Accelerating Transformational Change: Opportunities and Barriers

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Major Economies Business Forum

Business Engagement in Implementing NDCs and the Paris Agreement
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• Assumed that each INDC was implemented domestically using an ideal, economy-wide GHG tax (theoretically the least cost option)
• Transformed all INDC results to a 2005 base year and outcomes in 2030
• Considered also GHG emissions pathways to 2030, 2050 and 2100 (constrained using a common global GHG tax) to consider outcomes for a range of warming through 2100
Comparison of CO₂ marginal abatement costs

INDCs were each implemented using an economy-wide, domestic GHG tax (theoretically the least-cost policy to achieve the pledge)
Global GHG emissions of the aggregated INDCs & illustrative emission pathways to 2100 toward 2 °C goal

- **Baseline emissions reported in the IPCC AR5**
- **Sample stabilization scenarios using harmonized global carbon tax**
- **Source:** Estimate by RITE

- **Historical emissions**
- **Emission outlook under current policies**

**GHG emissions (GtCO₂-eq./yr)**

- About 6$/tCO₂ in 2030 under the least cost measures for the achievement of the expected global emission reductions by INDCs
- About 320$/tCO₂ in 2050 even under the least cost measures
- About 6$/tCO₂ in 2030 under the least cost measures for the achievement of the expected global emission reductions by INDCs
- About 70$/tCO₂ in 2050 even under the least cost measures

**Transformational change requires massive, sustained investment to develop and deploy advanced technology systems globally**

**INDC submitted by October 1 (119 countries) assumed to be implemented**
Opportunities and barriers to meet challenges

• Opportunities
  – More efficient and effective policies based on economy-wide GHG-pricing
  – Opportunities for synergy: mitigation, adaptation and development, especially in rapidly growing and least developed nations
  – Rewards for successful innovation
  – Build now the enabling capacities and frameworks to accelerate transformation
  – ...

• Barriers
  – Competitiveness issues in a mosaic world
  – Lack of affordable, scalable mitigation options
  – Confidence to plan, approve and implement massive investments in facilities and infrastructure for advanced technologies
  – ...

Current policy debate fails to communicate the pace and scale of meeting implied transformational change, and associated business risks
Pace and scale of transformational change

• Transformational change will require 1000s of multi-billion $ investments per year, many in technologies that are currently non-commercial
  Investments in energy supply and distribution need to ~double from ~1 to ~2 trillion $/year and be sustained for decades

• Investments involve: technology, facilities, infrastructure, supply and value chains, human skill sets

• For the private sector to undertake such groundbreaking and transformational investments will require confidence that:
  – Investments will generate an adequate, risk-adjusted rate of return
  – activities to plan, approve, construct and operate them go forward on schedule
  – proposed long-term policies are sustainable

• Additional challenges:
  – Project inflation when investment environment overheats: higher costs, delayed execution, sub-optimal performance
  – Competitiveness in a mosaic world: harmonized C-tax a chimera
  – Managing transitions of disadvantaged workers, suppliers and the communities where they operate
Identify and address them

- Start an ongoing dialogue (business, government, NSAs) to discuss and understand barriers, promote solutions

- Proactively address them: Build enabling capabilities
  - Research and Innovation to generate and develop technology leads
  - Human capabilities in STEM and other areas
  - Maintain and promote fair and open trade and investment to encourage more rapid global deployment
  - ...

- The response to failure to meet ambitious targets is not to call for yet more ambitious targets….
- Rather, it is to create options and capacity for better solutions
Thank You

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