UK SEABED RESOURCES
COMMENTS ON THE REPORT TO MEMBERS OF THE AUTHORITY AND ALL STAKEHOLDERS ON "DEVELOPING A REGULATORY FRAMEWORK FOR MINERAL EXPLOITATION IN THE AREA – *Discussion Paper on the Development and Implementation of a Payment Mechanism in the Area*"

UK Seabed Resources (UKSR) is pleased to submit our response to the International Seabed Authority (ISA) solicitation for stakeholder response to its Report on Developing a Regulatory Framework for Mineral Exploitation in the Area - Discussion Paper on the Development and Implementation of a Payment Mechanism in the Area. We view this submission as a corollary to our submission on the Report to Members of the Authority and all stakeholders on Developing a Regulatory Framework for Mineral Exploitation in the Area (the Report), as we firmly believe that the payment mechanism is an integral and inextricable part of the regulatory framework for exploitation and can only be developed and understood in that broader context.

UKSR is a UK-sponsored contractor, authorised to explore for polymetallic nodules in the Clarion Clipperton Zone (CCZ), and as such is a direct stakeholder in the timely development of the Framework. As a direct stakeholder, we believe that the ISA is well positioned to develop a payment mechanism that is transparent and stable, thereby enabling the level of investment in the CCZ necessary to both optimize the value of the resources therein for the Common Heritage of Mankind and ensure the development of an economically and environmentally sustainable approach.

As a starting point, we note that UN Convention on the Law of the Sea recognized that the long term investment and high costs associated with the development of radically new exploration, collection and processing technology, combined with the volatile nature and wide swings of metal commodity markets, might require incentives, financial or otherwise, for contractors to make the multi-billion dollar investments needed to undertake seabed mineral operations. Since the 1976 Revised Single Negotiating Text through the 1994 Agreement on Implementation, the Convention has foreseen the potential for some form of incentives. Specifically, Annex III, Article 14, provides:

> *"The Authority may, taking into account any recommendations of the Economic Planning Commission and the Legal and Technical Commission, adopt rules, regulations and procedures that provide for incentives, on a uniform and non-discriminatory basis, to contractors to further the objectives set out in paragraph 1.*
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> *For ease of reference, Paragraph 1 includes the objective:*
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> (b) *to attract investments and technology to the exploration and exploitation of the Area.*

It is our understanding that Article 14 was intentionally left in force by the 1994 Agreement on Implementation. As with other aspects of financial arrangements, the design and implementation of incentives, which need not be specifically financial in nature, was left for future assessment and decision.

With this backdrop, it is our view that the principal incentive required is regulatory stability in the first 20 year phase of commercial exploitation, in order to attract the necessary capital flow to this new industry. Regulatory stability includes the financial provisions of the

exploitation contract, as well as enforcement of the overall regulatory regime, including monitoring, reporting and other matters of environmental and scientific value.

The negotiation of financial terms of contracts calls for study and consideration of matters of attractiveness of investment, introducing internal rate of return and net present value measures to account for needs of early developers to provide adequate returns to pay off development costs and repay lenders. At the time of the UNCLOS negotiations, prospects for development looked bright, so little study was done of incentives, but by the time of the 1994 Agreement, at which point the metal market was depressed, it was decided to retain the option of incentives for developers. Negotiation of long term financial terms of contracts must consider the risk and return needed by developers to enter this market, to unleash the value for the benefits expected of this common heritage of mankind.

Specifically, we suggest that any payment mechanism needs to take into account that seabed mineral collection is (i) viewed by investors today as inherently riskier currently than terrestrial mineral collection because it has never been done before (although UKSR believes it can be done in a manner at least as sound as terrestrial mining), (ii) subject to taxation / rent seeking from two regulators – the ISA and the Sponsoring State, and (iii) only of economic value to the Common Heritage of Mankind if a sustainable mineral recovery industry forms. These issues are addressed in turn, below.

(1) Risk: Investors view seabed mineral collection as riskier than terrestrial mineral collection for two principal reasons: the solution for collecting and processing nodules has not been proven technically, much less at commercial scale, to date, and there are no exploitation regulations in place creating a stable regulatory environment. The ISA's transition from a regulator of exploration to a regulator of exploitation is being monitored closely, as this transition is critical to overall investor confidence.

