GLOBAL CCS INSTITUTE

CARBON CAPTURE AND STORAGE POLICY INDICATOR (CCS-PI)

The Institute has developed an analytical framework to derive a composite indicator that compares levels of national policy support to drive domestic action on CCS.

Results from the inaugural run of the Institute's CCS Policy Indicator (CCS-PI) confirm that:

- Policy leadership in CCS demonstration continues to rest with Australia, Canada, the Netherlands, Norway, UK and USA
- China is also well positioned as a major influence on the future global success of CCS developments in the medium term
- Countries like India, Indonesia and Russia may be well served by elevating more supportive CCS policy environments.

For a growing number of key countries – both developed and developing – their national interests seem well served by encouraging CCS developments to mitigate the risks associated with the impacts of climate change (through emissions management), continued reliance on fossil fuel production and use (for energy access and security reasons), and avoiding the potential stranding of long-lived and economically productive energy assets.

The composite indicator (CCS-PI) includes two indexes (Inherent CCS Interest Index and Constituent Policy Index), which in turn are made up of: lead indicators (fossil fuel production, fossil fuel consumption, adoption, demonstration, and deployment); sub indicators (oil, gas, coal, comprehensiveness, appropriateness and adequacy); and variables (policy instruments). Aggregated, these metrics allow a comparison of the relative levels of country policy support for CCS demonstrations and deployment. Its construction adopts mostly an approach that explores the policies currently in place, as opposed to the potential of likely future policies (although consideration is provided for both).

The derived indexes of a country are subsequently assigned to one of the following tiers: upper (for index scores in the upper 10 percentile range of results), upper-mid (for scores in the 50 to 90 percentile range), lower-mid (for scores in the 10 to 50 percentile range), or lower (for scores in the lower 10 percentile range). These tiers indicate a country's index score relative to the group of countries examined.

The composite indicator (CCS-PI) aims to provide one proxy for the relevance of national policy settings in regards to CCS activities in an apolitical manner.

The benefit of an indicator such as the CCS PI is not the absolute results but the relative positioning of nations and gaining a better understanding of the extent to which positions change over time and for what reasons. What is clear from the global inventory of CCS relevant policies which is an essential element of the CCS-PI, is the apparent and widening differential between the limited policy support for CCS and that increasingly being afforded to other clean energy options.

