Offshore Wind Development in The Bahamas: Opportunities and Threats

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Did You Know?

A few things you may not know about small island developing States:

General

- There are currently 39 small island developing States in three geographic regions: the Caribbean; the Pacific; and Africa, Indian Ocean and South China Sea.
- These small islands have a combined population of 63.2 million people and a combined gross domestic product (GDP) of $575.3 billion.
- Small islands face a unique set of challenges due to their small size and remote location. They are also highly vulnerable to climate change and natural disasters.
- While they have many things in common, the standards of living among small islands differ widely, with GDP per capita ranging from $51,000 in Singapore to $830 in Comoros.

Economy

- Small island developing States benefit in different ways from an intimate relationship with the oceans. Singapore, for instance, makes use of its strategic geographic position within the global trading system. Other countries such as the Marshall Islands and Tuvalu, depend on their marine resources.
- For small islands in the Pacific, tuna fisheries contribute more than 10 per cent of GDP and in some islands more than 50 per cent of their exports. Fish also contribute at least half of total animal protein intake in some small islands.
- In Samoa and Fiji, coconut trees and their products account for 30 per cent of GDP and the majority of small-scale farmers are dependent on coconuts for their livelihoods.
- Coral reefs provide an estimated $375 billion per year in goods and services to the world. This includes support for marine fisheries, which provide the principal protein source for many island populations.
- Tourism is a vital sector of the economies of most small island developing States. Tourism receipts represent more than 30 per cent of their total exports; in comparison, the average for the world is just over 5 per cent.
- The Caribbean region receives more than 21 million visitors each year. If the region were a single country, it would be the third most visited in all of the Americas, behind the US and Mexico, and the 14th most visited worldwide.
Overall Area: 1 mill sq mi
Land Area: 92,000 sq mi
13 sovereign states
17 dependent territories
Small Island Developing States

Tourism, financial services, shipping

Tourism alone, 16-60% of GDP

Moderate unemployment

Dependent on imports

Caribbean Common Market and Community (CARICOM)

US, EU, and Venezuela
Energy

Net energy importers (except T&T)

Oil refineries (local/regional markets)

Electricity via oil-fired power plants

Average cost, US$0.22 per KWH, max US$0.43-0.59 per KWH
Electricity

Antiquated plants & grids (poor distribution)

Poor distribution = unreliable

Impacts on residential and commercial/industrial sectors

Local, regional, global environmental impacts
70,000 gallons of BEC fuel spills

Teams dispatched to Eleuthera

Travis Cartwright-Carroll
Guardian Staff Reporter
travis@nsguardian.com

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An estimated 70,000 gallons of fuel has spilled into the ground from a Bahamas Electricity Corporation (BEC) fuel storage facility for the Rock Sound, Eleuthera, power station, BEC confirmed last night.

The fuel spill was discovered around 9 a.m. Tuesday, officials said, but it was not made public before yesterday.

"Although the storage tanks in this area, located in the
Tropical Ecosystems

High biodiversity

Endemism

Fragile and important

Global and Planetary Change

The significance of coral reefs as global carbon sinks—response to Greenhouse

D.W. Kinsey\textsuperscript{a}, D. Hopley\textsuperscript{b}
COMMONWEALTH OF THE BAHAMAS TAKES ON RENEWABLE ENERGY CHALLENGE

"THE BAHAMAS'S ENTRY INTO THE TEN ISLAND CHALLENGE SIGNALS ANOTHER HUGE STEP FORWARD FOR THE CARIBBEAN REGION IN THE EFFORT TOWARDS A CLEAN ENERGY FUTURE. THE PROGRESS MADE IN THE BAHAMAS WILL HELP INSPIRE OTHER ISLANDS TO WORK TOWARDS ACCOMPLISHING THEIR RENEWABLE ENERGY OBJECTIVES,"

Sir Richard Branson, Founder of Carbon War Room

December 10, 2014

The Commonwealth of the Bahamas is joining the Carbon War Room's Ten Island Challenge, committing to a 20MW solar project, energy efficiency solutions for a local high school, and a nationwide streetlight retrofit among other projects.
https://www.youtube.com/watch?v=lQng2YW-DLg&feature=plcp
What is the Potential for Offshore Wind Energy Production?

Reduce per KWH costs, reduce imports, increase reliability, reduce impacts?

Can offshore wind energy production work in conjunction with other initiatives to foster ‘sustainable development’ in The Bahamas?