GEA

GUYANA ENERGY AGENCY

ECLAC's Project 'Regional Observatory on Sustainable Energy' (ROSE)

Transition in Energy Access – SDG 7.1.1

Outline of Presentation

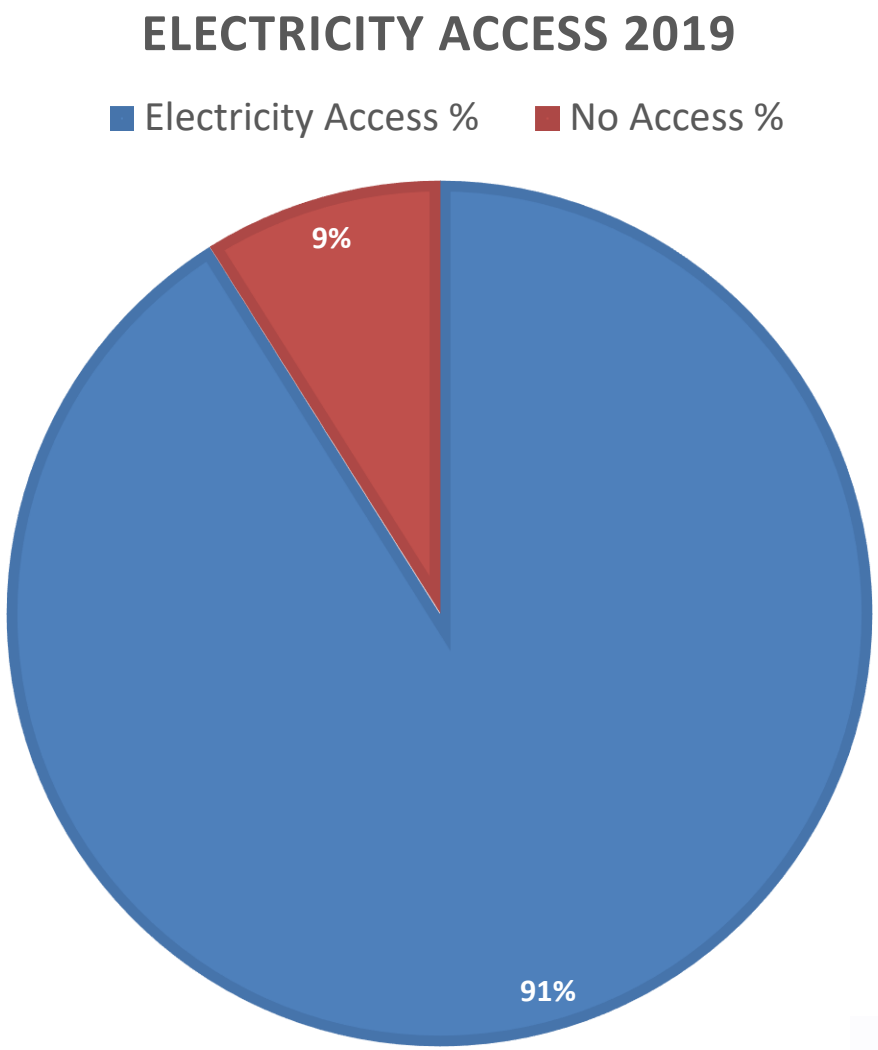
- Policy Framework
- National Electricity Access
- National Electricity Coverage
- Residential Electricity Consumption per capita
- Strategies for Energy Access
- Pipeline Projects for Hinterland Electrification
- Energy Plans for Hinterland Electrification

