

**Written Submission for the Pre-Budget
Consultations in Advance of the Upcoming
Federal Budget for 2022**

By: Interstellar Mining Inc.

Recommendations

- Recommendation 1: That the government amend the Income Tax Act to include outer space (including the Moon, Asteroids, and planetary bodies) as a Foreign Jurisdiction for the purposes of Foreign Resource Expenses (FRE) as equivalent to Canadian Exploration Expenses (CEE) and Canadian Development Expenses (CDE).
- Recommendation 2: That the government amend the Income Tax Act to extend Flow Through Shares to Canadian companies engaging in mining in outer space (including the Moon, asteroids and planetary bodies).
- Recommendation 3: That the government amend the Income Tax Act to extend Mineral Exploration Tax Credit to Canadian corporations engaging in space resource exploration with specific intent to mine in outer space.

Body of Submission

Commercial space mining is in the early phase of development and efforts are already underway to mine useful materials in space by private firms. Canada is signatory to the Artemis Accords and has committed to the Lunar Gateway development as a key stakeholder. As such, Canada has committed to participate in the exploration of the Moon and the use of lunar resources required to support the vehicular and personnel traffic in cis-lunar orbit and on the lunar surface.

The private sector rationale for pursuing space mining consists of two scenarios. One scenario is the discovery and mining of valuable resources (e.g. iron ore, nickel and precious metals with much higher concentrations than those found on Earth) from asteroids near Earth and the mining of water and rare earth elements on the Moon. Estimates of the market value of these resources are in the trillions of dollars.

The second scenario consists of mining asteroids and the Moon for water, which could be used as an essential resource for space operations by governments and private firms. In fact, the demand for refueling stations in orbit exists now and is being pursued by companies like OrbitFab and Lockheed Martin, and who are offering contracts for the purchase of lunar mined water. This should give investors more confidence in the medium-term profitability of the industry.

Advancing space mining represents an opportunity for Canada to foster a niche industry that leverages Canada's competitive advantage in both the space and mining industry. The Emerson report highlights this niche area and notes that Canada is a global leader in mining techniques that positions Canadian firms to participate in potential long-term initiatives to mine in space and to use space assets to further resource extraction on Earth. Mining rare minerals in space is attracting private investor interest and could conceivably become lucrative.

Canadian expertise in the minerals and metals sector covers the entire mining cycle, including engineering, consulting and financial/legal services. In addition, mining activity occurs across Canada, in every provincial and territorial jurisdiction, making it a national industry in scope. Canada is a recognized leader in mining related financing with over 60% (\$8.9B) of world's equity financing for exploration raised on the TSX. Also, 60% of publicly-listed mining companies are listed on TSX or TSX-V.

The Government of Canada, through the Canadian Metals and Minerals Plan ("CMMP"), has an official policy of supporting new, innovative, and disruptive technologies for mining. The CMMP specifically mentions the importance of supporting the space mining sectors on pages 30-32 of the CMMP.

Recommendation 1: That the government amend the Income Tax Act to include outer space (including the Moon, Asteroids, and planetary bodies) as a Foreign Jurisdiction for the purposes of Foreign Resource Expenses (FRE) as equivalent to Canadian Exploration Expenses (CEE) and Canadian Development Expenses (CDE).

All space mining activities and sale of products will occur outside the jurisdictional boundaries of Canada, therefore taxation would be considered extraterritorial and so mining operations in outer space could be considered as “Foreign Operations”. In order to ensure economic benefits flow to Canada along with potential tax revenue, careful crafting of the definition of what constitutes eligible exploration expenses is required.

While it is relatively unusual for a Canadian mining corporation to conduct foreign activities directly, where this occurs the Canadian mining corporation computes its income (or loss) from those activities under essentially the same rules that apply to Canadian-source activities, with some exceptions:

- most expenditures related to the foreign mining activities are treated as “**foreign resource expenses**” (“**FRE**”), being the foreign equivalent of Canadian Exploration Expenses (CEE) and Canadian Development Expenses (CDE) under the Canadian income tax regime;
- foreign mining activities are located on the Moon, asteroids or other planetary bodies, but since there is no formal taxation treaty with these outer space bodies, Canada’s rights to tax are NOT limited by the terms of a tax treaty; and
- to the extent that income or profit taxes are levied in the foreign jurisdiction where such activities are carried on, the Canadian mining corporation would typically be entitled to a “**foreign tax credit**” (“**FTC**”) under Canadian tax rules, which reduces Canadian tax otherwise payable on the same income that the foreign jurisdiction is taxing. Because no tax is deducted at source, then all taxation flows to Canada.

