

TRINIDAD and TOBAGO

ENERGY REPORT CARD (ERC) FOR 2021



INTRODUCTION

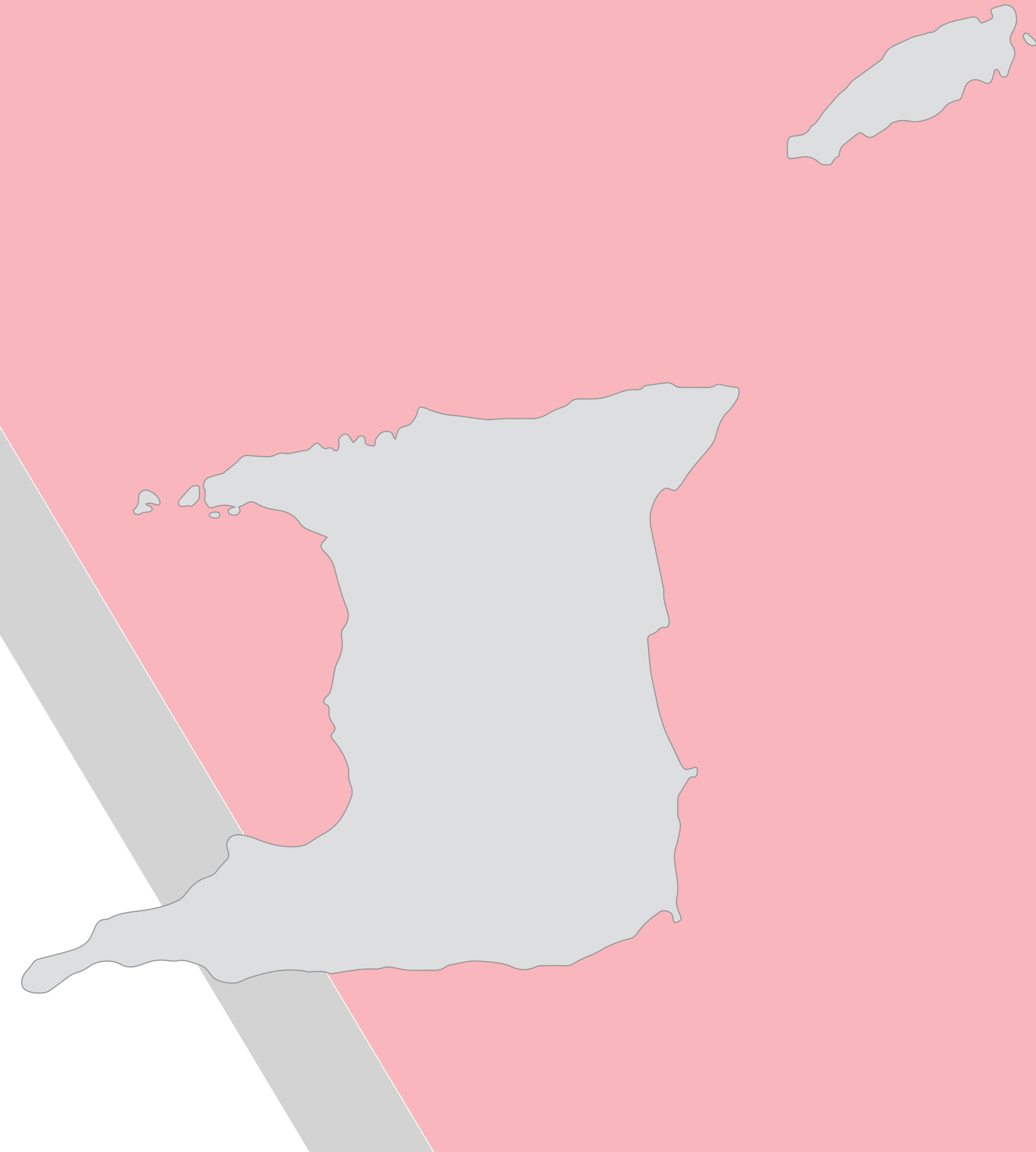
This document presents the Trinidad and Tobago's Energy Report Card (ERC) for 2021.

