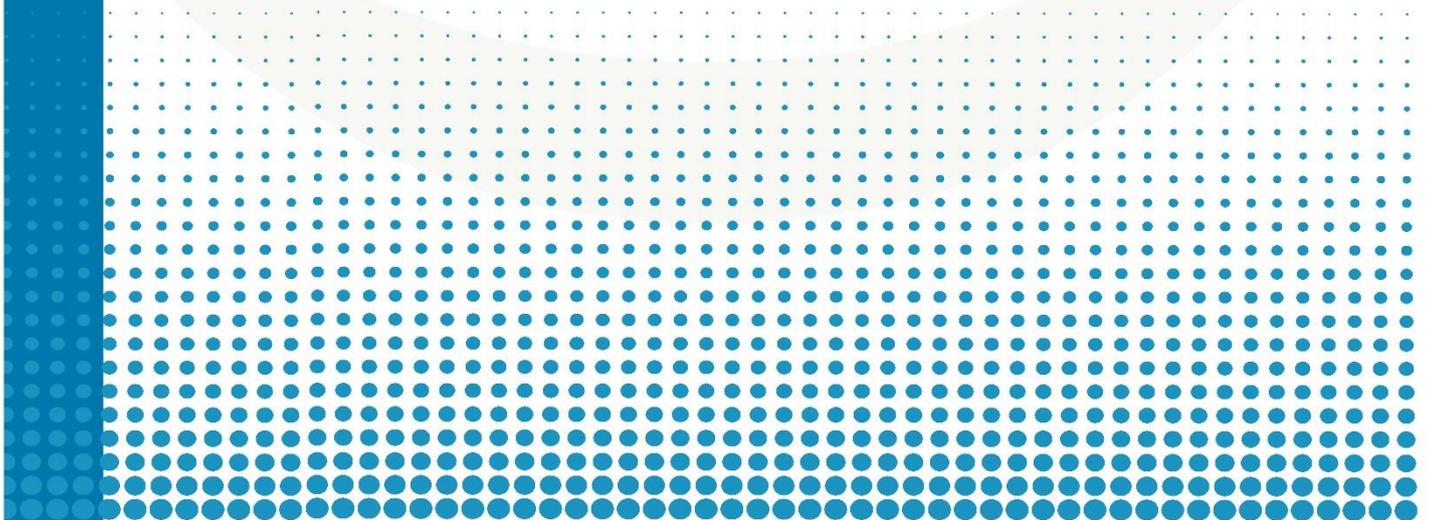


Renewable Energy Policy Brief

GUYANA

JUNE 2015



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1. Policy

The 1994 National Energy Policy created the Guyana Energy Agency.¹ It aimed at the development of indigenous resources, including biomass, as well as medium/small/mini/micro hydropower, solar and wind power for remote and isolated communities in the short term to medium term and large hydropower in the longer term.

Electricity

Guyana, as a member of the Caribbean Community (CARICOM) has a target of 20%, 28% and 47% renewable electricity generation to be reached by 2017, 2022 and 2027 respectively.

The Low Carbon Development Strategy (LCDS) was launched in 2009 and subsequently updated in 2010 and 2013. The strategy aims to transform Guyana's electricity sector from nearly 100% fossil fuel based to nearly 100% renewable energy based. The achievement of this objective is based on the development of the 165MW Amaila Falls hydropower project, as well as the operationalizing of a high pressure 30MW biomass (sugarcane bagasse) cogeneration plant. These projects were included in the 2013 Guyana's state-owned utility (GPL) Development and Expansion Programme 2013-2017.

