





## INTRODUCTION



## This is the Energy Report Card (ERC) for 2022 for Republic of Suriname.

The ERC provides an overview of the energy sector performance, highlighting the following areas:

- Installed Conventional and Renewable Power Generation Capacity
- Annual Electricity Generation, from Conventional and Renewable Plants
- Other Electricity Sector Metrics, such as Losses, Consumption, and Tariffs
- Renewable Energy Targets
- Renewable Energy Resource Potential
- Energy Efficiency Metrics, including Energy Intensity

The ERC also includes sectoral data and information on policies and regulations; workforce; training and capacity building; and related areas.

The data and information that are available in the ERC were mostly provided by the government ministries, agencies, and departments, that have responsibility for statistics and planning, in general, and the energy sector and electricity subsector including the electric utilities, in particular. The data and information was generated from calculations and analyses that were performed by the CCREEE.

#### **Quality Assurance**

The collection and treatment of data and information that is produced for the ERC is consistent with the International Recommendations for Energy Statistics (IRES), which provides a comprehensive methodological framework for the collection, compilation, and dissemination of energy statistical system. The ERC is produced in accordance with these performance standards that seek, as far as is possible, to ensure the quality (i.e., objectivity, utility, and integrity) of data and information that it disseminates to the public.

The CCREEE strives for transparency on the information and methods that are used within the production of the ERC, with a view to improve understanding on how the information should be treated and to facilitate reproducibility of the information. Nevertheless, the Centre recognizes that quality may be limited by the nature and source of the data and information disseminated.

#### Disclaimer

The ERC includes data and information that is contained in a variety of public sources and, though every effort is made to validate the accuracy and validity of the contents, reliance on the information herein is strictly at the user's risk.

#### **Correction of Errors**

If a substantive error is detected after the ERC is disseminated, the CCREEE will make corrections and issue an errata notice, or other notification as appropriate. Also, the information contained within the ERC may be revised, after initial dissemination to reflect more complete information or other significant changes in the underlying data. The ERC may, from time to time, include information that is preliminary and is expected to be revised, or information that is revised from previously disseminated versions. In such instances, those cases are clearly noted.

#### Requests for Correction

The CCREEE has established administrative mechanisms to allow persons to seek and obtain, where appropriate, legitimate correction(s) to information maintained and disseminated through the ERC. Any request for corrections should be sent to: energyreportcard@ccreee.org, under the subject: REQUEST FOR CORRECTION TO ERC 2022 FOR SURINAME.

## Acknowledgements

The CCREEE acknowledges the contributions of the Ministry of Natural Resources, Suriname, and thanks Sifra Thijm - Fraser, OLADE National Coordinator, Head Policy Officer in the Energy Authority Suriname of the Ministry, for her supervision of the intern, Jalimsing Gyany, who supported the preparation of the ERC.

## **ENERGY SECTOR SUMMARY**







## SOCIOECONOMIC POLICIES

Meerjaren Ontwikkelingsplan 2022-2026 van de Republiek Suriname (Multi-Annual Development Plan 2022-2026 of the Republic Suriname) [5]

National Development Plan/ Overall Country Development Strategy

Suriname's National Energy Policy 2013 – 2033 (Draft) [6]

**National Energy Policy** 

None

Renewable Energy (RE) Policy



## SOCIOECONOMICS

Population Census/ Projection

GDP (USD)

GDP (USD) Per Capita

Gross National Income (GNI) Per Capita (USD)

Debt as % of GDP

Human Development Index

**RE Target** 

616,500 1[1]

\$3,500,000,000.00[1]

