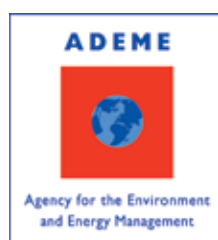


# National energy efficiency monitoring report of Guyana

Shevon Wood

Candice Rowena



# Thank you for your interest in this ECLAC publication



Please register if you would like to receive information on our editorial products and activities. When you register, you may specify your particular areas of interest and you will gain access to our products in other formats.



[www.cepal.org/en/publications](http://www.cepal.org/en/publications)



[www.cepal.org/apps](http://www.cepal.org/apps)

# National energy efficiency monitoring report of Guyana

Shevon Wood  
Candice Rowena



This document was prepared by officials of the Energy and Energy Statistics Division of the Guyana Energy Agency (GEA) and the consultant, Candice Rowena Ramessar. Shevon Wood, Head of the Energy and Energy Statistics Division of GEA, was responsible for the executive coordination and technical revision of the document. This document was produced within the framework of the Regional Observatory on Sustainable Energies (ROSE ) initiative as part of the Energy Efficiency Indicators Database (BIEE) for the Caribbean programme, carried out by the Economic Commission for Latin America and the Caribbean (ECLAC), with the support of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), and funded by the German Federal Ministry for Economic Cooperation and Development (BMZ), the French Cooperation Programme and the French Environment and Energy Management Agency (ADEME). The ECLAC officials responsible for the programme were Rubén Contreras Lisperguer of the Natural Resources Division and Willard Phillips of the ECLAC subregional headquarters for the Caribbean.

The authors wish to thank ADEME and Didier Bosseboeuf, Senior Expert in charge of International Studies, for the technical support provided. Sincere thanks are also extended to Enerdata and, in particular, its Vice-President, Bruno Lapillonne, who carried out the periodic revisions of the data and analysis.

The views expressed in this document, which has been reproduced without formal editing, are those of the authors and do not necessarily reflect the views of the Organization.

United Nations publication  
LC/TS.2020/27  
Distribution: L  
Copyright © United Nations, 2020  
All rights reserved  
Printed at United Nations, Santiago  
S.20-00163

This publication should be cited as: S. Wood and C. Rowena, "National energy efficiency monitoring report of Guyana", *Project Documents*, (LC/TS.2020/27), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC), 2020. Applications for authorization to reproduce this work in whole or in part should be sent to the Economic Commission for Latin America and the Caribbean (ECLAC), Publications and Web Services Division, publicaciones.cepal@un.org. Member States and their governmental institutions may reproduce this work without prior authorization but are requested to mention the source and to inform ECLAC of such reproduction.

## Contents

<b>Introduction .....</b>	<b>5</b>
A. Background to the data base of energy efficiency indicators (BIEE) project .....	5
B. Data collection approach and methodology.....	6
C. History of energy efficiency in Guyana .....	7
D. The overall assessment of energy efficiency trends in Guyana.....	7
<b>I. Energy efficiency trends in the energy sector .....</b>	<b>9</b>
A. Solar energy .....	12
B. Wind energy.....	12
C. Bioenergy.....	12
<b>II. Energy efficiency trends in the manufacturing and industry sector .....</b>	<b>15</b>
<b>III. Energy efficiency trends in the tertiary sector.....</b>	<b>19</b>
<b>IV. Energy efficiency in households.....</b>	<b>21</b>
<b>V. Energy efficiency in transport.....</b>	<b>25</b>
<b>VI. Energy efficiency in services.....</b>	<b>27</b>
<b>VII. Energy efficiency trends in agriculture.....</b>	<b>29</b>
<b>VIII. Conclusion.....</b>	<b>33</b>
<b>Bibliography.....</b>	<b>35</b>

**Table**

Table 1	Selected production indicators– manufacturing .....	15
---------	---	----

**Figure**

Figure 1	Final consumption and GDP (1997 – 2015) .....	8
Figure 2	Power generation efficiency (2003 – 2016) .....	10
Figure 3	Consumption rates of fuels in households .....	11
Figure 4	Power transmission and distribution losses .....	12
Figure 5	Percent of dwelling with biomass as a main cooking fuel .....	13
Figure 6	Energy intensity of industry .....	16
Figure 7	GDP structure .....	16
Figure 8	Value added structure by industrial branches .....	17
Figure 9	Value of output in the services sector .....	19
Figure 10	Energy intensity of tertiary industry .....	20
Figure 11	Trends in households ownership of electrical appliances .....	21
Figure 12	Energy consumption and number of households .....	22
Figure 13	Energy consumption and number of households .....	23
Figure 14	Energy intensity of transport and vehicle sales .....	26
Figure 15	Energy intensity of transport.....	26
Figure 16	Total consumption of electricity in private offices.....	28
Figure 17	Total consumption of public offices, administrations and government services .....	28
Figure 18	Consumption of electricity for public lighting .....	28
Figure 19	Production of sugar.....	29
Figure 20	Energy consumption of agriculture, forestry and fisheries .....	30
Figure 21	Energy intensity by sector .....	31

