Brazil's Programme for Energy Efficiency



Brazilian Electricity Sector Distribution Companies

- More than 100 companies
- Coupled activities: Grid services and energy sale
- No retailers for low and middle voltage consumers
- Volumetric tariff for low voltage loads



National Programmes for Energy Efficiency



PBE (1984)

Programme for Labeling



PROCEL (1985)

Programme for Energy Conservation



Lei 10.295

Law for Energy Efficiency



PEE ANEEL

Programme for Energy Efficiency. Focused on Distribution Companies and Regulated by ANEEL

Programme for Energy Efficiency Budget

Law 9.991/2000

Determines that a percentage of Distribution Companies Revenues goes for Energy Efficiency Projects

0.5% of Revenues
(Levy on consumers tariffs)

€ 140 M
2018

0.1% **€ 28 M** PROCEL

0.4% **€ 112 M** PEE ANEEL

(€1 = R$ 4.7 december/2019)

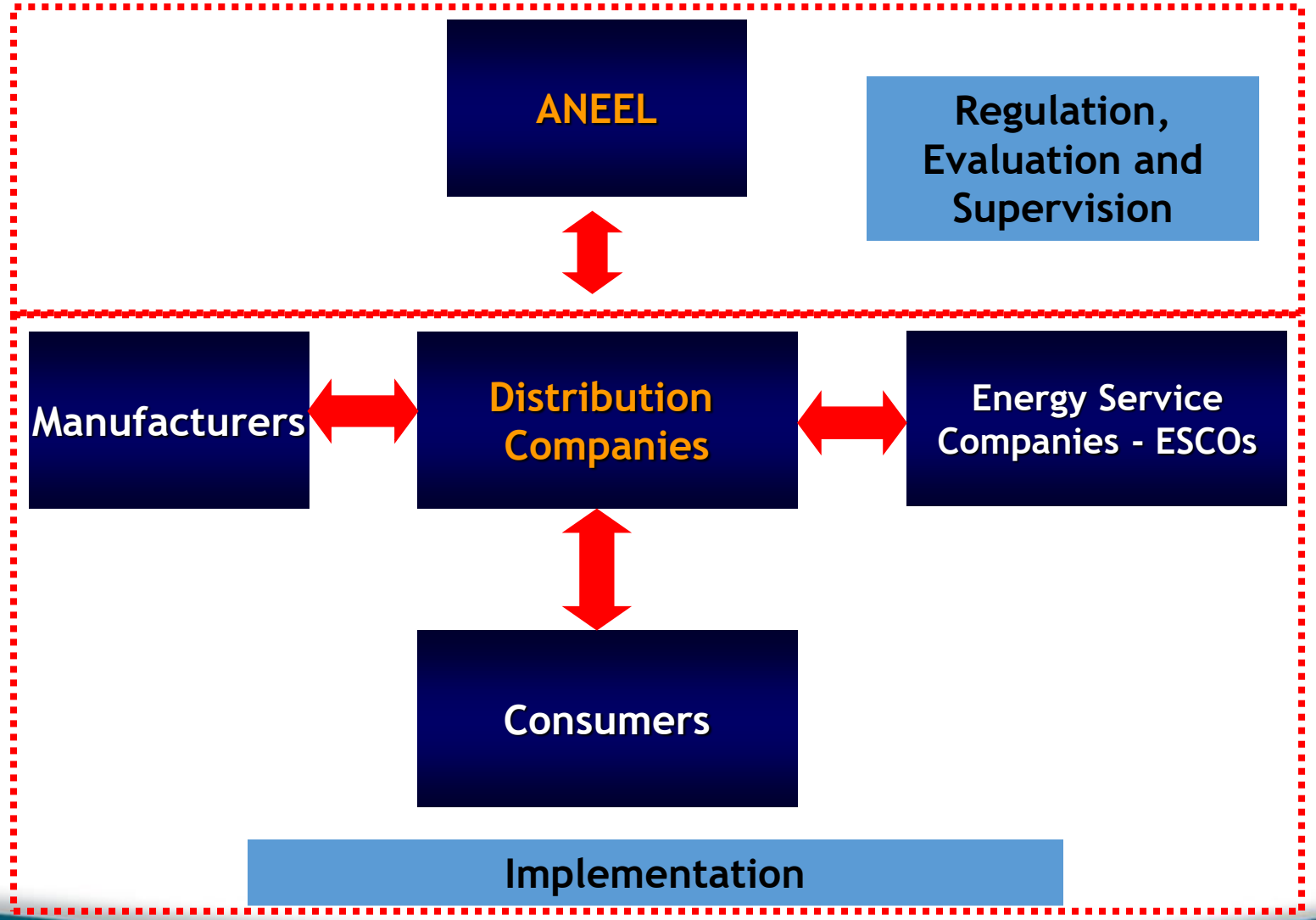
Programme for Energy Efficiency Activities

