# Climate Policy Quest
Backgrounder

What Makes a Good Climate Change Policy?

When designing a climate policy, there is no single solution that caters to all scenarios. Climate policy is a process of give and take, where policy makers have to consider all the different instruments at their disposal to create the most optimal future scenario that meets the overall goals. Although there is no way to judge the best climate policy, below are some of the factors that can guide the effectiveness of the proposed policy.

- **Certainty of Abatement:** Ensuring the policy employed demonstrates certainty of reducing greenhouse gas emissions. This is particularly important for R&D and technology fund programs where there is an innovative and new approach to reducing emissions.

- **Overall Cost of Abatement:** Abatement cost refers to the cost associated with reduction of greenhouse gas emissions. Policy makers typically use a Marginal Abatement Cost (MAC) Curve to understand the different emissions mitigation options available relative to a baseline, where the options are compared in terms of their economic abatement cost ($/CO2e) (Tempest, 2016). An example of a MAC Curve is provided (right) from the King County's Climate Action Plan 2016, where different mitigation options are compared in terms of their $/MTCO2e.

ESTIMATE OF COST EFFECTIVENESS OF SELECT GHG EMISSIONS REDUCTIONS STRATEGIES IN THE U.S. (McKinsey & Company, 2007)
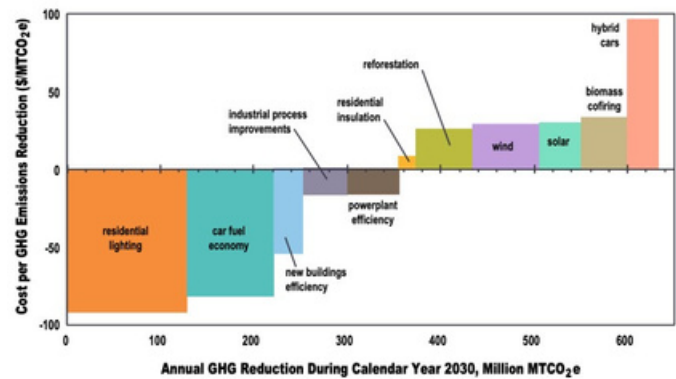
Source – (King County, 2015)

- **Economic Signal:** Ensuring the policy employed achieved energy savings by giving an economic signal to all parties to inspire behaviour change and influence parties to buy efficient products (Harvey, 2018). The policy should offer long-term certainty of the economic signal to give enough confidence for businesses to make changes to their business plans. For instance, if a carbon tax imposed on fossil fuels is authorized only for a few years with no certainly of renewable considering a government change, businesses may decide to pay the tax as opposed to investing in large R&D to lower their emissions, as paying the tax may be more economical than making the investment (Harvey, 2018).

- **Flexibility for Industry:** Ensuring the policy employed allows for utilizing different

instruments and flexibility to encourage industry compliance. For instance, market-based approaches such as a cap-and-trade system offer flexibility for participants by trading excess permits.

- **Flexibility for Regulators:** Ensuring the policy employed allows flexibility for regulators and is not overly prescriptive. For instance, the policy should focus on the outcomes it needs to accomplish as opposed to mandating the adoption of a certain technology.

- **Fostering Innovation:** Ensuring the policy employed encourages innovation and investment into research and development of new technology that transitions the industry towards a lower carbon future. For instance, the revenue generated from a carbon tax imposed on fossil fuels can be invested in innovation towards new technology. This ensures diversification of energy portfolios, generating newer jobs and ultimately, transitioning towards a low carbon future.

- **Coverage of Total Emissions:** Ensuring the policy employed covers all relevant greenhouse gases in its inventory. When designing the greenhouse gases inventory, policy makers will typically refer to the Global Warming Potential (GWP) of each gas, which allows comparing the global warming caused by different gases. GWP is a measure of the amount of energy absorbed by emissions of a certain gas overtime, relative to carbon dioxide emissions (United States Environmental Protection Agency, n.d). In conclusion, a strong climate policy contains various policy instruments used in conjunction, where all individual levers reinforce one another and drive down the overall costs of emissions abatement. This should be used together with quantitative methods for tracking a country's emissions to ensure an accurate measurement of progress towards achieving emissions targets (Harvey, 2018).

Bibliography

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