The International CCS Knowledge Center (the Knowledge Center) is a Canadian not-for-profit venture which has the ambition to advance the deployment of capture utilization and storage (CCUS) globally through the sharing, generation and compiling of knowledge about CCUS technology. The Knowledge Center is result of a joint initiative of SaskPower, a Crown utility in Canada, and BHP, a world leading mining company. SaskPower has received world-wide recognition for the first in the world coal-fired post-combustion carbon capture plant - Boundary Dam 3 (BD3). By allowing coal-fired generation to continue operating with an environmental footprint ahead of any environmental standard, BD3 created the ability to assist in meeting climate change targets, secure jobs and investments into the future.

CCS is a technology viewed by businesses, governments, and many environmentalists alike to be an essential part of the sustainable and environmentally-friendly future of many carbon-intensive industries. Through its unique expertise, lessons-learned and application of this technology at BD3, the Knowledge Centre intends to advance and scale the deployment of CCS globally, while providing informed discussion of the means to achieve global GHG goals. Article 6 of the Paris Agreement enables the deployment of technologies and related know-how through its international cooperative climate mechanisms – only through smart, economic technology and knowledge transfer across borders will achieve our Paris goal.

**Article 6.2 – ITMOs**

Article 6 provides for broad cooperation among Parties to meet their individual National Determined Contribution (NDC) on a voluntary basis. Parties are able to undertake the transfer of mitigation outcomes internationally (ITMOs) as a specific example of cooperative approaches and use them towards their NDC.

Article 6.2 describes a process for cooperation and is not prescriptive regarding how mitigation outcomes occur. This is important given the bottom-up reality of climate mitigation where different approaches to reducing emissions are common. The intention of using ITMOs should be aimed at achieving NDCs, promoting sustainable development, and ensuring environmental integrity and transparency across borders and national ledgers.

Article 6 does not specify how utilizing ITMOs towards NDCs can be operationalized. More specifically, Article 6.2 allows for countries to cooperate in reaching national targets by trading units of “mitigation outcomes”. How these “cooperative approaches” are designed and implemented should be flexible enough to span approaches such as bottom-up, cross-border market linkages and potentially tap-in to incentives and rules under a universal crediting mechanism. In terms of bottom-up unit transfers, the best way to do this would be through accepted guidance and an accounting database – ideally via serialized units that can be tracked.

A workable system for ITMOs would have to be developed consistently with guidance set forward by UNFCC committees. However, as this guidance unfolds, the ITMOs must be of sufficient quality that they can be utilized for compliance by Parties other than the issuing Party. One of the main issues to avoid is use of mitigation outcomes by both Parties (“double-counting”).
Article 6.4 – Mitigation Framework

In Article 6.4 of the Paris Agreement, an emission mitigation mechanism must contribute to the mitigation of greenhouse gases and support sustainable development. This concept should be viewed as a broad framework mechanism within which many types of mitigation approaches can be executed with assured additionality and avoidance of double-counting.

Determining which Parties can host this framework of activities and which can use the product of the mechanisms are not defined, nor are the types of activities that can be utilized under the framework. According to Paragraph 6.4, one party can work alongside the mitigation objectives of another party, and the mechanism itself can act to facilitate ITMO transfers.

The Article also ensures that, upon authorization by a state, private entities can participate in the mitigation transfer. This will undoubtedly incentivize and facilitate the participation of private entities in mitigation activities.

Pilot Opportunity – Technology transfer, balancing emission reduction globally and the role of CCS.

Article 6 of the Paris Agreement provides opportunities for global cooperation allowing Parties to directly and voluntarily engage in cooperative approaches through market and non-market based mechanisms to use ITMOs. This must ensure all stakeholders, countries, private sector and NGOs are included. Simply, if deployed Canadian technology reduces emissions in another nation, Canada could be able to receive a reduction of directly associated greenhouse gas emissions on their national inventory.

A technology transfer is a broad set of processes (defined under the UNFCCC) covering the flows on know-how, experiences and equipment amongst different stakeholders such as governments, private sector entities, financial institutions, NGOs, and research / education institutions.

The first necessary step is to have the benefitting country on board and requesting the transfer of technology for greenhouse gas emission reductions. An international MOU or ITMO agreement, for instance, can be agreed upon between the two Parties. The method of calculating the return will have to be determined on a bilateral basis between the host and recipient countries. For instance, options could include: 1) a balanced percentage of emissions reductions; 2) a declining ratio for implementation reaching “business as usual” point in time; and/or 3) transfer agreement related to energy cost savings measures. In any case, the decision will have to be transparent.

The Joint Crediting Mechanism (JCM), developed and led by Japan with cooperation across numerous partner countries, is a precedent which validates the potential of such mechanism. The JCM’s innovative, transparent and potentially scalable model to cooperative approaches and technology-reduction transfers should be referenced as markets negotiators move to operationalize Article 6. Under Paris Agreement, this crediting scheme should be applicable to any clean technology - CCS being an excellent candidate.

The transfer of Canada’s CCS knowledge and expertise (including an entire capacity building and training program, policy, engineering, safety, construction, economic modelling, etc.) is an opportune example of a pilot ITMO arrangement. It can result in considerable emission reductions in other countries that would benefit from the technology.

Ideally, the ITMO could be designed to result in a reduction of emissions reflected within Canada’s National Inventory Report as negotiated through subnational cooperation agreements. In this regard, the quantification of emission reductions and transfer of ITMOs become very important. Canada is currently
leading the global efforts for developing the ISO standards for CCS. This puts Canada in a unique position to use the exchange of credits with the partnering country for CCS technology transfers and to set a precedent for international transactions of ITMOs that ensure the environmental integrity as well as eliminate double counting of the units transferred.

**Contact**
The Knowledge Center welcomes inquiries and further discussion related to, and beyond the matter of this document. For more information, please contact Ms. C. Beth Hardy - Vice President, Strategy & Stakeholder Affairs ([bhardy@ccsknowledge.com](mailto:bhardy@ccsknowledge.com)).