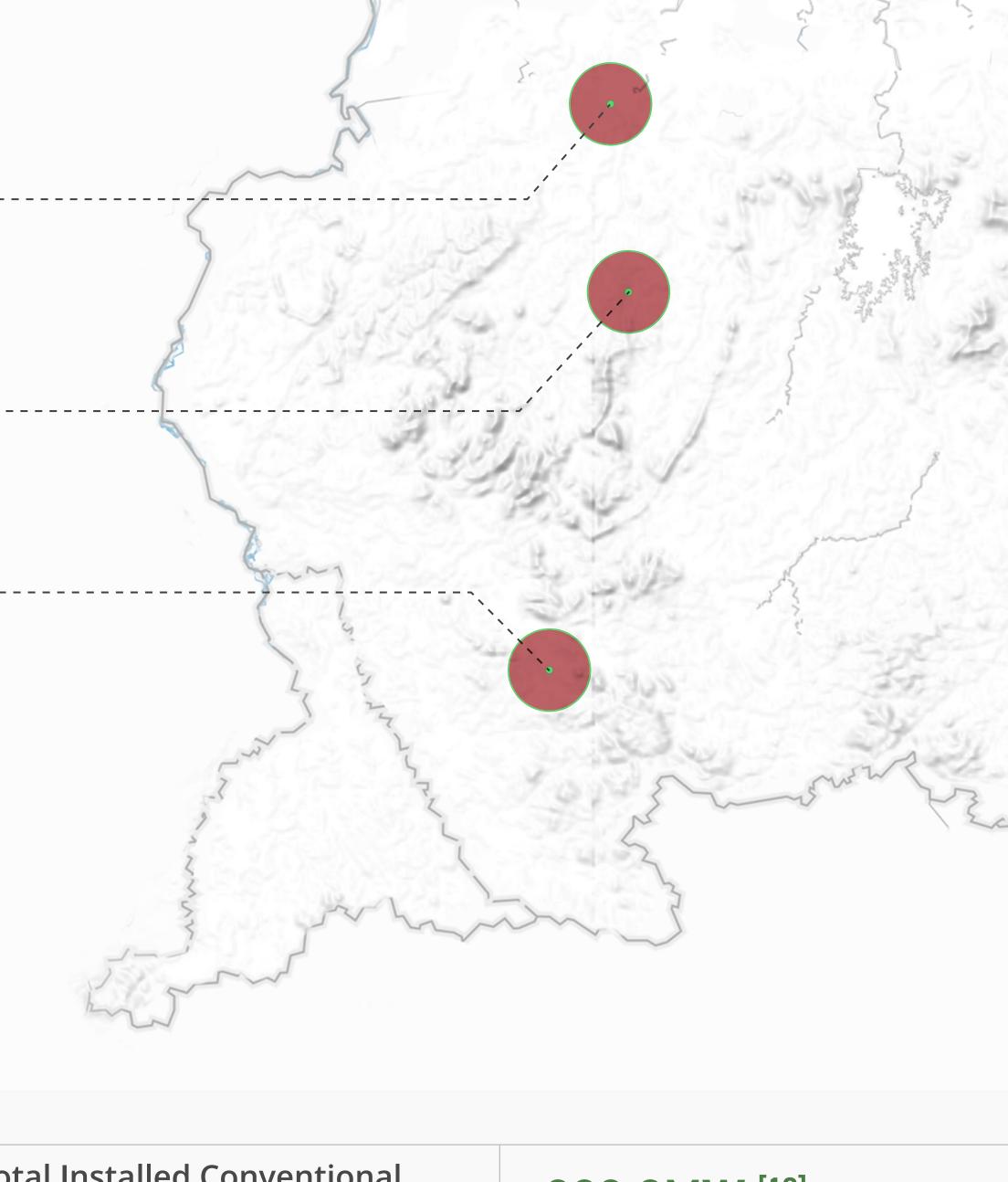
\$5,597.00 [1]

4,880 [2]

122.3% [3]

0.730 [4]

35 % by 2030<sup>[7]</sup>



otal Installed Conventional	
Capacity (MW)	

Total Installed RE (MW)

Electricity System Losses<sup>4</sup> (%)

Energy Use (kWh) Per Capita

National Repository for Energy Data

322.3MW <sup>[10]</sup>	
197.05MW <sup>[10]</sup>	
10% [10]	
1,968 kWh	
sieSURINAME	



## OTHER ENERGY SECTOR SUB-POLICIES

Climate Change Policy

National Determined Contributions (NDC)

Energy Performance Standards/Appliance Labelling National Climate Change Policy, Strategy and Action Plan (2014 - 2021) [8]

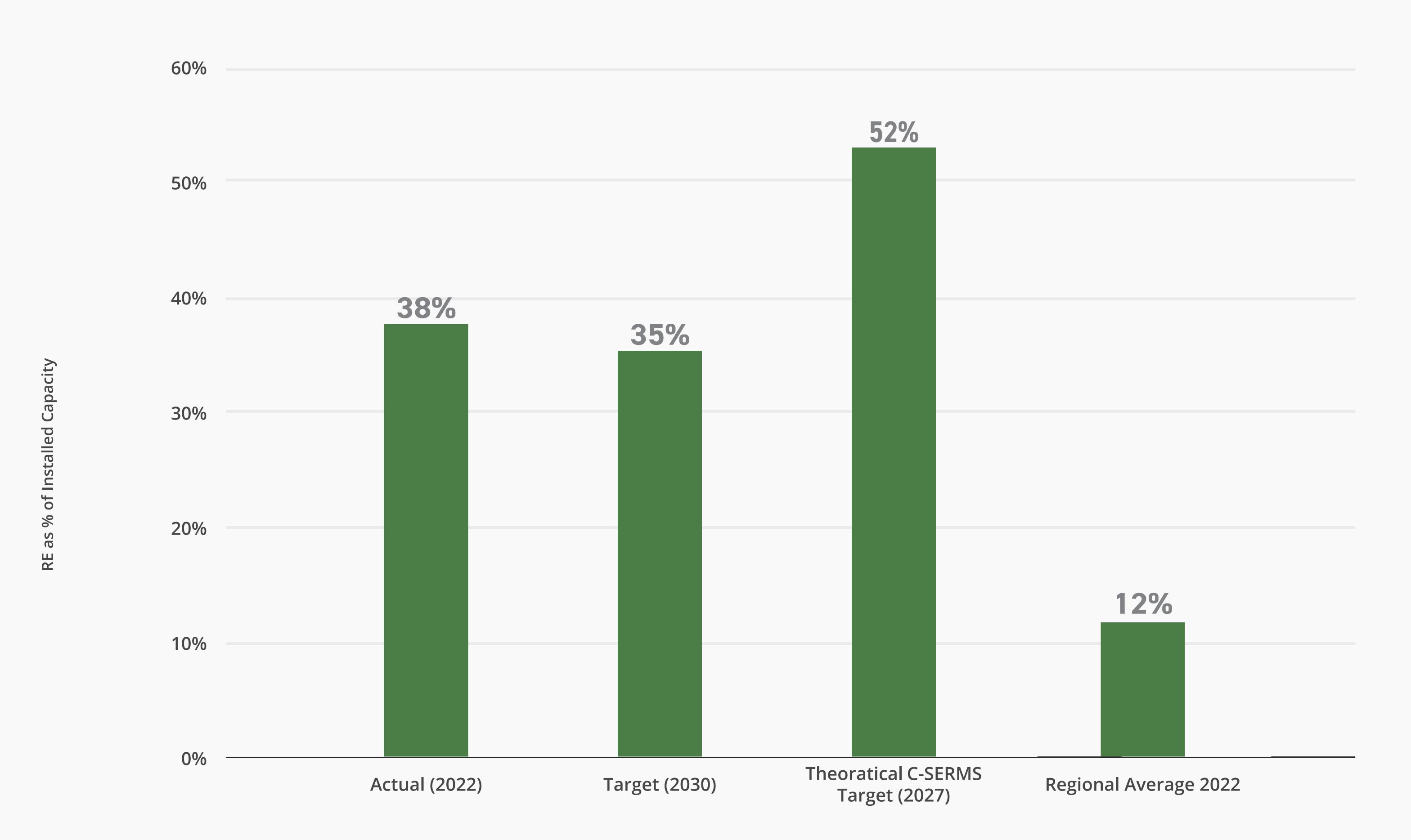
Maintaining 93% forest cover; Renewable energy above 25% by 2025 and above 35% by 2030 [9]

