

Report

# Pathways to Implementing GST Recommendations in the Caribbean

Country Report: Belize

Author: Kory Hall

*Date: December 2025*

# Table of Contents

<b>Introduction</b>	<b>2</b>
<b>Background - Belize</b>	<b>4</b>
Belize's Policy Pathway	5
<b>Progressing to Net-Zero</b>	<b>8</b>
Current Electricity Generation Sources	8
Developing the pathway to net-zero	11
Implementing the Plan	12
<b>Conclusion</b>	<b>13</b>
References	14

# Introduction

This supplementary country brief is developed to highlight the current endeavours of Caribbean SIDS in the road to addressing the recommendations of Paragraph 28 of the Global Stocktake, and staying within the 1.5°C global warming limit. It also will assess progress to date and identify areas to possibly further accelerate the achievement of targets in line with the findings of the regional analysis.

Recalling that the recommendations from the main report are:

## **1. Strengthen Data and Monitoring Systems**

Expand the scope and reach of the joint CARICOM and OLACDE Energy Information System (sieCARICOM), to cover additional CARICOM member states thus creating a standardized data repository to facilitate improved analysis and decision making.

## **2. Streamline Regulatory Frameworks**

Expand the remit of C-SERMS to review the legislation covering the generation of electricity in each territory, thus developing customized yet harmonious legal frameworks and permitting processes that promote more efficient inter-agency cooperation (regionally & nationally). It requires deliberate actions by governments to remove barriers to the development of RE projects the progression of the energy transition.

## **3. Support Capacity Building**

Develop a regional skill improvement program that improves internal negotiating capabilities and development fundamentals. By investing in technical training and institutional capacity building for Caribbean nationals, countries will mitigate the risk of increased project costs and low investor confidence in RE projects.

## **4. Promote Regional Collaboration**

Expand the remit of C-SERMS to advance the development of shared procurement mechanisms, and regional project development processes in the advancement of energy transition targets.

This country report focuses on Belize and the pathway it has chosen to achieve energy security and independence. Belize stands at the forefront, having the largest share of renewable energy generation in CARICOM. As of 2022, approximately 60% of Belize's domestically generated electricity was from renewable energy sources, mainly comprised of hydro and biomass.

The country's challenge however is its continued reliance on fossil fuels and cross border electricity imports to supply the remaining national demand. Further to this is the issue of accessibility as there are still regions that are not supplied with grid connected electricity.

In the review of Belize's actions to date, there are two actions taken by the Belizean Government that should be highlighted and considered by other regional partners:

- Under the National Energy Policy Framework, the establishment of an Energy Unit that is empowered to achieve the goals of the energy policy.
- Engaging international partners to provide required capacity building for government representatives to improve negotiating positions, knowledge of commercial agreements, and climate negotiations practices.

These initiatives address concerns around closing policy and regulatory gaps as well as ensuring the capability of nationals to progress projects through the development pipeline in an efficient and cost-effective manner.

# Background – Belize

Formerly known as British Honduras, Belize is one of a few non-island CARICOM members and is the only English speaking country in Central America. Classified as an upper middle income nation, its gross domestic product (GDP) grew approximately 4.5% in 2023<sup>i</sup>. Despite having strong mining potential, Belize has a tourism-based economy where the country's earnings are derived from tourism related services which accounts for 40% of GDP<sup>ii</sup>. Despite these strengths, as many other developing countries, Belize continues to grapple with persistent socioeconomic hurdles such as poverty which in 2017, was the reality of over one third of the population<sup>iii</sup>. This poverty is characterized by inadequate access to nutrition, essentials and energy<sup>iv</sup>.



Figure 1: Map of Belize. Source: World Atlas

Belize has articulated its environmental commitments under the Paris Agreement. In its first Nationally Determined Contribution (NDC) in 2015, which was updated in 2021 and then again in 2025, the country identified mitigation actions spanning electricity generation, agriculture, energy end-use, and waste as well as adaptation targets across

sectors like coastal zones, agriculture, forestry, tourism, and water security. This was all aimed at reducing emissions by 6,234 ktCO<sub>2</sub>e by 2035<sup>v</sup>.



*Figure 2: Altun Ha Mayan Ruins. Source: Belize Hub*

Addressing these challenges underscores the urgency of Belize’s sustainable development agenda. Energy access, however, is a pivotal challenge as Belize remains dependent on imported fossil fuels, imported electricity, and volatile energy costs. Belize’s NDCs commit the country to reducing greenhouse gas (GHG) emissions through renewable energy development, improved energy efficiency, and sustainable land management practices<sup>vi</sup>.

