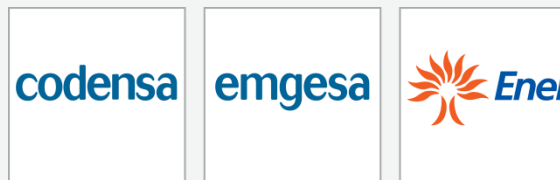


# Emgesa & Codensa

Results FY 2014

**Lucio Rubio Díaz**  
CEO

Bogotá, March 5 of 2015



Empresas del Grupo Enel

# Agenda



1

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**2014**

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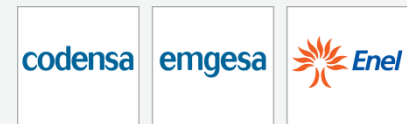
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Empresas del Grupo Enel



Emgesa es una empresa del Grupo Enel

# Emgesa: Growth



## Growing in a sustained and responsible way



Hydroelectric Project El Quimbo

## Important Advance in our projects and new business

**Emgesa completed the repowering of SALACO chain in Dec. 2014** adding about 144,6 MW to the company's installed capacity and reaching 3.059 MW (+4,6% vs. 2013).

Implementation of SCADA system for remote operation



Beginning of operations of Emgesa as a **gas supplier**. Total sales for 4,2 millions m<sup>3</sup>



**El Quimbo in his final stretch. 85% advance in physical execution as of Dec. 31 of 2014.**

**Estimated start-up: 2S 2015**





Codensa es una empresa del Grupo Enel

# Codensa: Growth



## Growing to support the demand and development



## Expansion projects at the forefront of technology.

### Advances in the execution of strategic projects for Colombia's energy supply:

- **SE Nueva Esperanza:**
  - Environmental License +Archaeological rescue
  - Dec. 2016
- **SE Bacatá:**
  - Finalization of electromechanical assembly
  - 1H 2015
- **North substation:**
  - August 2016



**Modernization of public lighting in Bogotá:**  
Installation of **3.700 LED bulbs**, from the **33.000 total estimated for 2016**, with priority in insecure zones and intersections.

### Electric mobility:

**Urban mass transit**  
APP Bogotá Electrika  
Presentation (nov. 2014).

**Urban individual transport**  
Ebike to work and electric taxis .

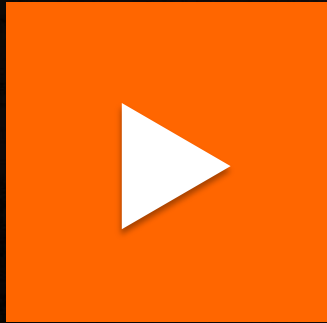
**Advances:** 2 MM Kms - **502 Ton of Co2** -6 Kg of avoided particles- **621 MW distributed.**



Nueva Esperanza SE



# Public Lighting Modernization Video





Emgesa es una empresa del Grupo Enel

# Emgesa: Competitiveness



**Our target: The operational excellence.**





# Emgesa: Competitiveness



## Better operational results and insurance of future revenue



**Historical record of generation in Pagua chain (4.340 GWh) and in Betania (2.286 GWh).**

**+6.9%** in total generation vs. 2013.

Availability index of plants greater than **90%**.



**Positive hydrological conditions with higher than average rain levels in Emgesa's reservoirs, increasing its net generation within the system:**

**Betania: 103,3%**

**Guavio: 108,1%**

**Cuenca del Rio Bogotá: 109,7%.**



**We ensure hydro resources for generation: renovation of Guavio's central water concession (1.200 MW) for 15 years more.**

# Codensa: Competitiveness

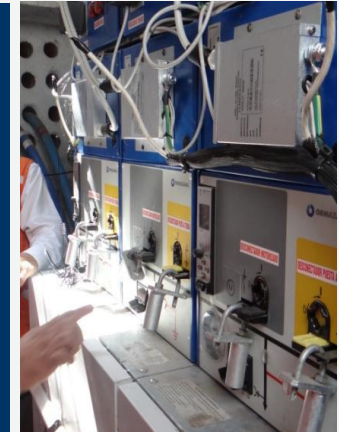


**We are a company in evolution and in continue advance.**

## Energy Tariff Revision:

- Revision on commercialization component.  
(Res. CREG 180 & 191 of 2014)
- Revision on distribution component.  
(Res. CREG 079 & 112 of 2014)
- Revision on the methodology of distribution activity.  
(Res. CREG 179 of 2014)

**Telecontrol Project to improve quality of service: 4% (145) of all equipment were installed in 2014.**



## Customer service optimization:

- NEOL project: renewal business portal.
- New app. Mobile Codensa.
- Real-time tracking applications (Esel and Control tower).

## Innovation:

**Accenture award for Effect Carson Project. 10 patents in 8 countries for 3 technologies.**

**Positive results in the ISCAL survey for Codensa: 83,2% 8<sup>a</sup> position between 37 power distributors companies of Central and South America.**



# Sustainability



## Creating value for stakeholders



## Creating long-term value through sustainable initiatives



**We contribute to education:** Educational Programs with communities  
**More than 13.500 beneficiaries**



**Renace Forest:** Protection of 690 hectares of alto andino forest and voluntary plantation of 17500 native trees.



### New benefits of quality of life for employees:

- Day of volunteering and balance
- First day of school
- Corporate discount card
- Loans for purchase of appliances and holidays

**Solar Decathlon 2015:** proposal selected between 30 projects. Commitment to sustainability and innovation in renewable energies.



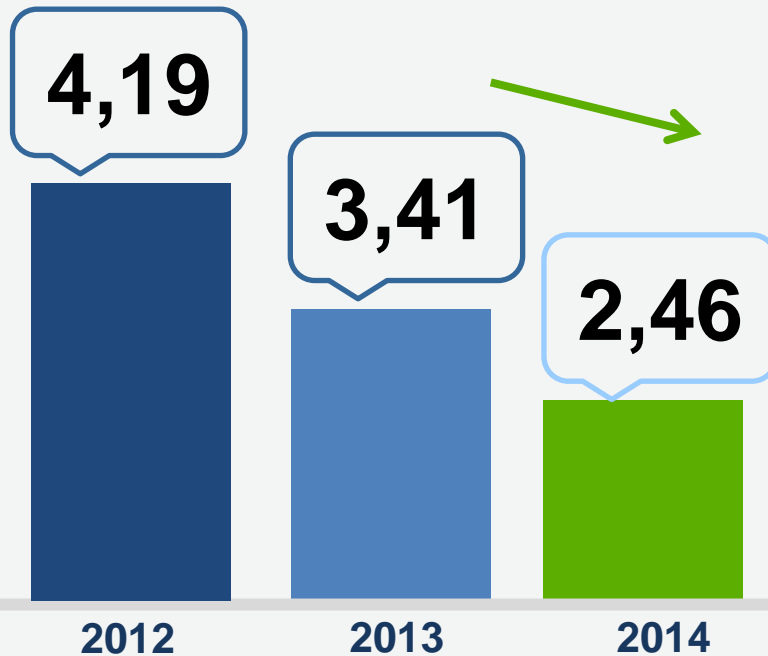
# RENACE forest Video



# Security

We act safely, We protect the life of our employees.

## Country frequency index



IF global

IF =Frequency index=  $\frac{\text{Number of accidents accumulated} \times 1.000.000}{\text{Total hours worked accumulated by man}}$

## Achievements in security:

- Security scale
- Safety score card
- Unification of image and fireproof clothing
- Heights training
- One Safety alliance
- Security Briefing





Empresas del Grupo Enel

Emgesa & Codensa:

# Financial Highlights

## Successful financial results

**Confidence in our financial management:**

**Ratification of the local AAA by *Fitch Ratings* for Emgesa and Codensa.**

**International Rating BBB (stable) by *Fitch Ratings* and *Standard & Poors* to Emgesa.**



**Successful placements of local bonds Emgesa (MM \$ 590,000 in May) and Codensa (MM \$ 185,000 in September)**  
Bid to cover 2X, ensuring competitive rates and resources for investment.



**Dividends paid to shareholders for 2014: \$1.2 Trillions.**

**Committed to the Financial Community:**  
Energy Explorers Program: Visit to El Quimbo and Betania in October with a group of local investors and financial analysts.  
Ratification of IR Recognition.

