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Draft
26 January 2011

**PROSPECTS FOR RAMPING UP RENEWABLES:
A GLOBAL PERSPECTIVE**

Executive Summary
[CIA lead]

Scope Note
[CIA lead]

- Identify this as a joint intelligence product (UK, S. Africa, Australia, US)
- Focus is on wind, solar, biomass, and geothermal for electricity generation and alternative fuels for transportation

Introduction: Renewables Begin From Small Base
[CIA lead]

- Reasons for ramping up use of renewables
- IEA/international forecasts to 2030
- Challenges/costs ahead

Adoption Potential, Approaches Vary By Region
[Joint]

- Introduction
Foci, targets, and investments will vary
- EU/UK [CIA lead]
Carbon capture and storage
Wind and solar
Biofuels
- South Africa [South Africa lead]
Alternative fuels (including coal to liquids and gas to liquids)
Solar and wind
- Australia [Australia lead]
Alternative fuels (including coal to liquids and gas to liquids)
Solar and wind
- N. America [CIA lead]
Renewables
Oil sands

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Renewables Critical in Meeting Climate Targets

[Joint]

-Examines the required role for renewables in reducing CO2 and GHGs

Alternative Fuels for Transport to Offset Oil

[CIA, South Africa, UK lead]

-Examines potential for unconventional sources of oil (incl. gas-to-oil, coal-to-oil, and biofuels)

-Discusses required market and price incentives

Future Contingent on Key Technologies

[Joint]

-Smart grids and meters

-Low energy-intensive building materials

-Energy storage

-Car batteries (incl. long range)

Looking Ahead: Global Coordination Pivotal

[CIA lead]

-Examines possible unintended consequences

-Identifies opportunities for global cooperation

-Examines role of continued government support

TEXTBOXES

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1) Critical Metals in Short Supply (incl. rare earths, lithium, cobalt)

[South Africa lead]

2) CCS: A Realistic Promise?

[CIA lead]

3) Geopolitics of Renewable Energy

[UK lead]

4) Electricity Is The Key Driver for Renewables, Economic Growth

[CIA lead]

5) Intelligence Requirements, Collection Gaps on Renewables

[Joint]

I would like to seek your assistance and update you on plans by the CIA climate change center to lead a joint effort with the UK, South Africa, and Australia intelligence services. This effort is intended to provide CIA with a deeper understanding of the potential for ramping up renewable and clean energy in key parts of the world and a better understanding of the collection capabilities and interests on renewables in the UK, South Africa, and Australia.

To move forward from this point, can you please **seek final approval from your country's respective intelligence services to go ahead with the project**, with the understanding by them that, altogether, four intelligence services will be involved with the project. Also, assuming they offer a final go-ahead, **provide each service with the draft outline of the paper (attached above), seeking their suggestions/changes/concurrence**. This is a draft outline and if any of the participants want to focus on additional issue areas, that would of course be welcomed.

I have marked 'South Africa lead' on the sections of the paper that I believe are most pertinent to South Africa related issues.

Thus, everything looks great re: the overall project--we hope that [REDACTED] and his staff will agree to write the relevant sections, and they are of course welcomed to add to other sections or revise the outline if need be. All in all I suspect it will take one or two months for all sides to write their parts--but I will follow up with a rough schedule later, once all parties are agreed. The issue area of 'renewables' have become even more strategic in the last several weeks, as the UK, Germany, and now the US have established long-term energy strategies requiring 80% dependence on renewable and clean energy by the 2035-2050 period. At this early stage we have already identified numerous challenges and potential problems with such ambitious targets--but our joint paper will certainly be well-timed.



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