- Replacement of consumers less efficient equipments
- Encourage educational actions
- Encourage performance contracts
- Encourage renewables and urban waste recycling



Guidance Manuals

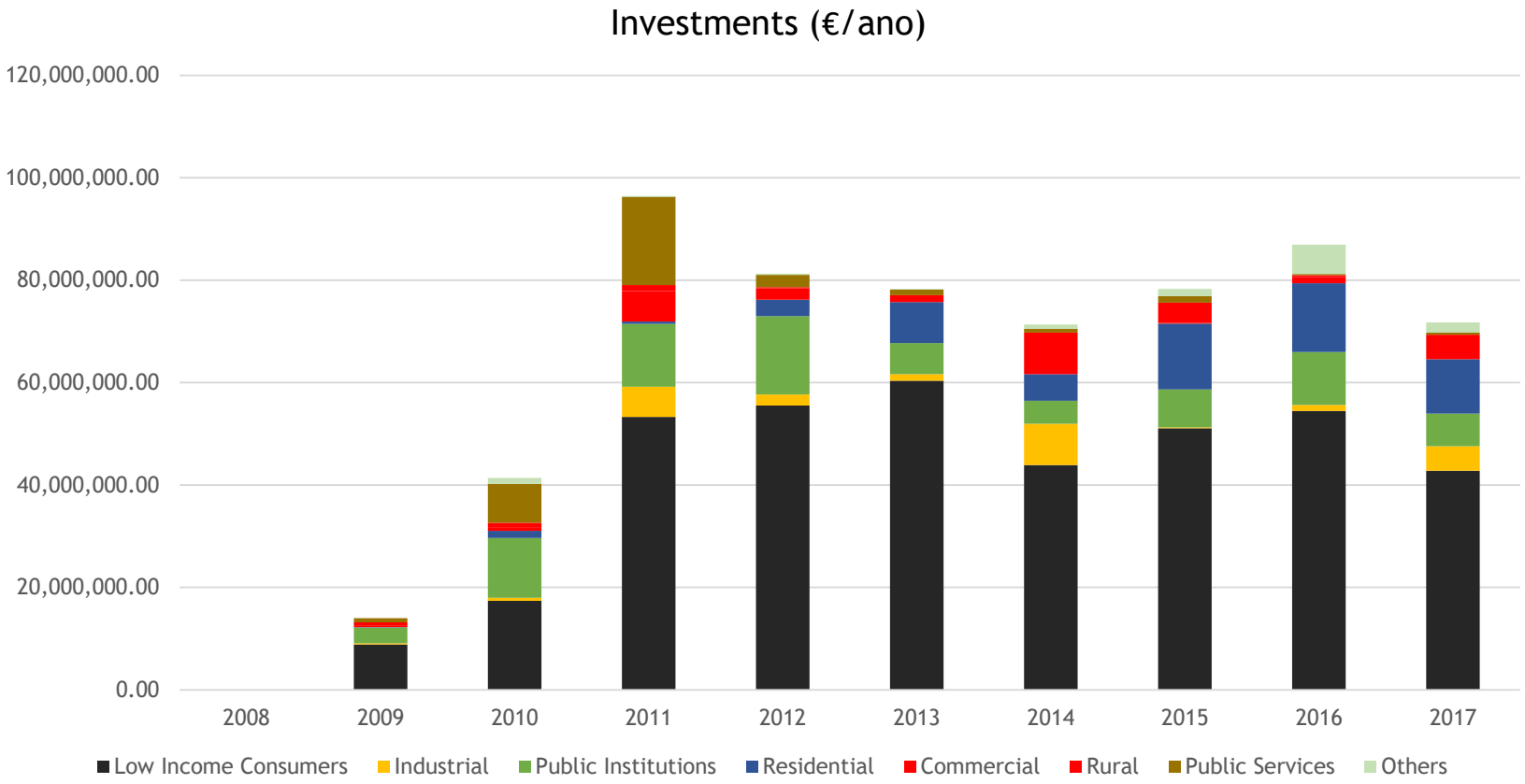
Programme for Energy Efficiency Stakeholders

