

Case 17

Brazil

Energy Sector

Light for All

Carlos Salle

“Luz para todos”

SPEAKER: [Carlos Sallé Alonso](#), Director of Energy Policies & Climate Change,

- Project **coordinated** by **Ministério de Minas e Energia**, corresponding the **operation and the assignment of contracts Eletrobras**. Another important agent in the organization of "Luz para todos" program is the National Electric Energy Agency (**ANEEL**), **responsible for the regulation and supervision of the program's goals**.

Ministério de
Minas e Energia

ANEEL
AGÊNCIA NACIONAL DE ENERGIA ELÉTRICA

- **Iberdrola**, through its affiliates, is, among others participants, **one of the main implementers**.
- **This project has been financed together by Federal Government, State Administration and distribution companies**. During the 12 years of activity of this program, the total investment amounts to 22,7 billion reais (\$5,7 billion), of which 16,8 billion reais (\$4,22 billion) has been contributed by the Federal Government being the remainder resources provided by distribution companies and State Administration.

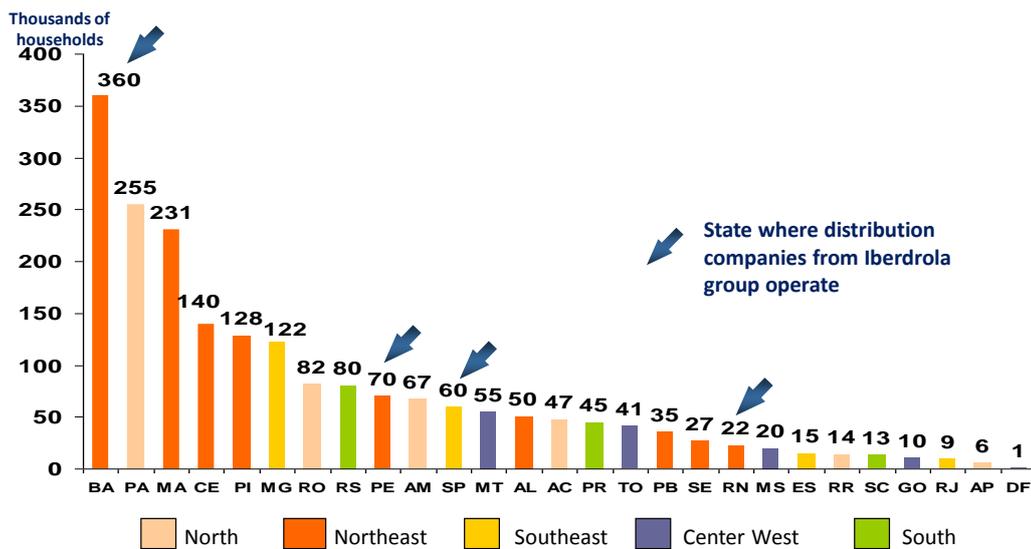
**The largest and most successful Universal
Access to Electricity Supply Program in
recent years**

“Electricity for All” Program

IBERDROLA has developed a **specialized line of action**, called **“Electricidad para Todos”** (“Electricity for all”), that brings together all the actions related to universal access to electricity:

1. To participate in innovative business initiatives, aimed at the base of the pyramid, that demonstrate scalability and sustainability over time. For instance, IBERDROLA has invested some US\$750,000 in the company SunFunder with a view to funding off-grid solar projects in emerging countries via its IBERDROLA Ventures-Perseo corporate venture capital scheme. It is the Group's first investment in this field, as part of the activities carried out under the Electricity for All scheme.
2. To **participate in projects launched by governments** in the countries **where IBERDROLA is present**. Among others, it includes its participation in the ambitious Brazilian program **“Luz para Todos”**, main universal access program in the world, through which IBERDROLA has given electricity access in its distribution area to more than 2 million people.
3. Development of **social action and philanthropic activities** through specific projects. IBERDROLA has implemented initiatives such as the construction and commissioning of a solar farm in the village of Nyumbani in Kenya with the Energy Without Borders NGO, studies for the electrification of the refugee camps in Ethiopia with ACNUR, Philips, AECID, Acciona... or an initiative to provide electricity to school in Rwanda in collaboration with MIT. Another relevant project was located in Benin, where the company designed, delivered and installed infrastructure to provide electricity to an educational and healthcare complex built by the Foundation for the Development of Benin (Fundebe). Projects with GSEP are also carried out.

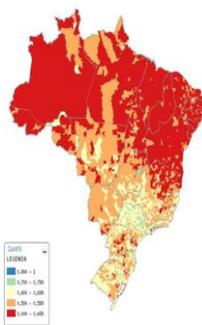




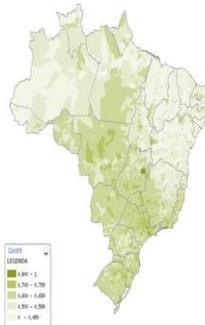
Source: Censo IBGE, con actualización, ampliación y elaboración de ABRADÉE

At the start of the project, approximately 2 million households did not have access to electricity, which was equivalent to over 12 million people suffering from electricity exclusion.

