# Argentina

Enel Américas' 2018 Analyst Update Meeting

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Country Manager Enel Argentina



# **Enel Argentina Positioning**





# **Generation and Distribution**



## **Installed Capacity in Argentina**



### **Evolution of Total Country Capacity**

- January 2017 → 33,950 MW
- December 2017 → 36,505 MW

#### Participation by Business Group



### Power Increase 2,555 MW (\*)

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#### Generation capacity

Total Argentina36,505 MWEnel Argentina4,558 MW (12.5%)

# **Distribution Sector**

#### Participation of Distributors - Distributed Energy

Edesur; 15%

Edenor; 20%

Santa Fe; 9%

132

**TWh** 

Eden; 6% Cordoba; 7%

42% Residential

Industries

**13% Commercial** 

15% Small and Medium

**29% Big industries** 



(EDERSA – Grupo Neuss) Cooperatives Pampa Holding; Co peratives: 18% 16% 13,764 m Provincial: 26% clients Rogelio igano: 11% Other private; 5% Cartellone; 4% Mendoza; 4%

**Corporate Groups** 

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- Pampa Holding (Edenor)
- Enel Américas (Edesur)
- Rogelio Pagano (Prov. Buenos Aires (EDELAP, EDEA, EDEN, EDES) - Salta (EDESA))
- Cartellone (Tucumán (EDET) y Jujuy (EJESA))
- Mendoza ((EDEMSA) y La Rioja (EDELAR))
- Other private (San Luis (EDESAL Rovella Carranza), Sgo. Del Estero (EDESE-ICK), San Juan (ESJSA - CGE), Rio Negro
- Provincial (Córdoba, Santa Fe, Entre Ríos, Chaco, Formosa, Corrientes, Misiones, Catamarca, La Pampa, Neuquén, Chubut, Santa Cruz, Tierra del Fuego, Este de Mendoza)

Source ADEERA, Ministry of Energy and Mining

Enel Américas;

**6**%

## **Transmission Sector – SADI**



Available Transport Capacity and **Delivery Point** 700 Mw NOA\_NEA ==> 100% NEA NOA ==> 100% NOA 700 Mw CEN NOA ==> 100% NEA NOA CEN ==> 100% 800 Mw 2800 Mw CEN CEN\_CUY ==> 100% LIT NEA ==> 75% CUY\_CEN ==> 100% NEA LIT ==> 100% LIT 2700 Mw 1000 Mw CUY LIT ROD ==> 97.5% CEN LIT ==> 100% ROD LIT ==> 100% LIT CEN ==> 50% LETTE ROD 2800 Mw 1.000 EZE ROD ==> 100% 800 Mw ROD EZE ==> 87.5% COM\_CUY ==> 100% EZE CUY\_COM ==> 100% A 182 4250 Mw COM\_EZE ==> 100% COM EZE COM ==> 100% 1000 Mw PAT COM ==> 100% COM PAT ==> 100% MAIN REGIONAL PAT **FLOWS** 23.20



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19,532 km of trunk distribution

14,192 km in 500 kV

Most of the corridors are near the limit of their capacity in the moments of greater demand

TRANSPORT SYSTEM	500 kV	330 kV	220 kV	132 kV	66 kV	33 kV	TOTAL
Alta Tensión	14.195		563	6			14.763
Distribución Troncal		1.116	1.112	16.900	398	24	19.550
- Región Cuyo			641	626			1.267
- Región Comahue				1.368			1.368
- Región Buenos Aires			177	5.583	398		6.158
- Región NEA			30	2.148		24	2.202
- Región NOA				5.052			5.052
- Región PATAGONIA		1.116	264	2.123			3.504

Source ADEERA, Ministry of Energy and Mining

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### **Renewable Energy Tenders**



### Goals

• Law 27,191 establishes a phased objective so that by 2025, non-conventional renewable energy reaches a 20% share of the demand.



### Progress

• The Government launched the RenovAr Program in stages to boost the renewable sector and reach the first goal of 8% (2018).