## Belize’s Policy Pathway

In 2011, Belize recognised the need to restructure its energy systems to address the impacts of climate change and national socioeconomic circumstances, even before signing on to the Paris Agreement in 2015. In 2012 Belize’s National Energy Policy Framework was revealed, identifying and stipulating the country’s new strategic approach to energy development and management<sup>vii</sup>. This policy framework and the policy that was eventually adopted in 2023, are indicative of the Government of Belize’s commitment to reshaping its energy systems to provide affordable, sustainable and secure energy to the country<sup>viii</sup>.

The National Energy Policy Framework, supported by revisions to the Electricity Act and the Belize Sustainable Energy Strategy, creates a roadmap for Belize’s path to energy independence and energy security. To administer this plan, **the Government made the decision to empower a singular entity with the responsibility of achieving the goals of the plan.** This is the genesis of the Belize Energy Unit, which is responsible for the planning and policymaking of the energy sector. Via policy, the unit guides energy procurement, determines the generation mix, as well as ensures the improved access to energy services for the public.

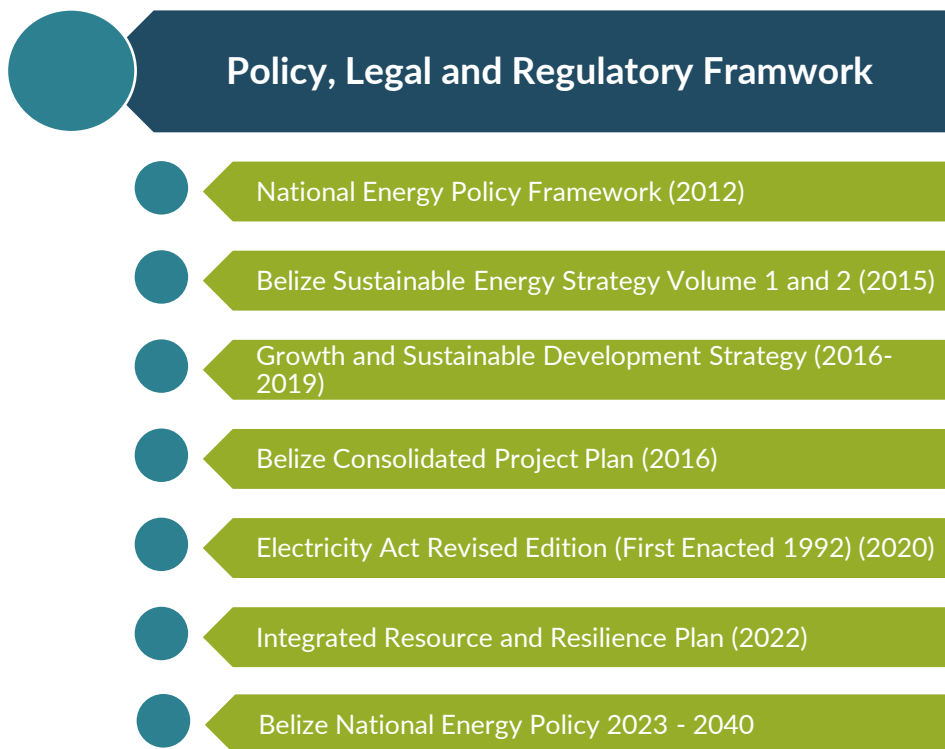


Figure 3: Belize's Policy, Legal and Regulatory Framework

Since its creation, the Energy Unit has influenced the development of strategy documents, project plans and the Integrated Resource and Resilience Plan (IRRPP). With the submission of the country’s revised NDC in 2021, it was assessed by the Energy Unit and its parent the Ministry of Public Utilities, Energy, Logistics, and E-Governance (MPUELE), that the 2012 Energy Policy Framework in its current format would not be able to facilitate the achievement of the country’s revised targets<sup>ix</sup>. This was the justification for the launching of the new Belize National Energy Policy 2023 – 2040 and a reaffirmation of the Government to achieving the objectives outlined in the graphic below.

- 1 Reduce Cost of Energy Services**
  - Collaboration among key ministries and stakeholders to lower energy costs through reduced energy intensity.
- 2 Increase Indigenous Energy Sources in the Energy Supply Mix**
  - Foster R&D indigenous energy sources, transparent procurement processes and Public Private Partnerships to boost energy production.
- 3 Increase Access to Energy Services**
  - Provide universal basic energy services to all citizens and enterprises by 2030 employing grid tie and micro grid solutions.
- 4 Improve Contribution to the Updated NDCs**
  - Establish a team to ensure the energy sector meets its NDC targets.
- 5 Improve Governance**
  - Establish a central governing body (Department)
- 6 Grow Energy Management Capability**
  - Establish Agencies to oversee Procurement and Government Energy Investments/ Strengthen Oversight Agencies.
- 7 Increase access to Energy Information**
  - Increase accessibility to energy information by stakeholders.