A **specialized fund**, the *Guyana REDD+ Investment Fund (GRIF)*² was created in 2010 following a 2009 Memorandum of Understanding between the Governments of Guyana and Norway as a means to channel **international financing** for avoided deforestation. The IADB acts as the GRIF trustee, and, as of 2014, it had received USD 150 million in payments from Norway.³

Renewable energy developers can negotiate **long-term PPAs**, in accordance with the

Electric Sector Reform Act and its forecast needs, with the state-owned utility (GPL). This includes an existing 30 MW⁴ biomass cogeneration plant and a proposed 25MW Hope Beach wind farm. Following an 8.46kW PV on-grid demonstration project from the Guyana Energy Agency and subsequent installation of a 15.84kW at the National Parks Commission⁵, a policy appropriate to the current situation of the grid is being developed for on-grid connection of customers⁶

Fiscal incentives include, since 2012⁷, VAT and import duty exemptions for renewable electricity equipment, energy efficient lighting⁸, solar appliances, solar water heaters and solar cookstoves.⁹

The central element of the **hydropower development** strategy in Guyana is the Amaila Falls project, which has been under study and negotiations with involvement from private investors, China Development Bank and IADB. The government plans to invest USD 80 Million from GRIF in the Amaila Falls hydropower project.¹⁰ The substantive Hydroelectric Power Act and Regulations of 1956 were amended in 1973, followed by the Hydroelectric Power (Amendment) Act of 1988 and the Hydro-Electric Power (Amendment) Act was passed in 2013. These laws are likely to be updated and revised within the next five years.

In 2012, Guyana signed a Memorandum of Understanding with Brazil establishing a working group to conduct feasibility studies for the development of the 4,500MW hydropower project in the Upper and Middle Mazaruni area, intended for energy exports to Brazil mainly and for potential industrial development in Guyana. In addition to this and the Amaila Falls projects, other planned

¹ Its mandate subsequently developed by the Guyana Energy Agency Act of 1997, the Guyana Energy Agency (Amendment) Act of 2004, the Petroleum and Petroleum Products Regulations of 2004, and the Guyana Energy Agency (Amendment) Act of 2005.

² REDD+ is an acronym from the climate change negotiations context which means "Reducing Emissions from Deforestation and forest Degradation."

³ <http://www.guyanareddfund.org>

⁴ Of which 30MW are from sugarcane bagasse and 10MW from oil, with the PPA covering 8MW.

⁵ <http://www.gea.gov.gy/energy-development/solar>

⁶ Source: Guyana Energy Agency, Draft *Strategic Plan 2014-2018*

⁷ Source: Guyana Energy Agency, Draft *Strategic Plan 2014-2018*

⁸ CFLs (compact fluorescent lights) and LEDs (light emitting diodes).

⁹ Source: Low Carbon Development Strategy 2013

¹⁰ <http://www.guyanareddfund.org/>

hydropower development projects include the rehabilitation of the 0.5 MW Moco-Moco and the 1.5 MW Tumatumari hydropower stations and the development of the 3MW Wamakaru hydropower site.

Energy Access

As part of the Low Carbon Development Strategy, the *Hinterland Renewable Energy* project was initiated to support the energy needs of rural households without access to the national grid. The project was financed with funds from the GRIF. As of 2014, 11,540 home systems had been installed in nearly 200 communities. The project also resulted in the training of 400 people, mostly indigenous peoples (Amerindians) for installation and maintenance of the systems.¹¹

An additional 6,000 home systems are being installed in 2015 under the same programme and, with funding from the GRIF, 125 solar PV systems¹² will also be installed to power ICT hubs in Hinterland communities.

In 2004, Guyana initiated the Unserviced Areas Electrification Programme through an IDB loan of USD 34.4 million. The programme ended in

2010 with more than 40,000 new connections to the electric utility, 1,750 solar systems installed in homes, schools and other community buildings across 21 villages¹³ and mini-grids in the largest communities.

Guyana Energy Agency is carrying out a pilot programme for stand-alone solar street lighting.

Guyana promotes the use of energy efficient woodstoves, including stoves of local design and construction from local materials as well as solar cookstoves, over 500 of which have been distributed.¹⁴

A Hinterland Energy Strategy was drafted in 2013 as a guide for energy development for hinterland households and communities and aims to providing access to affordable, reliable, modern energy systems and services. The strategy centres on improving public infrastructure to satisfy increasing energy demand; providing opportunities for increased power and energy uses, improving education facilities; providing income generating opportunities and promoting small business development; and capacity building at the local level for improved energy services¹⁵.

