



ECONOLER

Development of a Regional Sub-Policy, Strategy and Action Plan on Energy Efficiency for CARICOM

Energy Transition and Climate Change Congress

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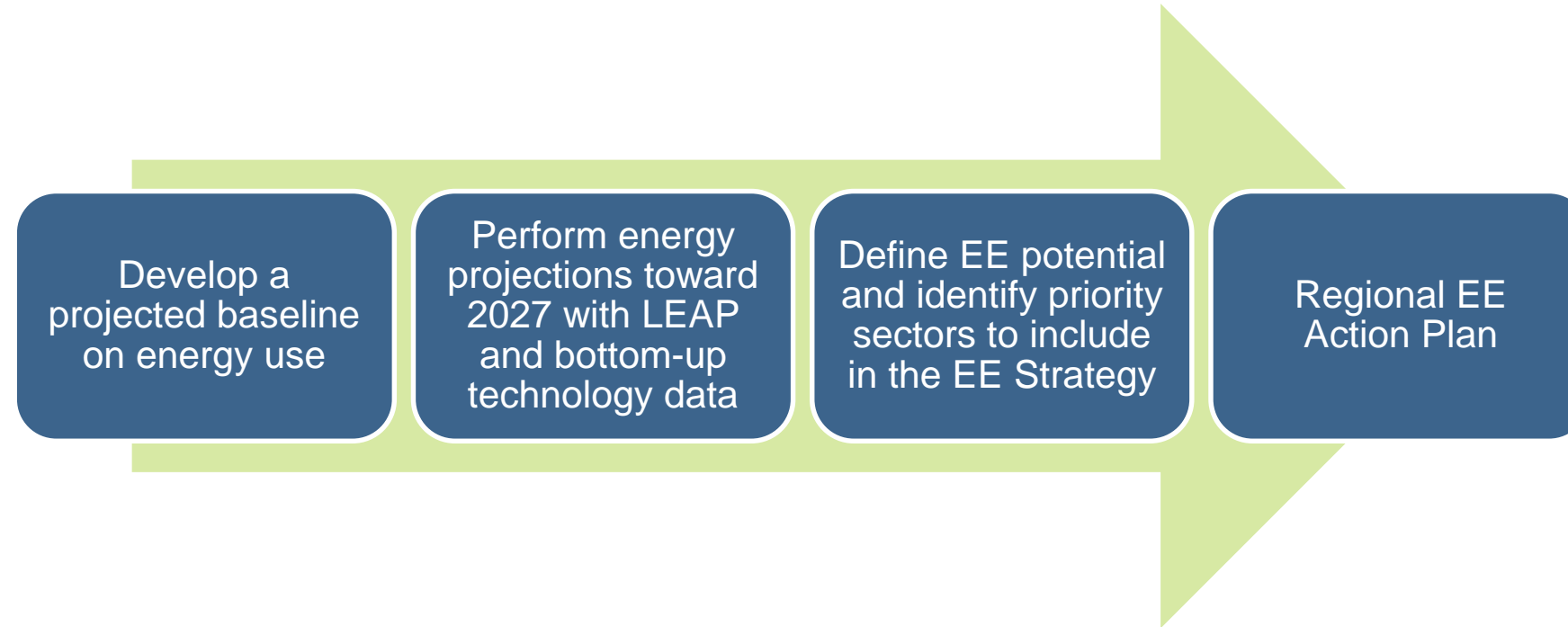
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PROJECT DESCRIPTION

- › Part of the **Technical Assistance Programme for Sustainable Energy in the Caribbean (TAPSEC)**
- › Develop a Regional EE Sub-Policy, Strategy and Action Plan for submission to the Council for all CARICOM Member States
 - Sub-document to the Caribbean Sustainable Energy Roadmap and Strategy (C-SERMS) 2013-2027



SPECIFIC OBJECTIVES



LEAP SOFTWARE



- › LEAP: Long-range Energy Alternatives Planning system
- › Software tool for energy policy analysis and climate change mitigation assessment

License



- › Developing countries and their institutions can obtain a licence at reduced cost, depending on the status of the country (World Bank classification)

ANALYSIS OF EE POTENTIAL

Scenarios

Current Accounts (Baseline data) (2013 to 2027)

BAU-1: Business-as-usual Scenario

↳ **EE on BAU-1**

BAU-2: High RE Integration

↳ **EE + RE Scenario**

4 projected scenarios
(2014-2027)



ANALYSIS OF EE POTENTIAL

Top-down Approach

Approach per sector or subsector

- › BAU-1: Using sectoral growth GDP, demographic growth rate, etc., on baseline.
- › BAU-2: RE high integration gives the same EE impact but imported fossil fuel goes down. Electric vehicles in all countries with geothermal power prospects.