Figure 4: Belize National Energy Policy 2023 -2040 Objectives

In reviewing the energy policy and other related documents, a reformation of the energy sector that includes an increase in the share of renewables, increased domestic power generation as well as a reduction in fossil fuel-based imports, is key to Belize's carbon emission reduction goals under its NDC. Unlike most of its CARICOM neighbours, Belize has a unique characteristic in that it imports electricity from Mexico (approximately 29% of energy supply in 2022<sup>x</sup>) which adds certain considerations in determining a pathway to clean energy generation. Nonetheless, the country has shown the need for planning and deliberate action in developing the regulatory and legal environment for achieving climate targets.

In tandem with the policy reviews and updates, there was also a realisation that the country's plans would be stymied without adequate access to financing to achieve the successful implementation of projects that support the NDC targets. In 2013, Belize's fiscal space was described as limited in its ability to support the operationalisation of the country's abundance of natural resources, which was a barrier to expanding local electricity generation and reducing fossil fuel imports<sup>xi</sup>. Once again, the Government of Belize, exercising deliberate action and being guided by its 2021 NDC, began engaging local and international stakeholders to improve local capacity in the understanding of climate finance fundamentals and building bankable projects to attract private sector investment<sup>xii</sup>.

Belize's efforts to position itself to successfully achieve energy security and resilience through effective policy interventions creates a template that other SIDS can adopt and adjust to suit their individual needs. Planning and effective review cycles help address roadblocks. With time, these actions facilitate the rapid deployment of projects that directly address a country's energy needs.

## Progressing to Net-Zero

### Current Electricity Generation Sources

In Belize, the country's electricity portfolio is managed by Belize Electricity Limited (BEL), which acts in the role of primary distributor and manages some generation capacity. The grid comprises of approximately 2,000 miles of transmission and primary distribution lines, 55 MW of BEL owned generating capacity, with additional generation from Independent Power Producers (IPPs)<sup>xiii</sup>. The country's generation matrix is supplied by conventional and renewable energy sources such as **hydro (54.65 MW), IPP managed biomass (21.5 MW), solar (4.4 MW), indigenous fossil fuel generation (54.45 MW) and imported supply (55.0 MW) from Mexico<sup>xiv</sup>** as previously stated.

## Power Generation Sources (MW)

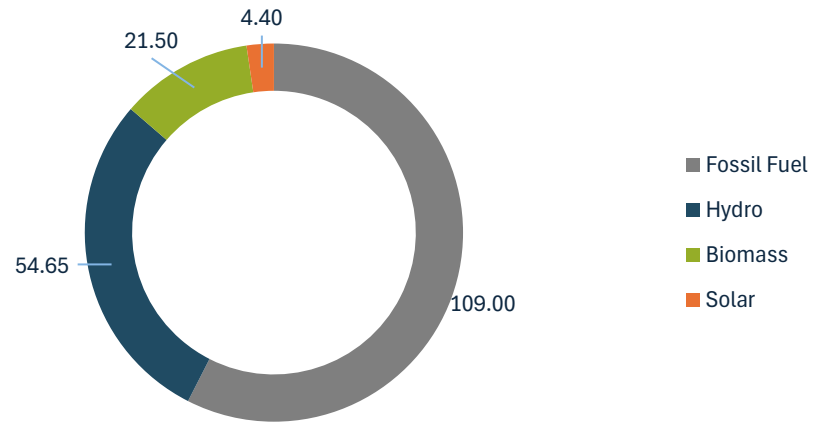


Figure 5: Belize's Power Generation Portfolio as of 2022. Source: 2022 Energy Report Card: Belize

Due to its hydro powered and biomass generation, Belize has already achieved approximately 60% of its indigenous generation from RE sources. Unfortunately, this is still not enough to meet national demand, hence the need to import electricity. This importation is also responsible for most of the electricity sector's carbon footprint as the Mexican power grid has a higher carbon intensity<sup>xv</sup>.

With the C-SERMS theoretical target of 76% of generation from RE being so closely aligned with Belize's target of 75% from domestic sources by 2030, and 80% by 2035<sup>xvi</sup>, Belize's achievement of the GST recommendation and its pathway to achieving net-zero is well underway. The Government of Belize however still sees the need for grid upgrades and capacity additions to not only progress the country's emission targets but also to ensure that the national need for energy is met in a safe, reliable and cost-effective manner.