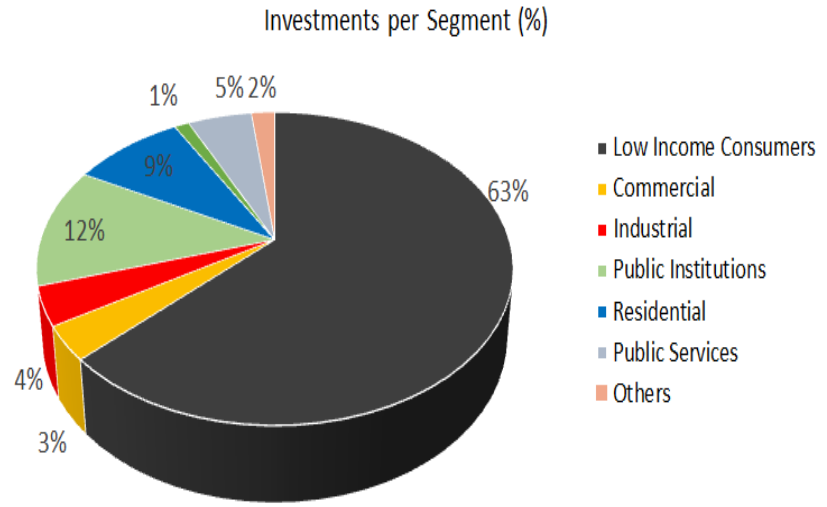


Programme for Energy Efficiency Main Features

- Before 2016: at least 60% of investiment should go to low income consumers (social policy)
- Since 2016: up to 80% of investment can go to low income consumers and rural consumers
- By 2023 the budget will be reduced to 0.25% of revenues
- Penalty for companies who accumulate an unvested amount of more than 24 months of collection