¹¹ Source: *Low Carbon Development Strategy* 2013

¹² Consisting of 100- 3000W systems and 25-1000W systems

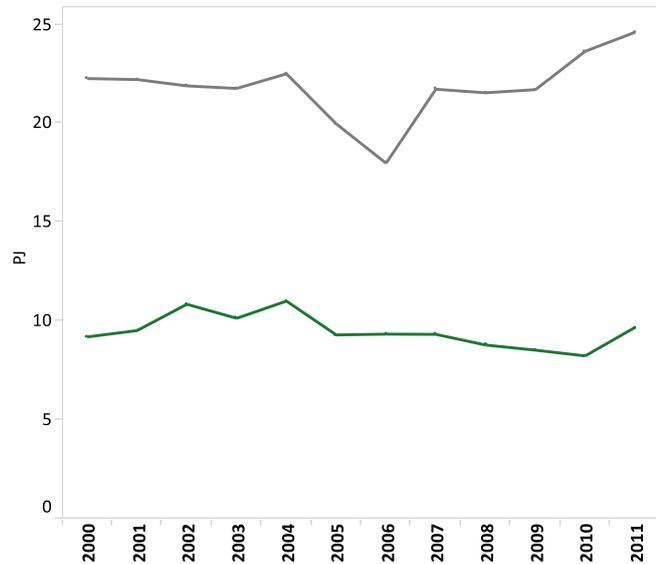
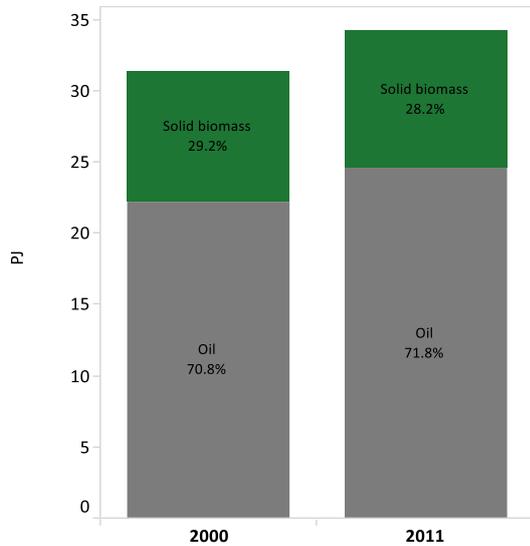
¹³ Source: Guyana Energy Agency, *Draft Strategic Plan 2014-2018*

¹⁴ Source: Guyana Energy Agency, *Draft Strategic Plan 2014-2018*

¹⁵ Source: Office of the Prime Minister, *Draft Hinterland Energy Strategy 2014 – 2023*