The metals derived from deep seabed minerals are the same as those derived from terrestrial minerals, and will be sold into the same commodities markets. As a result, seabed mineral projects will compete with terrestrial mineral projects for investment capital and it is necessary to ensure that capital is not influenced away from seabed projects due to reasons such as regulatory uncertainty. To address the higher risks associated with the emerging industry of deep seabed minerals versus that of the mature terrestrial industry, investors will require higher rates of return to compensate for those higher, and additional risks perceived at this time. The ISA has the opportunity and responsibility to address this through incorporation of these financial realities into the regulatory framework, thereby enabling the levels of investment necessary to enable this industry to finally become a reality.

In order to encourage the investment necessary to enable the emergence of the seabed minerals industry, regulations must overcome several financial hurdles:

- High monitoring costs and risk of operational disruption for early developers;
- Risks resulting from market volatility due to large swings in metal prices;
- High capital costs reflecting high cost of capital for new technologies, premiums associated with risks and the uncertainty of payback periods within expectations of lenders and investors.

In the long term, the financial terms of a contract should provide comparability with corresponding terms for land-based mining, and they must be predictable over the life of a project. Financial terms must be evaluated in conjunction with other financial fees and assessments as well as regulatory mandates governing technology and operations. However, comparability requires that the ISA take into account that land-based mining has an extensive history, proven track record, with few unknown risks compared to the collection of minerals from the floor of the deep seabed. We cannot consider the land-based and seabed minerals exploitation industries comparable at the moment, so when the ISA considers how to not advantage or disadvantage the one industry vs the other, it needs to recognize the considerable gap in maturity between the two.

Consequently, we urge the ISA to promptly develop a stable, transparent, payment mechanism taking into account the risk premium in seabed mineral collection; the factoring in of this premium is critical to ensuring that the seabed minerals industry is "neither advantaged nor disadvantaged" relative to terrestrial minerals pursuant to the United Nations Convention on the Law Of the Sea. As is the case in building any new industry, early entrants bear a disproportionate share of development risk. The ISA payment mechanism has the ability to normalise that risk through an appropriate financial regime for early developers – one that sunsets with experience gained by the industry and the ISA. Alternative approaches risk incentivizing a commercial response that places an emphasis on short term profits over long term sustainability – we believe that a long term sustainable approach is not only in the interest of this developing commercial industry, but of the global community.

As such, UKSR recommends that the ISA consider a 20 year period during which any entrants into the industry in that window are subject to a predetermined royalty fee; we believe that royalties are the most appropriate mechanism given the nascent state of the industry, the need for transparency, and the need for regulatory stability and certainty. After that 20 year window sunsets, the ISA can re-evaluate, based on established criteria or objectives, the amount of the established royalty, taking into account the maturation of the industry, experience of the ISA, and evolution of terrestrial royalties during the life of the

initial royalty scheme. A 20 year horizon would also encourage contractors to optimise for sustainable systems rather than ones that seek to extract the greatest amount of minerals in a short period of time to take advantage of initial lower royalties, thereby short-changing the Common Heritage of Mankind of the total value of the claim. This 20 year horizon also recognizes the higher risk weighted cost of capital for early entrants and avoids providing to any particular entrant a windfall (indeed, it increases the likelihood that the industry will develop rather than see its gestation stalled for an extended period of time).

(2) Regulators: Seabed mineral collection will require payments to both the ISA, as the international regulator, and the sponsoring nation state, as the national regulator. This differs significantly with the terrestrial industry which only has to factor in payments to the nation state, as the national regulator.

The ISA will seek payments from contractors to fund the necessary regulatory oversight functions, such as monitoring (especially from an environmental perspective) seabed mineral collection that takes place, and to ensure that there are financial benefits shared globally from the deep seabed minerals, as part of the Common Heritage of Mankind. The Sponsoring State will seek compensation for the risk it takes to stand behind the obligations of the contractor vis-à-vis the ISA and fund any required oversight imposed by the ISA or domestic law. Therefore, the rents ordinarily allocable to a single nation state in the context of terrestrial mining will need to be allocated among the ISA and Sponsoring State in the context of seabed minerals. It will be critical for the ISA to ensure that the allocation is reasonable so that the impact of the aggregate rents charged by the combination of the Sponsoring State and ISA do not deter investment in and production of seabed minerals.