Bidding Results	Wind [MW]	Solar [MW]	Biomass [MW]	Biogás [MW]	Biogás RS [MW]	PAH [MW]	TOTAL [MW]
Round 1 + Guests	707	400	15	9		11	1,142
Round 1.5	765	516					1,282
Resolution 202/16	445	10	45				500
Renovar 2	666	557	117	35	13	21	1,409
Renovar 2- Phase II	328	260	26	21			634
TOTAL	2,911	1,742	203	65	13	32	4,966 <sup>(*)</sup>
Average Price [U\$S/MWh]	54	50	111	159	129	101	

<sup>(\*)</sup> additionally 816 MW of private projects of bilateral contracts are added







## **Generation - Main KPIs**









# **ENEL X Argentina Focus**





# Digitalization



### **Digitalization** Enel Digitalization Key Levers

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### Key levers for digitalization



Efficiency through full digitalization of back office processes and systems

Enrich products and services

Deepen customer relationship and information processing

Enhance infrastructure performance

### Driving efficiency and best in class service

#### Digitalization Custome enei Full integration of Technical Solution Map Monitoring & Tele-command of AT Assets Predictive Analysis & Alerts Integration with MT 17. 18 17 17. 18 17 17. 18 19 **SCADA** Cyber Security AT Go Live: 2015 Integration with AT and BT for Automation of Processes **SIEMENS** Monitoring & Tele-command of MT Assets **SCADA MT** Go Live: 2016 (STM) ORACLE Integration with MT MWM IVR (Mobile Workforce Management) Prediction of Possible Element of Failure. salesforce optimization of dispatch & reposition time. SMS Customer Care Workforce Management **OMS (CERTA)** Go Live: 2017 Go Live: 2014 - Ongoing eOrder Improvement Go Live: 2018-2019

### **Digitalization** Market & Customer Care Solution Map





Salesforce for Customer Care Customer Journey for Proactive Communications, SAP IS-U for Billing & Collection Interactions with Customers & Push Notifications Smart Metering for Automation of Reading Process Mobile doxee Salesforce & Marketing Cloud Platform for Sales & Marketing Campaigns Digital Invoice and Smart Invoice for Digitalization & Automation of Invoice Process Go Live: 2017-2018 SAP IS-U Go Live: 2018 sales*f*orce 200000 . . Sales Care **Billing & Collection** 10.0.00000000 Claims Campaigns Call Center Sales Customer Care Marketing 8500 5300 2017 2018 2019 salesforce marketing cloud IoT & Ahalytics Big Data & Business Analytics for Fraud Data Discovery and Process Management Automation Process Automation with Smart Metering & Big Data Analytics Data Automation of Dunning Process cloudera Studio 16 Go Live: 2018-2019

# **ENEL Platforms**

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Platform	Description	
ΙοΤ	<ul> <li>Based on AWS / Salesforce / Technicolor</li> <li>Core system (MVP) is under implementation</li> <li>IOT business solution build on top</li> </ul>	
Big Data	<ul> <li>Unified solution to virtually integrate business data-lake</li> <li>Provide a unified data model</li> <li>Enabler for engineering, data science, machine learning</li> </ul>	
Engagement	<ul> <li>A common global framework to develop tailored business process</li> <li>A wide range of API services to develop on the edge services</li> <li>CRM platform as a data source with apps serving as data-integration packages</li> </ul>	
Billing	<ul> <li>Based on SAP/ISU</li> <li>Common core system</li> <li>Specific business process implemented on top</li> </ul>	
Meter Data Management	<ul> <li>Based on open &amp; commercial platform (Postgre, Cloudera, Jboss, Red Hat, etc.)</li> <li>Common core system</li> <li>Specific business process implemented on top</li> </ul>	
ERP & GRID	<ul> <li>GRID</li> <li>Based on open &amp; commercial platform (Oracle WLS &amp; DB, Q-GIS)</li> <li>Common core system</li> <li>Specific business process implemented on top</li> <li>ERP</li> <li>Based on SAP/ECC on HEC</li> <li>Specific business process implemented on top</li> </ul>	17

# Sustainability



# **Strategic Pillars of ESG**

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### Pillars of ESG of Enel Integrated to the Industrial Plan



### Sustainability Plan Argentina 2018

Number of projects and actions of the investment plan linked to ESG strategy in Argentina



- O3 actions (Ex .: Investment in the distribution network / Improvement of quality of electricity supply)
- 02 actions (Ex .: Construction of a 100 MW Wind Generation plant in Chubut)
- **11 actions / projects** related to the needs and potential of the neighboring communities and to issues of each business lines
- **09 actions** of quality of life and development of employability of our collaborators (Ex.: Sports activities, special health care for pregnant women, professional development training in annual average of 26 hours per employee)

**08 projects** that offer new solutions to customers and contribute to the environment (Ex.: Enel X energy efficiency products and services)

**Projects** of data analysis (BI) and digitization of Market processes to improve customer service and be cost efficient.