Programme for Energy Efficiency Investments

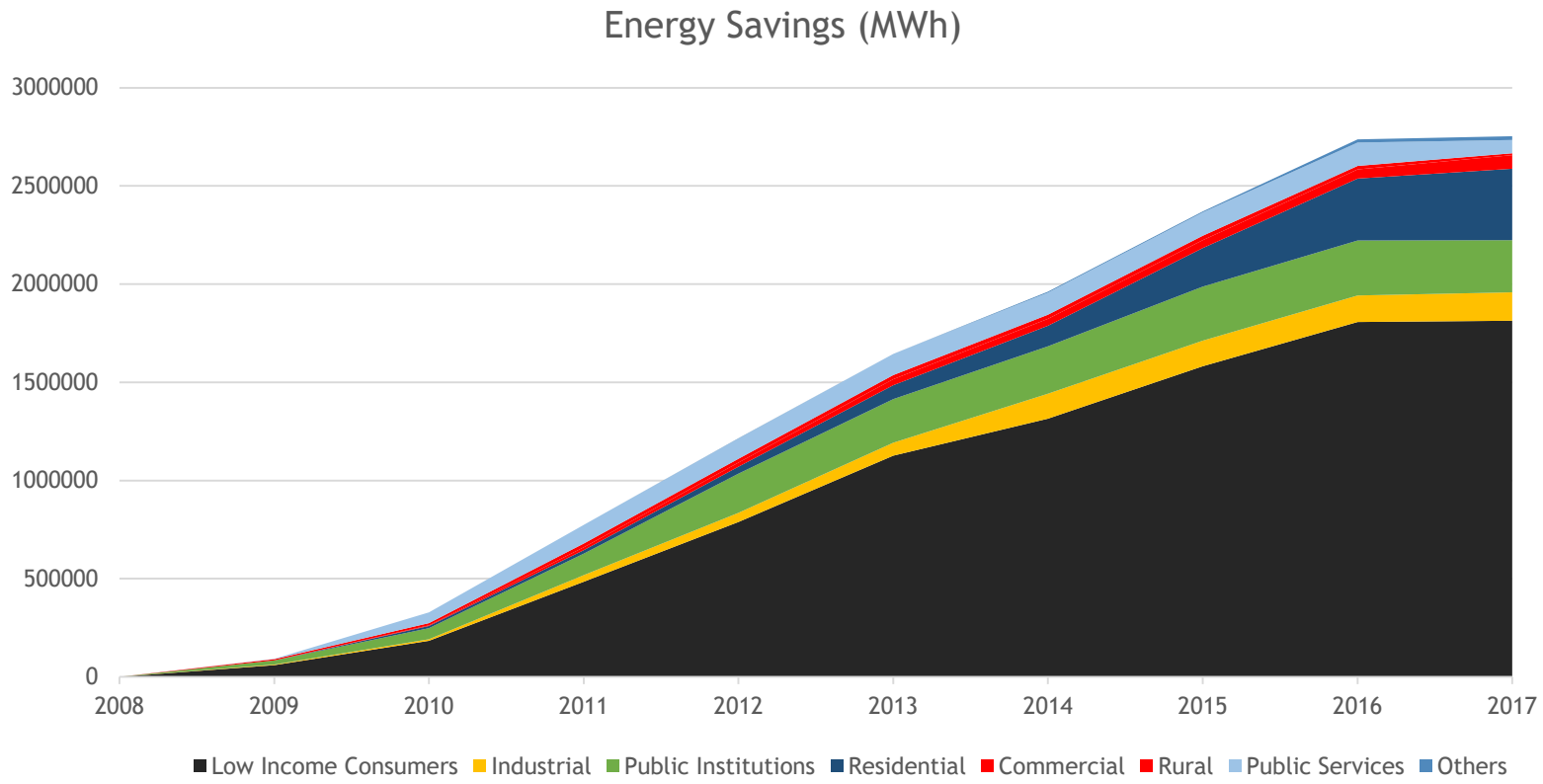


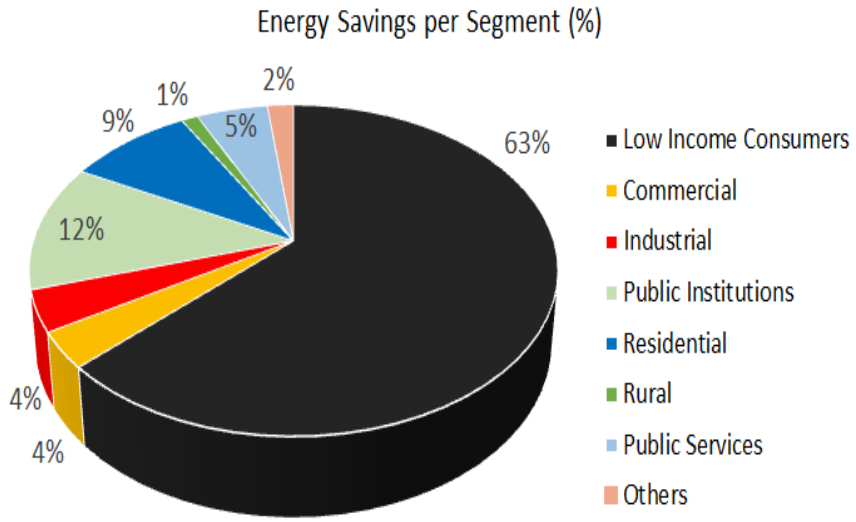


Total Invested in Projects (2008-2017): € 620 Millions

(€ 1 = R$ 4.7 december/2019)

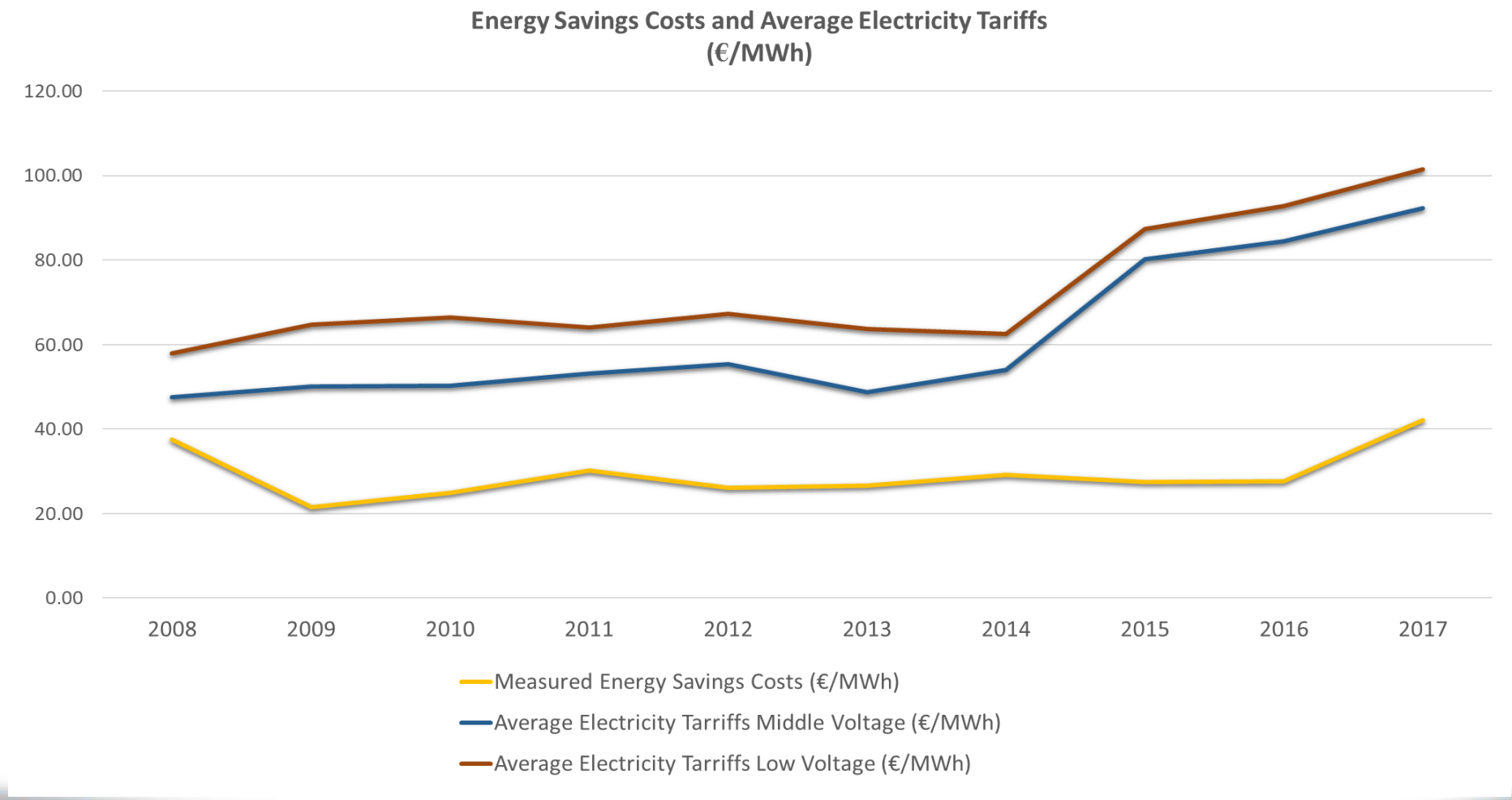
Programme for Energy Efficiency
Energy Savings