Policy Framework

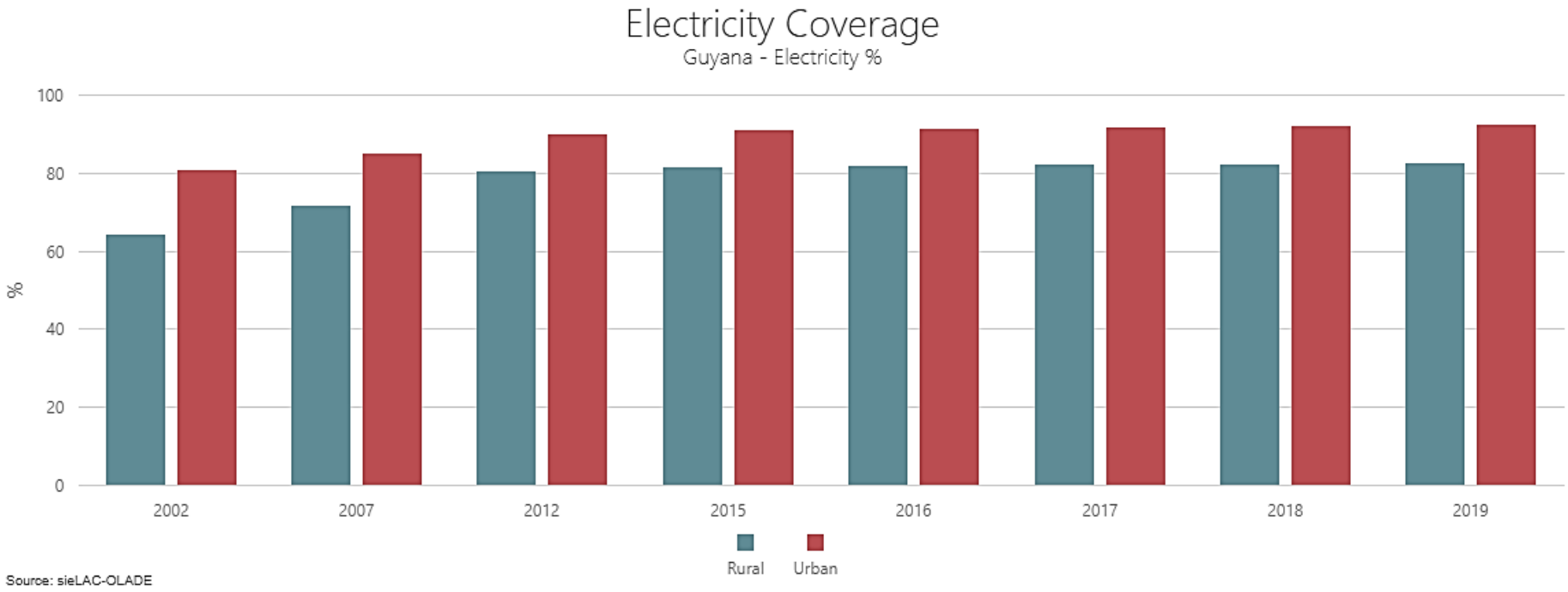
The Government of Guyana aims to provide **affordable, stable and reliable energy** to benefit both **households and businesses** and will pursue a programme with an energy mix that includes **hydropower, natural gas, solar and wind**, which will lead to more than **400 MW of newly installed capacity** for residential and commercial users over the next 5 years and a reduction in the cost of energy (electricity) by at least 50 percent.

The Government is committed to implementing measures as part of its energy diversification and access initiatives including:

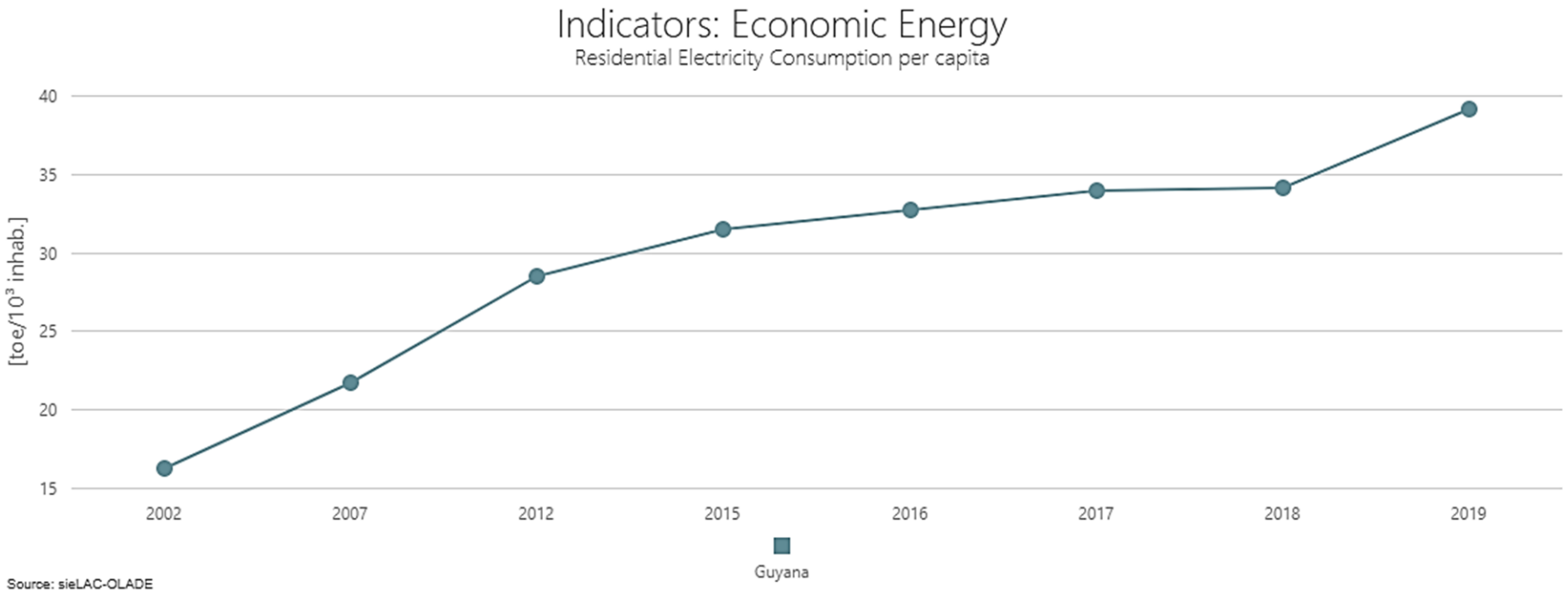
- Completion of the Amaila Falls Hydroelectric project
- Investigating and exploring all possibilities for the use of natural gas for electricity production
- Investment in solar and wind systems for off-gird areas
- Expansion of the Hinterland Electrification Programme
- Replacement and upgrade of solar panels in the Hinterland
- Urgent action to improve and upgrade the national grid (transmission and distribution)
- Development of micro grids for large hinterland areas



Percentage of household using electricity as the main source of lighting



Percentage of population with access to electricity, by urban/rural


Indicators: Economic Energy
Residential Electricity Consumption per capita
40
35
30
25
20
15
[toe/10³ inhab.]
2002
2007
2012
2015
2016
2017
2018
2019
Guyana
Source: sieLAC-OLADE

Strategies for Energy Access (SDG7)

Solar and Hydro

- During the period 2012 – 2019, the Guyana Energy Agency facilitated the installation of more than 5 MW of new solar panels on the roofs of 291 Government buildings across the ten Administrative Regions.
- The Guyana energy Agency provided support for the completion of a 400kW solar PV farm and 20kW hydropower station in a Hinterland town (Mabaruma).
- The Guyana Energy Agency facilitated the completion of a 72kW Solar Micro Grid System in Moraikobai, Region 1. The project will provide electricity from a renewable source to approximately 270 households (approx. 1000 persons). The project will allow the increased duration of daily electricity supply from 4 hours to 12 hours.

