

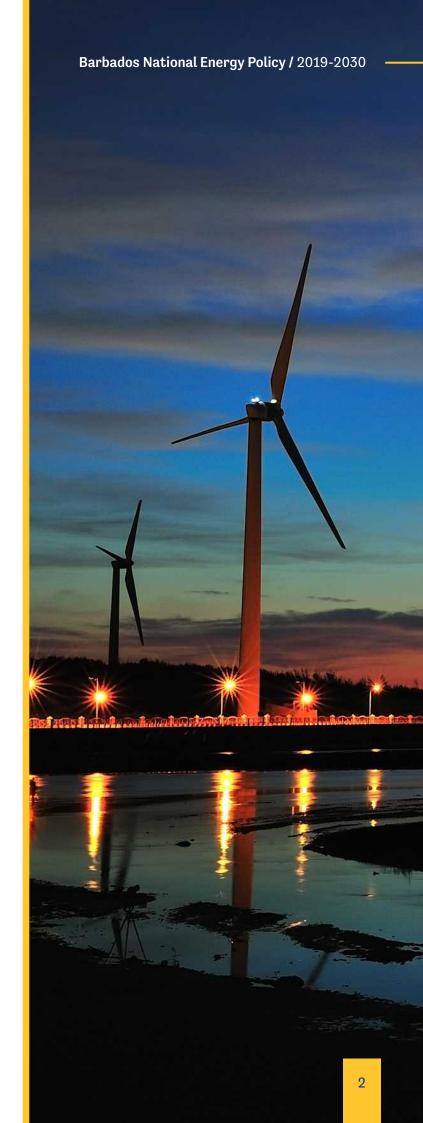
Energy security and affordability through diversity and collaboration: Establishing and maintaining a sustainable energy sector for Barbados.

The Barbados National Energy Policy (BNEP) 2019-2030 document is designed to achieve the 100% renewable energy and carbon neutral transformational goals by 2030, becoming the first island-state in the world to do so.

Our goal is to be 100% renewable by 2030!

BNEP is an energy revolution that will enrich the lives of all Barbadians and inspire others around the world.

Over the years, Barbados has sought to maintain an energy sector where energy resources are universally available at reasonable prices. The island can be proud of the fact that there is virtually 100% access to electricity.



Specific goals include:



Provision of reliable, safe, affordable, sustainable, modern and climate friendly energy services to all residents and visitors.



Zero domestic consumption of fossil fuels economy wide.



Export of all hydrocarbons produced both on land and offshore.



Maximising local participation (individual and corporate) in distributed renewable energy (RE) generation and storage (democratisation of energy).



Minimise the outflow of foreign exchange.



Creating a regional centre of excellence in RE research and development.



Current situation:

Barbados is energy import-dependent and relies on trade to meet its energy needs. Consequently, a momentary disruption or trade imbalance can lead to uncertainty in access to energy as prices fluctuate on the world market.

A way of mitigating these impacts is to reduce the volume of carbon dioxide emissions by increasing the use of renewable energy technologies or investing more in energy efficiency. In this way, we will also help to protect the environment and fight climate change.

"Due to their size and location, Caribbean SIDS are particularly susceptible to the impacts of climate change. As developing economies relying on sectors vulnerable to climate patterns such as tourism, agriculture and fishing, Caribbean nations would be greatly affected by the ongoing rise in sea levels, changes in rain patterns and temperatures, and increasing intensity of natural disasters identified by the Intergovernmental Panel on Climate Change (IPCC)." (IADB, 2016)



Target energy mix:

Currently, over 90% of the energy used for electricity production in Barbados is derived from carbon-based fuels which is a drain on foreign exchange resources.

The country's goal is to ensure a **smooth energy transition**, with the development of the offshore and onshore resources, building revenue for the country and skills that can be exported. The offshore resources are yet to be explored, but preliminary studies suggest there are promising potential resources, especially natural gas, laying under the ocean.

Four main types of energy will be explored:



All relevant entities in Barbados shall work together to identify **priority geographical areas** for renewable energy.