**IFRS opening balance sheet as of 1 January 2014 to the Superintendent of Public Services.**



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Empresas del Grupo Enel

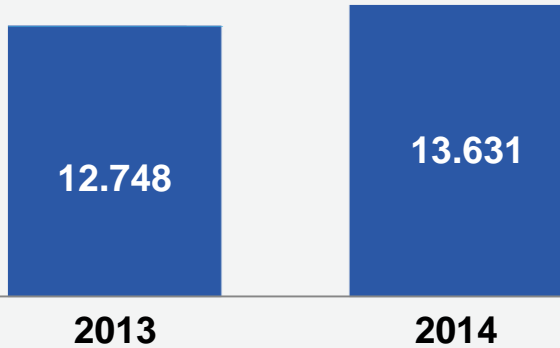


# Results:

# Emgesa's Generation

## Year of contrasts in generation and in spot prices

### Emgesa's Generation (GWh)



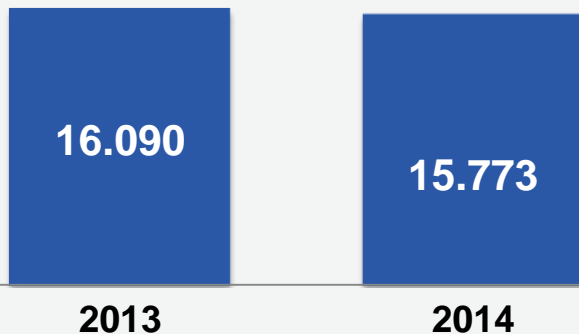
**+7%** in 2014

**21%** market share

**91%** availability of plants

**\$225/kWh** Average spot price

### Energy Sales(GWh)



**\$144/kWh** Emgesa's average sales price

**70%** of sales through contracts

**+6,2%** in sales in spot market



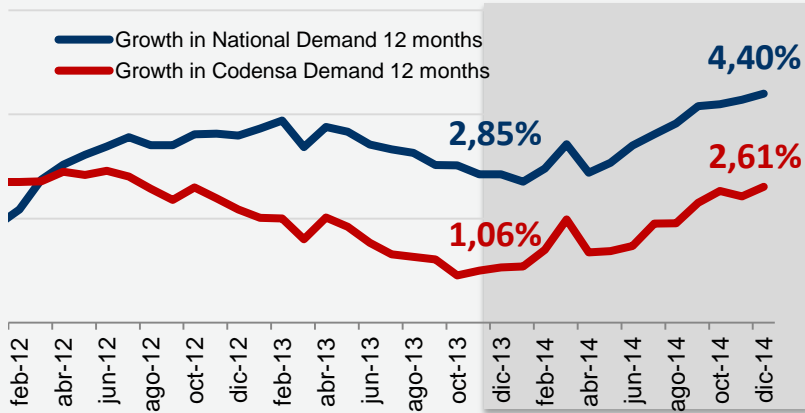
Codensa es una empresa del Grupo Enel

# Results:

# Distribution Business- Codensa

## Recovery of demand and growth in commercialized energy

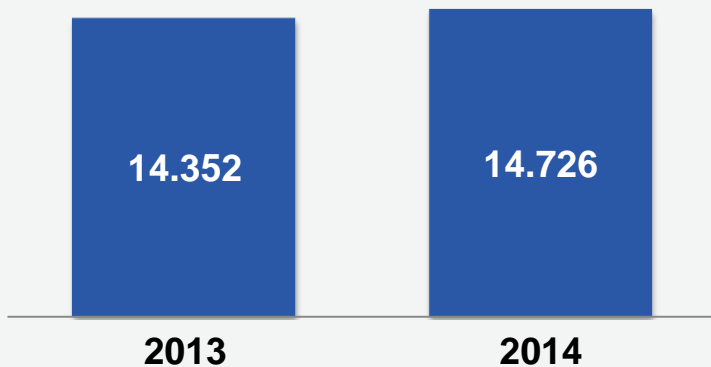
### Energy demand



**23%** of national demand

**85.456** new clients in 2014

### Energy Commercialization (GWh)



**+2,6%** retailed electricity

**7,19%** losses index

# Codensa's Quality Indicators

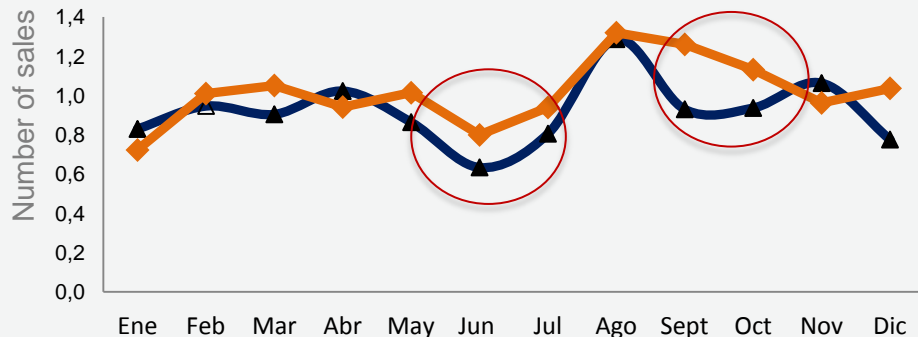
## Challenging conditions to maintain quality of service

### International Quality of Service Indicators

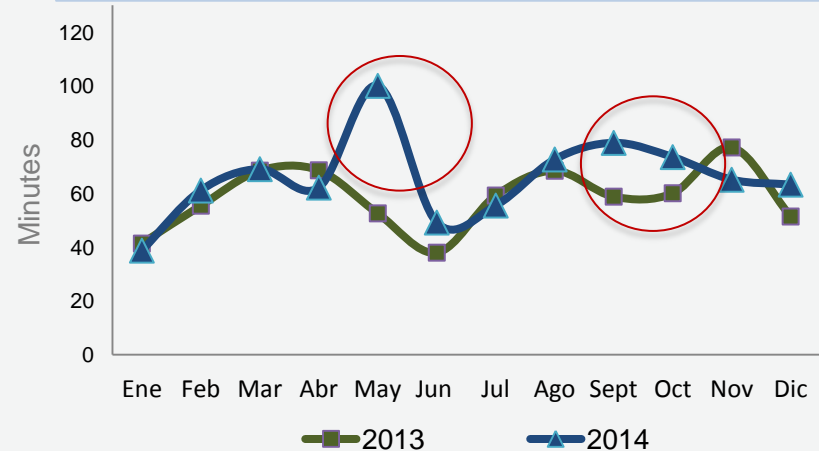
#### SAIFI\*

#### SAIDI\*\*

Annual Var. 2014 vs. 2013: +10,8%



Annual Var. 2014 vs. 2013: +12,8%



Source: Codensa

▲ 2013      ◆ 2014

\*SAIDI: Average Interruption Duration Index

\*\*SAIFI: Average Interruption Frequency Index

Index results are considered manageable incidents by the company excluding the larger forces and external events.

Data just includes medium tension information.

### Deterioration of Index SAIDI y SAIFI.

**May 2014:** Incident on Usme SE in May 2014 (85.350 clients was affected in + 30 minutes).

**August – September 2014:** Affectation of rural circuits for wind season.

**October 2014:** Event Tunal SE .

**December 2014:** Extension rainy season

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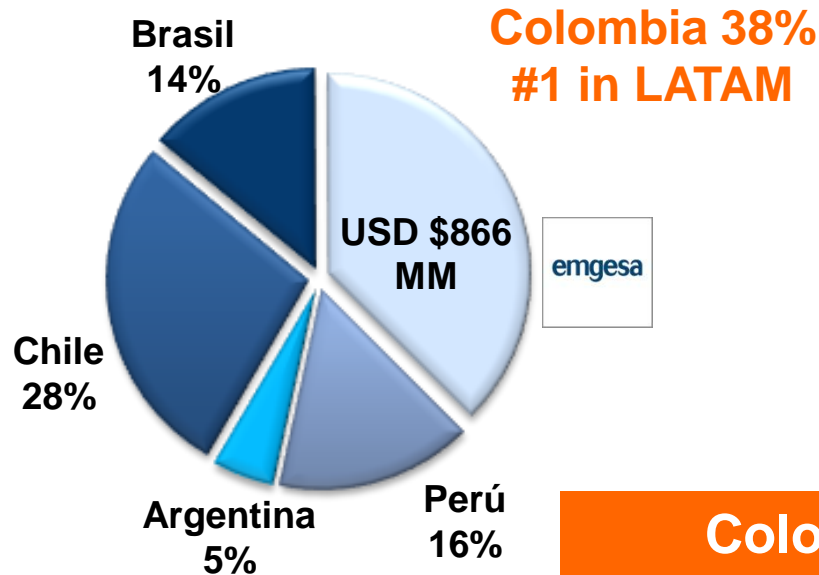
Empresas del Grupo Enel