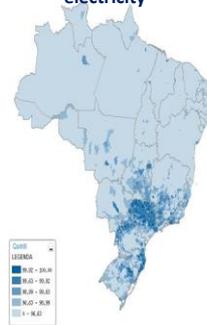
2000 - Municipal level HDI



2000 - Municipal level HDI - Income



2000 - Percentage of population that live in households with electricity



- The «Light for All» initiative arose as a **response from the Brazilian Government** to the serious **social exclusion caused by a lack of electricity supply** in many zones in the country.
- **Approximately 90%** of the families in this social exclusion situation had an **income lower than twice the minimum salary**, and **80%** of them were **living in rural zones**.

Families without access to electricity were mainly concentrated in the areas that combined a lower level on the Human Development Index (HDI), a lower family income and poor route and community infrastructures

«Luz para todos» Governing Model

Coordination	Ministério de Minas e Energia
Operation	Eletrobras and state governments
Execution	Distributors
Monitoring necessities and providing information about education on the program to communities	Community agents
Applicants	Rural zone inhabitants

- **Creation:** Decreto Nº 4.873, November 11th 2003

- **Objectives:**

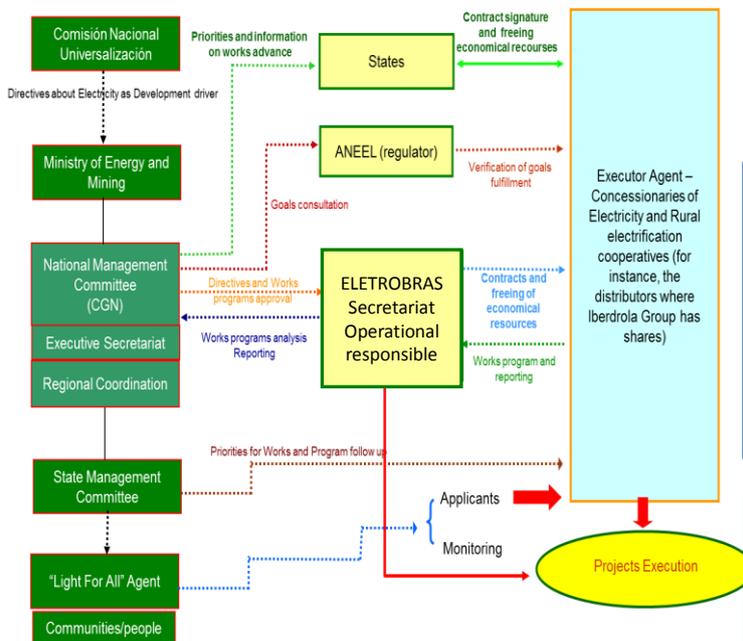
- **Guarantee access to energy in all rural zones** in 2008, with an intermediate objective of 90% in 2006
 - Priority for those zones with a low HDI and habited by families with low purchasing power
- To mitigate the impact on the rates, subsidies can be implemented with own and distributor's financial resources

- The **last expansion** of the program took place in December 2014, through the Decreto Nº 8.387, **will give access to 206.200 households**, one million people in December 2018. About 100,000 of those people are in the Amazon and their needs will be met with systems photovoltaic solar energy.



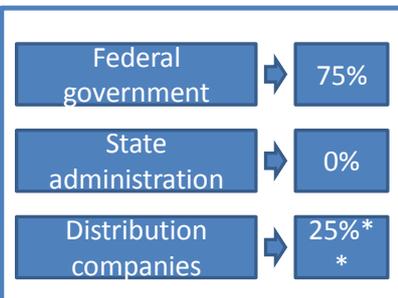
"Luz para todos" was created to be the central axis of universal access public policy, acting as a vector of economic and social development, contributing to the reduction of poverty and hunger in the communities served and preventing rural-urban migration process

«Luz para todos» Governance Structure



«Luz para todos» financing System*

guaranteed by financing by public budget and contracts with Eletrobras and state

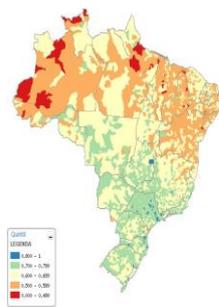


Normative, contractual, operative and technical joint project that establishes duties/rights of all groups involved

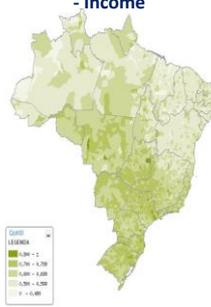
* Distribution of the finance was originally supported by 50% the federal government (Funds CDE Eletrobras), by 10% the state administration and by 15% distribution companies, leaving the remaining percentage to be financed by soft credit lines (Funds RGR)