2. Statistics

Total Primary Energy Supply



Excludes electricity trade

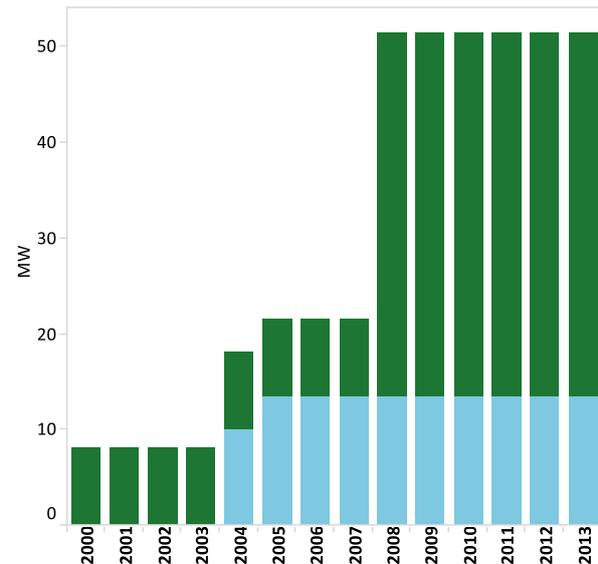
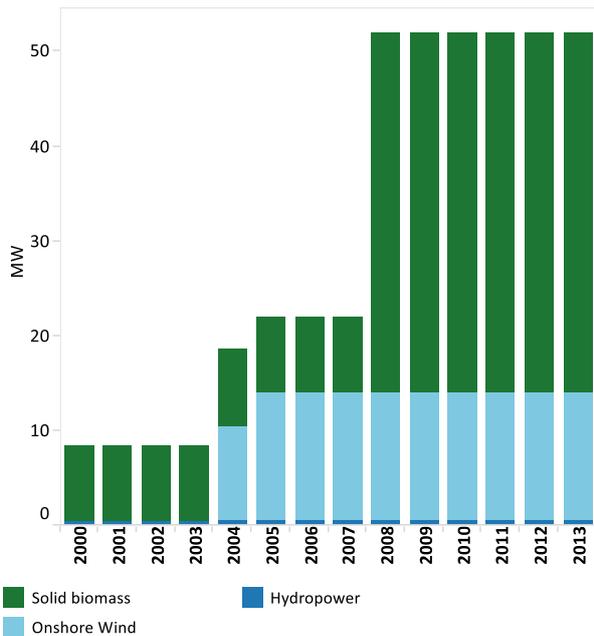
■ Solid biomass
■ Oil

		Total Primary Energy Supply	Share of renewables
2000	Total	31.4 PJ	
	Of which renewables	9.2 PJ	29.2%
2011	Total	34.2 PJ	
	Of which renewables	9.6 PJ	28.2%

		Total Primary Energy Supply	Share in total renewables
2011	Solid biomass	9.6 PJ	100.0%