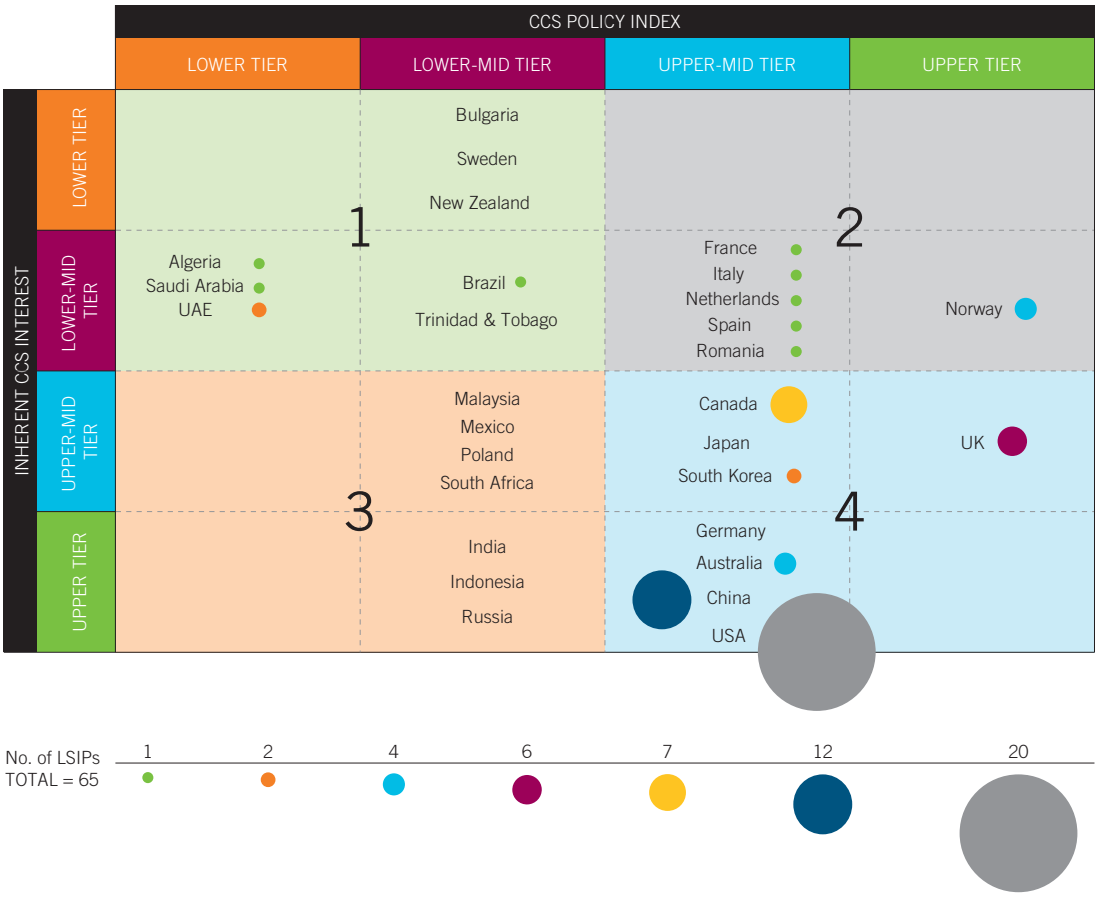
CCS-PI RESULTS

The initial results of the CCS-PI are presented as a matrix with the two leading indexes making up the X (Constituent Policy Index) and Y (Inherent CCS Interest) axes (see diagram 1).

Inherent CCS interest is a relative index based on global shares of fossil fuel production and consumption. It provides one indication only (among many possible methods) of the underlying potential interest countries may have in implementing policies that locally contribute to the global CCS development effort.

Countries in quadrant 1 generally have CCS policy environments which reflect an early stage of technology demonstration, aligned with a relatively low level of inherent CCS interest. Some are undertaking CCS activities, including large-scale integrated project (LSIP) activities, which allow them to prepare for future deployment. Future policy activities that countries in this quadrant might consider could include increasing their indigenous capacity to adapt integrated CCS solutions to localised conditions once solutions have been proven to be technically and/or financially appropriate.

DIAGRAM 1



The countries located in quadrants 2 and 4 have policy environments that demonstrate a higher-order potential to support CCS activities. These countries are committed to strategically positioning themselves to capitalise on the future benefits that CCS offers in terms of sustained environmentally responsible use of fossil fuel, large-scale mitigation outcomes and lower cost transition pathways to future lower carbon signatures. It is very likely that countries located in quadrant 4 will continue to have the greatest influence on the future of CCS deployment over the medium term.

The countries located in quadrant 2 do not necessarily have the same policy settings as those located in quadrant 4, and as such, they may well consider targeting the institutional and market barriers that tend to most inhibit domestic CCS demonstration projects from proceeding. Countries in quadrant 4 might consider appropriate policies that help accelerate the business case for CCS deployment by placing a greater emphasis on more transparent, non discriminatory and market based approaches that can encourage private sector investment in an ever maturing CCS industry.

Countries located in quadrant 3 have relatively high levels of inherent CCS interest but their policy environments present as being relatively underdeveloped. In cases where CCS is identified as being a critical component of their low carbon development goals, this need not necessarily mean that new policy responses require significant allocations of additional and/or new resources.

Many of these countries will likely remain focused on the early phases of the CCS technology chain for some time and so stand to benefit greatly from the many positive spillovers which are already being generated by international efforts elsewhere (especially countries in quadrants 2 and 4).

As such, enhanced policy action for many countries located in quadrant 3 may include capacity development efforts and institutional strengthening (developing regulatory frameworks).

While the Institute does not argue for or against specific policies to support CCS, or indeed any other clean energy option, it does argue for equitable policy treatment between all large-scale mitigation solutions considered essential to the effort against climate change.

[1] Global CCS Institute, *Global Status of CCS: 2013* report Appendix C