# Results Consolidados Colombia

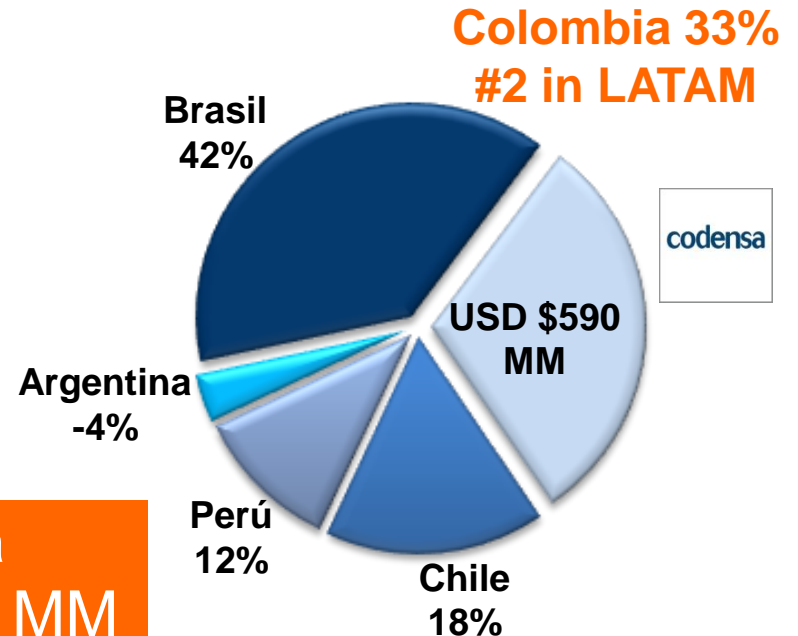
Leading contributor in LATAM with 36% of the region's EBITDA

In 2014 Colombia was the first EBITDA contributor in LATAM with 36% of region's EBITDA.

LATAM Generation EBITDA  
USD \$2.284 MM



LATAM distribution EBITDA  
USD \$1.801 MM

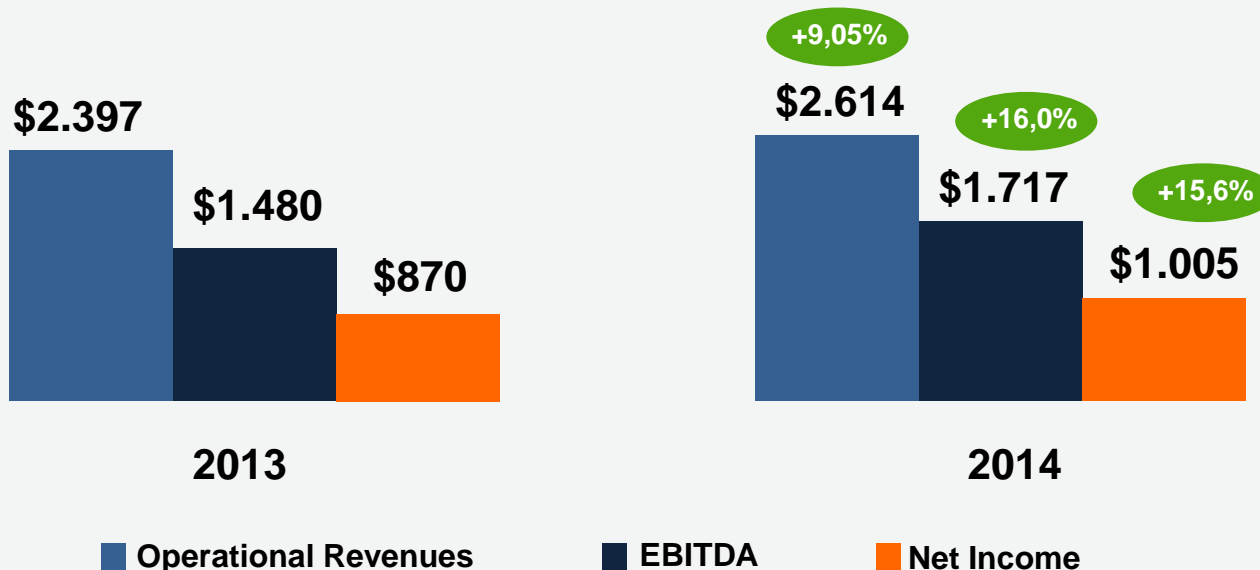


**Colombia**  
USD \$1.456 MM

\*Numbers under IFRS Chile.

**Strong financial results given extraordinary hydrological conditions**

## Financial Results and Margins (Billions pesos)



\*EBITDA is calculated by adding depreciation and amortization (included in cost of sales and administrative expenses) to operating income (which is estimated by subtracting the cost of sales and administrative expenses of operating revenues).

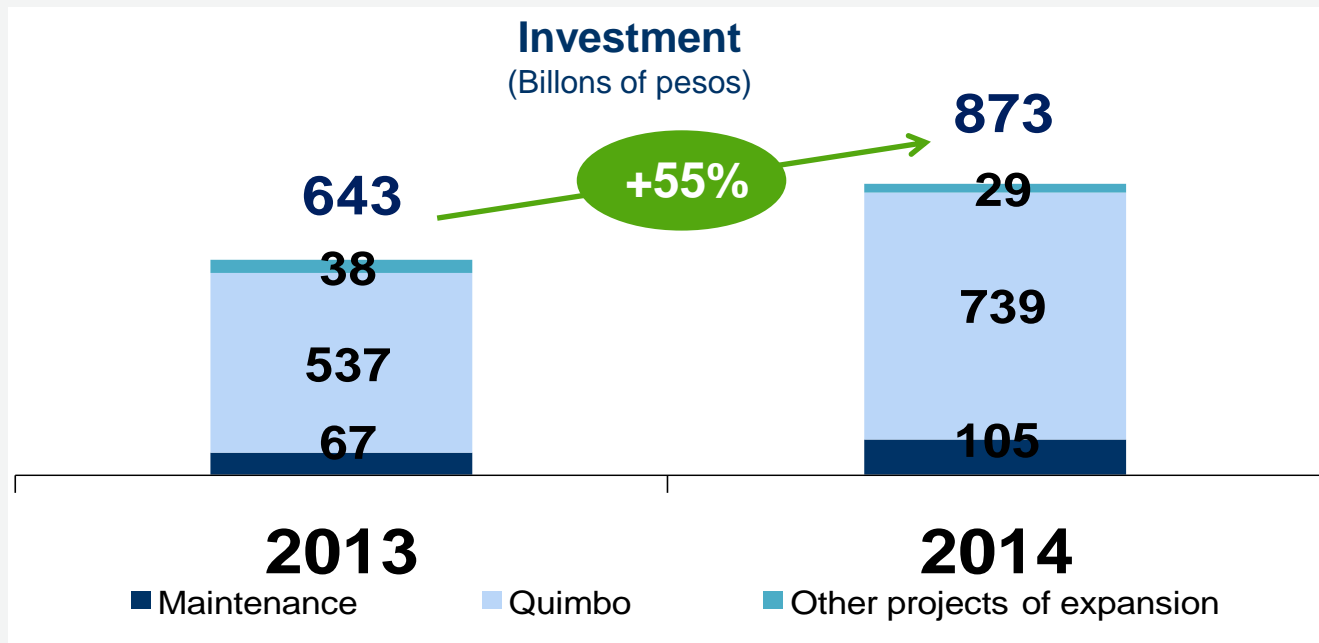
**Important growth on financial results respect with FY2013**

**+ 65,7% in EBITDA Margin**

**+ 38,5% in Net Margin**

## Financial Results- Emgesa

### Important implementation of investments in expansion



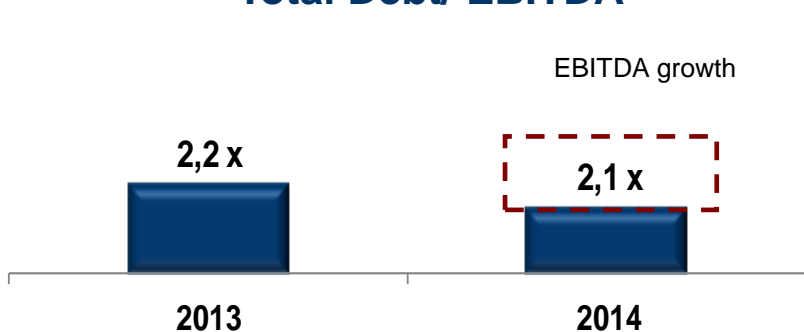
**\$872.495 MMCOP** in CAPEX in 2014  
 85% in Quimbo  
 12% Preventive maintenance  
 3% Other expansion projects (Mainly SALACO)