More **19 other objectives and actions** of the backbones of: <u>Occupational Health and Safety</u>, <u>Compliance and</u> <u>Governance</u>, <u>Environmental Sustainability</u>, <u>Sustainability in the Supply Chain</u> and <u>Creation of Economic Value</u>

# **Beneficiaries in Argentina by SDG | Communities**

Beneficiaries by Projects related to the 4 SDG in which Enel is committed



Total beneficiaries SDG Argentina (2015-17) = 41,230



**model**, which articulates company and the needs operate. This is our way of doing business, with a perspective linked to the Nations.

# **Involvement with local communities**

Projects highlighted 2018 and related ODS





# **Financial Focus**



## 1Q 2018 Results

### Focus on Argentina (US\$ m)



## **Financial Focus**

Focus on Argentina (US\$ bn)



EBITDA and Margin EBITDA



CAPEX



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# **Relevant Issues**



## **Relevant Issues – Argentina**



### **Agreement with FMI**

- Largest loan provided by the IMF in history (USD 50,000 million) + UDS 5,650 million (World Bank, Inter-American Development Bank, CAF)
- Repayment has a grace period of 3 years and paid in 8 quarterly installments with a variable rate depending of funds activated;
- Economical target: fiscal deficit 2018 = 2,7% GDP; 2019 = 1,3% GDP; 2020 = 0% GDP

inflation: 2019 = 17%; año 2020 = 9%

### **Devaluation effects in the electricity sector**

- The reduction of subsidies to Large Customers has not yet been completed: subsidized price paid by customers is \$ 1010/MWh vs unsubsidized production cost of \$ 1450/MWh;
- Generation costs after Peso devaluation would be \$ 1941/MWh considering social tarif for 8% of demand
- · Distributión and transportation costs will be adjusted by inflation rate
- Taking in consideration all those adjustments price to customers would increase around 58%

### **Status of collections and payments of Cammesa**

- According to june situation Cammesa only reached the 70% of the total payments due to generators;
- Cammesa paid 100% of invoices only to generators with contractual commitments (PPA, Foninvemen, etc);
- Payments are expected to be regular starting from next month of august

## **Relevant Issues – Argentina**



### **Changes en government team and Central Bank of Argentina**

- Mr. J. Iguasel assumed as new Ministry of Energy, role previously held by Mr J. Aranguren
- Mr. D. Sica assumed as new Ministry of Production, role previously held by A. Cabrera
- Change in Central Bank of Argentina: Mr. L. Caputo assumed as new President, role previously held by Mr. F. Sturzenegger

### Change in MSCI clasificación of Argentina

- MSCI will reclassify the Argentina index to Emerging Market status
- Opportunity to attract institutional investors and funds to invest in Argentina
- BYMA expectations for 3.500 5.000 M US\$ of new investments in Argentinean companies