- SSB CRS 57: Energy Labelling Refrigerating Appliances Requirements
- SSB CRS 58: Energy Labelling Compact fluorescent lamps and light emitting diode lamps Requirements
- SSB CRS 59: Energy Labelling Air Conditioners Requirements
- SSB IEC 62552-1 Household refrigerating appliances Characteristics and test methods Part 1: General requirements.
- SSB IEC 62552-2 Household refrigerating appliances Characteristics and test methods Part 2: Performance requirements.
- SSB IEC 62552-3 Household refrigerating appliances Characteristics and test methods Part 3: Energy consumption and volume.
- SSB ISO 5151:2017 Non-ducted air conditioners and heat pumps Testing and rating for performance





## RENEWABLE ENERGY INSTALLED CAPACITY AGAINST TARGETS



## KEY ENERGY STAKEHOLDERS





# Government Ministries, Departments and Agencies Ministerie van Natuurlijke Hulpbronnen (Ministry of Natural Resources) [12] • Dienst Electrificatie Voorziening-DEV (Department for Rural Electrification)

**KEY ENERGY** 

STAKEHOLDERS

(B)

4

Other

Directoraat Energie (Energy Directorate)

Ministerie van Ruimtelijke Ordening en Milieu (Ministry of Spatial Planning and Environment) [13]

Ministerie van Transport, Communicatie en Toerisme (Ministry of Transport, Communication and Tourism) [14]

## Fuel Importers & Suppliers

GOw2 Energy Suriname N.V. <sup>2</sup> [15] Sol Suriname [16]

RUBIS Suriname

# Electric Utility

N.V. Energie Bedrijven Suriname (Energy Company Suriname) (N.V. EBS) [17]

#### **Electricity Regulator**

Energie Autoriteit Suriname (Suriname Energy Authority) [19]

#### **Independent Power Producer**

State Oil Power Company Suriname (SPCS) [18]

- SPCS Thermal
- SPCS Hydro

Ministerie van Economische Zaken, Ondernemerschap en Technologische Innovatie (Ministry of Economic Affairs, Entrepreneurship and Technical Innovation) [20]

Surinaams Standaarden Bureau (Surinamese Standards Bureau) [21]

# POLICY, LEGAL AND REGULATORY (PLR) FRAMEWORK







## POLICIES RELEVANT TO THE ENERGY SECTOR

Suriname's National Energy Policy (2013-2033) [6]

The policy includes goals and strategies that will facilitate access to electricity for all, secure and sustainable energy supply using both renewable energy sources and fossil fuels, as well as exploring options for developing the country's indigenous energy sources.

2017-2021 Policy Development Plan [24]

2017 The Plan provides a framework for the policy programs and measures (inclusive of energy policies) between 2017 to 2021.

Energy Sector Plan [25]



