Major Economies and Climate Change Research Group

Russia, Japan, Canada & Australia

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EXECUTIVE SUMMARY

Japan and Australia's policies and pledges to reduce greenhouse gas (GHG) emissions are in question, due to safety concerns surrounding nuclear power generation in Japan and the recent shift in Australia's climate change policies. Russia and Canada have made substantial commitments to reduce their GHG emissions. However it is unclear whether Canada will be able to meet its target as emissions from its oil sands production continue to grow rapidly. Russia should be able to meet its GHG mitigation target, since its baseline emissions figures were set prior to the economic and industrial collapse following the dissolution of the USSR.

Russian Federation

The most important prospects for Russian mitigation activities lie in the energy production and energy efficiency sectors. Russian mitigation activities will likely include the expansion of nuclear power generation; improvement of efficiency in oil and gas and power and heat production; and the improvement of energy efficiency in industry and residential and commercial buildings.

- Economically attractive mitigation in energy production can abate 159 $MtCO_2e$ in 2030, and energy efficiency measures can abate 242 $MtCO_2e$ in 2030.

Primary Barriers:

- Changing the way Russian consumers are charged for energy and heat use, such as a shift to metering, could be met with stiff resistance.
- Availability of financing for efficiency improvement projects will determine if the full potential for energy savings and GHG mitigation is achieved.

Key Recommendations:

- **Liberalize energy prices:** Energy prices should be more market-based to incentivize efficiency.
- **Clarify regulatory trajectory and provide financing:** Clear regulations and financing are required to overcome uncertainty and volatility and incentivize investment in the replacement of aging capital.

Japan

Japan's potential to maintain the GHG mitigation path it was on came into question after the 2011 Fukushima nuclear reactor accident and subsequent deactivation of all of its nuclear reactors. If fossil fuel power generation capacity is constructed, it must be high-efficiency and low carbon-intensity technology. Energy efficiency measures should be prioritized to prevent the need for construction of additional fossil fuel generation capacity that can be avoided.

Primary Barriers:

- Costs and delays associated with applying to restart nuclear power plants could make it uneconomical for most of Japan's reactors to be restarted.
- Efforts to reduce the cost of electricity, at the behest of consumers and businesses, reduce pressures to improve the efficiency of energy use.

Key Recommendations:

- **Provide assistance to cover costs associated with nuclear shutdown:** Nuclear plant upgrades should be subsidized for plants with significant life-span remaining.
- **Reduce demand for electricity:** Energy conservation and efficiency programs should be pursued before shifts to cheaper and dirtier fuels, or other cost-reductions.

Canada

The combination of Canada's recent lackluster federal climate policies and growing emissions from oil sands production requires immediate abatement measures in the sectors with the most potential: energy production and transportation. Several abatement measures include the introduction of federal oil and gas regulations, continued investment in CCS and renewable technologies, and increased incentives for electric vehicles (EVs).

Primary Barriers:

- Canada's economic priorities, which benefit greatly from production of the oil sands, take precedence over taking strong action to reduce emissions in this sector.
- Canadians are highly dependent on their personal vehicles, and there is little coordination among provincial transportation emissions policies.

Recommendations:

- **Strengthen regulations:** The federal government should introduce its long-awaited oil and gas regulations, and Alberta should consider adopting a revenue-neutral carbon tax, similar to that of British Columbia, to replace its current carbon-pricing levy.
- **Promote CCS and EVs:** The federal government should increase its support of CCS development and more provinces should adopt EV incentive programs.

Australia

Recent changes to Australia's federal policies have caused widespread skepticism regarding its continued commitment to strong climate change action. In an effort to rectify this, the federal government should pursue mitigation measures in the sectors with the highest emissions and abatement potential: energy production and agriculture, forestry and other land use (AFOLU).

Primary Barriers:

- Emissions reductions under the Direct Action Plan are projected to be insufficient.
- A significant cost is associated with avoided deforestation and afforestation efforts.

Key Recommendations:

- **Increase collaborative efforts:** State, territory, and local-level governments and NGOs should work to strengthen their collaborative climate change mitigation efforts.
- **Expand the Carbon Farming Initiative:** Priority should be given to projects that focus on enteric fermentation, avoided deforestation, and afforestation.