*Figure 6: Mollejon hydroelectric generating plant. Source: Wartsila*

## Developing the pathway to net-zero

The IRRP that was completed in 2022 took into consideration the Government's desire to achieve a minimum target of 75% of the country's energy to come from renewable by 2030 and with additional carbon reducing activities achieve net-zero by 2050. The IRRP recommended that a 'Belize Centric Expert Portfolio' should look at a combination of interventions that included upgrading existing natural gas generating units to be more efficient, deploying approximately 80 MW of solar by 2030, and an additional 100 MW by 2045, as well as up to 40MW of wind. The plan also calls for 40MW of Battery Energy Storage Systems (BESS) to be dispersed throughout the network to improve the grid management of RE sources<sup>xvii</sup>.

**If implemented as recommended, by 2030 Belize should achieve its target of 75% of its electricity coming from RE, with the possibility of eliminating fossil fuel generation and imports by 2050.** Additionally, the IRRP made US\$84.02M worth of grid modernisation recommendations that would improve the grid's ability to receive and manage clean energy sources as well as improve transmission efficiencies.

For the submission of Belize's NDC 3.0, the findings of Consolidated Project Plan (CPP) completed in 2021, which analysed all preliminary scenarios of the IRRP as well as the preferred scenario, was used as a basis to project Belize's energy transformation costs under the NDC. The recommendations of the CPP are practical and sustainable development based, and though they do lead to a reduction in the importation of energy and an increase in renewable share to approximately 53% by 2036<sup>xviii</sup>, they still propose the continued use of fossil fuel-based generation, thus not achieving the 75% target by 2030. Using this scenario however as a base, BEL developed additional cost projections to close the gap between the CPP scenario and the achievement the 2030 target as intended by the final IRRP. The projections identified a requirement of an additional 74MW of RE generation by 2030 at a total capital and operational expenditure of US\$460M<sup>xix</sup>. Conservatively however, in NDC 3.0, Belize has made a commitment to at least 45MW of installed utility scale solar by 2030, increasing to 100MW by 2035 with additions to battery storage capacity, wind generation and improved grid distribution efficiencies<sup>xx</sup>.

## Implementing the Plan

Belize has put a significant level of effort into the planning of their climate related actions, proposing energy sector reforms that set the bar quite high for the region. Belize still however must navigate the way forward addressing their fiscal space and financing constraints, considering the level of capital expenditure required to achieve its goals and the size of the economy, as well as improve regulatory and institutional capacities even further to accelerate project deployment in line with 2030 targets.

Working in Belize's benefit however will continue to be its approach to planning as it considers long term strategies that continuously improve the technical capabilities of the nation; the case for green funding; and its reliance on fossil fuels. Additionally, within the regional context, participation in CARICOM and by extension the C-SERMS framework, allows Belize to access capacity building programs via CCREEE, which was very influential in promoting the development of the IRRP as well as opportunities for RE procurement synergies with other CARICOM members.

# Conclusion

Belize stands at a pivotal juncture in its pursuit of sustainable development and energy resilience. As a small, open economy, it suffers the constraints of high public debt, limited fiscal space, and socioeconomic vulnerabilities, whilst also blessed with an abundance of natural beauty and resources, a strong cultural identity, and growing experience in climate diplomacy<sup>xxi</sup>.

The urgency of Belize's energy transition, underpinned by fossil fuel dependence and energy imports, has influenced the creation of a pragmatic and yet ambitious roadmap founded in policy. Belize's Integrated Resource and Resilience Plan (IRRP), Nationally Determined Contribution (NDC), and Low-Emission Development Strategy (LT-LEDS) are all aligned to achieve 75% renewable electricity by 2030, a target endorsed by C-SERMS.

Though the hurdles are considerable, ultimately Belize's energy transition is more than just a technical shift in its electricity mix. It is a strategic national project to secure energy sovereignty, build resilience, and chart a sustainable development trajectory for its people. Success will depend on effective governance, innovative financing instruments, as well as regional and international partnerships. If implemented with urgency and inclusivity, Belize has the potential to emerge as a regional leader in demonstrating how small states can transform structural vulnerabilities into a foundation for long-term resilience and prosperity.