Bottom-up Approach

Approach per technology

- › Costed, calibrated to bills.
- › Net present value optimum.
- › Investment grade audits.
- › Using data from CLASP and SEEC audits – looking for MEPS audits, CHENACT-AP audits.

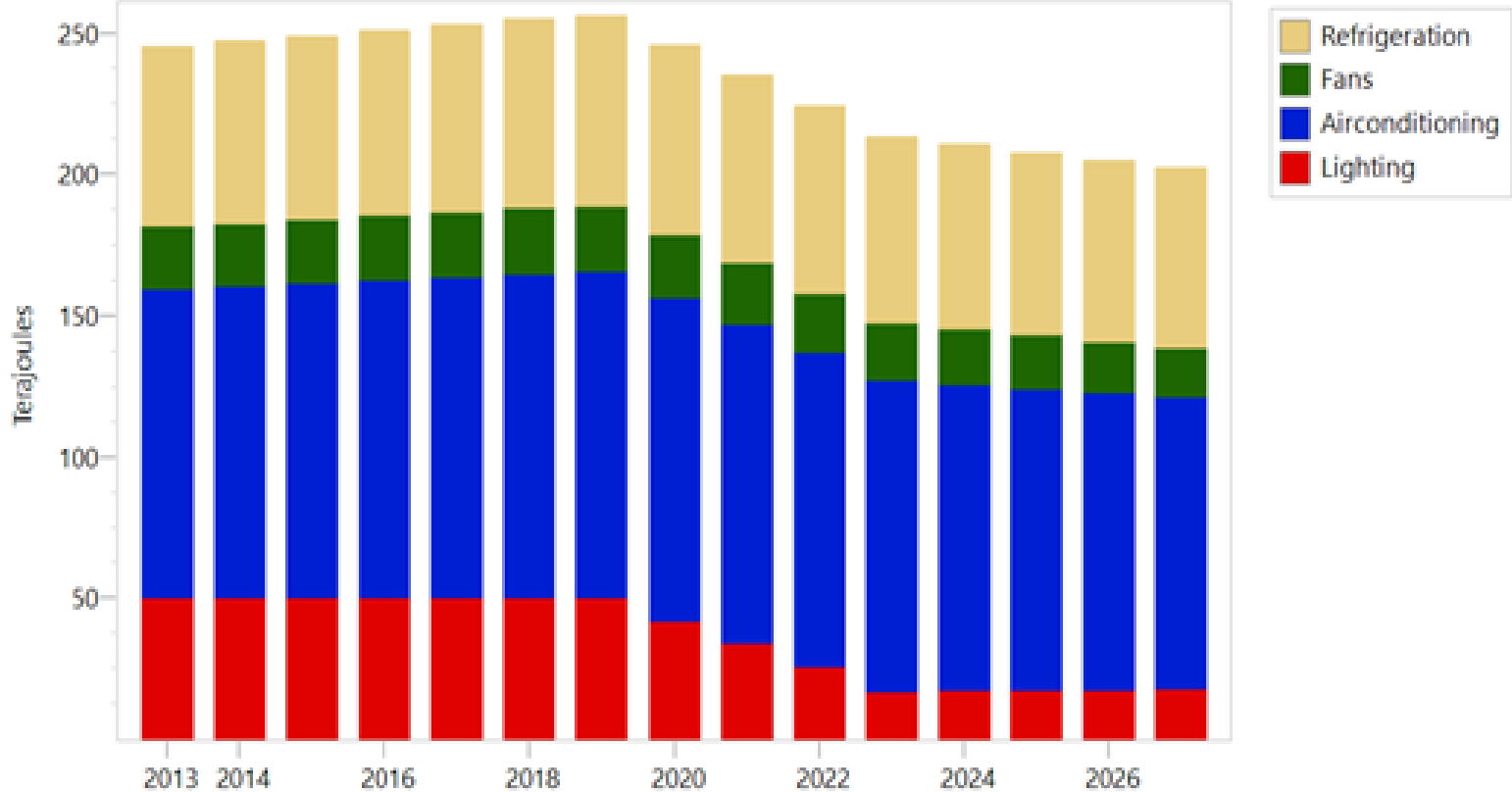
SUSTAINABLE ENERGY FOR EASTERN CARIBBEAN EE POTENTIAL (CDB)

