Frederick S. Pardee Institute for International Futures

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Charged for Change: The Case for Renewable Energy in Climate Action

In Collaboration With | UNDP & Octopus Energy

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Project Summary

The Pardee Institute collaborated with the United Nations Development Programme (UNDP) and Octopus Energy to examine how ambitious renewable energy goals can impact climate and human development outcomes. The study uses the Pardee Institute's International Futures (IFs) platform to quantify the impacts of three possible future scenarios of renewable climate action, or inaction, to provide an evidence-based foundation for revising and implementing Nationally Determined Contributions from the Paris Agreement for over 120 countries. Findings suggest that a just, 1.5°C-aligned energy future with economic gains is possible, and that if renewable energy expansion is coupled with policies towards attaining Sustainable Development Goals (SDGs), we can create a virtuous cycle of development that delivers a triple-win impact - advance energy access, climate action and human development.

Research Question(s)

- What would change if renewable energy targets became more ambitious and aligned with SDGs?
- What are its quantifiable impacts on climate and human development, relative to a Base Case scenario?

Key Findings

By 2060, policies prioritizing renewable energy and human development could result in:

- \$48 trillion USD in additional global GDP
- 373 million more people with electricity access
- 193 million fewer people in extreme poverty
- 142 million fewer people suffering from malnutrition
- Limiting post-industrial global average temperature change to 1.5 degrees Celsius
- Early renewable investments can unlock up to \$20 trillion in cumulative energy cost savings

Core Activities and Media Mentions

- Report: Charged for change: The case for renewable energy in climate action
- UNDP Blog Post: <u>Investing in renewable energy will usher in a better future for all here's why</u>
- Media: Clean Energy, Shared Future; Just transition to renewable energy