We would also caution against reliance on national financial obligations, such as corporate taxes, as relevant to the issue of ISA financial / royalty payments. All commercial, as opposed to state, contractors are subject to national tax systems in the jurisdictions where their operations are based and/or their companies are domiciled and will have taxes imposed on its revenues; we would note, that while posted tax rates are interesting, they are also not necessarily reflective on effective tax rates paid by individual companies. For example, it is well documented that effective tax rates vary significantly among corporations, and in many cases are far lower than the stated rate (which in some jurisdictions fast approaches 39%). Therefore, seemingly easy reference points, they prove to be both inappropriate and inaccurate for purposes of formulating comparisons between land-band and deep seabed sourcing of minerals. Moreover, we believe it is very likely that sponsoring states will impose financial requirements on contractors given the sponsoring states' liability to the ISA for its contractor's environmental responsibilities.

It is our view that the concept of profit-sharing is, at best, premature for the deep seabed minerals industry, which can be described generously as a nascent market. While there are examples of profit sharing in the land-based mining industry, it is nonetheless a model that

has appeared along with the maturation of the land-based mining industry. Furthermore, national models of profit-sharing also may reflect the value of in-kind contributions of the national government – whether in terms of existing state infrastructure, whether transportation (e.g., railways), roads, etc.; it is unclear what comparable types of in-kind contributions are envisioned from the ISA for the at-sea operations.

Should the ISA pursue an annual monitoring fee regime, we suggest that such a fee should be based on cost-recovery principles, rather than be applied as revenue generation mechanism. We note that the Sponsoring State is likely to impose a similar monitoring fee, the combination of which could inadvertently exceed the Convention's principle of non-discrimination of seabed mineral collection relative to terrestrial mining.

(3) Advancing the Common Heritage of Mankind: UKSR believes that the most appropriate way to serve the Common Heritage of Mankind is by encouraging sustainable, long-term, environmentally sound mineral recovery from the CCZ. In our view, it is best to catalyse the development and growth of a substantial, sustainable seabed minerals industry over the long term – to do so means an early financial return based on a shared commitment toward that goal. We believe that the ISA and the State Parties can best advance that goal by through establishing a mechanism that yields early on a lower proportionate share of the returns from the emerging industry, which retains for the ISA the regulatory flexibility to adjust those returns in the future, when appropriate and consistent with that overarching goal. We urge the ISA to avoid financial regulatory terms that seek to impose higher returns before the high risks are mitigated; failure to do so risks inhibiting or even precluding the development of the industry from which the benefits of the Common Heritage of Mankind will be realized.

We recognize that the payment mechanism is potentially the ISA's strongest tool to drive desired contractor behaviour. The ISA can drive near-term investment in the CCZ both generating financial returns and ensuring environmental stewardship of the assets entrusted to it. But to do so, we suggest that the ISA must rigorously assess the impact of a proposed payment mechanism on the entire value chain of the still-nascent seabed minerals industry.

Economics, particularly business and mineral economics, is an essential field of expertise that the LTC should draw from in the further development of the exploitation regulations. Just as it was in 1979, when the LOS Conference undertook negotiations of financial terms of contracts and had specific educational workshops, it is fundamental for the LTC and Council to have an understanding of the nature of investment decisions in the ocean minerals field, specifically the attractiveness of investment and how it is affected by fees and regulations. Basics about the scale of investment and the cost of capital, the high upfront costs to be incurred before the first sale is made, startup costs and inefficiencies and the risk premiums applied by investors in a new industry in which sales are based on commodities that experience wide and unpredictable price swings. Understanding the scale

of investment, the cost of capital, operating costs and revenues would provide a framework for arguments on financial terms of contacts, administrative fees, bonds or insurance issues related to ability, the tools for assessing rates of return and uncertainty of outcome, and the likely risk premium relative to terrestrial projects.