Audit group	EE Potential	Simple Payback
Grenada	23.7%	2.03 yrs
St. Kitts & Nevis	39.1%	2.74 yrs
<u>St. Vincent & the Grenadines</u>	<u>32.3%</u>	<u>3.38 yrs</u>
All audits	32.5%	2.72 yrs

› Add other bottom-up data

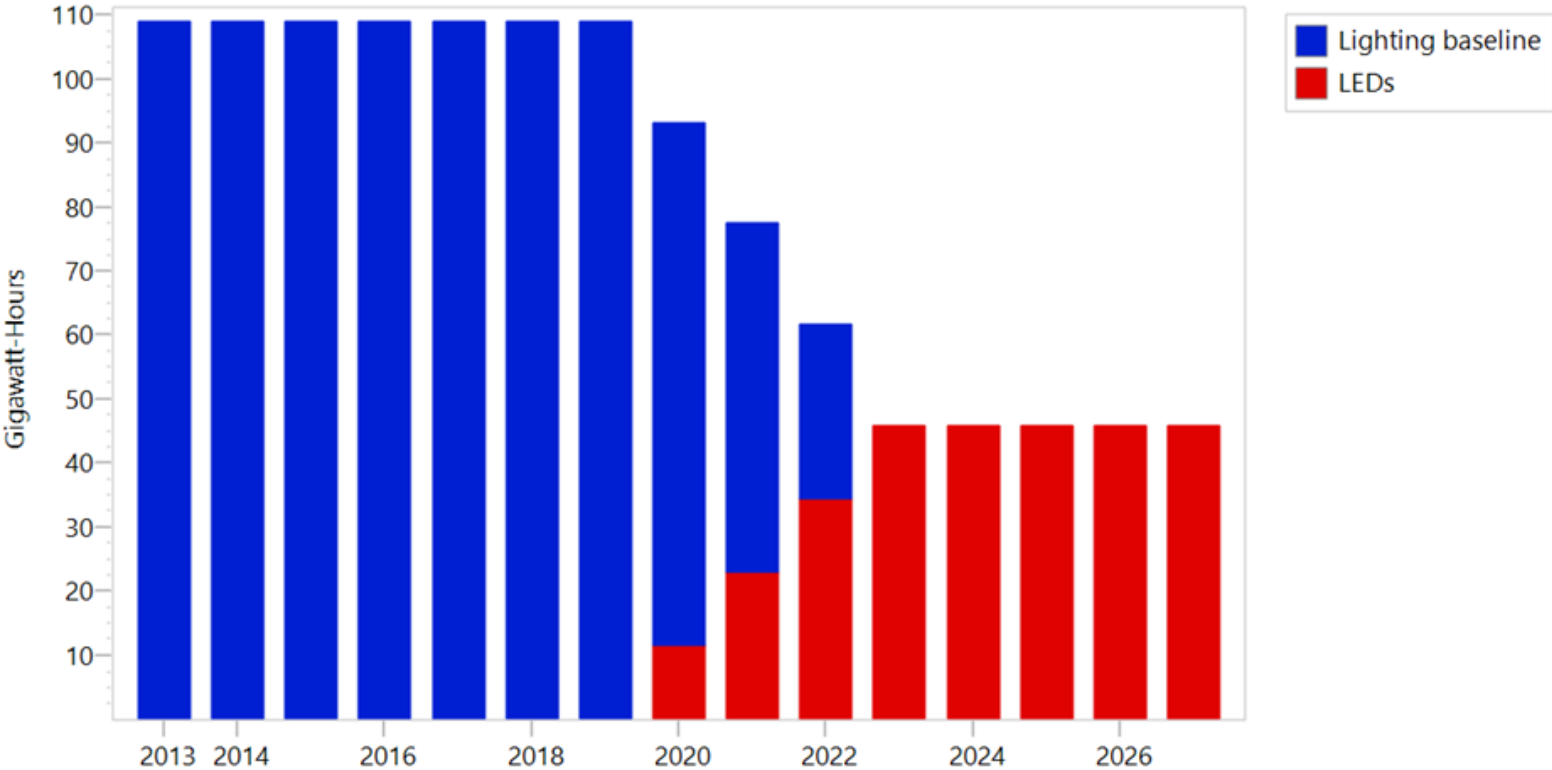
EE IMPACT

Residential Sector – Antigua and Barbuda



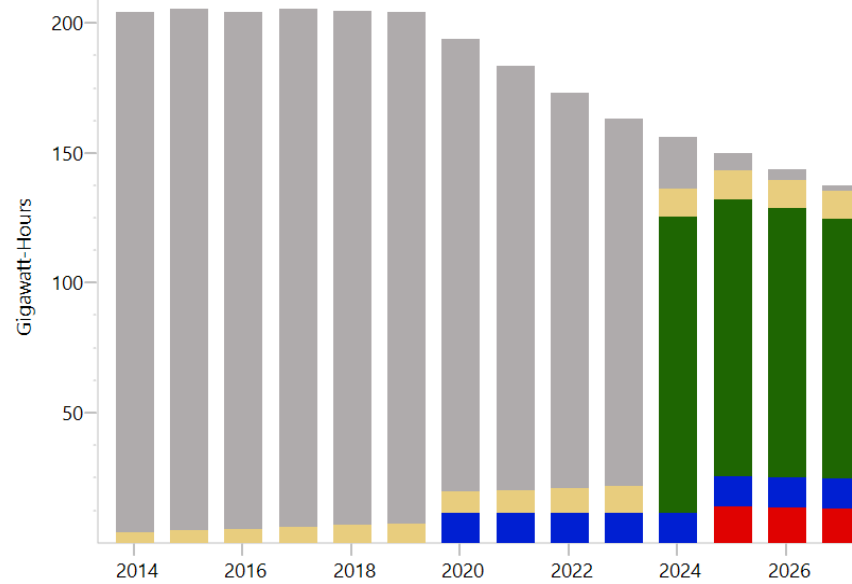
EE IMPACT

Street Lighting – Trinidad and Tobago

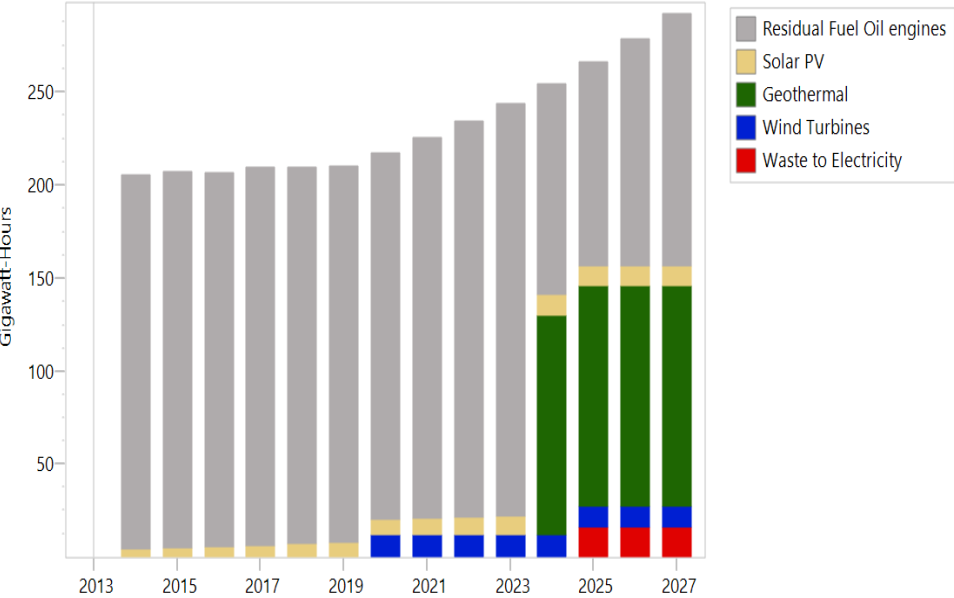


EE IMPACT ON HIGH RE INTEGRATION – GRENADA

Without EVs



With EVs



- Residual Fuel Oil engines
- Solar PV
- Geothermal
- Wind Turbines
- Waste to Electricity

PRELIMINARY RESULTS

<u>CARICOM Member</u>	<u>EE Potential</u>
Antigua & Barbuda	19.7%
Belize	16.1%
Dominica	10.7%
Grenada	13.7%
Guyana	14.9%
St. Kitts & Nevis	24.6%
St. Lucia	22.1%
St. Vincent & the Grenadines	19.9%
Suriname	11.6%
Trinidad & Tobago	7.8%

**EE Potential
by 2027 on BAU
with conventional
power scenario
baseline**



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CARICOM GIZ

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