** 25% in Regulatory Assets Base (RAB), to be recovered in futures years

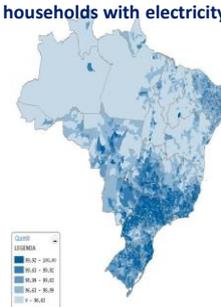
2010 - Municipal level HDI



2010 - Municipal level HDI - Income



2010 - Percentage of population that live in households with electricity



- This project created **460.000 new jobs** and **finished with the double discrimination** for not having access to electricity and neither to subsidies.
- **92,9% of the beneficiaries improved their standards of living**, and 81,8% of them plan to invest in improving their homes. In addition, 40,5% have now **better prospect of finding a job**.
- Access to electricity enabled the population to **purchase electrical appliances**, both for domestic convenience and to develop new businesses. This fact had direct **impact in industry development**.

According to the latest data published , the program has catered for the needs of 3,24 million families in rural Brazil, thereby enabling more than 15,6 million people to feel the benefits of having electricity in their households.

Environment and Energy

- Fuel switching that implies GHG emission reduction.
- Renewable energy sources deployment
- Allowing to avoid deforestation.
- Less dependence on fossil fuels for the replacement of old technology by renewable generation.

Economy and industry

- New economic opportunities.
- Growth in industrial production.
- Job creation and improvements on the quality of these jobs.
- Improvement of public-private relations and collaboration.
- This program has been complemented with further actions to universalize the access to telephony and internet.

Society and life quality

- Electric appliances suppose better life conditions, for example through a longer food conservation.
- Women and children count with more opportunities in terms of security, education, employment...
- Access to water by water supply systems with pumps.
- Better installations in hospitals and education centers that give better assistance and services to users.
- Education on good use of resources and energy .
- Avoiding migration phenomenon.



Source: http://luzparatodos.mme.gov.br/luzparatodos/downloads/Informativo_LpT_nr.41.pdf

"Luz para todos" program has important socio-economic and environmental impacts bringing clear benefits for all the communities where this program has been developed

SDGs	Sustainable Development Goals	N*	S*	H*	Describe impact
1	End poverty				New economic possibilities
2	End hunger				Better and longer food conservation due to fridge and freezer use
3	Well being – healthy lives				Improvements of the installations in hospitals and clinics and better air quality for the replacement of oil lamps by bulbs
4	Quality education				Improvements of the installations in schools and educational centers, possibility of studying during the nights
5	Gender equality				More opportunities in terms of security, education, employment...
6	Water and sanitation for all				Possibility of using pumps for water supply
7	Affordable and sustainable energy				Installation of renewable energies, new beneficiaries of public policy aids
8	Economic growth & decent jobs for all				New economic opportunities and improvements on the workings conditions
9	Resilient infrastructure, sustainable industrialization, foster innovation				Growth in industrial production for the increase of the society consumption
10	Reduce inequalities within and among countries				Becoming a more developed country by better life quality for its inhabitants
11	Cities inclusive, safe, resilient and sustainable				Communities feel much safer after the arrival of the electricity
12	Responsible consumption by all				Education for a good use of resources and energy according to the program plan
13	Combat climate change				GHG emission reduction due to the replacement of diesel engines and RES use
14	Protect the ocean				
15	Take care of the earth				Cleaner energy production than with previous generation system. Avoiding deforestation
16	Peaceful and inclusive societies, justice for all, accountable institutions at all levels				Improvement of the perception civil society has of the collaborating companies
17	Mechanisms and partnerships to reach the goals				Improvement of public-private collaboration

Some examples of his incidence on SDGs...

... Focus on gender equality



"After electricity came, I just push the button pump to irrigate"

Ieda Maria Rocha
Assentamento Pastorinha
- Brumadinho - MG

"After the electricity came, I can make cheese and my dream now is to create my own factory, and register it, to buy more equipment, sell to supermarket and employ more people"

Cláudia Penteadó
Assentamento Itamarati,
Ponta Porã- MS



"Now we work with electrical sewing machines allowing us to sell our products even in Italy"

Teresinha Silva
Assentamento Caritá -
Jenemoabo - BA



"The time of roasting flour in the wood stove has passed, now our equipment is all electrical. The work has become much easier and productive"

Maria Francisca
Santo Antônio do Leverger
- MT

"With a blender and a fridge I do umbú ice cream to sell"

Carolina da Silva Neto
Travessão de Ouro –
Pipipan etnic



More than 250.000 women have initiated some economic activity after "Luz para todos" program was implemented

More than 310.000 women have initiated or returned to their studies after the arrival of electricity

81.8% of women surveyed believe that security has increased significantly. This is possible because they feel much safer staying at home alone (79.2%), walking in the community (47.7%) or making nighttime activities (40,3%)

These are some of the people that make possible this project:

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