Total Energy Saved (2008-2017): 14 TWh

Programme for Energy Efficiency
Energy Savings Cost x Energy Tariffs

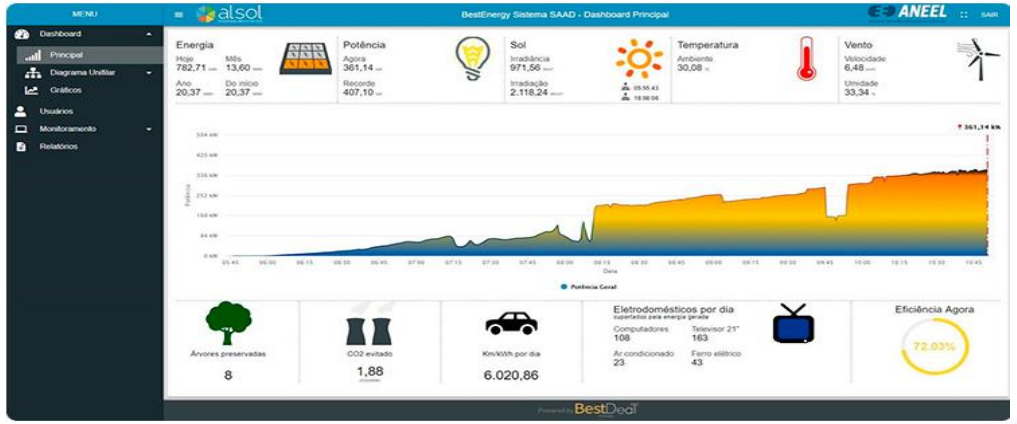


(€ 1 = R$ 4.7 december/2019)

Programme for Energy Efficiency Performance Contracts - The case of ANEEL

- Lighting and air conditioning retrofit
- Installation of a 512 kWp PV system
- 1.3 GWh saved per year
- 247 kW of peak demand avoided
- Investments made by PEE resources and to be paid by ANEEL with bills savings
- € 1.8 Million of total Budget. € 400 000 already invested





(€ 1 = R$ 4.7 december/2019)

Programme for Energy Efficiency Challenges

Big amount collected from tariffs but not invested in Energy Efficiency projects

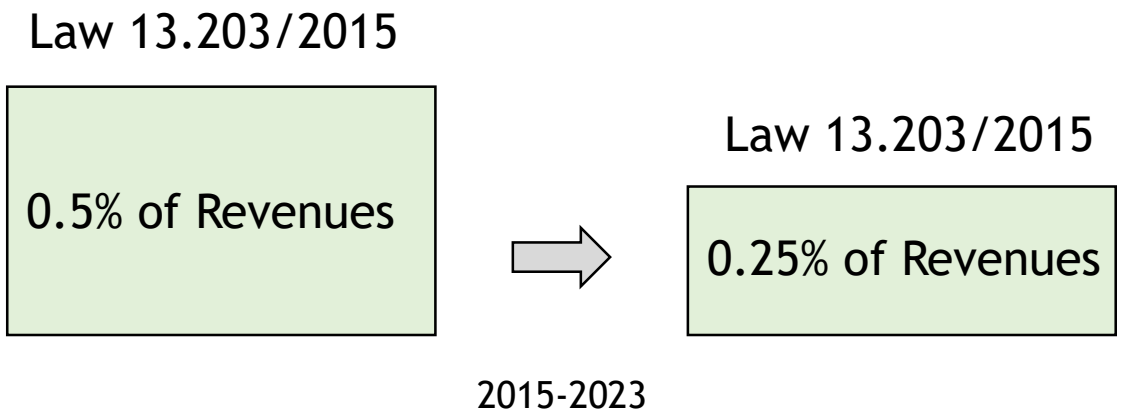
Coupled activities + Volumetric tariffs for low voltage loads