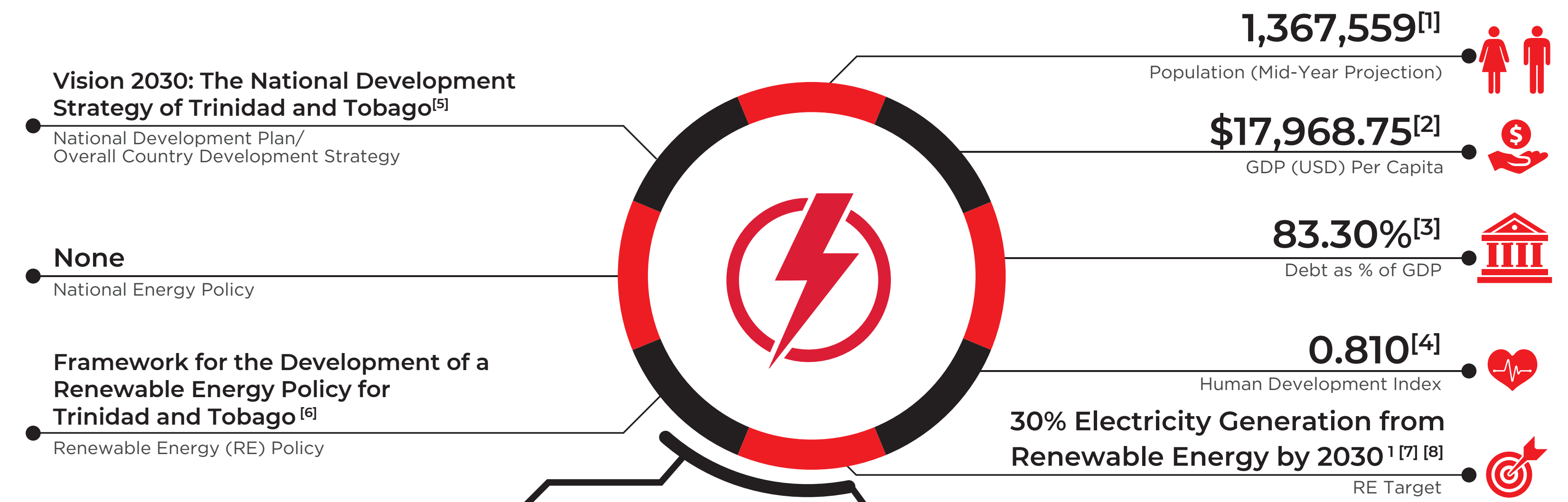
The ERC provides an overview of the energy sector performance in Trinidad and Tobago. The ERC also includes energy efficiency, technical assistance, workforce, training and capacity building information, subject to the availability of data.

This ERC includes data and information that was provided by government ministries, agencies, or departments, with responsibility for energy, utilities, and statistical offices.

The data collected was supplemented by internet research, author calculations and inferences.

This data is a collection from a variety of public sources and, as such, is for general information only. It is not intended for decision-making purposes, and therefore reliance placed on the information herein is strictly at the user's risk.





Energy Performance Standards/ Appliance Labelling^[9]

Compulsory energy labelling:

TTCS 11:2021, Energy Labelling- Compact fluorescent lamps and lights emitting diode lamps-compulsory requirements

Voluntary energy labelling standards:














TTS/CRS 57, Energy Labelling- Refrigerators and freezers- Requirements

TTS/CRS 59, Energy Labelling- Air conditioners- Requirements

National Determined Contributions (NDC)^[14]

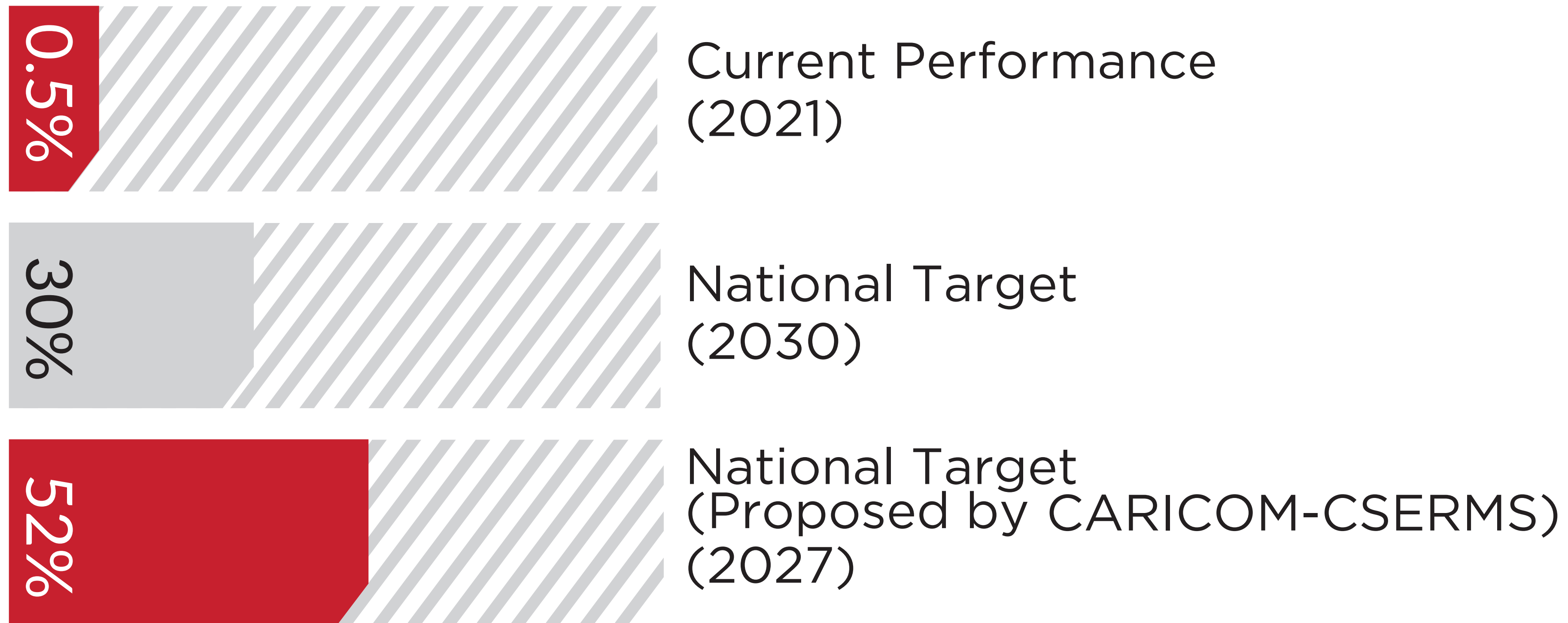
Unconditional: 30% reduction in GHG emissions by December 31, 2030, in the public transportation sector compared to a business as usual (BAU) scenario (reference year 2013).

