



BNPDES

and Energy Efficiency

September 2017

Alexandre Siciliano Esposito
Power Sector Research Manager
Electricity Division



FINANCE
UNEP INITIATIVE
REGIONAL ROUNDTABLE
LAT. AMERICA & CARIBBEAN






 **BNDES**

Energy Efficiency in Brazil

2025 targets: Brazilian NDC vs. 10-year-plan

NDC main target for 2025: 37% GHG (year-base 2005)

Perspectives for 2025	Indicators	NDC (%)	10-year-plan (%)
	Energy Efficiency	8 (year-base:2013)	4 (year-base: 2016)
Electricity	Renewables (ex-large hydro)	22	23
	Hydro (centralized dispatch)	71	71
Energy	Renewables (ex-large hydro)	23 a 28	35
	Biofuels	18	20
	Overall renewables	45	49

Source:  (Brazilian Energy Planning Authority)

Brazilian Programs for Energy Efficiency

0.5% of Discos
Annual Liquid
Income

20%

80%



Source: **ANEEL** (Brazilian Electricity Regulator)

Results from ANEEL's Program // up to 2015



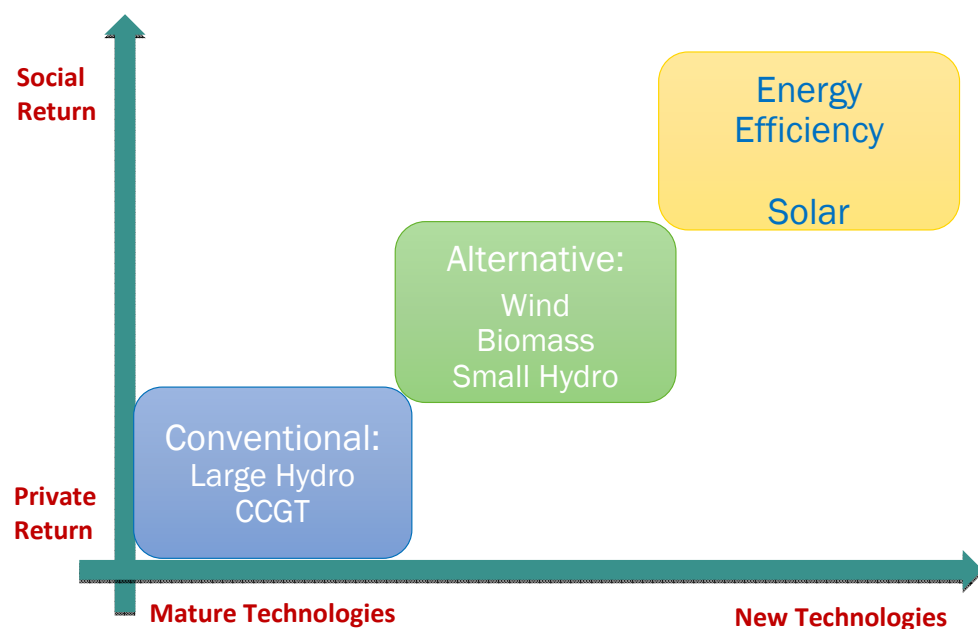
- 4k Projects
- Savings achieved: 47 TWh
(9% of 2016 Electricity Demand)
- Peak Load Reduction: 2.3 GW

Source:  (Brazilian Electricity Regulator)



BNDES Support and Priorities for Energy Efficiency & Renewables

BNDES Credit Lines for Electricity



Segments	Financial Condition		
	BNDES Leverage	Amortization (System e Repayment)	
Energy Efficiency	80%	CAS	varies
Solar	80%		Up to 20 years
Wind	70%		Up to 16 years
Other renewables	70%		Up to 20 years
Hydro > 30 MW	50%		Up to 20 years
Thermal CCGT	50%		Up to 16 years
Distribution Lines	50%	CAS	Up to 6 years