Objectives:



The proposed target mix is anticipated to result in:

- ✓ An annual total energy savings of \$400 \$800 million per year at current market prices.
- ✓ Help protect the environment by displacing approximately 2 million tonnes of CO2 equivalent.
- ✓ The benefit to Barbados is estimated at \$3.9 billion annually from the removal of fossil fuels.

BNEP visionary goals:

1 DIVERSITY

An energy sector that offers a diversity of sustainable energy options, with a trajectory to achieve 100% Renewable Energy.

02 EFFICIENCY

An energy sector where consumption and production of energy resources occur with the maximum level of efficiency feasible.

03 affordability

An energy sector that offers basic energy products and services that are affordable to local citizens.

04 RELIABILITY

An energy sector that offers continuous and reliable supply of energy.

05 CAPACITY & COLLABORATION

An energy sector that offers opportunities for development of human capacity and collaboration.

06 ENTREPRENEURSHIP

An energy sector that offers significant opportunities for local entrepreneurship and international investment.

07 ENVIRONMENT

An energy sector that minimises environmental impacts and contribution to global climate change.

08 REGULATION

An energy sector that is governed by sound management and clear legal regulatory frameworks.

09 INNOVATION

An energy sector that positions Barbados as a centre of excellence for innovation, research and development in renewable energy.

10 ECONOMIC ENFRANCHISEMENT

An energy sector that provides opportunities for all Barbadians (including the most vulnerable to the impacts of climate change) to participate in and benefit from the transformation to 100% renewable energy.

BNEP overall objectives:

Overall Objective 1: Increasing the amount of renewable energy sources used in the energy mix to 100% (related to Visionary Goal 1).

Overall Objective 2: Achieving affordability and access to all classes of consumers in energy products and services (related to Visionary Goal 3).

Overall Objective 3: Increasing the amount of renewable energy sources used in the energy mix to 100% (related to Visionary Goal 3).

Overall Objective 4: Establishing a consistent and comprehensive legislative and regulatory framework to govern activities in various energy sub-sectors (related to Visionary Goal 8).

Overall Objective 5: Increasing diversity in the types of energy sources used within the energy sector (related to Visionary Goal 1).

Overall Objective 6: Increasing the extent of renewable energy resources used in Barbados that are obtained from indigenous sources (related to Visionary Goal 6).

Overall Objective 7: Encouraging local investment in energy projects and programmes in Barbados, with a view to increasing the number of shareholders and players in the various energy sub-sectors (related to Visionary Goal 6).

Overall Objective 8: Promoting more local entrepreneurial activities in renewable energy and increasing fossil fuel energy development for export throughout the energy sub-sectors (related to Visionary Goal 6).

Overall Objective 9: Increasing collaboration within the energy sub-sectors and among the cross-cutting sectors that have an impact on energy supply or consumption (related to Visionary Goal 5).

Overall Objective 10: Improving the efficiency in the production and consumption of energy products within the various sub-sectors (related to Visionary Goal 2).

Overall Objective 11: Improving the awareness and understanding of energy production and consumption, its impacts and the associated environmental and socio-economic consequences within all sections of the public (related to Visionary Goal 5).

Overall Objective 12: Increasing the number of persons locally with qualifications and skills relating to energy production and management of renewable and fossil fuel sources (related to Visionary Goal 5).

Overall Objective 13: Reducing the environmental impacts associated with the production and consumption of energy resources locally (related to Visionary Goal 7).

Overall Objective 14: Ensuring reliability and continuity of energy supply in the various local energy subsectors (related to Visionary Goal 4).

Overall Objective 15: Attaining the lowest price sustainable by the local economy for various energy sources consumed in Barbados, while maintaining environmental efficiency (related to Visionary Goal 3).

Overall Objective 16: Establishing effective partnerships between national and international entities for local energy projects (related to Visionary Goal 6).

Overall Objective 17: Establishing effective systems to support a hub for research and development in renewable energy (related to Visionary Goal 9).

Overall Objective 18: Maximise the use of small scale distributed generation within the energy mix (related to Visionary Goal 10).



Barbados has set some very ambitious and important goals for the year 2030. It is key that we all work together to achieve these goals.

Visit www.smartenergybarbados.com and discover how you can participate in this energy revolution by saving energy and developing more energy efficient habits.

Become an Energy Champion.





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