LESS CONSUMPTION = LESS REVENUES FOR DISTRIBUTION COMPANIES

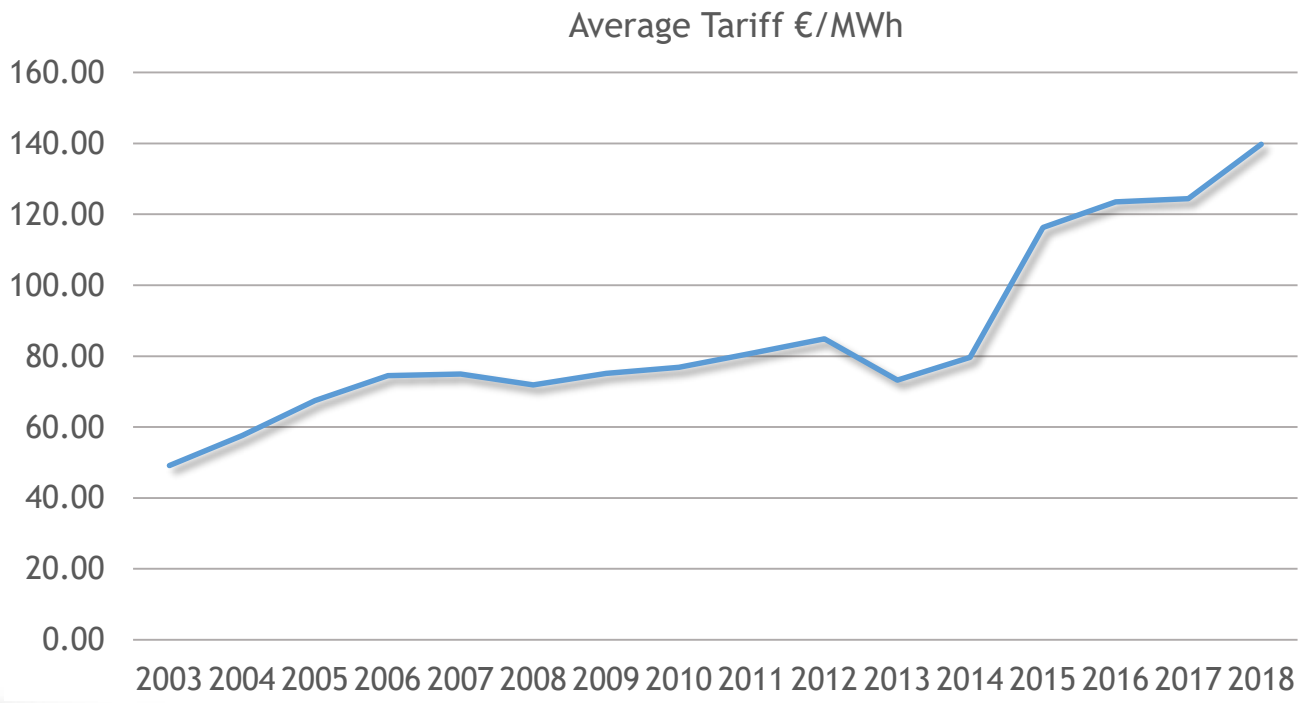
Programme for Energy Efficiency Challenges