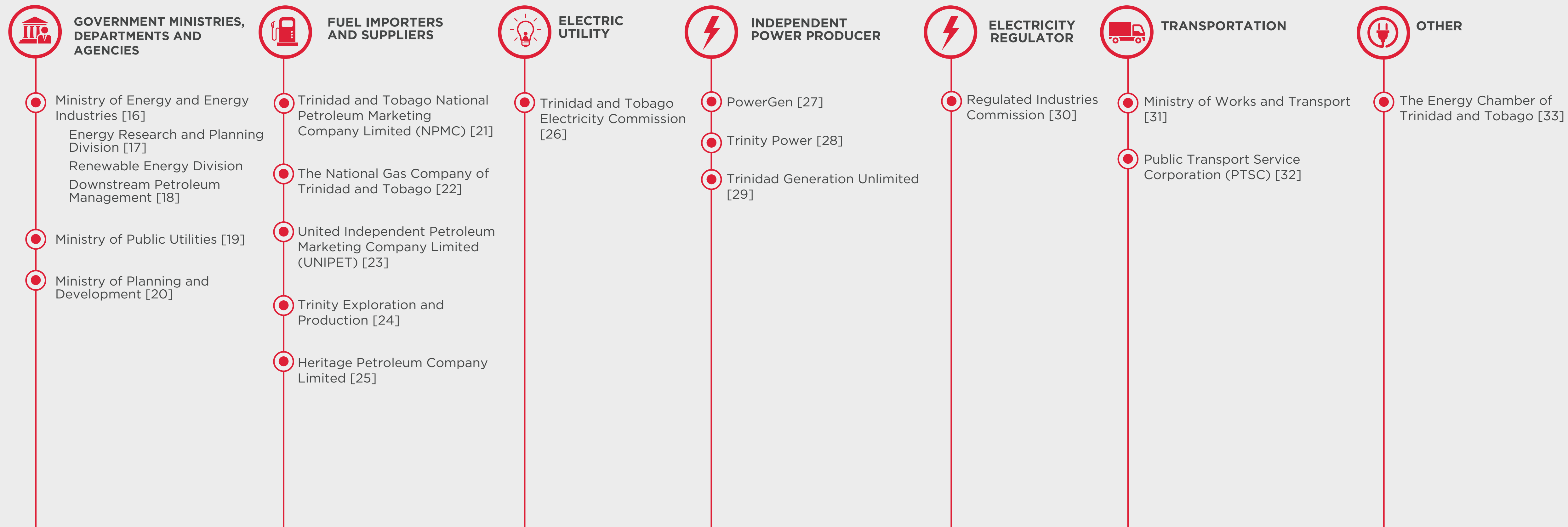
Conditional: Additional reduction achievable under certain conditions which would bring the total GHG reduction to 15% below BAU emission levels by December 31, 2030.

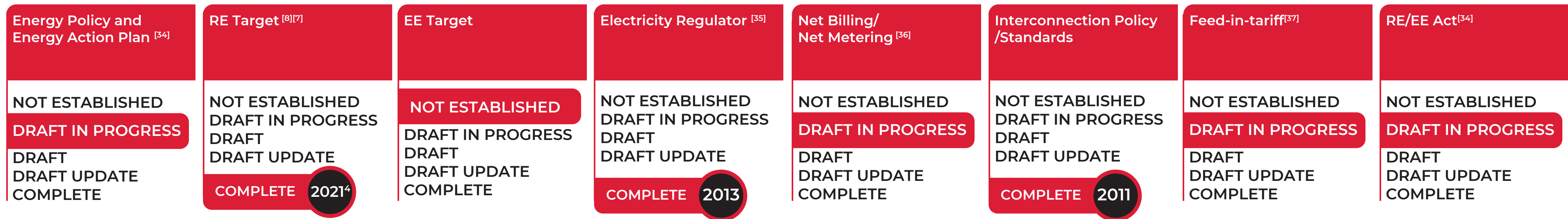
	No. of Persons Employed in Energy Sector	Not Available
	Total Installed Conventional Capacity (MW)	2117.4^[11]
	Total Installed RE (MW)	10.59^[11]
	Electricity System Losses (%)	6.1%^[11]
	Energy Use (kWh) Per Capita	6,437.78²
	Fuel and Oil Imports as % of GDP	0^[10]
	Oil Imports as % of GDP	0^[10]
	Electric Vehicle Stock	None
	Climate Change Policy	National Climate Change Policy (NCCP) (2011)^[13]
	Total Oil Import (BOE) per day	0^[10]
	Total Oil Export (BBI) per day	59,400.94^[10]
	Energy Intensity (BTU/\$)	18,103 (2020)^[10]
	National Repository for Energy Data	None³

1. This Renewable Energy target has not yet been written into policy.
 2. The Energy Use per Capita for Trinidad and Tobago is higher than other CARICOM Member States because 53% of all energy is allocated to Industrial sector; 11% to Commercial and Business Sector; 34% to Residential Sector; and 2% to Streetlighting
 3. A Proposed National Energy Data Repository (NEDR) is currently being developed by the Ministry of Energy and Energy Industries

