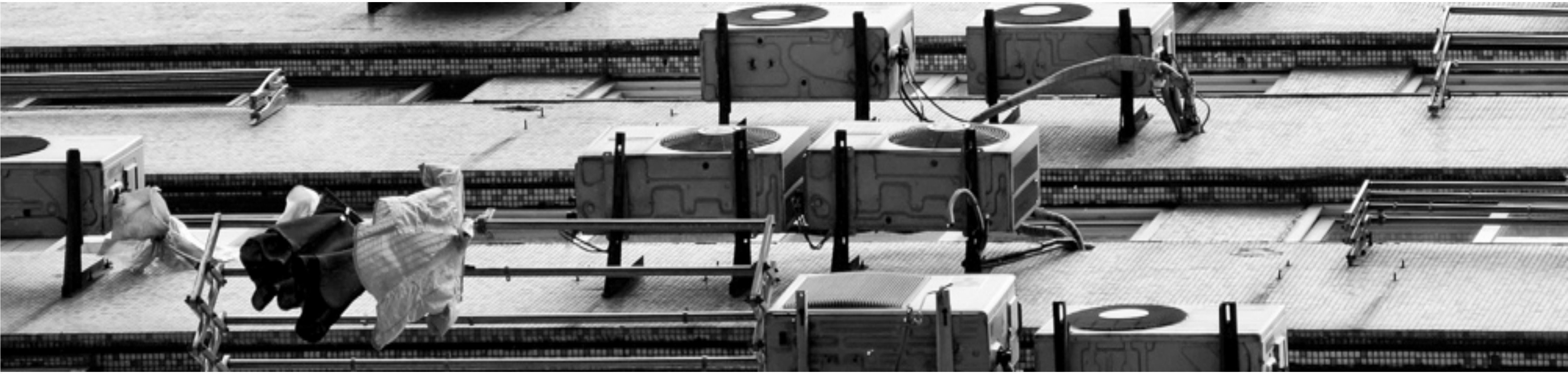
Climate Moonshot



HFC Program

Proposal to Investor Partners

The Opportunity –
Benefiting from a low hanging fruit of climate action

- HFC (hydrofluorocarbon) emission reductions can deliver substantial climate benefits
  - Carbon emissions from HFCs exceed all emissions by the UK and France combined and are growing at 10%-15% p.a.
- HFC emissions can be reduced very cost-effectively
  - Cost is roughly two orders of magnitude lower than the cost of cutting fossil fuel consumption
- The HFC Program targets emission reductions through results-based payments to governments
- Investors receive inexpensive and high quality carbon credits supporting their voluntary carbon targets
  - HFC carbon credits are differentiated by being generated by a global scheme, by the credibility of the link to the Montreal Protocol, and their very substantial, globally meaningful climate impact
  - For example invest $10 million p.a. over 5 years and receive 50 million carbon credits (CO_2e ton) to offset
    - >100% of Switzerland's entire annual greenhouse gas emission
    - ≈1,000% of Virgin Atlantic's carbon footprint
    - the lifetime carbon saving of ≈2,000MW solar PV installation compared with natural gas generation
- Target size of HFC Program is $1 billion p.a. in ten years time
  - By 2050, climate impact is 10+ billion ton CO_2e and capital mobilized is $10+ billion
  - This means emission savings on the scale of an entire year's global carbon emissions

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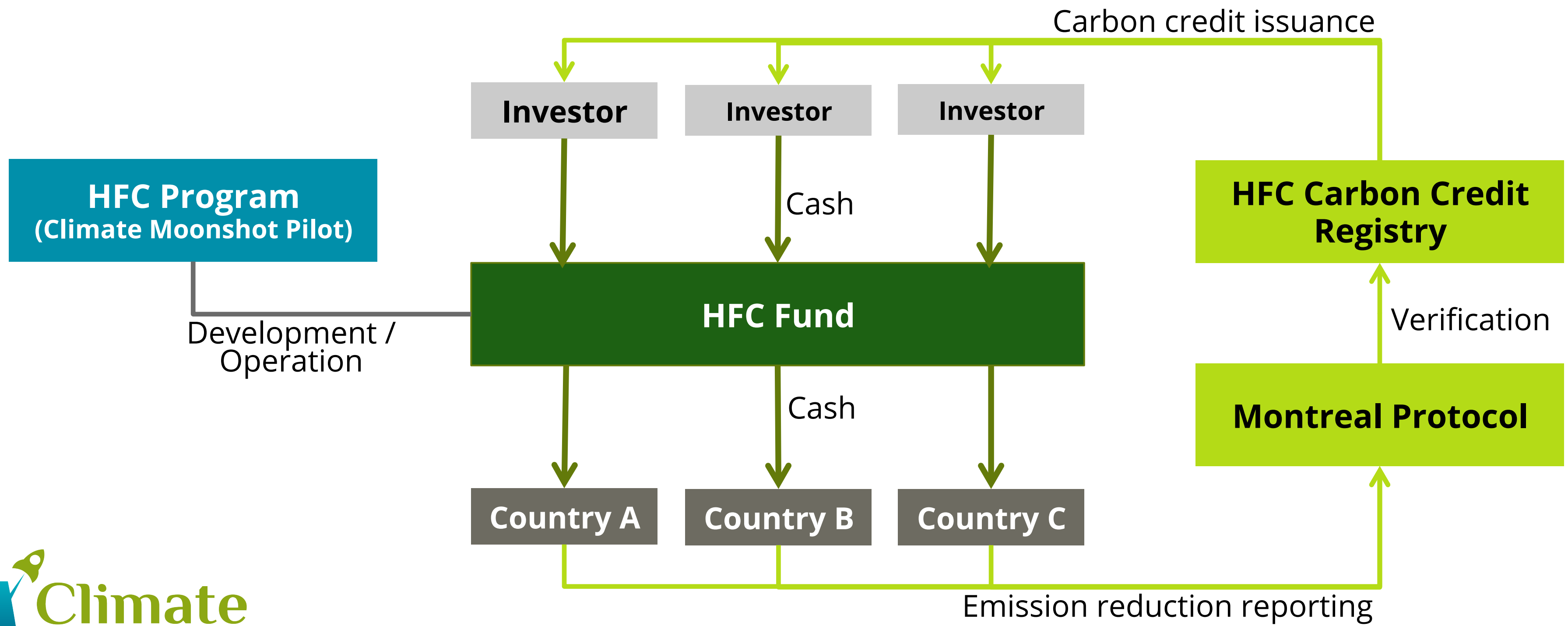
Background on HFCs and Kigali Amendment

