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## Calix submission to the Australian Government Carbon Leakage Review

### Introduction to Calix

Calix Limited (ASX: CXL) is an Australian environmental technology company solving global challenges in industrial decarbonisation and sustainability, including CO<sub>2</sub> mitigation, sustainable processing, advanced batteries, biotechnology and water treatment.

Calix's patented core technology platform delivers efficient indirect heating of raw materials to enable the electrification of industries, efficient capture of unavoidable emissions and clean industrial processing solutions.

Calix's core technology platform is being applied to decarbonise a number of essential and hard-to-abate sectors. These include cement, lime and magnesium, where carbon capture and storage is essential to abate unavoidable process emissions, and iron and steel, lithium and other critical minerals, where Calix is enabling the efficient use of clean energy and hydrogen in place of carbon based inputs.

Leveraging its core technology platform and a global network of research and development collaborations, Calix is urgently developing CO<sub>2</sub> mitigation and sustainable processing technologies that deliver positive global impact. Low touch business models such as licensing, joint ventures and spin-out strategies are helping to commercialise each new application at speed, seizing every opportunity to urgently address sustainability challenges.

### Calix welcomes Safeguard Mechanism reforms and carbon leakage review

Calix commends the Australian Government on its revised carbon emissions Safeguard Mechanism, its support for investment in decarbonisation technologies and its consideration of measures to prevent carbon leakage, including a carbon border adjustment mechanism (CBAM).

A price on carbon provides strong incentives for emitters to decarbonise and importantly, a stable base from which investment decisions on decarbonisation strategies and technologies can be made. Collectively, these policies provide strong incentives and support for Australia's largest emitters to both reduce emissions on a pathway to net zero by 2050 and maintain their competitiveness in a decarbonising global economy.

### An Australian CBAM

Calix supports the introduction of a CBAM in Australia. The competitiveness of many of Australia's most economically important industries, as emissions-intensive exporters, is exposed to international competitive pressures resulting from tightening emissions reduction standards.

An Australian CBAM will be an important tool to prevent carbon leakage and the movement of carbon intensive economic activity offshore. It can also be an effective mechanism to increase the

competitiveness of our exports into major economic blocks with similar policy frameworks, including the European Union.

Together, the Safeguard Mechanism and an Australian CBAM can protect Australian producers by placing foreign imports on a level playing field, and act as a catalyst to develop significant competitive advantage in low carbon products.

### Preventing carbon leakage

Following Australia's increased ambitions to decarbonise its most carbon-intensive industrial facilities under the revised Safeguard Mechanism, it is appropriate that measures be taken to prevent carbon leakage offshore, and to protect Australian industry from the competitive threat of higher carbon-intensity imports that do not similarly account for the cost of their emissions.

As Australian industry takes positive action to reduce its emissions inline with the targets set under the Safeguard Mechanism, capital investment and additional operating, reporting and regulatory requirements will provide upward pressure on costs for industry. These costs are in addition to those already being felt as a result of the nation's ongoing transition to an energy grid primarily powered by decentralised and intermittent renewable energy sources. In this context, an Australian CBAM is an important tool to level the playing field with higher carbon-intensity imports and help maintain Australia's international competitiveness.

### Value capture and value creation through decarbonisation

For Australia, the global transition towards net zero emissions represents a unique moment of opportunity. Australia has the potential to unlock significant international competitive advantage in a decarbonising global economy, thanks to its potentially unrivalled combination of renewable energy resources and iron ore, lithium and other critical minerals. Together with significant industry expertise and innovative Australian technologies, these natural advantages can enable Australia to capture more of the minerals' value chain through sustainable downstream processing and create value with the export of premium, low carbon products.

The reforms to the Safeguard Mechanism, combined with the introduction of an Australian CBAM, can deliver a framework that provides the necessary incentives and stability for industry to invest in the opportunity for value capture and value creation from Australian resources.