Performance Against Targets





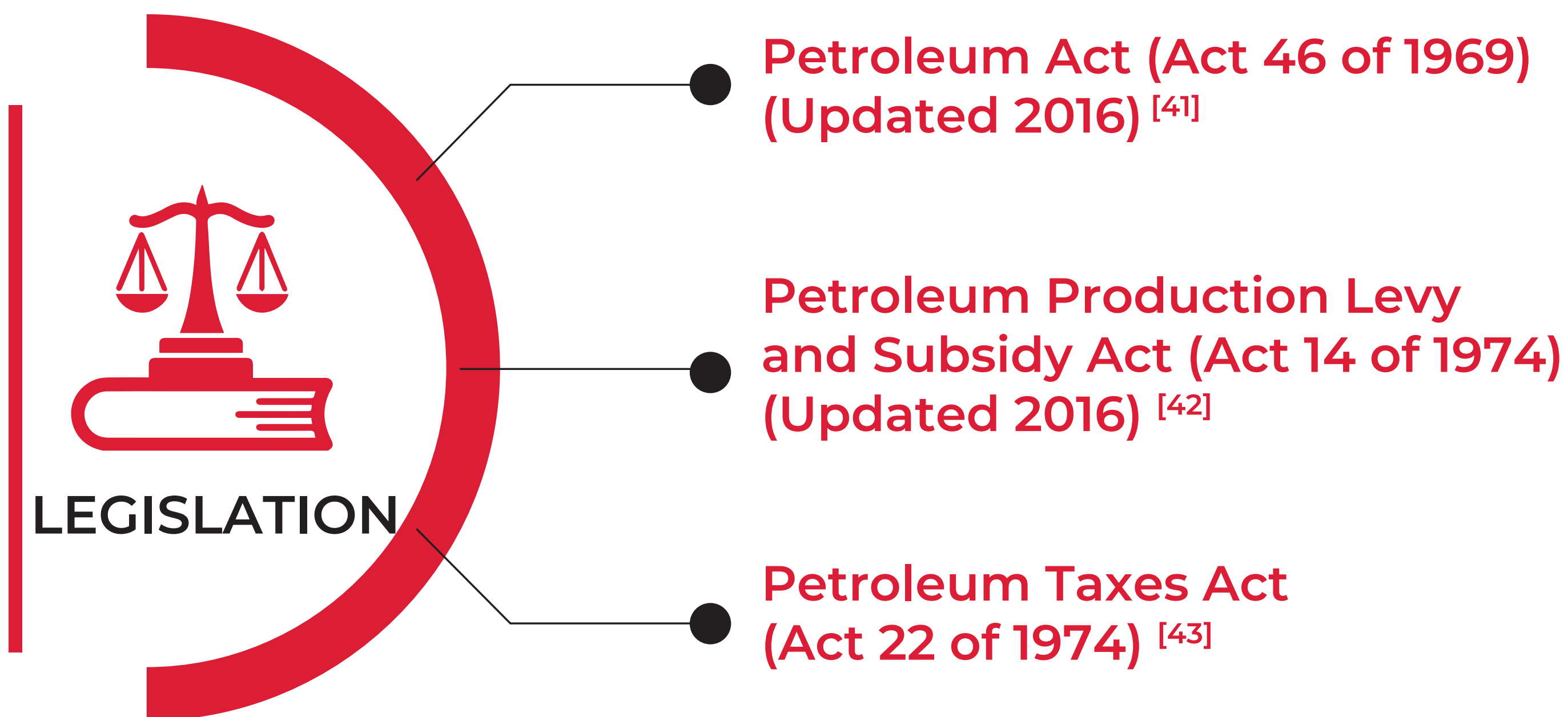


4. This Renewable Energy target has not yet been written into policy.

Policies and Legislation Relevant to the Energy Sector

KEY ACHIEVEMENTS

PLR Framework Timeline For Electricity Sector



2016
(Update)

Regulated Industries Commission Act [38]

2016
(Update)

Trinidad and Tobago Electricity Commission Act [39]

2019

Energy Conservation and Energy Efficiency Policy and Action Plan 2020 to 2024⁵ [40]

Draft in progress
(2019)

Energy Efficiency Act⁶ [34]

Draft in progress

Renewable Energy Policy⁷ [34]

Draft in progress

Licence framework for Utility Scale Power generation including Renewable Energy

Draft in progress

Draft Licence for Non-utility Scale Power generation

Draft in progress

Integrated Resource and Resilience Plan



Policies and Legislation Relevant to the Transportation Sector

Motor Vehicle and Road Traffic Act, Chapter 48:50 [44]

Motor Vehicle and Road Traffic Act No. 9 of 2017

Motor Vehicles and Road Traffic (Enforcement and Administration) Act, Chapter 48:52 [45]

Motor Vehicles Insurance (Third-Party Risks) Act, Chapter 48:51 [46]

Maxi Taxi Act, Chapter 48:53 [47]

Highways Act, Chapter 48:01 [48]

Airport Authority Act, Chapter 49:03 [49]