# **Argentinean Regulatory Framework**

Juan Carlos Blanco

Head of Regulation Enel Argentina

## **Energy market value chain situation**



	Production / Generation	Transport	Distribution	Clients	
Carbon	Price: 52% of the FO	Available capacity	Available capacity	A single Gx consumes. Enabled to buy and recognizes costs.	
Liquid	International Price	Market price Infrastructure available	Market price Infrastructure available	Market price	
Natural Gas	<ul> <li>Various sources of supply, with different prices:</li> <li>National Production: Sendero</li> <li>GNL: 7,15 US\$/MMBtu<sup>(*)</sup></li> <li>Bolivia: 5,96 US\$/MMBtu<sup>(*)</sup></li> </ul>	Definition of Rates in RTI 2017-21 include committed investments Regulated capacity auction CAMMESA has transport capacity. It should be assigned if generators should procure their fuel	<ul> <li>Definition of Rates in RTI 2017-21</li> <li>Possibility of making Firm Distribution Contracts with Cut Windows</li> </ul>	<ul> <li>Industrial customers can sign contracts</li> <li>The Gx can sign contracts (restriction is the recognition of costs)</li> </ul>	
Electric Power	<ul> <li>Various sources of supply, with different prices:</li> <li>Existing Units (Res.19)</li> <li>Hydro and nuclear</li> <li>Contracts with CAMMESA (PPA)</li> </ul>	Definition of Rates in RTI 2017-2021 Extensions: system to be defined but in principle, decided by the Government (PPP program), in charge of the demand.	<ul> <li>Definition of Rates in RTI 2017-2021</li> <li>Quality regime to comply with investments to be made.</li> </ul>	<ul> <li>Renewables can sign contracts with GUs</li> <li>CAMMESA energy provider</li> </ul>	
<ul> <li>The Economic Emergency Law and the Dto. of Emergency Energy ended on 12/31/17.</li> <li>The concession sector has practically normalized the regulation of its revenues.</li> <li>The concession sector has practically normalized the regulation of its revenues.</li> <li>The concession sector has practically normalized the regulation of its revenues.</li> <li>The concession sector has practically normalized the regulation of its revenues.</li> <li>The concession sector has practically normalized the regulation of its revenues.</li> <li>The concession sector has practically normalized the regulation of its revenues.</li> <li>The concession sector has practically normalized the regulation of its revenues.</li> </ul>					

## **Measures for existence Market**



The measures do not require the approval of new laws, ONLY regulatory changes to be made by the Authority.

Electric power	Product	<ul> <li>Nullifying suspension term market (nullifying section 9 of Resolution 95/2013).</li> <li>Establish a single Term Market</li> <li>Cammesa stops supplying the large users.</li> <li>Hydraulic concessions expire in 2023. Expiration can be extended in exchange for a PPA at a long-term</li> </ul>							
	Services	<ul> <li>New Products and Services: Charging stations, energy storage, etc.</li> </ul>							
Fuel	<ul> <li>Cammesa provider of</li> <li>Cammesa all market</li> <li>Assign cor</li> </ul>	<ul> <li>Cammesa should marketing any fuel (nullifying the article 8 of Resolution 95/2013). Initially, CAMMESA may remain as a provider of last resort until full liberalization.</li> <li>Cammesa must transfer gas transport contracts, with current mechanisms (Open Season) that guarantee equal conditions to all market agents.</li> <li>Assign contracts to supply natural gas generation by implementing transparent mechanisms.</li> </ul>							
International Operations	<ul> <li>Allow access to the regasification capacity in the terminals and must define regasification.</li> <li>Open the possibility for the generator to buy gas from Bolivia / Chile</li> </ul>								
	s Electricity	<ul><li>Start working on the regulation of plants</li><li>Release export operations</li></ul>	30						





### **RTI 2017 – EXECUTIVE SUMMARY Res. ENRE 64/2017**

- ✓ Methodology → PRICE CAP
- ✓ Wacc  $\rightarrow$  REAL RATE +12.46% (before taxes)
- ✓ Base capital → NRC depreciated value 30.240 MMar\$ (≈1.900 MMU\$D)\*
- ✓ Currency unit → Angentinian pesos
- ✓ Theoretical VAD resulting  $\rightarrow$  14.540 MMar\$ (≈ 910 MMU\$D)\*
  - ✓ Increase in 3 installments with financial recovery in 48 monthly installments as of February 2018
- $\checkmark$  Adjustment  $\rightarrow$  VAD update (Salaries, IPIM (wholesale price index), IPC (retail price index))
- ✓ Stimulus Factor → Efficiency X Factor and Q Investments
- $\checkmark$  Penalties  $\rightarrow$  Quality Path with increasing the exigency

# As of February 1, 2018, EDESUR receives all of the income foreseen in the RTI and the deferred VAD fees

## **VAD Evolution**



### RTI 2017 "Gradualism" = Staggered increase in 3 sections



## **Pressure on the tariff - Devaluation effect**





# **Distributed Generation**

Details of the national law project

- Applicable to customers of the distributor
- Net Billing Balance System (Net Billing)
- Injection rate = MEM purchase price
- Obligatory installation of DG in public buildings
- Distributor Technical approval of access
- Obligatory bidirectional meter installation (costs charged to the User Generator)
- A Fund for the execution and financing of DG projects (FODIS) is created
- A specific demand charge is created to finance the FODIS
- Limit power is set at the Contracted Power
- Another fund is created to encourage the national manufacture of systems and supplies for distributed generation







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# **Expectations of Regulation**





## **Corporate Presentation**

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