# Ratios:

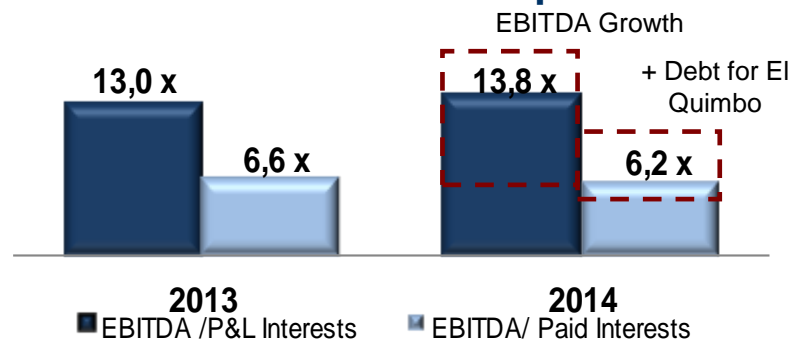
# Financial Results - Emgesa

Credit strength ratified in (AAA) local and (BBB) international.

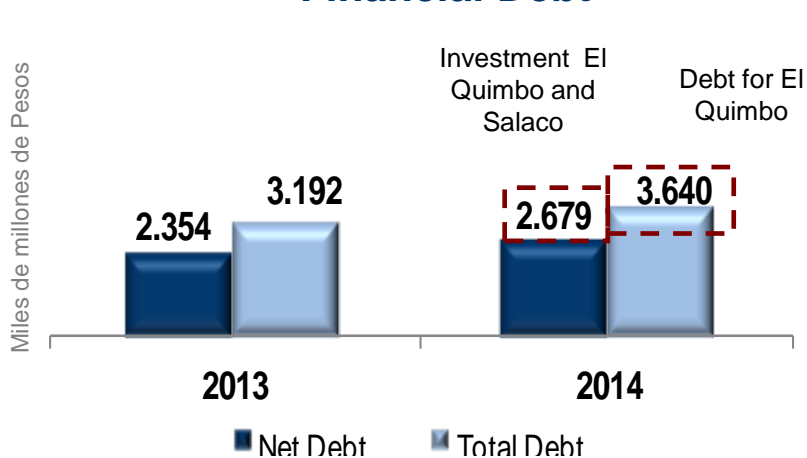
## Total Debt/ EBITDA



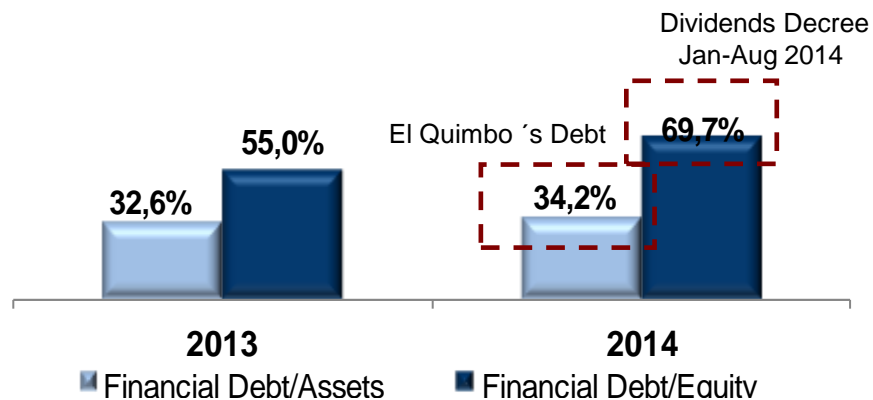
## EBITDA / Financial expenses<sup>(1)</sup>



## Financial Debt



## Leverage

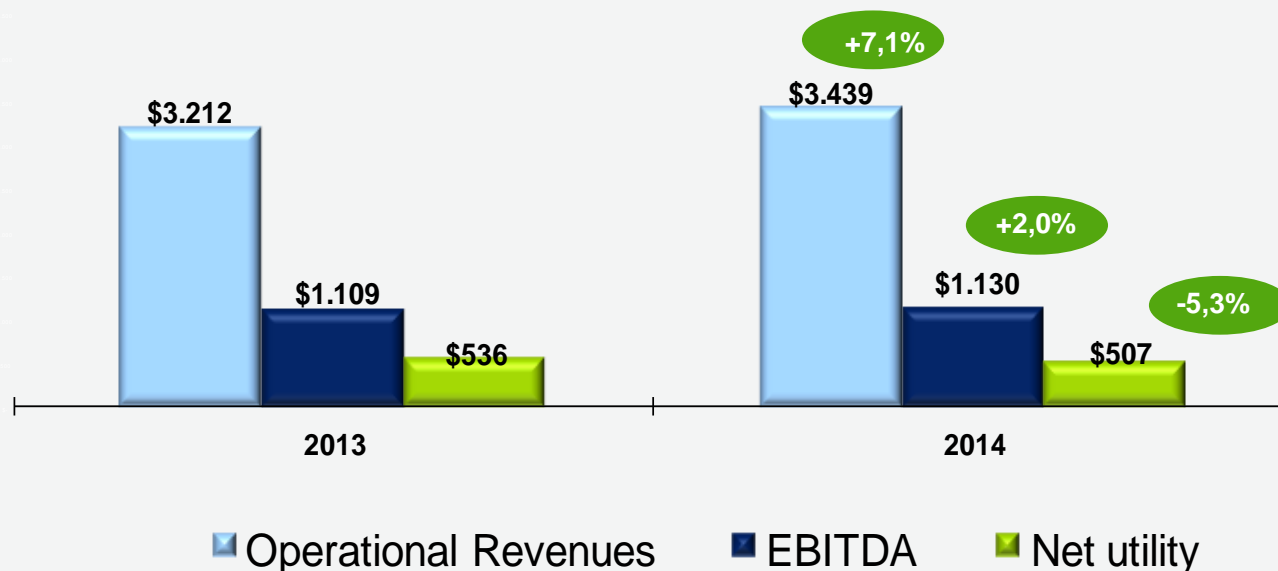


(1) Financial expenses associated with the financing of the Quimbo is being activated during the construction period of the project and it would only be reflected in the P & G company once Quimbo starts to operate. Therefore, there would be two types of calculations for the indicator EBITDA / Interest Expenses based on the financial expense of P & G and Cash Flow of Emgesa presented.