- HFCs, industrial gases mainly used in cooling/heating and insulation, are important greenhouse gases
  - Annual HFC emission levels are around one billion ton CO2e or 2% of all GHG emissions
  - HFCs are one of the fastest growing greenhouse gases with a growth rate of 10% - 15% p.a.
  - HFCs have a very high global warming potential ranging from 50-14,800 CO2e
- The Kigali Amendment of the Montreal Protocol was agreed in October 2016
  - The Montreal Protocol is one of the most successful international environmental agreements and has a strong existing institutional capacity and track-record
  - Aim of the Kigali Amendment is to limit and reduce the emission of hydrofluorocarbons (HFCs)
- The Kigali Amendment imposes binding emission caps for HFCs
  - Reductions introduced gradually e.g. starting only from 2029 /2032 for developing countries
  - Faster emission cuts represents a great opportunity for climate change mitigation
- HFC emission reductions are a very cost-effective approach to limit global warming
  - HFC abatement costs are roughly two orders of magnitude lower than the cost of cutting fossil fuel consumption

Accelerating HFC cuts through results-based payments

- The HFC Program delivers emission cuts through results-based payments offered to governments
  - HFC Fund pays governments annually for every CO2et reduction achieved by their country beyond the requirements of the Kigali Amendment. E.g $1/CO2et could provide a strong incentive
  - Governments deliver national emission reductions through their various policy tools (e.g. regulations, taxes, subsidies, R&D, procurement power)
  - HFC Fund finances annual payments through the contribution of voluntary financing partners
  - In return, financing partners receive internationally recognized carbon credits that help achieve their carbon targets at an attractive price



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Comparison of REDD+ and the HFC Program

- Both REDD+ and the HFC Program rely on results-based payments and offer great potential climate benefits, however there are some differences between the two programs

	REDD+	HFC Program
Baseline reference level	▪ Difficulty of establishing reference levels ▪ Balancing risk of too strict and too lax reference levels	▪ Reference levels established by Kigali Amendment ▪ Future baseline years for developing countries creates need for BAU reference levels
Measurement Reporting Verification	▪ Technical Assessment of national reporting does not verify emission reduction	▪ Institutional capacity / track record of the Montreal Protocol, incl its Secretariat, Multilateral Fund and Implementation Committee can be leveraged
Leakage / Additionality	▪ Possible leakage across borders ▪ Difficulty of assess leakages	▪ Binding caps covering all countries avoid leakage across borders and ensure additionality
Safeguards	▪ Complexity of safeguarding sustainable development, human rights, rights of indigenous	▪ Regulation of industrial gases and suitable HFC substitutes is relatively straightforward
Financing of incentives	▪ Targeting market and non-market funding sources	▪ Private investor funding in exchange for credible carbon credits used for voluntary carbon targets
Prerequisites for implemen-tation	▪ Need for national capacity building and REDD+ agreements (eg with FCPF) before implementation	▪ No additional international agreement or government action required for implementation

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HFC Fund Investors – Proposal

Role	▪ Investors finance the Fund and the results-based payments made to countries for actual emission cuts
Benefits / USP	▪ Investors receive low cost, high quality carbon credits to help achieve their voluntary carbon targets ▪ HFC carbon credits differentiated by i) being generated by a global scheme and not to individual projects, ii) the credibility offered through the link to the Montreal Protocol / UNEP, and iii) their substantial and globally meaningful climate impact and billions of tons CO_2e reduction
Indicative Terms	▪ Investors to commit USD [•] million to purchase HFC carbon credits from the Fund over the five year period 2019-2023 (Phase 1) ▪ Price per carbon credit ("**Price**") to be capped at USD [•] / CO_2e ton. Price to be determined by the Fund each year in order to optimize impact and to apply to all Investors undifferentiated ▪ Carbon credits and capital calls to be allocated among Investors pro-rata based on their total commitment. The share of defaulting Investors will be reallocated among other Investors ▪ Investors in Phase 1 to receive a right of first offer / right of first refusal for commitments raised for Phase 2 for an amount up to their respective commitment for Phase 1 ▪ The HFC carbon credits will be created and tracked by the HFC Carbon Credit Registry ▪ Sub-ordinated Investors (e.g. Green Climate Fund or other international organizations /NGOs) might provide additional carbon credit price support or credit support for the Fund
Next steps	▪ Non-binding Letter of Intent indicating interest in the the HFC Program and envisaged size of investment ▪ Letter of Intent secures partnership status of the HFC Program as well as option rights for participation

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