**Diagram**

Diagram 1	Data flow for supporting BIEE database .....	6
-----------	--	---

# Introduction

## A. Background to the data base of energy efficiency indicators (BIEE) project

Recognizing the vulnerability of the economies of the Caribbean to heavy reliance and dependence on fossil fuels to support economic activities and social wellbeing, the Economic Commission for Latin America and the Caribbean (ECLAC) with the support of the German Agency for International Cooperation (GIZ) and the French Environment and Energy Management Agency (ADEME) is currently developing a Database of Energy Efficiency Indicators (BIEE) for the Caribbean. The objective of the BIEE programme is to strengthen the capacity of energy authorities in Latin America and the Caribbean to monitor their energy efficiency and to improve data reliability thereby resulting in improved evidence-based decision making on energy policy.

The programme of activities was undertaken in stages the first being a data compilation of basic information which is usually undertaken by the focal point in each country, in coordination with ECLAC. Energy efficiency indicators were then identified for the 7 sectors being considered by the project: Macro/Energy Balance, Households, Industrial, Services/Tourism, Agricultural/Fisheries, Transportation, and Energy.

The BIEE tool provides a template to gather national data for assessing and analyzing policies and programmes on energy efficiency (EE). It also facilitates the regional comparability of the energy sector, and promotes the implementation, monitoring and standardization of EE policies and programmes. It seeks to define a common baseline of energy metrics and standards which can be used to inform the implementation of EE policies and programmes.

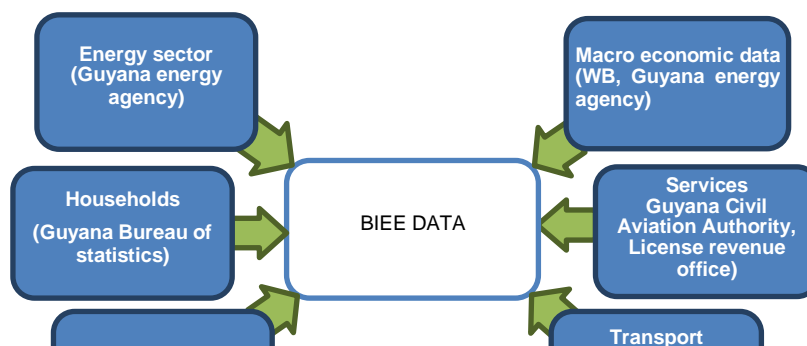
Guyana is one of the 19 countries in Latin America and 4 countries in the Caribbean regional that have formally participated in the project through the development of an Energy Efficiency Database. This report is based on the indicators of that database developed for Guyana as one of the Caribbean participating country.

## B. Data collection approach and methodology

The data collection process in Guyana was a collaborative effort between the focal point agency and the consultant hired to assist in the development of the database. Since the majority of the holders of the energy information required were governmental and private sector stakeholders, it was decided to commence with a general informational session with the heads of the entities. The focal point agency, the Guyana Energy Agency (GEA) initiated the stakeholders meeting, by invitational letters, to the major governmental, quasi-governmental agencies and private sector entities that are the holders of energy and economic data in Guyana. The agencies represented at the meeting were: The Ministry of Finance, Ministry of Tourism, Guyana Civil Aviation Authority, Transport and Harbours Department, and Ministry of Agriculture. The informational session consisted of an introduction of the project by the GEA Focal point and a presentation from the National Consultant on the specific indicators that were required for the project's 7 thematic/focal areas namely, macro-economic data, energy sector, industry, transport, households, services and agriculture. A discussion on what data the agencies possessed and the timeline that the data can be provided to the GEA and the consultant followed. The bureaucratic and other hurdles in acquiring the data were discussed and a strategy developed for acquiring the data in the least possible time.

The collection of the data resulted from the consultant and an assistant following up with the agencies through personal meetings, telephone and email communications. The data were provided in various formats and the information for the necessary indicators for each section was extracted or extrapolated with the assistance of ADEME. The flow of data from the various entities in Guyana is summarized in Diagram 1.

Diagram 1  
Data flow for supporting BIEE database



预览已结束，完整报告链接和二维码如下：

[https://www.yunbaogao.cn/report/index/报告?reportId=5\\_456](https://www.yunbaogao.cn/report/index/报告?reportId=5_456)

