

Renewable Portfolio Standard, RECs, Green Energy Fund, and Applicable Regulatory Scheme

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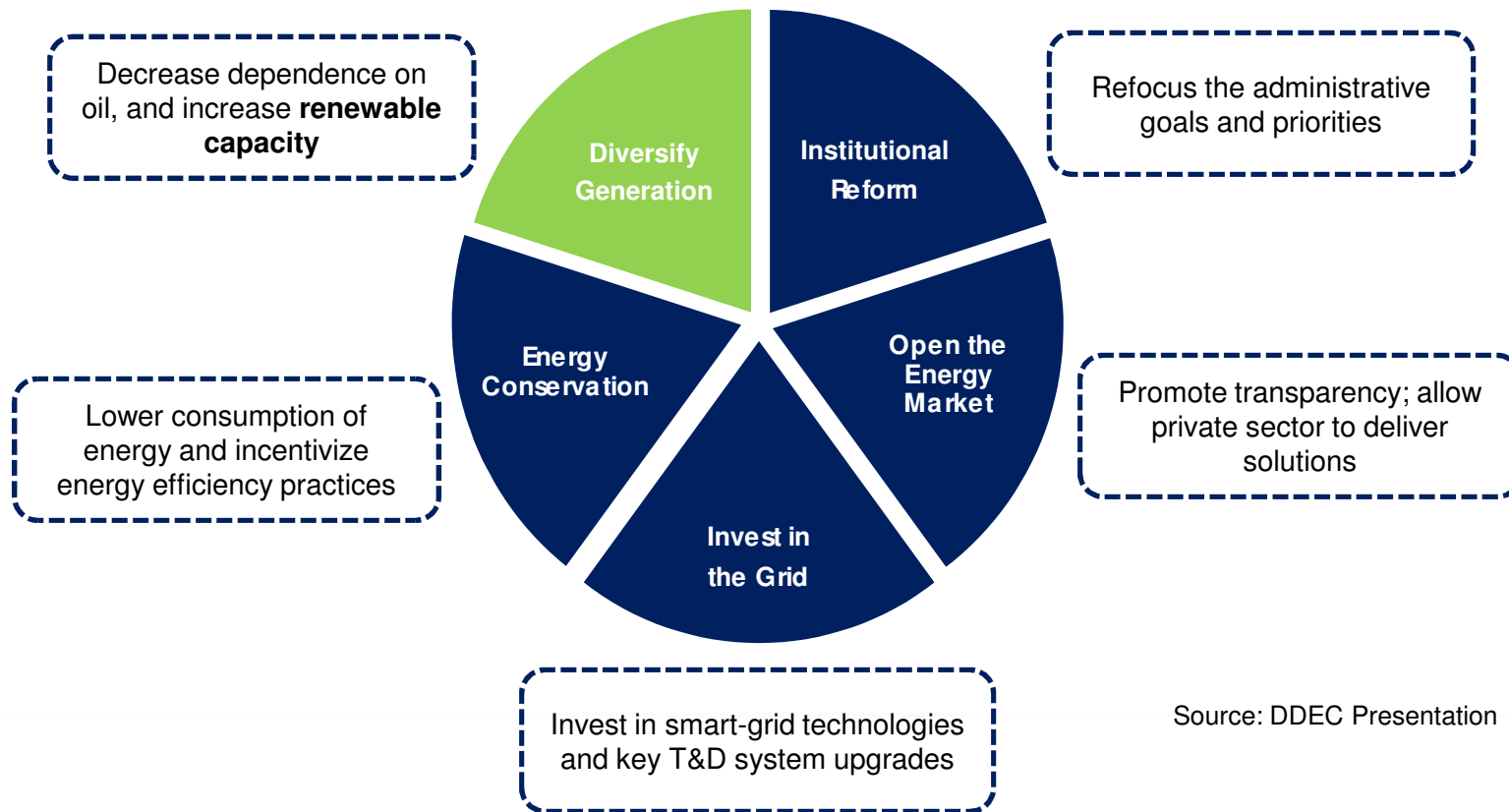
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Agenda