## Growth in operational revenues and stability in margins

**Financial Results and Margins**  
(Billions of Pesos)

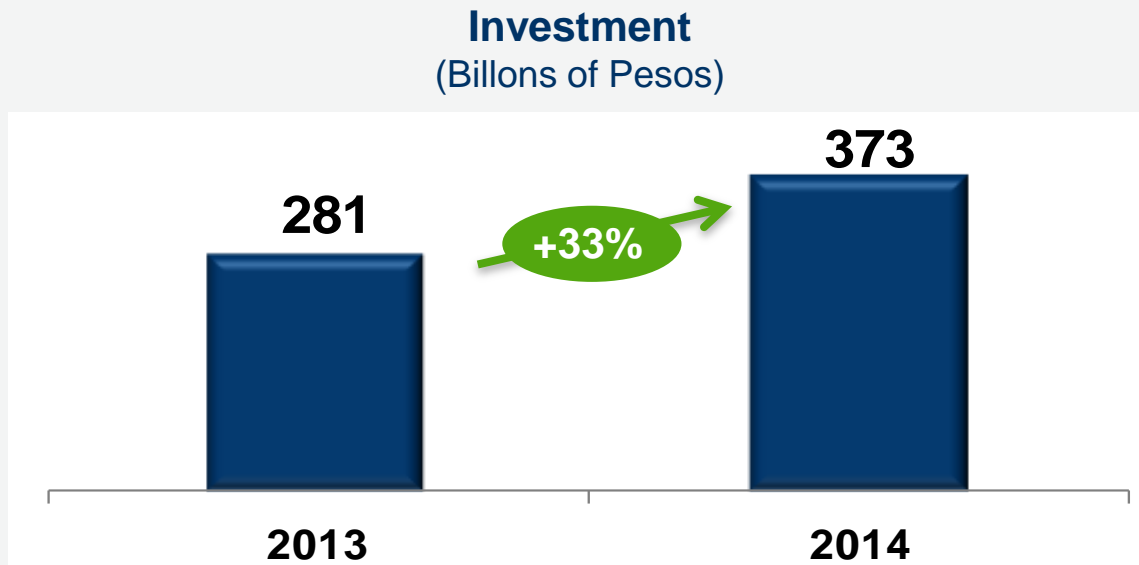


**Growth in financial results and EBITDA vs. 2013**  
**34,3% EBITDA Margin**  
**16,3% Net Margin**

## Results:

# Financial Results- Codensa

Investments focused on quality of service and network modernization



### **\$373.119 BNCOP in investments in 2014:**

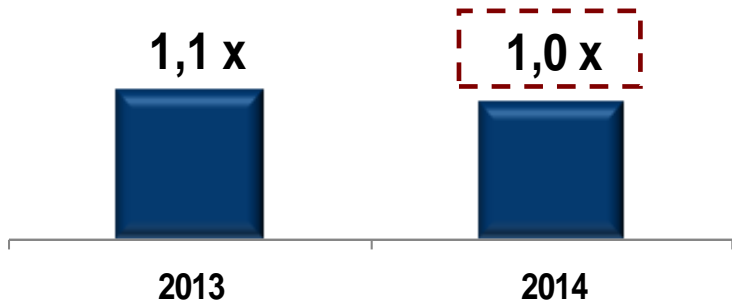
- 40% quality
- 28% Demand attention
- 3% Security
- 6% Loss control
- 3% Strategic and regulatory

# Financial Results - Codensa

Credit quality and conservative risk profile consistent with local AAA

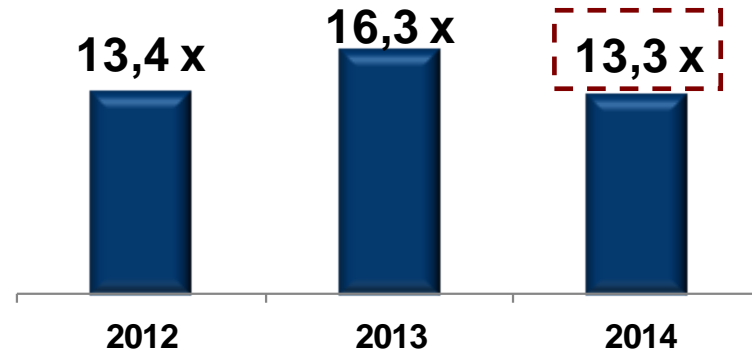
## Total Debt/EBITDA

Growth of EBITDA  
+ Attention of maturities with prefinancing 2013



## EBITDA /Financial expenses

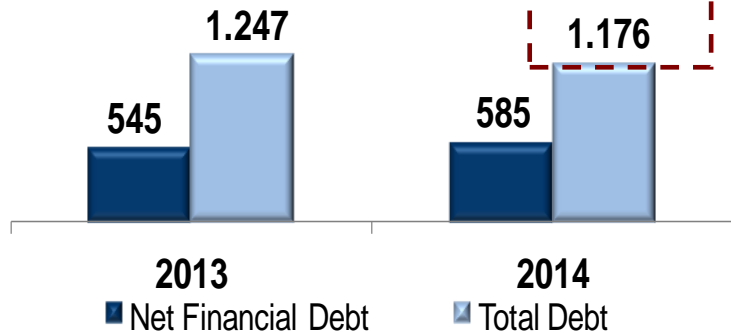
Increase IPC  
Less capitalization on interest expenses associated to projects



## Financial Debt

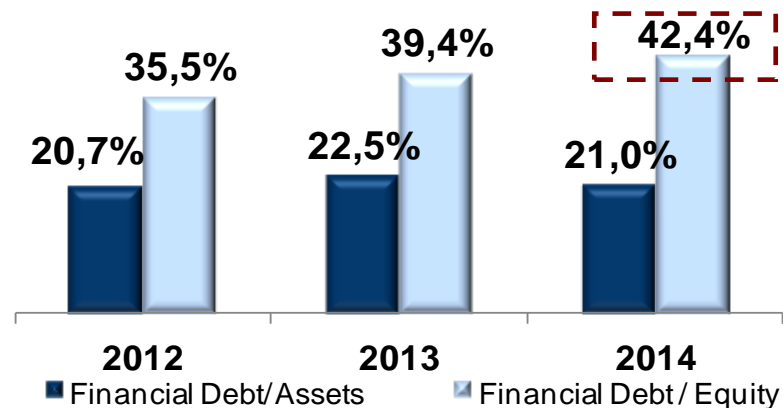
Attention of pre-financing maturities 2013

Billions of Pesos



## Leverage

Dividends Decree Jan-Aug 2014



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Empresas del Grupo Enel

# Our projects and challenges

## For 2015

Bet for new technologies and growth in the middle of changes

**1**

**El Quimbo  
Project**

**2**

**Reliability plan  
on thermal  
plants**

**3**

**PSVAs**

**4**

**Quality**

**5**

**Telecontrol**

**6**

**Tariff revision**

**Distribution and  
Comercialization**

### Quimbo - final stage

**Budget:**

**USD\$1.093 MM**  
(2010 constant USD)

Acumulated Inv Dic. 2014  
= **USD\$862 MM**  
(2010 constant USD)

**85%**

**physical execution**  
**to dic-2014**



- **Alternative routes-  
Section II**
- **Viaduct**
- **Reservoir forest**
- **Transfer of families  
to resettlement  
Santiago and Palacio**



Damn – Reinforcing steel Parapeto wall



Inlet: Assembly of wicker structure



Section IV: Beam - Bridge La Cañada

### **Challenges Final Straight 2015:**

- Reservoir Adequacy
- Completion works of the auxiliary dam
- Operation start of Balseadero viaduct
- Reservoir filling

# QUIMBO Resettlement Video



# Reliability Plan

## Thermal plants

### We optimize the operation of our plants

Emgesa invests in the implementation of projects to optimize the use of the River Bogotá in central Termozipa, ensuring compliance with environmental standards and in the central Cartagena to ensure reliability

#### Recovery of cooling towers

- Return towers to its original design condition .  
**Temperature decrease of discharge**

#### Dry ash removal

- Decrease in water use by 85% for extraction of ash.  
**Decreased of ash dumping**

#### Recirculating water of refrigeration

- Autonomy of the Central, generating energy with no affection to the river dynamics.
- Reduction of cooling water discharges.  
**Decreased use of natural resources**

#### Cartagena Project of reliability

- Recovery of boilers.
- Modernization of burners and burners management sytem.
- Restructuring of steam turbines.

**Reducing the rate of historical unavailability (RHF)**





# PSVAs

## Products and Services of added Value

### Development of new business to increase energy demand

#### Public lighting system

Efficiency for the city with  
**33.000** LED lights



#### Smart Metering

Massification of smart  
metering for 2016-2020



#### Electric Mobility

Development in individual urban transport:  
flotas masivas, public charging, sales.  
**Public Mass transportation:** APP Bogotá  
Electrika.



#### Electro-intensives

Large portfolio of  
services. Sales and  
installation of  
equipment (stoves,  
induction heaters)



## PSAVs

#### Distributed Energy

Generation near  
consumption centers



# Project

## Better quality of service -Codensa

Projects to improve the quality of service

### Substations



### 260.000 Customers benefited

1. Change of RCs in SSEE MT-MT
2. Change trains cell
3. Standardization of control system SSEE Colegio
4. Maintaining of bars
5. Standardization of ancillary services
6. Optical fiber SSEE MT-MT

### Grids



### Reinforcement of 340 Km of grids MT

1. Telecontrol
2. Comprehensive plan
3. Replenishment and substitutions
4. Forest Management
5. Normalization MT
6. Chargeability
7. Wind season
8. Rainy season

# Project

## Codensa Telecontrol

Improved and decreased in duration of troubleshooting

# Goals 2015

**3.787** Remotely controlled switchgear installations

**1.800** Km de of reinforcing grids

**1.260** Telecontrolled equipment



## Benefits

- **Shorter times** for troubleshooting
- **Greater selectivity, less affected clients** (quantity, time, programming)
- **High levels of customer satisfaction..**
- **Low volume of calls to Fonoservicio**
- **Automatic faults localization and with less human resource (mobile)**
- **Lower congestion in control center (mobile coordination)**
- **Increased efficiency and effectiveness in the operation of the grid and customer service**



