc and international ports (i.e. Kwinana, Gladstone etc). As current lithium refinery ramp struggles have shown, also need an experienced and highly skilled workforce - one that still needs to be built out and learn from specialist workers that are training up around the world.
    d. Also note the major community benefits are an automatic outcome of any policy that will capture more value from our minerals that are otherwise lost offshore under status quo – creating jobs, building ecosystems and infrastructure, supporting sustainable energy transition, generating additionality on tax revenues. Specific workforce criteria outcomes are useful to further consider but recommend they are framed as being a different objective that could/should be achieved via a different policy lever (e.g. skills and re-skilling development, funding training and apprenticeship programs etc)
    e. We note others have suggested mimicking IRA policy of including bonus / multiplier credits – also need to be careful with that approach to make sure the baseline PTC % is more than sufficient, and avoid the need for stacking 'bonus credits' to become competitive with IRA, the risk (for minerals at least) would be we design an overly complex scheme that becomes too hard to access the requisite top-up amount and industry just shifts to Canada/Korea/ Japan et al where the incentive is clear and upfront