- Energy Reform
 - Public Policy Act for the Diversification of Energy Through Sustainable and Alternative Renewable Energy (Act No. 82 of July 19, 2010)
 - Puerto Rico Green Energy Incentives Act (Act No. 83 of July 19, 2010)
- Solar and Wind Energy Systems Regulations
- Executive Orders – Expedited Permitting

P.R. Energy Reform is Focused on Making Electric Power Affordable, Reliable, and Sustainable

Five Strategies to Achieve Energy Reform Objectives



Source: DDEC Presentation

Renewable Portfolio Standard or RPS

- An RPS requires retail electricity providers to supply a specified minimum amount of load with eligible renewable energy sources.
- Its goal is to stimulate market demand for renewables.
- Other forces stimulate growth of renewables:
 - Energy diversity and security
 - Promotion of local industry
 - Hedge against volatility in fossil fuel prices
 - Reduction in emissions
- A June 2010 IHS Emerging Energy Research study estimates that demand across all states with binding RPS policies will increase demand for renewables by 250% by 2025.

Public Policy Act for the Diversification of Energy Through Sustainable and Alternative Renewable Energy

- Act 82 of July 19, 2010 establishes compulsory goals to increase use of sustainable and alternative renewable energy (collectively, “Green Energy”).
- Requires retail electricity providers to distribute a determined percentage of electricity generated from renewable Green Energy sources; or to
- Obtain and present Renewable Energy Certificates that represent a percentage of sales.
- Applicable percentages:
 - 12% from 2015 to 2019
 - 15% from 2020 to 2027
 - 20% in 2035

Public Policy Act for the Diversification of Energy Through Sustainable and Alternative Renewable Energy

Renewable Energy Certificates (“RECs”)

- Financial instrument to achieve energy diversification.
- Legally recognized asset that can be sold, purchased, traded and transferred in the open market.
- The equivalent of one (1) megawatt-hour (MW-hr) of electricity generated by a green energy source.
- Includes all qualities that represent benefits to the environment, nature and society.



Public Policy Act for the Diversification of Energy Through Sustainable and Alternative Renewable Energy

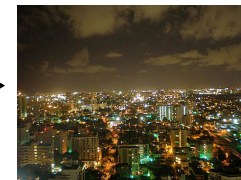
- Renewable Energy Commission
 - In charge of enforcing and administering the RPS
 - Composed by representatives from the public and private sector and from the academia
- Retail electricity providers (*e.g.*, PREPA) demonstrate RPS compliance by presenting before the Commission evidence of:
 - Renewable energy generation, and/or
 - RECs
 - When obtaining the RECs is not viable, the retail electricity provider must file a report showing that it met the required RPS by purchasing electricity from a Green Energy source, together with its Social and Environmental Attributes.

Interplay between RPS, RECs and Renewables

Current energy system:



100 MWhr



Options to comply with RPS:

**Option 1
(Generate renewable energy)**



88 MWhr



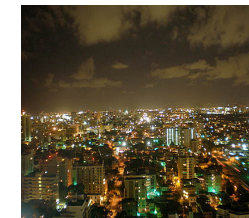
12 MWhr



**Option 2
(Purchase of RECs)**



88 MWhr



Purchase of RECs



Option 3



Puerto Rico Green Energy Incentives Act

Green Energy Fund

- \$290 million over the next 9 years
- Provide incentives to Green Energy Projects
- Managed by the Puerto Rico Energy Affairs Administration (“EAA”)
- Green Energy Projects

Amounts available to cover all projects:

2011-2012	\$20 MM
2012-2013	\$20 MM
2013-2014	\$25 MM
2014-2015	\$30 MM
2015-2016	\$35 MM
2016-2020	\$40 MM

Puerto Rico Green Energy Incentives Act

Green Energy Fund – Incentives based on capacity

	Tier I Small Scale	Tier II Medium Scale	Tier III Large Scale
Capacity	Up to 100 kW	100 kW - up to 1 MW	More than 1 MW
Incentives	Rebate not to exceed 60% of the installation cost of the production unit	Rebate not to exceed 50% of the installation cost of the production unit (Competitive)	The EAA shall create an Incentives Program for Tier III projects (Not yet established) – Will include development of a RECs market