# Tariff Revision

## Changes in the remuneration of the component of comercialization and distribution

	Current	New
<b>Comercialization (Cx)</b>	<ul style="list-style-type: none"> <li>• Since 1998</li> <li>• Recognition of 15% of efficient costs of Cx</li> </ul>	<ul style="list-style-type: none"> <li>• Recognition of 2.73% on efficient costs of Cx+ portfolio risk + financial cost of subsidies</li> <li>• To define the compensation of operative expenses for loss</li> </ul>
<b>Distribution (Dx)</b>  <b>WACC remunerative assets</b>	<ul style="list-style-type: none"> <li>• 13.9% for NT1 to (Maximun price)</li> <li>• 13% for assets NT2-4 (Maximun revenue)</li> </ul>	<ul style="list-style-type: none"> <li>• Will be defined in future resolutions 2015</li> </ul>
<b>Distribution (Dx)</b>  <b>Regulated asset base (RAB)</b>	<ul style="list-style-type: none"> <li>• Replacement value to new (RVN).</li> <li>• Investment recognition               <ul style="list-style-type: none"> <li>–MT/BT: to the beginning of the pricing period</li> <li>–AT: to enter to operate within the pricing period.</li> </ul> </li> </ul>	Incentives to invest in infrastructure replacement and quality: <ul style="list-style-type: none"> <li>• Depreciated replacement cost</li> <li>• BRA- min. 75% replacement value.</li> <li>• Investment Plan (5 years) turn off in the beginnings with the “maximun revenue”.</li> </ul>

# Conclusions

## Codensa & Emgesa

### 2014: Year of outstanding results despite the changing environment

Significant progress on projects to ensure the energy supply to the rhythm of the country's needs in a planned way

### 2015:

- ✓ Focus on products and value added services to increase energy demand
- ✓ Commitment to innovation and adoption of new technologies, promoting energy efficiency for the development of cities.
- ✓ Maintaining a strong financial management of the companies, which supports high credit ratings.

# Contact us

Investor Relations team

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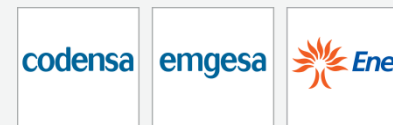
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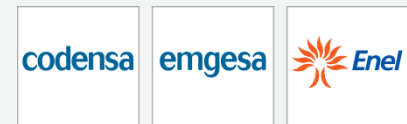
Visit our web pages for additional information:  
[www.emgesa.com.co](http://www.emgesa.com.co) / [www.codensa.com.co](http://www.codensa.com.co)