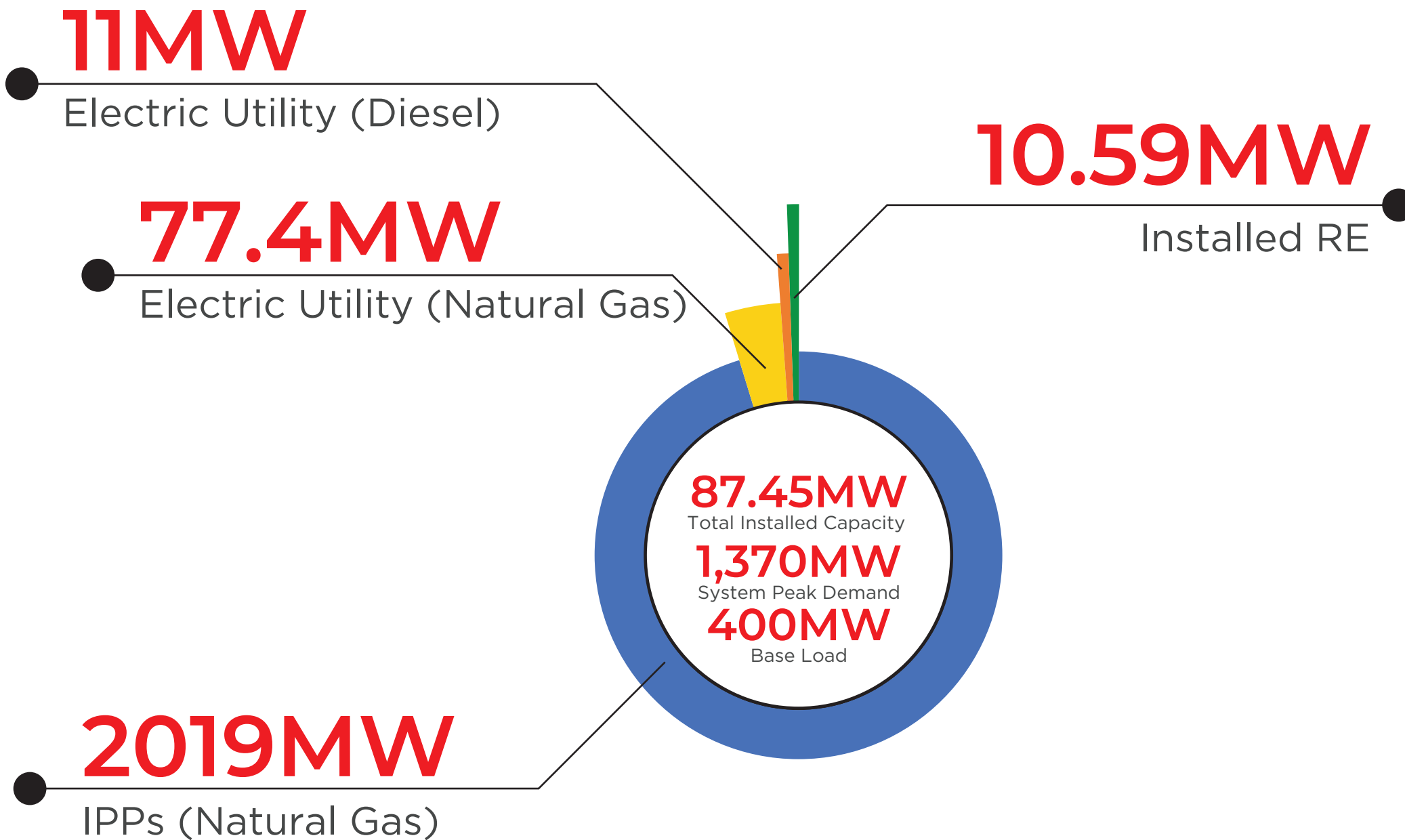
Civil Aviation Act, Chapter 49:03 [50]

Shipping Act, Chapter 50:10 [51]

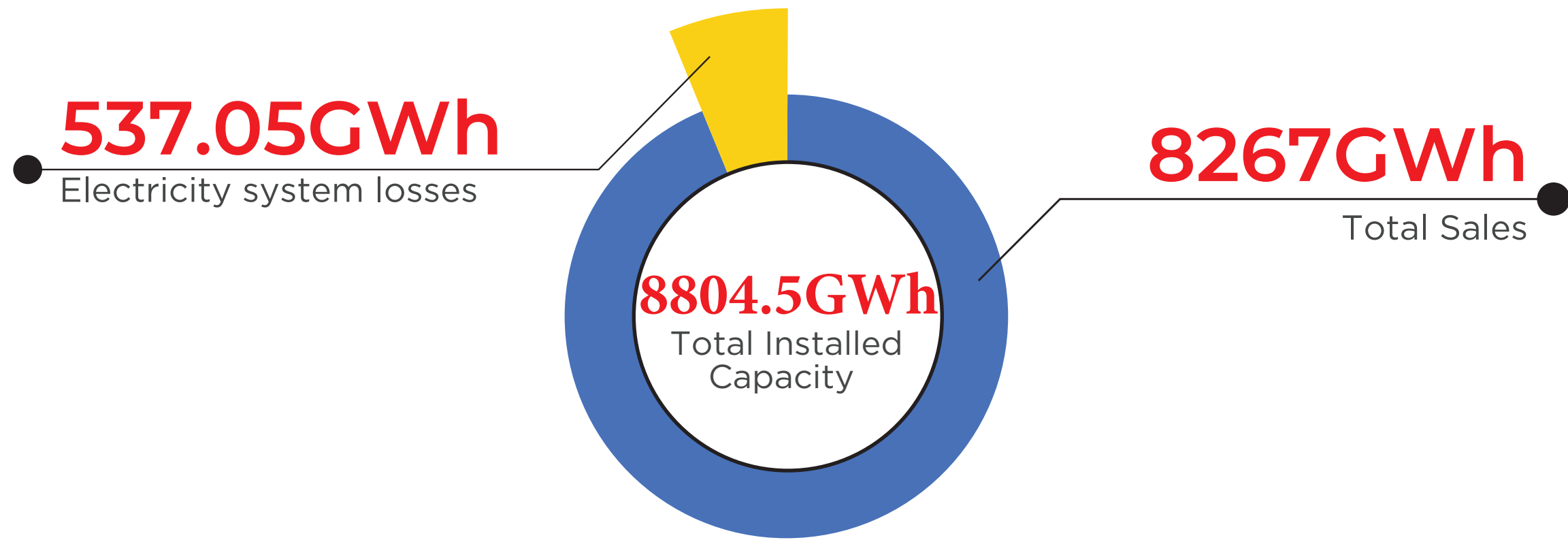
Port Authority Act, Chapter 51:01 [52]