### Incentivising global emissions reduction through onshoring of sustainable mineral processing

Onshoring downstream activity, such as processing of raw minerals into concentrated low-carbon mineral products for domestic use and export can reduce global emissions, rationalise global supply chains, and capture and create significant value from Australia's natural resources.

Our ultimate goal should be to deliver the greatest possible reduction in global carbon emissions as quickly as possible and at the lowest possible cost. National frameworks, however, and particularly those that consider only scope one and two emissions, risk disincentivising new onshore economic activity and global emissions reduction in favour of meeting national emissions reduction targets.

Policies that facilitate the onshoring of activity such as sustainable mineral processing will be important to ensure Australian industry is incentivised to capitalise on its opportunity to reduce global carbon emissions and capture economic value. For example, Australian mineral producers should be incentivised to undertake new downstream activity that significantly reduces their scope three emissions, despite a modest increase in scope one or two emissions that may result from that activity.

Appropriate policy and regulatory settings that enable the onshoring of economic activity will be important for Australia to capitalise on its green export opportunities. An Australian CBAM can help introduce robust carbon accounting standards and practices across international supply chains and the life cycle of the mineral product. Such carbon accounting practices can both protect Australian industry from higher carbon-intensity imports and provide the framework for Australia to export verified premium low-carbon mineral products to trading partners around the world.

### Supporting industrial decarbonisation

Beyond protection from carbon leakage and the threat of high-emission, low-cost imports, further Government support will be essential in supporting Australian industry to decarbonise and seize the opportunities that await in a decarbonising global economy.

The electrification of industry, and particularly the provision of high temperature industrial heat, is an opportunity to reduce industrial emissions and increase Australia's international competitiveness in sustainable mineral processing. Australia's green export opportunity, however, is largely predicated on the expectation that plentiful renewable energy resources will translate into low-cost renewable power. This outcome remains uncertain, and significant national investment is required to improve the international competitiveness of Australian industry.

For inherently carbon-intensive industries with unavoidable process emissions, such as cement and lime, Government can play a critical role in enabling decarbonisation efforts and improving international competitiveness by developing accessible, low-cost carbon management infrastructure. This includes transportation networks for carbon emissions centred around cement plants and other large point sources of unavoidable carbon dioxide, incentives for and coordination of carbon dioxide use applications such as synthetic transport fuels, and carbon sequestration facilities.

The use of captured CO<sub>2</sub> from industrial sources such as cement, lime and magnesia production to generate low emissions synthetic fuels is of urgent policy and standards clarity. The setting of such a standard would enable, under a CBAM, export of such fuels to regional centres such as Singapore as low/zero emissions marine fuels for example. At the same time, the use an export of industrial CO<sub>2</sub> would help protect domestic industries and avoid or minimise the significant infrastructure that is otherwise required for transport and storage of unavoidable process emissions.

The efficient generation and use of green hydrogen will also be an important enabling capability for green export opportunities such as decarbonised iron and steel. Continued Government support to develop sovereign capabilities in hydrogen generation, as well as identifying priority use cases for hydrogen will be important for Australia to realise its potential. Opportunities should be prioritised based on the potential to deliver the maximum reduction in global emissions and generate the greatest economic value for Australia.

Calix looks forward to the second phase of the Carbon Leakage Review and contributing where possible to Australia's decarbonisation ambitions.

### **About Calix**

Calix Limited (ASX: CXL) is an environmental technology company solving global challenges in industrial decarbonisation and sustainability, including CO<sub>2</sub> mitigation, sustainable processing, advanced batteries, biotechnology and water treatment.

Calix's patented core technology platform delivers efficient indirect heating of raw materials to enable electrification of industries, efficient capture of unavoidable emissions, and green industrial processing solutions. Its flash heating approach can also produce unique nanoporous materials with enhanced chemical and/or bio-activity.

Leveraging its core technology platform and a global network of research and development collaborations, Calix is urgently developing multiple environmental businesses that deliver positive global impact. Because there's only one Earth, and it's already ours.

Mars is for quitters.

<https://www.calix.global/>

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