Empresas del Grupo Enel

# Agenda

## Exhibits

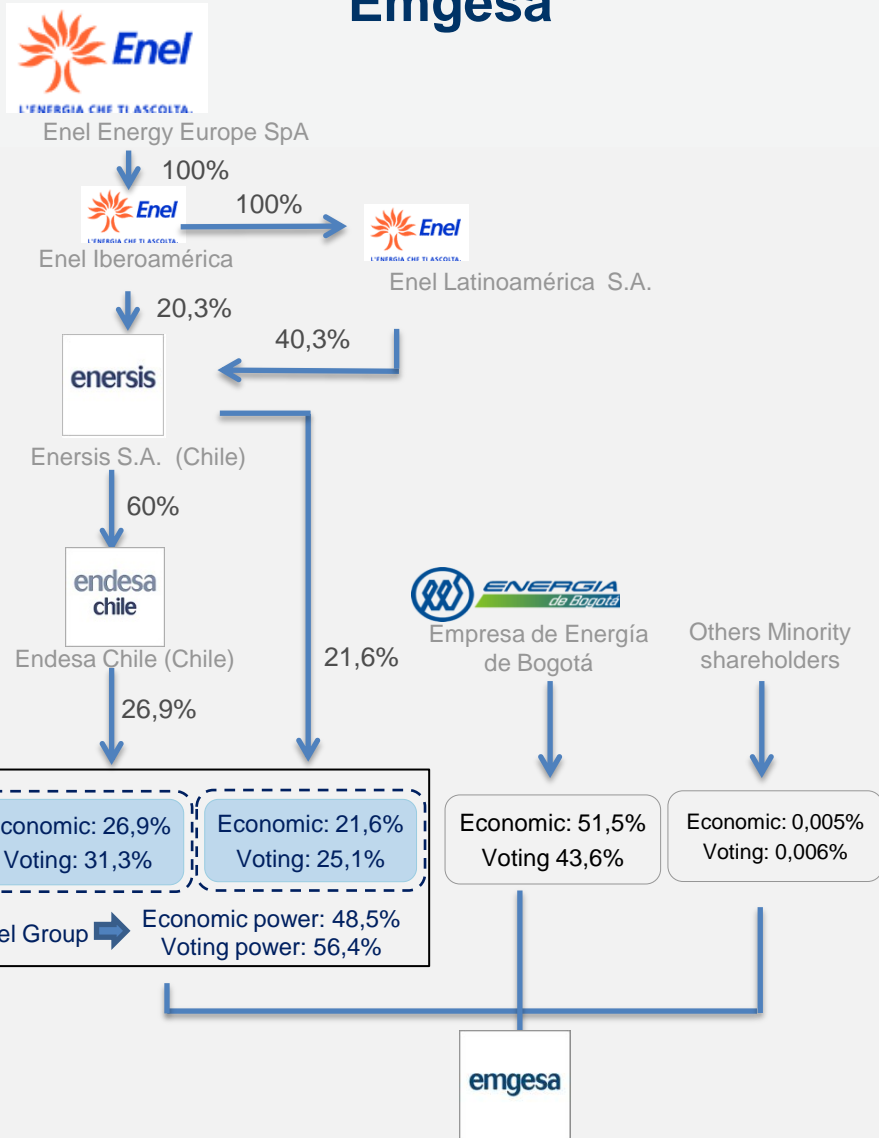


Empresas del Grupo Enel

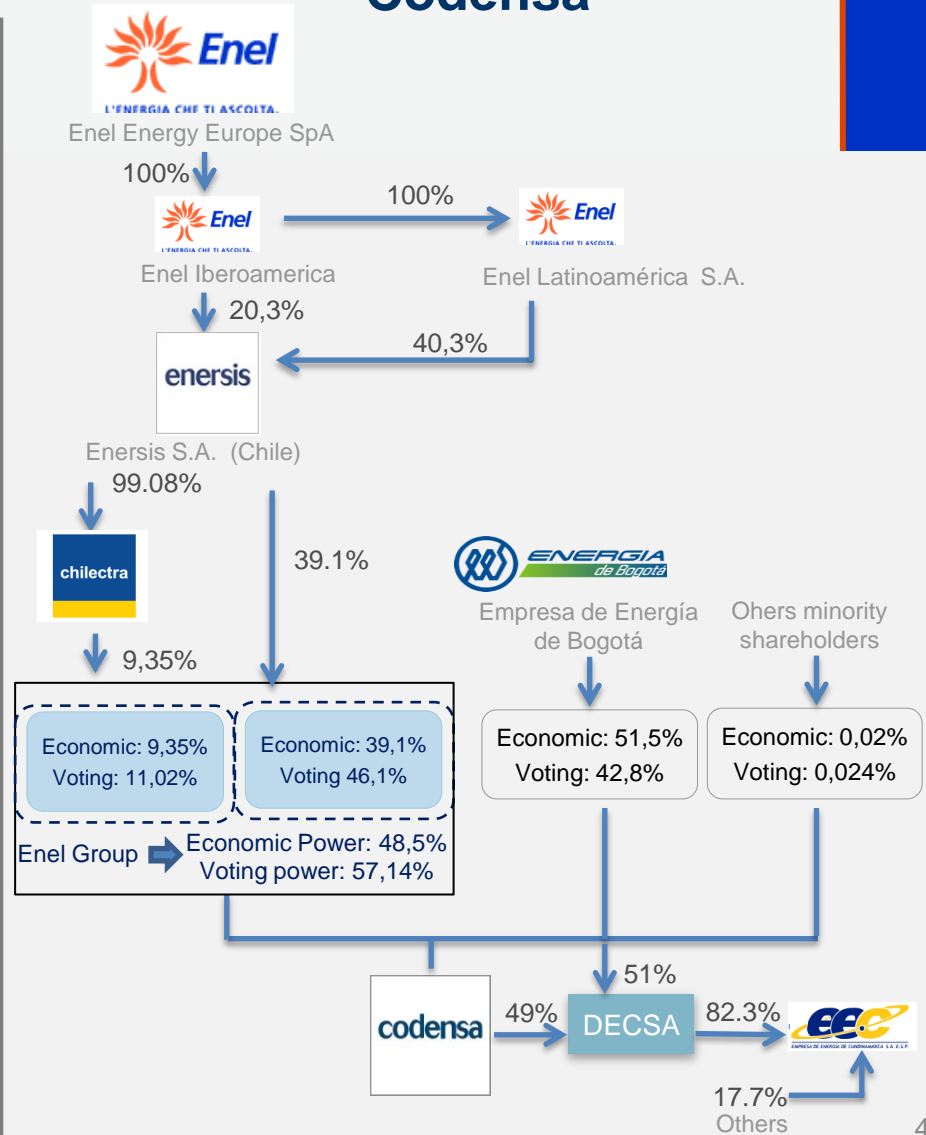
# Shareholder's Ownership

## Shareholding Composition

### Emgesa



### Codensa

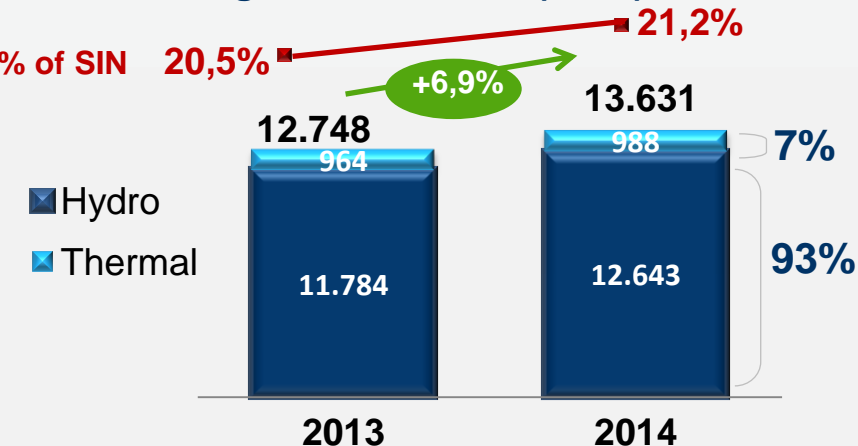




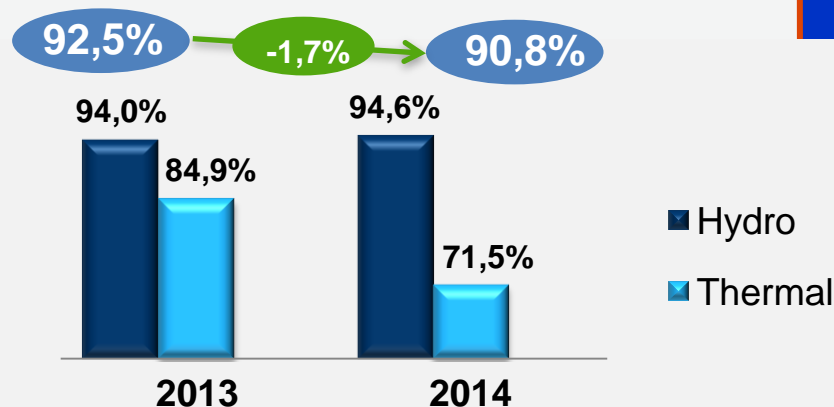
# Results Generation - Emgesa

Year of contrats in hydrological contribution in the country and high prices of strock

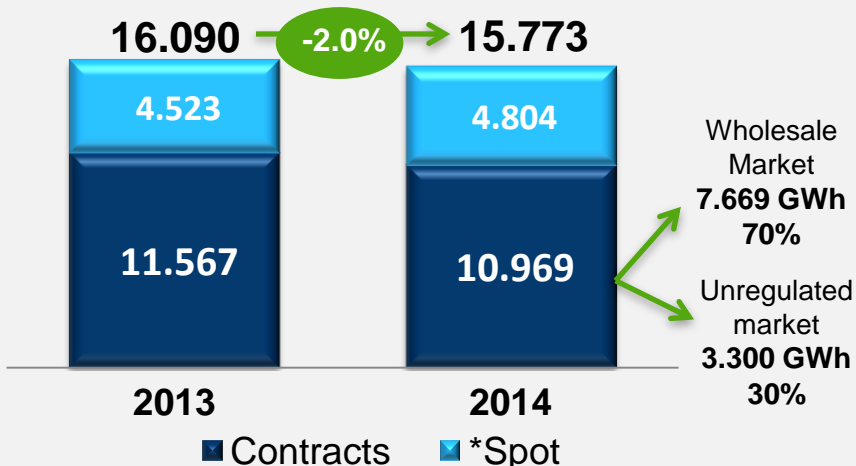
## Emgesa Generation (GWh)



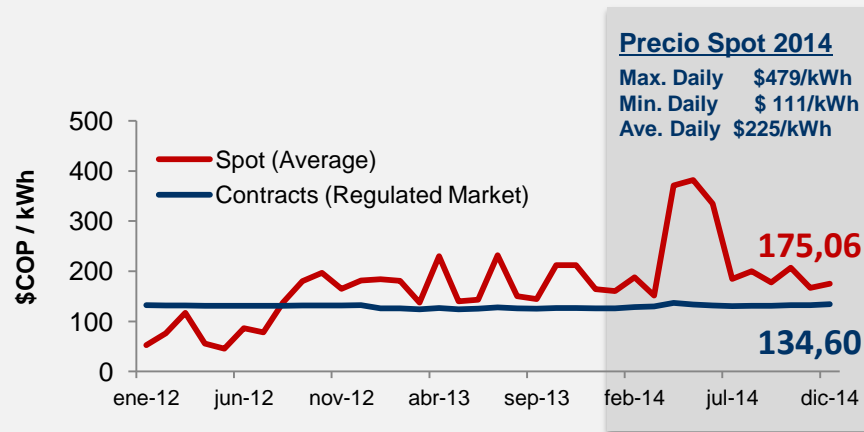
## Accumulated availability in Centrals of Emgesa



## Energy Sales (GWh)



## Evolution of the price of Electricity Bolsa vs Contracts (Sistema)



### Precio Spot 2014

Max. Daily \$479/kWh  
Min. Daily \$111/kWh  
Ave. Daily \$225/kWh

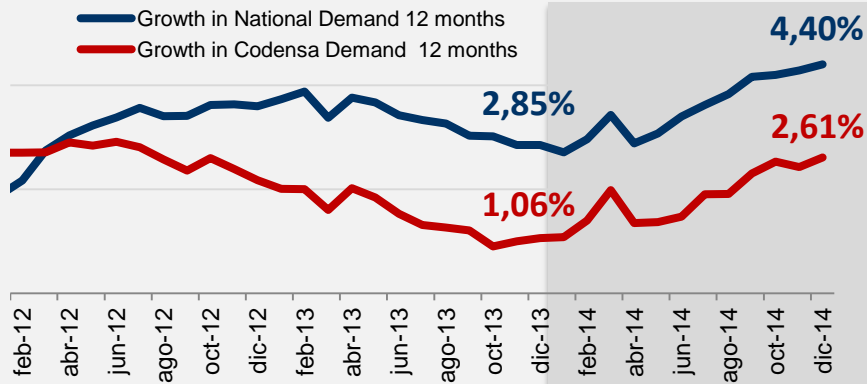
\* Sales in the spot market include AGC

# Results Distribution - Codensa

## Recuperation of demand and growth in commercialized energy

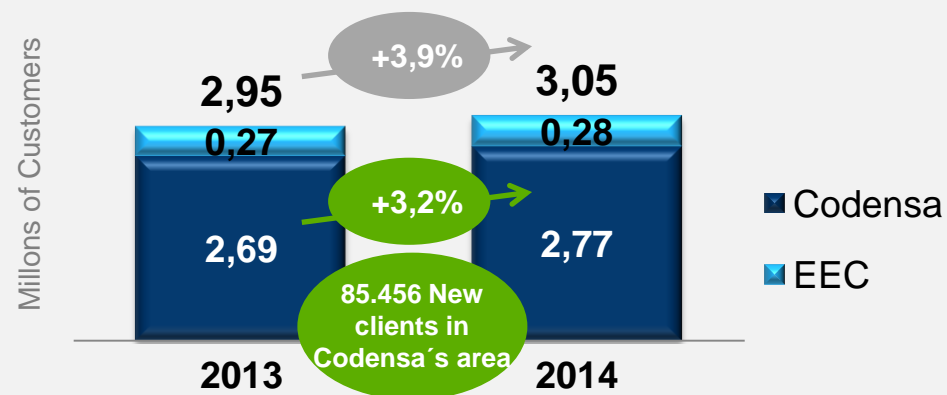
### National Demand vs. Codensa's Demand