Pilotage Act, Chapter 51:02 [53]

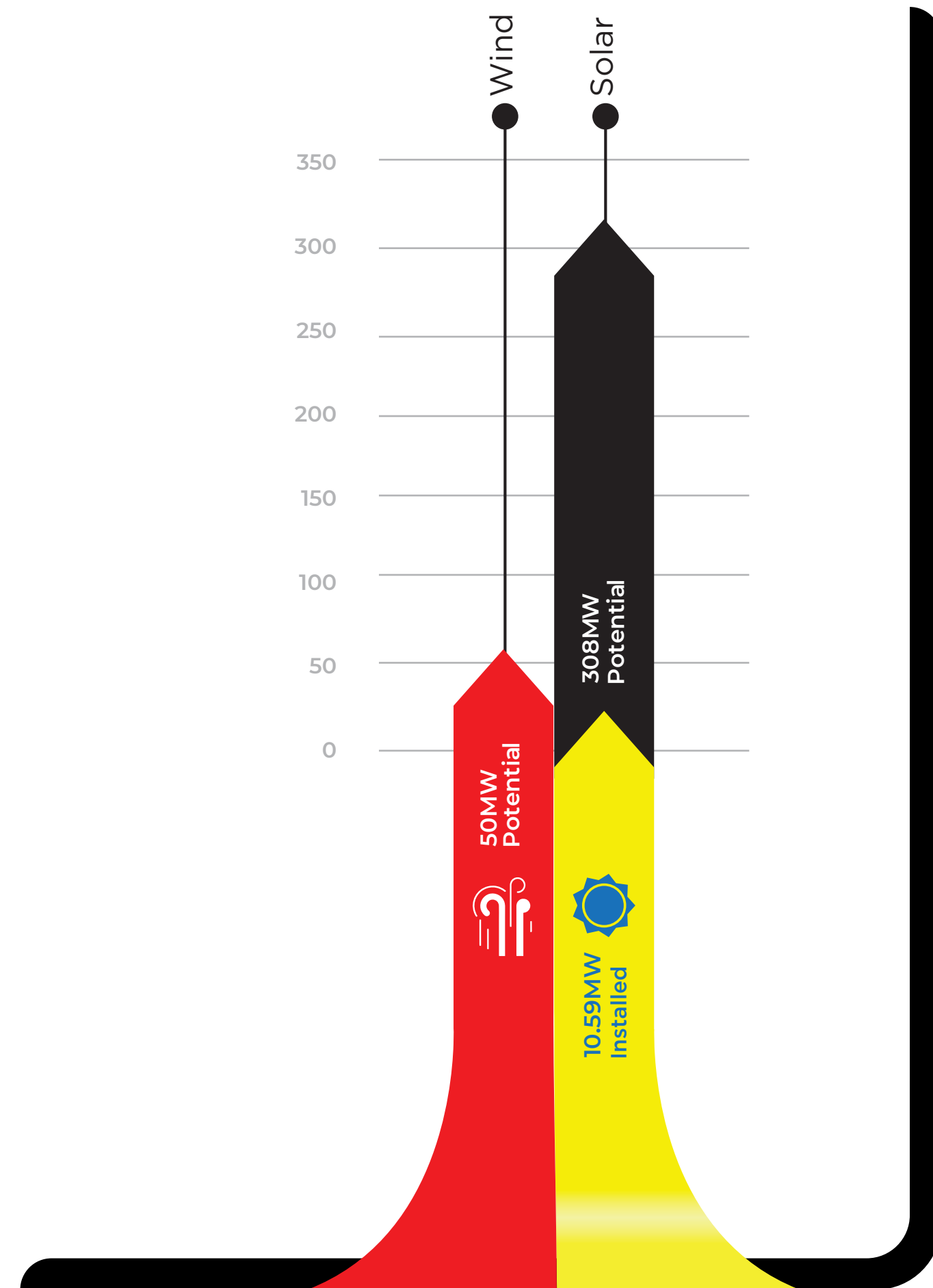
Installed Capacity (MWh)



Energy Consumption (GWh)



Renewable Energy Resources



Electricity Tariffs^[54]