**Energy
Efficiency
Activities**



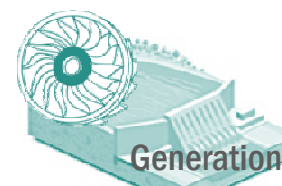
Industrial
Processes



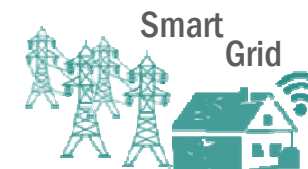
Buildings (DG)



Public Lighting

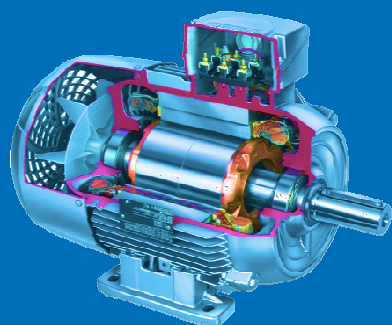


Generation
Improvements



Smart
Grid

BNDES Credit to Energy Efficiency



Credit for Acquiring Efficient Equipment (2003-2016)

- > 300 K Equipment Financed
- BNDES Credit: USD 72 Million



Credit for Energy Efficiency Projects (2003-2017 -1st S)

- 38 Credit Operations
- BNDES Credit: USD 330 Million

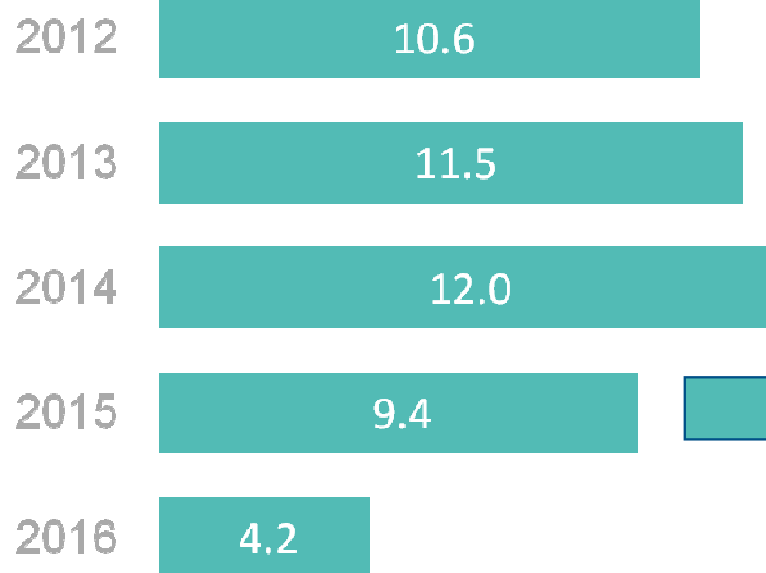
Source:  **BNDES**

* Figures in USD were converted from BRL using annual average exchange rate

BNDES and the Green Economy



BNDES Disbursement to the Green Economy – USD Billion



Main Green Activities (% of total disbursements)

Years	Public Transport	Alternative Energy	Large Hydro	Load Transport
2015	28,52	25,35	22,56	13,66
2016	25,80	33,00	11,00	8,30

< 0.3% to Energy Efficiency

Source: BNDES

* Figures in USD were converted from BRL using annual average exchange rate

BNDES Credit Lines Evaluation and Reform

- Focus

- Only ESCOs → ESCOs and Energy Consumers

- Information/
Communication

- Which economic activities are relevant
- Building Trust: (Successful Cases) & Audits
- Engage banks and consumers: ad campaigns

- Simplifying Finance

- De-risking:
 - Standard (third-party) references
 - Technology List/Labeling Schemes/Contracts
- ESCOs/SMEs
 - Guaranty Funds

Thank you!



BNDES website
www.bndes.gov.br



Contact Center
0800 702 6337
International calls
+55 21 2172 6337



Ombudsman
0800 702 6307
www.bndes.gov.br/ouvidoria



Contact us
www.bndes.gov.br/faleconosco



facebook.com/bndes.imprensa



twitter.com/bndes_imprensa



youtube.com/bndesgovbr



slideshare.net/bndes