## References

- <sup>i</sup> IMF. (2024) Belize: Staff Concluding Statement of the 2024 Article IV Mission <https://www.imf.org/en/News/Articles/2024/02/27/cs22724-belize-staff-concluding-statement-of-the-2024-article-iv-mission>
- <sup>ii</sup> Global Finance. (2024). Country Report Belize: Economy Driven By Tourism, Hospitality, And Real Estate. <https://gfmag.com/country/belize-gdp-country-report/>
- <sup>iii</sup> World Bank Group. (2025). The World Bank In Belize. <https://www.worldbank.org/en/country/belize/overview>
- <sup>iv</sup> World Bank. (2025). Belize Poverty and Equity Brief : April 2025. <https://documents.worldbank.org/pt/publication/documents-reports/documentdetail/099514204212540527>
- <sup>v</sup> NDC Partnership. (2025). Country Profile: Belize. <https://ndcpartnership.org/country/blz>
- <sup>vi</sup> Government of Belize. (2021). Belize: Updated Nationally Determined Contribution. <https://unfccc.int/sites/default/files/NDC/2022-06/Belize%20Updated%20NDC.pdf>
- <sup>vii</sup> Energy Unit, Government of Belize. (2024). 2023 Belize annual energy report. [https://www.mpuele.gov.bz/wp-content/uploads/2024/11/Energy-Report-2023\\_Digital-Copy\\_Final.pdf](https://www.mpuele.gov.bz/wp-content/uploads/2024/11/Energy-Report-2023_Digital-Copy_Final.pdf)
- <sup>viii</sup> Government of Belize. (2024) National Energy Policy. <https://www.mpuele.gov.bz/wp-content/uploads/2023/11/Belize-National-Energy-Policy-2023.pdf>
- <sup>ix</sup> Energy Unit, Government of Belize. (2024). 2023 Belize annual energy report. [https://www.mpuele.gov.bz/wp-content/uploads/2024/11/Energy-Report-2023\\_Digital-Copy\\_Final.pdf](https://www.mpuele.gov.bz/wp-content/uploads/2024/11/Energy-Report-2023_Digital-Copy_Final.pdf)
- <sup>x</sup> CCREE. (2025). 2023 Energy Report Card Belize
- <sup>xi</sup> ECLAC (2013). An assessment of fiscal and regulatory barriers to deployment of energy efficiency and renewable energy technologies in Belize. <https://www.cepal.org/en/publications/38290-assessment-fiscal-and-regulatory-barriers-deployment-energy-efficiency-and>
- <sup>xii</sup> NDC Partnership. (2025). How Belize is Unlocking Private Investment in Climate Action. <https://ndcpartnership.org/news/how-belize-unlocking-private-investment-climate-action>
- <sup>xiii</sup> BEL (2025). Belize Electricity Limited: Company Profile. [https://www.bel.com.bz/Company\\_Information.aspx](https://www.bel.com.bz/Company_Information.aspx)
- <sup>xiv</sup> CCREE. (2025). 2023 Energy Report Card Belize
- <sup>xv</sup> Bunker, Kaitlyn, Roy Torbert, et al. RMI. (2018). Belize Consolidated Project Plan. [https://rmi.org/wp-content/uploads/2020/10/Belize\\_CPP-1.pdf](https://rmi.org/wp-content/uploads/2020/10/Belize_CPP-1.pdf)
- <sup>xvi</sup> Government of Belize. (2021). Belize: Updated Nationally Determined Contribution. <https://unfccc.int/sites/default/files/NDC/2022-06/Belize%20Updated%20NDC.pdf>
- <sup>xvii</sup> SPTI. (2022). Belize Electricity Limited Integrated Resource and Resilience Plan. [https://puc.bz/wp-content/uploads/2023/10/BEL-LCEP-Report\\_v2.4-Final.pdf](https://puc.bz/wp-content/uploads/2023/10/BEL-LCEP-Report_v2.4-Final.pdf)

<sup>xviii</sup> NDC Partnership. (2021). Resource requirements report for Belize’s NDC.  
<https://ndcpartnership.org/sites/default/files/2024-05/resource-requirements-report-belizes-ndc.pdf>

<sup>xix</sup> NDC Partnership. (2021). Resource requirements report for Belize’s NDC.  
<https://ndcpartnership.org/sites/default/files/2024-05/resource-requirements-report-belizes-ndc.pdf>

<sup>xx</sup> Government of Belize. (2021). Belize: Updated Nationally Determined Contribution.  
<https://unfccc.int/sites/default/files/NDC/2022-06/Belize%20Updated%20NDC.pdf>

<sup>xxi</sup> United Nations Belize. (2009). Belize National Sustainable Development Report. United Nations.  
<https://sustainabledevelopment.un.org/content/documents/1012belize.pdf>