The Role of Stakeholder Engagement in Assessing Climate Technology Potential in Ireland

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Extensive analysis on the required mitigation and adaptation response to climate change is ongoing at both an international, national and regional level. While climate change will be global in its reach, it will be local and varied in its impact; for Ireland, higher average temperatures and increased precipitation are predicted. While the precise implications in terms of economic and social impact remain highly uncertain, the need for new climate technologies, which will form part of the response to the huge climate change challenge, has been highlighted recently by the EPA in their 2012 publication, "Ireland's Environment – An Assessment". Inherent in the climate change challenge, is an opportunity to develop and procure new and innovative climate technologies.

In terms of the opportunity for Ireland, the EPA is funding a Climate Technology Fellowship at UCC entitled Climate Technology – Realising the Potential. This project will examine and identify potential technologies at the idea, development or commercialisation stages; the project will also investigate technology potential at points where Ireland's unique climate change challenges and particular research strengths are aligned. To date, much emphasis has been placed on the need to mitigate global warming by reducing emissions of harmful greenhouse gases (GHGs). However, it is also very important to develop technological solutions that enable humans and ecosystems to remain resilient under changing climatic conditions. For example successful adaptation to climate change will require improvements in water and energy management, new strategies for flood control, improved farming techniques and better early-warning systems for disasters. The motivations for this project are to bridge the gap between the demand and solutions space in addressing climate change challenges. The project will conduct a wide-ranging review of climate technology research in Ireland, followed by a multi-criteria evaluation, which will be conducted and informed by broadly sourced stakeholder input.

The project methodology will incorporate the principles of a Technology Needs Assessment process, whereby the criteria for the multi-criteria assessment are chosen through a stakeholder engagement process. This process will be conducted in two stages: firstly, a long list of criteria will be created by the core project team; secondly, a short list of criteria will be selected by the project team in collaboration with the project steering group. For the multi-criteria methodology adopted, a weighting and scoring system for each criteria, either relative or absolute, will be chosen. This will enable diverse technologies to be comprehensively evaluated and fairly compared.

Informed by a framework of climate change mitigation and adaptation forecasts for Ireland, the project will conduct a wide ranging review of climate change research and technologies in Ireland. This part of the project will involve extensive stakeholder involvement across universities, research groups, funding bodies, industry partners, etc. Extensive data will be gathered on all pertinent climate technologies and the scoring of each technology, under each

criteria, will be conducted by the project team with oversight by the project steering group. The anticipated output of this process will be a number of high-potential climate technologies. Following the multi-criteria analysis, the later stages of this project will involve a barrier analysis on the obstacles to success for the high-potential climate technologies. This process with also be conducted with stakeholder engagement from IDA and Enterprise Ireland.

The Climate Technology Fellowship is at an early stage and since stakeholder engagement is a key part of the project, the Environmental Citizenship Conference will be an ideal forum to make further connections. Engagement will be actively sought with researchers of climate technology; in addition, input from researchers in the economics, business and innovation spheres will be sought in terms of contributions which could refine and guide the multi-criteria process and evaluation.