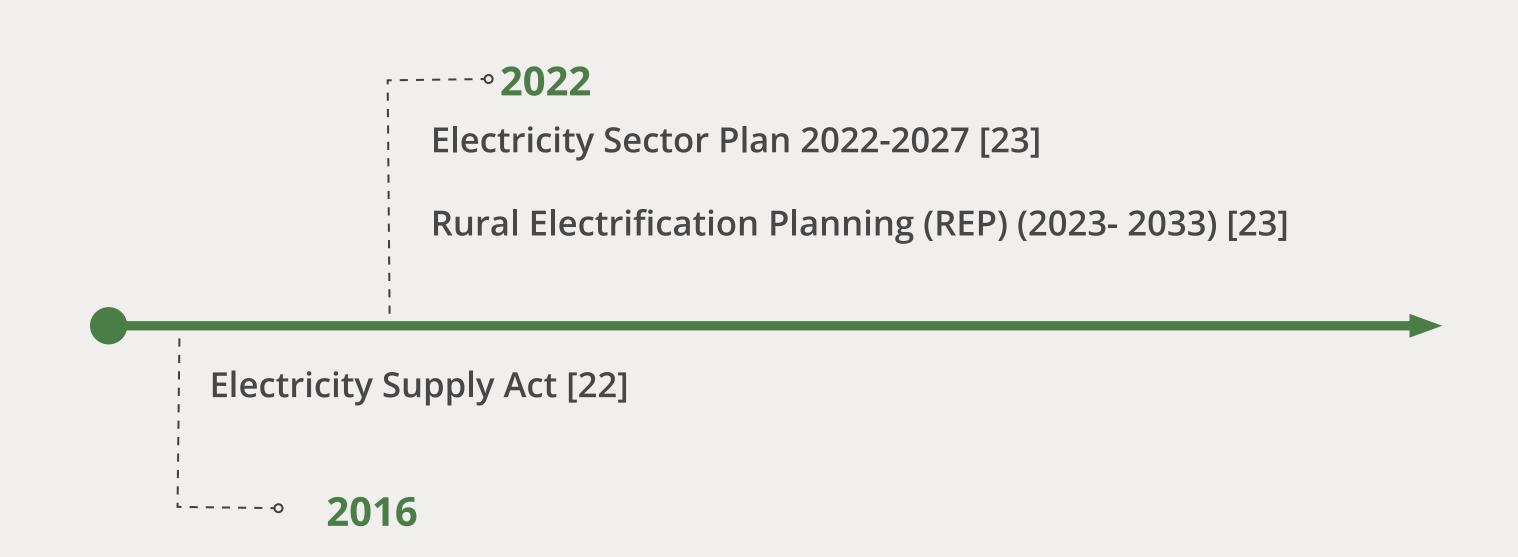
## LEGISLATION RELEVANT TO THE ENERGY SECTOR

Electricity Act [22]

The Act established the Energy Authority of Suriname for the regulation of the electricity supply sector and introduced renewable energy tenders allowing for the marketisation of renewable energy.

	YEAR
Energy Policy and Energy Action Plan [6]:	2012
RE Target: •	2020
EE Target: •	
Electricity Regulator: •	2016
Net Billing/Net Metering: •	
Interconnection Policy/Standards: •	2018
Feed-in-tariff: •	2018
RE/EE Act: •	