Space mining and its related activities are a global affair requiring specialized goods and services, in many cases with only one global supplier. Simply requiring all that qualified expenditures be Canadian sources would be both counter productive and ineffective as any space exploration and prospecting program would likely require a certain level of foreign sourced goods and services. In addition, the bulk of all activity will be carried out by autonomous or semi-autonomous robots and systems. This limits the number of persons directly employed in actual space prospecting, exploration and mining. One solution is to require at least 50% of eligible expenses for the tax credit to be sourced through Canadian goods and service providers, a sliding scale of tax credits which increases in proportion to the Canadian content of goods and services.

This will encourage companies to source as much Canadian content for robotics, sensor systems, launch, communications, and manufacturing as possible. It will encourage private investment into companies providing such goods and services which will spur job growth across a broad range of employee skill levels. Since all this activity will be occurring within the jurisdiction of Canada, the economic benefits and tax revenues will be maximized within our borders. Space mining will be a boon to Canadian companies specializing in high tech industries with high knowledge requirements and high pay. In addition, this will likely benefit Canadian university programs that specialize in mechanical engineering, robotics and aerospace technologies.

In order to foster a nascent space mining industry, Canada could seek to provide legal certainty to attract space mining firms and start-ups. In general, most stakeholders agree that the existing international treaties (i.e. the 1967 Outer Space Treaty and the 1984 Moon Agreement) are

insufficient as a legal foundation for current and potential commercial space activities such as space mining. Already, the U.S. has started to pursue this course of action given the need for greater legal certainty. In 2015, the U.S. introduced legislation to Congress that would grant property rights to entities mining asteroids. The measure states that,

“Any asteroid resources obtained in outer space are the property of the entity that obtained such resources, which shall be entitled to all property rights thereto, consistent with applicable provisions of Federal law.”

The act also requires the President to facilitate the commercial exploration and utilization of space, discourage government barriers to these activities consistent with international obligations, and promote the right of U.S. companies to utilize and sell asteroid resources free of harmful interference. It would also, “provide companies with the ability to seek civil relief in court if their activities are interfered with by other entities”. Companies would be required to “avoid causing harmful interference in outer space.” NASA has issued contracts specifically for the purpose of transferring lunar soil from private industry to NASA as a means to demonstrate the transferability of ownership on the Moon.

Most established space mining firms and potential start-ups are primarily based in the U.S., Luxembourg and Japan. The establishment of a legal regime for space mining or tax incentives could entice these firms to relocate or establish subsidiaries in Canada. Alternatively, should Canada develop greater capabilities in space mining (e.g. technologies, processes or services), U.S. firms would be interested in the acquisition of Canadian firms or incorporating their products and/or services into their value chains. This creates an enabling environment for foreign investment.

Recommendation 2: That the government amend the Income Tax Act to extend Flow Through Shares to Canadian companies engaging in mining in outer space (including the Moon, asteroids and planetary bodies).

The Emerson report called for extending the favourable tax treatment currently afforded to investors in flow-through shares of mineral exploration companies to investors in commercial activity in space, whether or not that activity is mining related. This measure has the potential to encourage private sector efforts over the long term. Given that Canada has a small number of commercial space firms, annual expenditures for this measure would be marginal.

It is quite common for early stage mining exploration companies to have zero net income for tax purposes. Since expenditures on exploration and development can only reduce taxes owing down to zero, such mining companies may find themselves with deductions for tax purposes that they will not be in a position to use for many years, because they are not generating enough income. Companies in such circumstances may also need to raise financing in order to fund ongoing operations. Flow-through shares (“FTS”) can provide mining companies with reduced-cost access to financing in this situation.

Recommendation 3: That the government amend the Income Tax Act to extend Mineral Exploration Tax Credit to Canadian corporations engaging in space resource exploration with specific intent to mine in outer space.

The Mineral Exploration Tax Credit (“METC”) is designed to help exploration companies raise equity funds and can be used in addition to the regular tax deductions associated with flow-through share investments. The METC is a 15% non-refundable tax credit on eligible exploration expenses including costs related to prospecting, geological, geophysical, or geochemical surveys to search for base and/or precious metal deposits. This program has been highly successful in stimulating private equity investment in Canadian Exploration and Mining companies and has contributed significantly to making Canada the world capital for mine finance, mining exploration, and development.

Luxembourg is considering passing legislation offering a space mining tax credit modelled after the highly successful Canadian Mining and Exploration Tax Credit (“METC”). Luxembourg’s creation of a space tax credit creates a competitive disadvantage for Canada and Canadian space or mining companies. Ideally the creation of a similar credit here would mitigate those disadvantages. Much like the mining industry, the creation of a tax credit in Canada will help create and retain high end jobs in the space industry, within Canadian borders.

About Interstellar Mining Inc.

Interstellar Mining Inc. is a Canadian private corporation which is focused on the exploration of lunar resources and the development of the first operating lunar water mine. More information on the company can be found at www.interstellarmining.ca We are headquartered in Toronto, Ontario. The firm is an active member of the ISRU or space mining community globally. Our founding ownership group has over 20 years of experience in space resources development and is 100% Canadian.