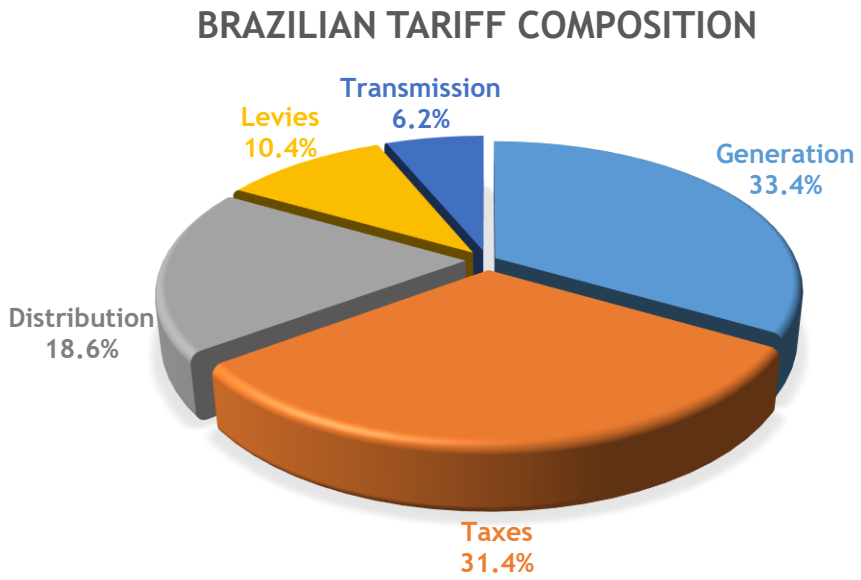
Budget reduction by 2023



Programme for Energy Efficiency Challenges

Pressure to reduce Levies (High and Increasing Tariffs)

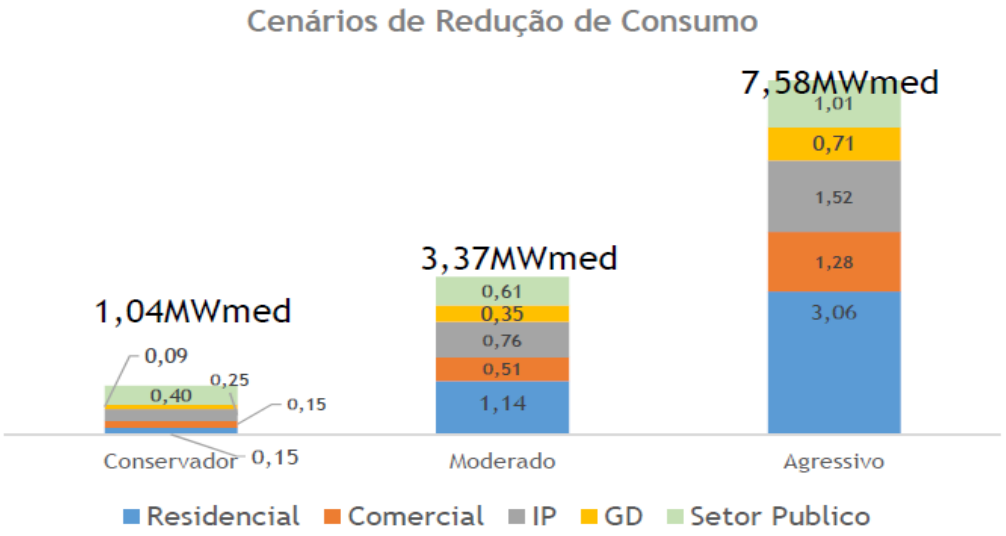




Programme for Energy Efficiency
Next Steps and Opportunities

€ 360 Million raised by tariffs and never used – Available for new projects

Energy Efficiency Auctions - Pilot Project in Roraima State



Potential for a reduction of 4 MWmed in moderate scenario

THANKS

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