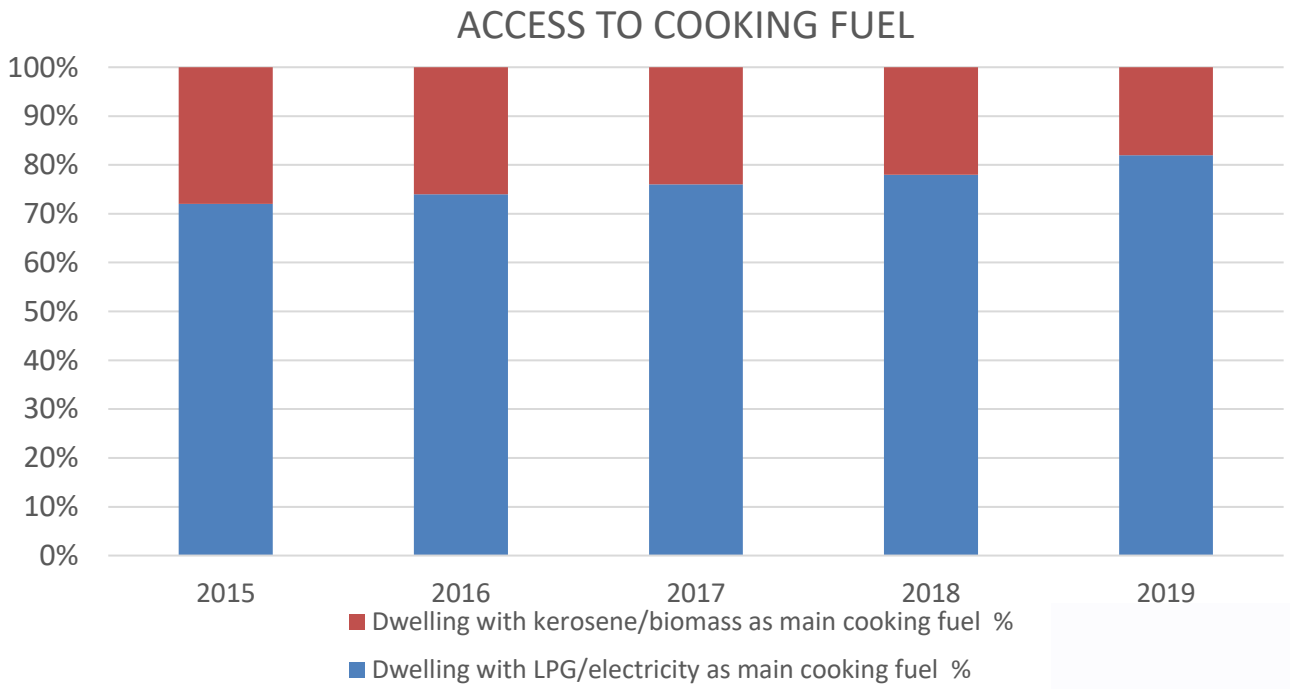
LED Lights

- The Guyana Energy Agency installed in excess of 602 Stand Alone Solar Powered LED Street Lights installed across all 10 Administrative Regions.
- Under the Hinterland LED Lighting Project the Guyana Energy Agency initiated an energy conservation initiative that will replace energy inefficient lights with energy efficient lights. Beneficiaries are customers of the 6 hinterland utilities.

Strategies for Energy Access (SDG7)

Energy Efficient Cook Stove

- Energy Efficient Wood Stoves Projects – The GEA distributed a total of 10 institutional size energy efficient wood stoves to 7 dormitory schools.
- 100 residential type energy efficient wood stoves were distributed to 10 hinterland communities.



Pipeline Projects for Hinterland Electrification

	Project	Installed Capacity (MW)	Timeline
1	Bartica Utility scale Solar PV Farm	1.5	2021
2	Lethem Utility scale Solar PV Farm	1.0	2021
3	Kato Hydropower Project	0.15	2021
4	Mahdia Utility scale Solar PV Farm	0.65	2022
5	10 Solar PV mini-grids	1.4	2022
6	30,000 x 150Watts Solar Home Systems	4.5	2022
7	Wakenaam Utility scale Solar PV Farm	0.75	2022
8	Kumu Hydropower Project	1.5	2023
9	Moco Moco Hydropower Project	0.7	2023
10	Leguan Utility scale Solar PV Farm	0.6	2023
Total		12.8	2023

Energy Plans for Hinterland Electrification

Plans for energy access (subject to availability of resources)

- Energy Needs Assessments (about 200 communities)
- Solar PV Micro-grids in rural communities (total capacity of 50 MW)
- Local LPG plant to cater for domestic demand.
- Hinterland Electrification Programme
- Replacement and upgrade of previously installed solar PV systems
- Solar PV and wind systems for off-gird areas
- Micro-grids for large hinterland areas
- Opportunities for hydropower development

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THANK YOU

295 QUAMINA STREET, SOUTH CUMMINGSBURG, GEORGETOWN, GUYANA. P.O. BOX 903
Website: www.gea.gov.gy Email: gea@gea.gov.gy
Tel: (592) 226-0394, 225-7901, 226-4424, 225-8569 Fax: (592) 226-5227