Puerto Rico Green Energy Incentives Act

Green Energy Fund – Rebates for Tier I and Tier II Green Energy Projects

- Eligible Project Costs:
 - equipment costs (generating equipment, inverters, metering devices, etc.), engineering and design costs, construction and installation costs, interconnection costs, monitoring equipment costs, reasonable financing costs, others.
- Applicant must complete an electronic application and pay the application fee
- Notice of approval will be issued, setting forth terms, conditions and requirements to receive incentives
- Applicant shall execute the Reservation Agreement and deposit a Reservation Guarantee
- Project shall be completed within prescribed time (9 mos. Tier I, 12 mos. Tier II)
 - Otherwise, reservation expires automatically



Puerto Rico Green Energy Incentives Act

Green Energy Fund – Rebates for Tier I and Tier II Green Energy Projects

- Continued ...
 - Applicant provides notice of Project Completion and claims incentive as provided in Reservation Agreement
 - Project is inspected by EEA and a Final Inspection Determination is issued, setting forth Total Incentive Amount awarded
 - Applicant must notify EEA its acceptance of the Total Incentive Amount within 15 days
 - RECs derived from Green Energy Projects that have received incentives will be owned by the EEA
 - For Tier II projects, the EEA will open new competitive processes every quarter
 - Evaluation criteria for Tier II project include:
 - Incentive amount requested
 - Project equipment and technology
 - Project location and siting
 - Project development experience
 - Project related benefits
 - Project Financing

Puerto Rico Green Energy Incentives Act

Other Green Energy Incentives

- Income Tax
 - Income Tax Rate – 4% fixed, 25 years
 - Special Deductions – among others, immediate deduction of 100% of expenses associated with construction of project (accelerated depreciation)
 - Income Tax Credits – among others, 25% of purchases of locally manufactured products (non-transferable); 50% of cash investment in related research and development activities (transferable)
- Property Taxes - 100% during construction period and 1st fiscal year/ 90% thereafter
- Municipal License Taxes - 100% during first 3 semesters/ 60% thereafter
- Excise Tax and Sales and Use Tax - 100% on machinery and equipment, related accessories and others
- Construction Tax - 100%

Solar Energy Generation Systems

Joint Regulation

- Construction and use permits are not required for solar energy projects installed on rooftops with a capacity of less than 1 MW
- Solar energy projects of 1 MW or more will be evaluated by the Permits Management Office or the Planning Board
- Solar energy projects that do not require public hearings:
 - Solar energy projects between 1 MW and 24.9 MW installed over rooftops
 - Any solar energy project within industrial zones
- Solar energy projects must be certified by a licensed electrical engineer.



Coca-Cola Bottling , Los Angeles*



Frito Lay, Los Angeles*

*Source: Solar Navigator Site Index

Wind Energy Generation Systems Classifications

A Wind Energy Generation System is defined as “one or more turbines and accessory works.”

These systems are divided into 3 categories:

- Small Scale System
- Medium Scale System (or Distributed)
- Large Scale System (or Industrial)



Source: Wind Turbine Zone

Wind Energy Generation Systems Classifications

Zoning requirements

- Meteorological Towers, Accessory Works and Small Scale Systems are authorized in all zoning districts.
 - Medium Scale Systems and Large Scale Systems are authorized in only certain zoning districts:
 - Agricultural
 - Industrial
 - Commercial (by exception)
 - Systems proposed in specifically authorized districts, are permitted by operation of law or “as of right”.
 - Systems proposed in un-zoned areas or unauthorized zoning districts must obtain land use approval (“consulta de ubicación”)
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- Integrated energy systems also require land use approval

Expedited Permitting Process

- Executive Orders issued on July 19, 2010 and April 12, 2011 (OE-2010-034, OE 2011-013)
- Declare a state of emergency regarding the electricity generation infrastructure, and orders all agencies to consider alternative energy projects under an expedited process.
 - Recommendations (Endorsements) - 5 days
 - Environmental Impact Statement - 10 days
 - Site Approval - 15 days
 - Construction Permits - 5 days



Thank You