#### Industry reactivation of Codensa's area

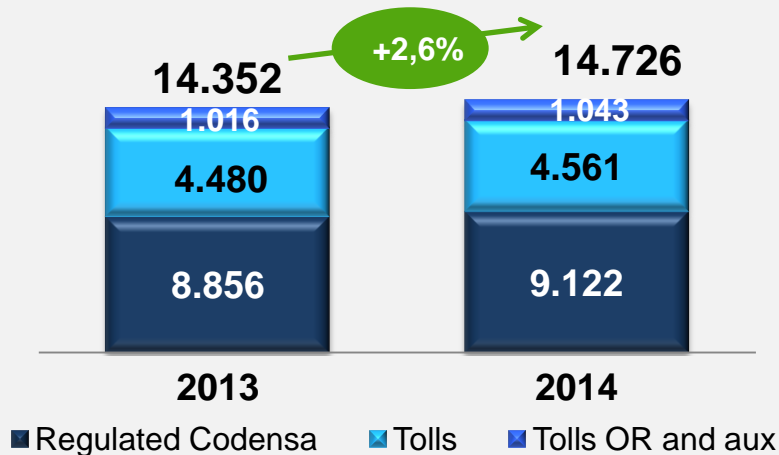


### Growth in number of clients

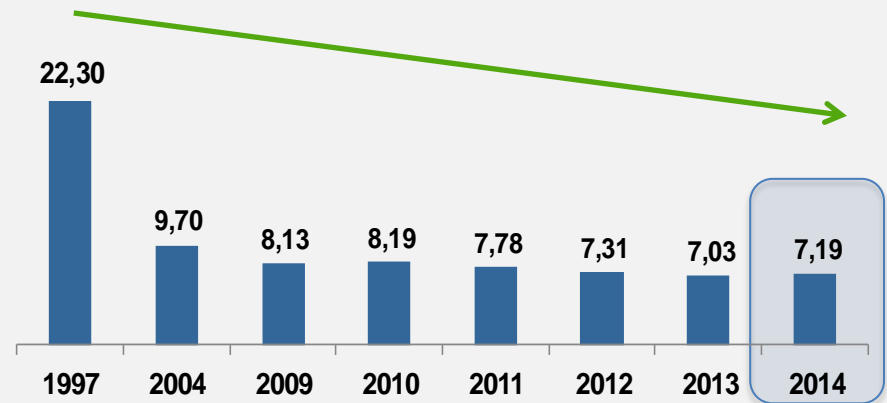
#### Codensa = 23,2% of National Demand



### Energy Distribution (GWh)



### Energy loss index



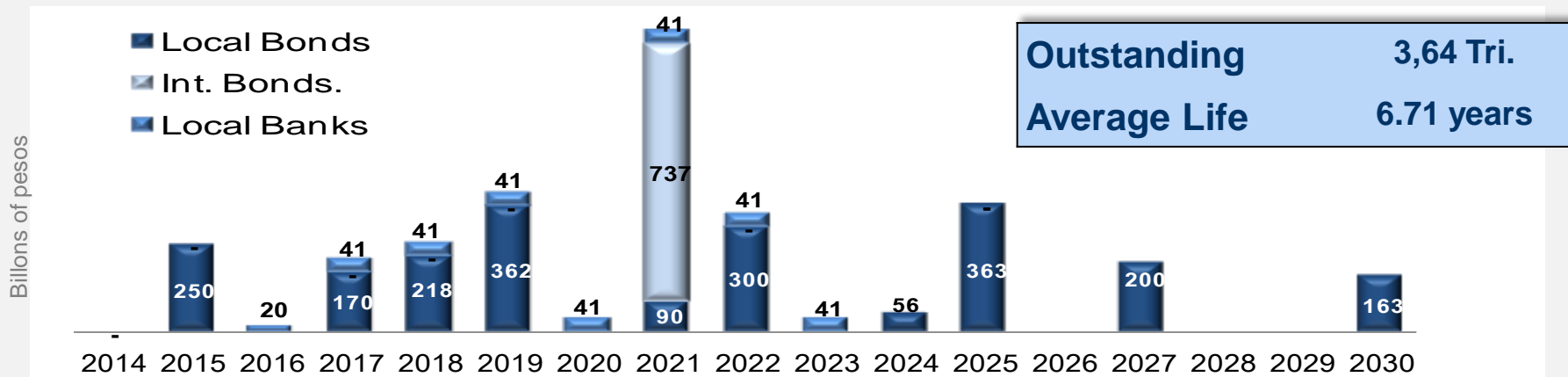
# Emgesa's debt profile

Maturity profile distributed in 16 Years

## Emgesa's Debt amortization schedule

As of December of 2014

EBITDA (2014) ~ \$1.71 trillions



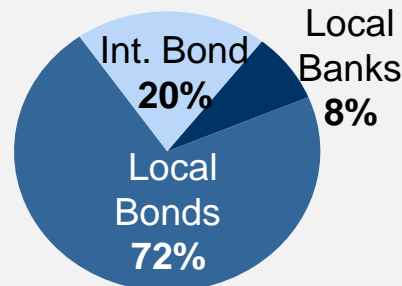
## Composition of financial debt of Emgesa

As of December 2014

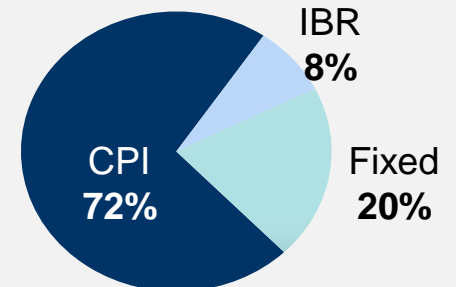
### Currency



### Instrument



### Interest Rate



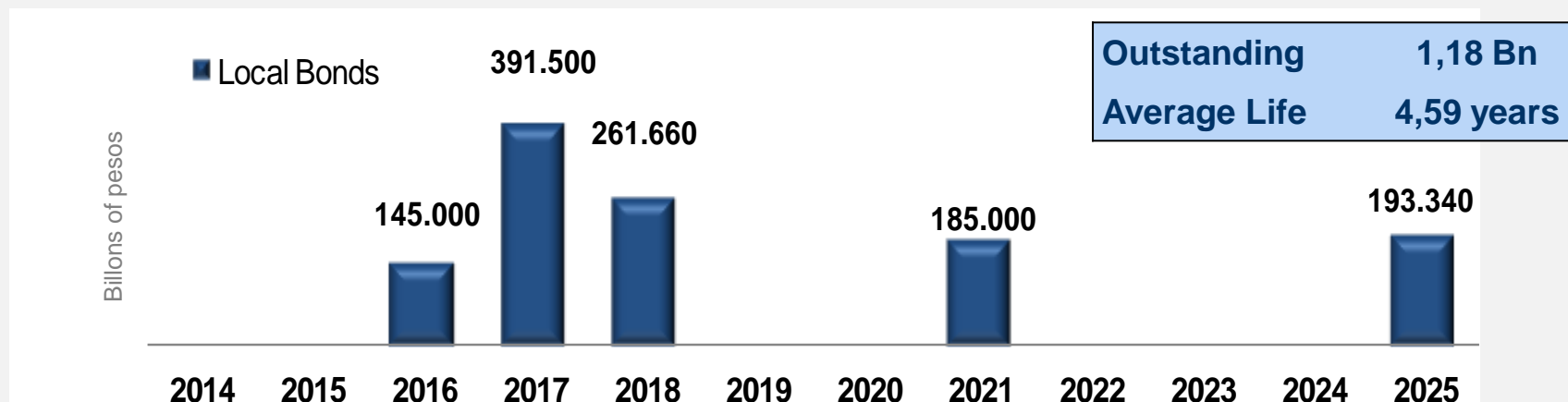
# Codensa's debt profile

Conservative debt profile

## Codensa's Debt amortization schedule

As of December of 2014

EBITDA (2014) ~ \$1.10 Billones



## Composition of financial debt of Codensa

As of December of 2014

Currency



Instrument



Interest Rate

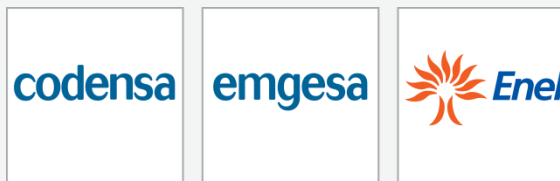


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