RATE CLASS		TARIFF (US\$/kWh)	DEMAND (US/kWh)
RESIDENTIAL ⁸	1 - 400 kWh	0.03	
	401 - 1,000 kWh	0.04	
	>1,000	0.05	
COMMERCIAL (GENERAL)		0.06	
INDUSTRIAL (B1)	B1	0.09	
INDUSTRIAL LARGE LOADS	D1 (Small Industrial)	0.02	7.43
	D2 (Medium Industrial)	0.03	7.43
	D3 (large industrial)	0.2	6.32
	D4 (large Industrial)	0.2	5.95
	D5 (Large Industrial - Standby)	0.02	5.50
	E1 (Very Large Load)	0.02	6.61
STREETLIGHTS ⁹ (S1)	E2 (Very Large Load)	0.02	6.54
	S1-1	125.25	
	S1-2	84.17	
	S1-3	61.21	
STREETLIGHTS ¹⁰ (S2)	S1-4	55.47	
	S1-2	66.95	
	S1-3	51.64	
	S1-4	42.08	

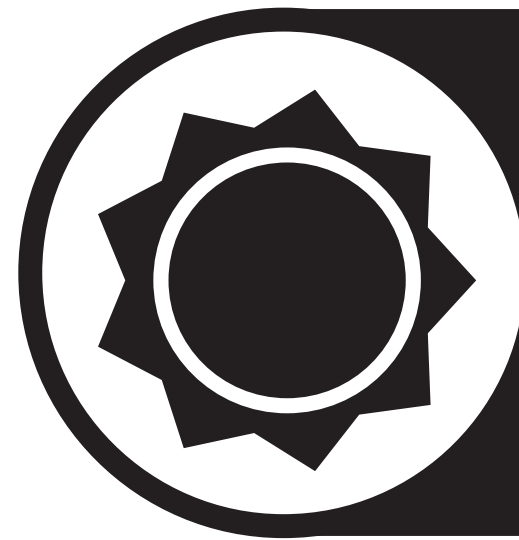
8. Residential customers are billed based on a 60-day cycle

9. Streetlight rates are yearly

10. Streetlight rates are yearly

Technical Assistance Projects

	 Donor Funding and Technical Assistance Landscape	 Donor Organization & Banks	 Funding Awards
2019-Present	Solar PV installation at Queen's Park Savannah: To construct a solar PV installation at the Queen's Park Savannah with electric vehicle (EV) charging stations [7]	United Arab Emirates (UAE) Caribbean Renewable Energy Fund (CREF)	Trinidad and Tobago Electricity Commission, Ministry of Public Utilities, Ministry of Energy and Energy Industries
2019-Present	Piarco Solar Park: To construct a solar park at the Piarco International Airport [7]	The European Union's Global Climate Change Alliance Plus (GCCA+); International Civil Aviation Organization (ICAO)	Trinidad and Tobago Electricity Commission, Ministry of Public Utilities, Ministry of Energy and Energy Industries, Airport Authority of Trinidad and Tobago (AATT)
2019-Present	Rural Solar Electrification via the Solar Panel Assistance Programme: This is a government-assisted electrification programme designed for households located far from the national grid, with a combined income below a defined ceiling and for whom it would not be economically feasible for T&TEC to extend the power grid [55] [7].	The European Union's Global Climate Change Alliance Plus (GCCA+)	Ministry of Public Utilities, Trinidad and Tobago Electricity Commission, Ministry of Energy and Energy Industries
2019-2023	Installation of solar energy systems in public utilities and remote communities with increased capacity to maintain solar power systems [56]	The European Union's Global Climate Change Alliance Plus (GCCA+)	"Ministry of Planning and Development, Ministry of Energy and Energy Industries, EU Delegation to Trinidad & Tobago and implemented by UNDP
2021-Present	Project Lara: to develop solar farm installations in Orange Grove and Brechin Castle that will have a combined output power capacity of 112.2MW [57]	Lightsource BP; BP; Shell	Trinidad and Tobago Electricity Commission
2020-Present	Development of Green Hydrogen Production Facility in Pt. Lisas, Trinidad [58] [59]	Fisterra Energy, consortium of local and international investors	NewGen Energy Limited (NewGen), National Gas Company of Trinidad and Tobago, HDF Energy, Kenesjay Green Limited (KGL)
	EcoMicro - Central Finance Facility - Green Finance to Build Climate Resilience of Low-Income Households [60]	Inter-American Development Bank	"Canada Cooperation Frame - \$187,840
2021	Building the Regulatory Regime for the Development of Utility Scale Renewable Energy Generation [61]	Inter-American Development Bank	\$250,000



ENERGY EFFICIENCY PROJECTS

There were no Energy Efficiency Projects reported in 2021

RENEWABLE ENERGY PROJECTS

There were no Renewable Energy Projects reported in 2021

CTS College of Business and Computer Science

Introduction to Solar Power Systems

No. of Persons Enrolled	125
No. of Persons Graduated	95

School of Business and Computer Science

Implementing Solar Power Systems for Power Generation: Photovoltaic Installer (Level 1)¹³

No. of Persons Enrolled	289
No. of Persons Graduated	45

Implementing Wind Power Systems for Residential Use

No. of Persons Enrolled	25
No. of Persons Graduated	20

Professional Certificate in Servicing and Repairing Hybrid & Electric Vehicles - A Practical Approach¹⁴

No. of Persons Enrolled	127
No. of Persons Graduated	26

The University of The West Indies St. Augustivne Campus

Bio-renewable chemicals from agricultural waste¹¹

The University of Trinidad and Tobago

Master of Science in Energy Engineering with Specialisation in Renewable Energy

No. of Persons Enrolled	60
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School of Business and Computer Science