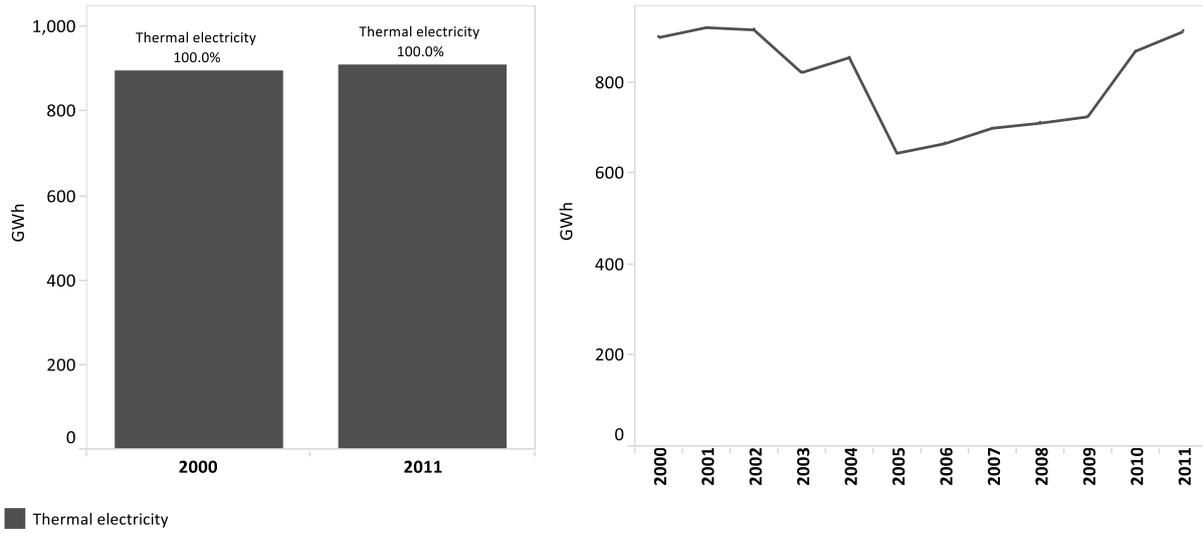
Total includes electricity trade

Renewable Power Capacity



■ Solid biomass
■ Onshore Wind
■ Hydropower

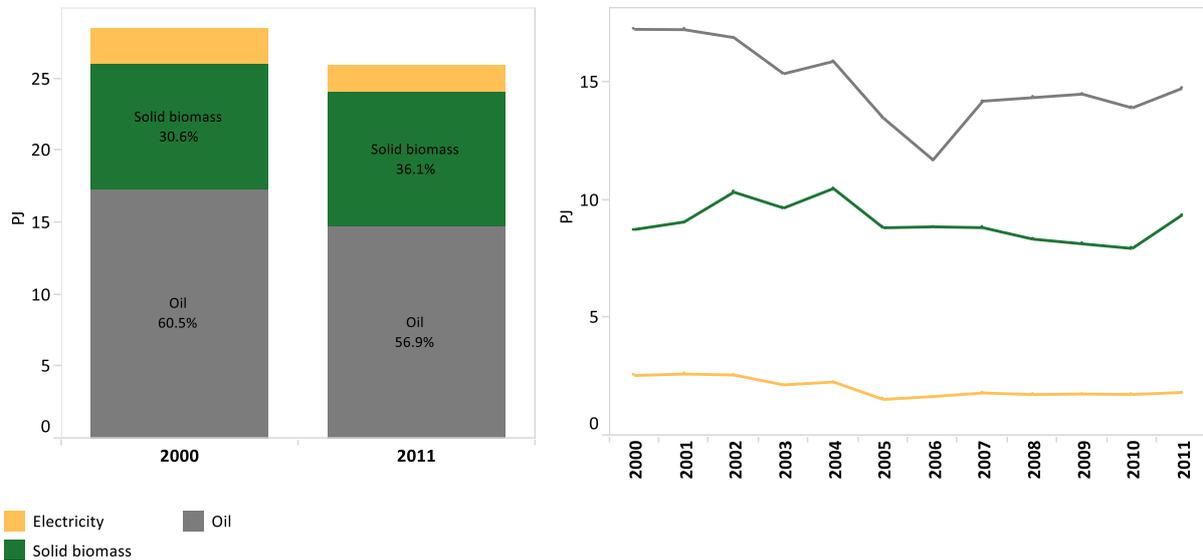
Electricity Generation



	Electricity generation	Share of renewables
2000	Total 897.0 GWh	Not available
2011	Total 910.0 GWh	Not available

Thermal electricity includes renewable electricity generated from bagasse.

Total Final Energy Consumption



	Total Final Energy Consumption	Share of renewables
2000	Total 28.5 PJ	
	Of which renewables 8.7 PJ	30.6%
2011	Total 25.9 PJ	
	Of which renewables 9.3 PJ	36.1%

	Total Final Energy Consumption	Share in total renewables
2011	Solid biomass 9.3 PJ	100.0%

Sources for these statistics: IRENA, IEA, UN

Renewable Energy Policy Briefs

This brief is part of an IRENA series providing a comprehensive and timely summary of renewable energy policies in Latin America (including Argentina, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Guyana, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Suriname, Uruguay, and Venezuela).

The brief brings together the most up-to-date information on renewable energy public policies for the power, heating and transport sectors, and also includes a section on energy access policies. The objective of this brief is not to provide an assessment of the reported policies. The brief is primarily based on the information contained in the [IEA/IRENA Joint Policies and Measures Database](#), complemented with information drawn from: (i) additional existing legislation, (ii) official government sources such as plans, reports and press releases, and (iii) input from country policymakers and experts. While the brief focuses on policies at the national level, sub-national policies are also included where relevant. Specific projects or programmes implemented by actors such as international organisations, development partners and the private sector are beyond the scope of this brief.

The information contained in this document is posted on IRENA's [REsource](#) web portal, will be used to update the [IEA/IRENA Joint Policies and Measures Database](#), and will form the basis of IRENA's future policy work in Latin America.



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