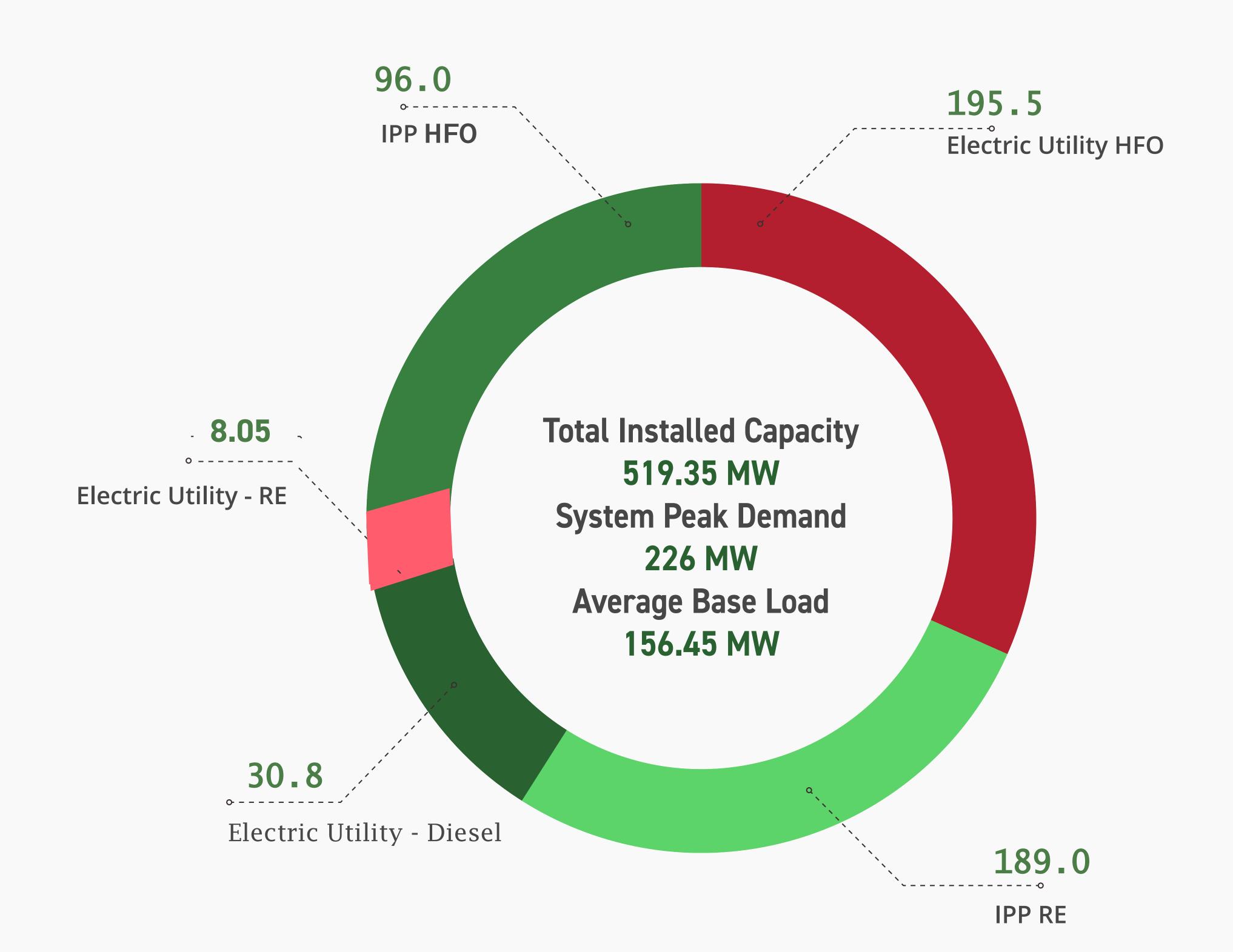


# ELECTRICITY & ENERGY EFFICIENCY [11] [10]

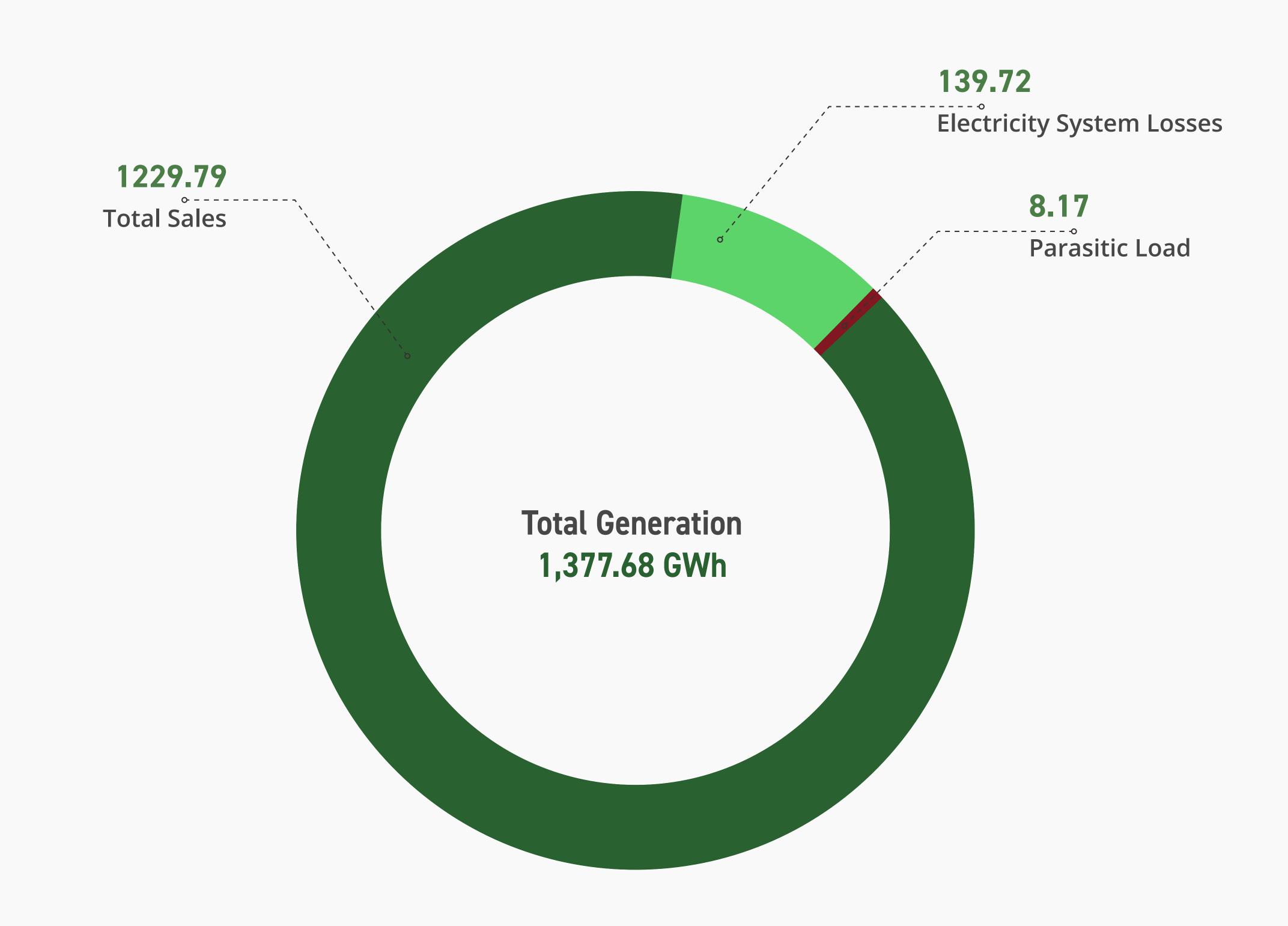








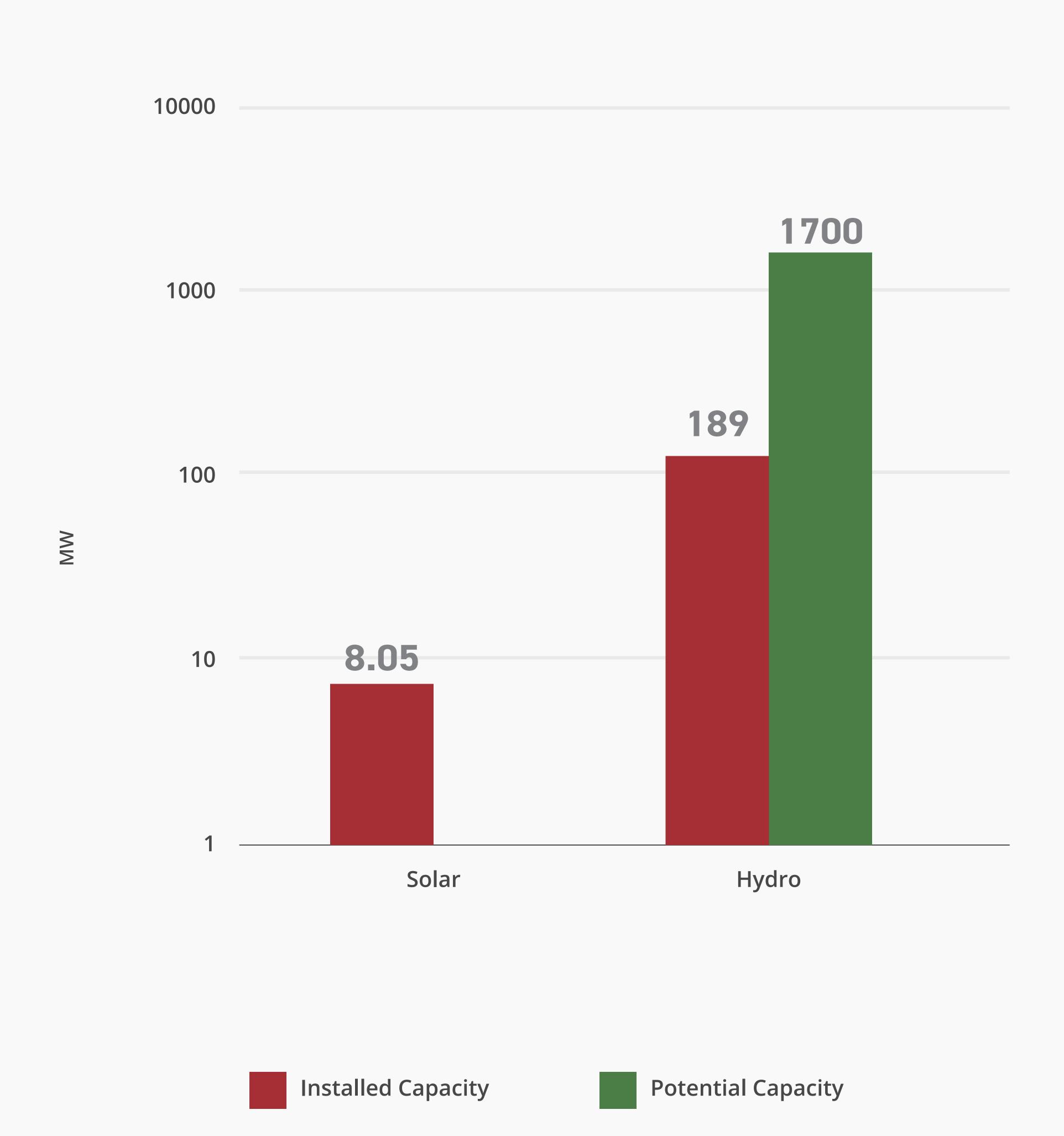








## RENEWABLE ENERGY RESOURCES



# ELECTRICITY TARIFFS<sup>[26]</sup>





	Base tariff (US\$/month)	Tariff (US\$/kWh <800 kWh)	Tariff (US\$/kWh >800 kWh)
Low Voltage Residential 1 Phase	\$5.25	0.06	0.09
Low Voltage Residential 2 Phase	\$7.88	0.06	0.09
Low Voltage Residential 3 Phase	\$10.50	0.06	0.09
		Tariff (US\$/kWh <2600 kWh)	Tariff (US\$/kWh >2600 kWh)
Low Voltage Non-Residential 1 Phase	\$5.25	0.06	0.09
Low Voltage Non-Residential 2 Phase	\$10.50	0.06	0.09
Low Voltage Non-Residential 3 Phase	\$15.75	0.06	0.09
	Base Tariff (US\$/kVA/month)		
Low Voltage Non-Residential > 24 kVA	\$0.58	0.06	0.09
High Voltage Non-Residential	\$0.68	0.06	0.09
Streetlighting		0.08	

# PROJECTS IN THE PIPELINE







Donor Funding and Technical Assistance Landscape	Donor Organization & Banks	Funding Awards (USD)	Year
Development of Renewable Energy, Energy Efficiency and Electrification [27]	Inter-American Development Bank	Funding - \$4,400,000.00  Country Counterpart Financing - \$3,300,000.00  Total Cost - \$7,700,000.00	2013
Consolidating a Sustainable Energy Sector [28]	Inter-American Development Bank	30,000,000.00	2019
Support the development of solar floating photovoltaic energy in Suriname [29]	Inter-American Development Bank	Funding - \$ 300,000.00  Country Counterpart Financing - \$ 34,000.00  Total Cost - \$ 334,000.00	2021
Promotion of energy efficiency and distributed generation in Suriname [30]	Inter-American Development Ban	Total Cost - \$ 250,000.00	2021
EcoMicro - Southern Commercial Bank - Green Finance for MSMEs and Low-Income Households [31]	Inter-American Development Bank	Funding - \$ 180,000.00  Country Counterpart Financing - 77,000.00  Total Cost - \$ 257,000.00	2021
Support for rural electrification with renewable energy, potable water and telecommunications in Suriname [32]	Inter-American Development Bank	Total Cost - \$ 500,000.00	2022
Support for the execution, supervision and closing of energy projects in Suriname [33]	Inter-American Development Bank	Total Cost - \$ 200,000.00	2022