BTEC Higher National Diploma (HND) in Engineering (Electrical and Electronic Engineering)¹²

The University of Trinidad and Tobago

National Engineering Technician Diploma (NETD) - Renewable Energy Engineering Technology

No. of Persons Enrolled	40
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The University of The West Indies St. Augustivne Campus

Environmental Science and Sustainable Technology (Special)
Physics
Mechanical Engineering

The University of Trinidad and Tobago

Bachelor of Applied Science (B.A.Sc.) in Energy Engineering with Specialisations in Oil and Gas or Renewable Energy

The University of The West Indies St. Augustivne Campus

Renewable Energy Technology

No. of Persons Enrolled	65
No. of Persons Graduated	68

VOCATIONAL CERTIFICATE

DIPLOMA

BACHELOR'S DEGREE

MASTER'S DEGREE

MPhil/PhD

11. Area of focus

12. Includes a course on: Renewable Energy, Industrial Power, Electronics and Energy Storage

13. Photovoltaic Installer (Level 1) Electronic Technician Association PVI 1/ North American Boards Certified Energy Practitioners PV Associate

14. Certified by the Institute of the Motor Industry UK (IMI-UK)

No. of Persons Employed in the Energy Sector





TRANSPORTATION SECTOR
No data was available for the transportation sector for Trinidad and Tobago.

Climate Change Policy

National Climate Change Policy (NCCP) (2011) [13]

National Determined Contributions [14]

Unconditional: 30% reduction in GHG emissions by December 31, 2030 in the public transportation sector compared to a business as usual (BAU) scenario (reference year 2013).

Conditional: Additional reduction achievable under certain conditions which would bring the total GHG reduction to 15% below BAU emission levels by December 31, 2030.

Emissions Reduction Target [14]

15% below BAU by 2030

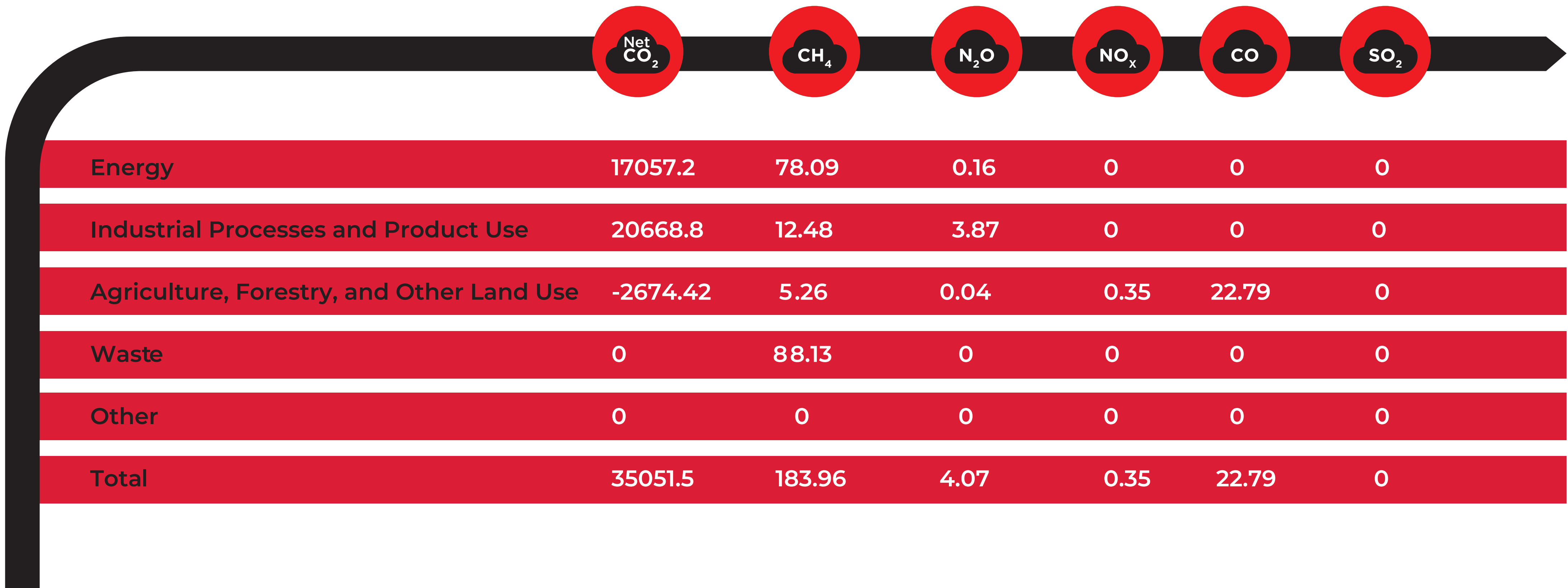
Priority Sectors for NDC [14]

Power Generation
Transportation
Industry

National Communications (NC) to the UNFCCC

Initial National Communication of the Republic of Trinidad and Tobago under the United Nations Framework Convention on Climate Change [62]
Second National Communication of the Republic of Trinidad and Tobago under the United Nations Framework Convention on Climate Change [63]
Third National Communication of the Republic of Trinidad and Tobago to the United Nations Framework Convention on Climate Change [7]

SUMMARY OF TRINIDAD AND TOBAGO GHG EMISSIONS AND REMOVALS (GG) FOR 2015 ^[7]



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