# TERTIARY PROGRAMMES OFFERED





Name of Education Programme Provider	Bachelor's Degree	Masters Degree	Programme Link
Anton de Kom University of Suriname		Sustainable Management of Natural Resources <sup>3</sup>	https://www.uvs.edu/universe_course/masteropleiding-smnr/
Anton de Kom University of Suriname-	Electrical Engineering		https://www.uvs.edu/universe_course/bacheloropleiding-in-elektrotechniek/
Polytechnic College Suriname	Electrical Engineering		https://www.ptc.edu.sr/nieuws-2/elektrotechniek/

# \*

# TRANSPORTATION SECTOR





No Transportation data was reported for 2022

# CLIMATE CHANGE FRAMEWORK







SUMMARY OF SURINAME'S GHG EMISSIONS AND REMOVALS (Gg) FOR 2008 [35]

Climate Change Policy:	National Climate Change Policy, Strategy and Action Plan (2014 - 2021) [8]
National Determined Contributions:	Maintaining 93% forest cover; Renewable energy above 25 % by 2025 and above 35 % by 2030 [9]
Emissions Reduction Target:	An estimated 70% of emissions from the following sectors: Forests, energy, agriculture, and transport. [9]
Priority Sectors for NDC: [9]	<ul> <li>Forestry</li> <li>Energy</li> <li>Transportation</li> <li>Agriculture</li> </ul>
National Communications (NC) to the UNFCCC 4:	Republic of Suriname First National Communication under the United Nations Framework Convention on Climate Change (2005) [34]
	Republic of Suriname Second National Communication to the United Nations Framework Convention on Climate Change (2016) [35]

Categories	Emissions CO2 Equivalent (Gg)			Emissions CO2 Equivalent (Gg	
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O		
Energy	3788.15	3.36	7.48		
Industrial Processes and Product Use	53.2				
Agriculture, Forestry, and Other Land Use	1836.59	653.8	2513.57		
International Aviation (International Bunkers)	101.22				

# \*

## **BIBLIOGRAPHY**





- [1] Central Bank of Suriname, "Suriname Country Profile Economic and Financial Data," June 2023. [Online]. Available: https://www.cbvs.sr/images/content/statistieken/CP/SurinameCountryProfile.pdf. [Accessed 27 October 2023].
- [2] The World Bank Group, "GNI per capita, Atlas method (current US\$)," The World Bank Group, 2023. [Online]. Available: https://data.worldbank.org/indicator/NY.GNP.PCAP.CD. [Accessed 27 July 2023].
- [3] Government of the Republic of Suriname, "Decision of the Minister of Finance and Planning of February 10, 2023 La.F. no. 366, containing publication of a overview of the gross national debt of the fourth quarter from 2022," 8 February 2023. [Online]. Available: https://www.sdmo.org/documenten/staatsschuld/staatsschuld/staatsschuld\_dec\_2022.pdf. [Accessed 25 August 2023].
- [4] United Nations Development Programme, "Human Developemnt Report 2021/2022," 8 September 2022. [Online]. Available: https://hdr.undp.org/system/files/documents/global-report-document/hdr2021-22pdf\_1.pdf. [Accessed 14 September 2022].
- [5] Planning Office Suriname, "Multi-year Development Plan 2022-2026 of Suriname complete -Final," Planning Office Suriname, 2023. [Online]. Available: https://www.planningofficesuriname.com/meerjaren-ontwikkelingsplan-2022-2026-van-suriname-volledig-final/. [Accessed 29 June 2023].
- [6] R. Jharap, "Sutainable Energy for All: Rapid Assessment Gap Analysis Suriname," 25 February 2014. [Online]. Available: https://www.seforall.org/sites/default/files/Suriname\_RAGA\_EN\_Released.pdf. [Accessed August 2023].
- [7] Governemnt of the Republic of Suriname, "The Republic of Suriname Nationally Determined Contribution," 2020. [Online]. Available: https://unfccc.int/sites/default/files/NDC/2022-06/Suriname%20Second%20NDC.pdf. [Accessed 29 June 2023].
- [8] Caribbean Community Climate Change Centre and the Directorate for Environment, Ministry of Labour, Technological Development and Environment, "Final National Climate Change Policy, Strategy and Action Plan for Suriname 2014-2021," June 2015. [Online]. Available: https://dondru.sr/media/1047/sr\_climate\_change\_policy\_strategy\_action\_plan\_2014\_2021.pdf. [Accessed 29 August 2023].
- [9] Governemnt of The Republic of Suriname, "Nationally Determined Contribution 2020," December 2019. [Online]. Available: https://unfccc.int/sites/default/files/NDC/2022-06/Suriname%20Second%20NDC.pdf. [Accessed 29 June 2023].
- [10] Energie Bedrijven Suriname, Electricity & Energy Efficiency Data, Paramaribo, Suriname: Private Communication, 2023.
- [11] A. Ochs, M. Konold, K. Auth, E. Musolino and P. Killeen, "Caribbean Sustainnable Energy Roadmap and Strategy (C-SERMS) Baseline Report and Assessment," Worldwatch Intitue, Washington, D.C., 2015.
- [12] Government of the Republic of Suriname, "Minister en staf," 2023. [Online]. Available: https://gov.sr/ministerie-van-natuurlijke-hulpbronnen/minister-en-staf/. [Accessed 5 June 2023].
- [13] Governemnt of the Republic of Suriname, "Ministerie van Ruimtelijke Ordening en Milieu Ministeries/ministerie-van-ruimtelijke-ordening-en-millieu/minister-en-staf/. [Accessed 5 June 2023].
- [14] Government of the Republic of Suiname, "Ministerie van Transport, Communicatie en Toerisme Ministerie-van-transport-communicatie-toerisme/minister-en-staf/. [Accessed 15 August 2023].
- [15] GOw2 Suriname, "Our Mission and Values," 2023. [Online]. Available: https://gow2.com/about-us/missie-waarden/. [Accessed 5 June 2023].
- [16] Sol Suriname, "Sol Suriname," 2023. [Online]. Available: https://suriname.solpetroleum.com/. [Accessed 6 June 2023].
- [17] NV Energiebedrijven Suriname, "About Us," 2023. [Online]. Available: https://nvebs.com/over-ons. [Accessed 9 June 2023].
- [18] Staatsolie, "About Us," [Online]. Available: https://www.staatsolie.com/en/about-us/. [Accessed 5 June 2023].
- [19] Energy Authority Suriname, "About Us," 2023. [Online]. Available: https://eas.sr/overons/. [Accessed 6 June 2023].
- [20] Government of the Republic of Suiname, "Ministerie van Economische Zaken, Ondernemerschap en Technologische Innovatie Minister en staf," 2023. [Online]. Available: https://gov.sr/ministeries/ministerie-van-economische-zaken-ondernemerschap technologische-innovatie/minister-en-staf/. [Accessed 5 June 2023].
- [21] Surinamese Standards Bureau, "Mission and Vision," [Online]. Available: https://www.ssb.sr/over-ssb/missie-en-visie/. [Accessed 5 June 2023].

# \*

## **BIBLIOGRAPHY**





- [22] Government of the Republic of Suiname, "Electricity Act," 2016. [Online]. Available: https://www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2018/02/SURelectricityact16.pdf. [Accessed 18 March 2024].
- [23] Energy Authority of Suriname, Energy Sector Data and Information, Paramaribo, Suriname: Private Communication, 2023.
- [24] Government of the Republic of Suiname, "2017-2021 Policy Development Plan," January 2017. [Online]. Available: http://www.planningofficesuriname.com/wp-content/uploads/2018/02/2017-2021-DEVELOPMENT-PLAN.pdf. [Accessed 18 March 2024].
- [25] G. o. S. Ministry of Natural Resources, Interviewee, Energy Sector Information. [Interview]. 2020.
- [26] Energie Bedrijven Suriname, "Stroomtarieven," 2023. [Online]. Available: https://nvebs.com/elektriciteit/stroomtarieven. [Accessed 27 June 2023].
- [27] Inter American Development Bank, "Development of Renewable Energy, Energy Efficiency and Electrification," 2023. [Online]. Available: https://www.iadb.org/en/whats-our-impact/SU-G1001. [Accessed 24 June 2023].
- [28] Inter American Development Bank, "Consolidating a Sustainable Energy Sector," 2023. [Online]. Available: https://www.iadb.org/en/whats-our-impact/SU-L1055. [Accessed 24 June 2023].
- [29] Inter American Development Bank, "Support the development of solar floating photovoltaic energy in Suriname," 2023. [Online]. Available: https://www.iadb.org/en/whats-our-impact/SU-T1138. [Accessed 24 June 2023].
- [30] Inter American Development Bank, "Promotion of energy efficiency and distributed generation in Suriname," 2023. [Online]. Available: https://www.iadb.org/en/whats-our-impact/SU-T1147. [Accessed 24 June 2023].
- [31] Inter American Development Bank, "EcoMicro Southern Commercial Bank Green Finance for MSMEs and Low-Income Households," 2023. [Online]. Available: https://www.iadb.org/en/whats-our-impact/SU-T1145. [Accessed 24 June 2023].
- [32] Inter American Development Bank, "Support for rural electrification with renewable energy, potable water and telecommunications in Suriname," 2023. [Online]. Available: https://www.iadb.org/en/whats-our-impact/SU-T1165. [Accessed 24 June 2023].
- [33] Inter American Development Bank, "Support for the execution, supervision and closing of energy projects in Suriname," 2023. [Online]. Available: https://www.iadb.org/en/whats-our-impact/SU-T1167. [Accessed 24 June 2023].
- [34] Governemnt of the Republice of Suriname, "First National Communication under the United Nations Framework Convention on Climate Change," 2006. [Online]. Available: https://unfccc.int/sites/default/files/resource/Suriname%20INC.pdf. [Accessed 29 June 2023].
- [35] .. J. Berrenstein and M. Gompers-Small, "Second National Communication to the United Nations Framework Convention on Climate Change," 2016. [Online]. Available: https://unfccc.int/sites/default/files/resource/Surnc2rev.pdf. [Accessed 29 June 2023].
- [36] Government of the Republic of Suriname, "Third National Communication of the Republic Suriname to the United Nations Framework Convention on Climate Change," April 2023. [Online]. Available: https://unfccc.int/sites/default/files/resource/SURINAME%20 NC3\_2023\_FINAL.pdf. [Accessed 16 April 2024].