

SEMINÁRIO INTERNACIONAL  
TRANSIÇÃO E INTEGRAÇÃO ENERGÉTICA NOS PAÍSES IBEROAMERICANOS  
27 DE SETEMBRO DE 2019 | CENTRO CULTURAL FGV-RIO DE JANEIRO - BRASIL

**Eletronuclear**  
Leonam Guimarães, CEO



# NUCLEAR IN LATIN AMERICA: BRAZIL

ANGRA 2 PWR

Power: 1.350 MW

Technology: Siemens/KWU

Operation start: Jan/2001

ANGRA 1 PWR

Power: 657 MW

Technology: Westinghouse

Operation start: Jan/1985



# NUCLEAR IN LATIN AMERICA: MEXICO

≈ 1600 MWe  
(after the uprate)



**One NPP: Laguna Verde  
Veracruz State**

**Operator:  
Federal Electricity Commission  
(CFE)**

**Two Units  
GE BWR-5 reactors**

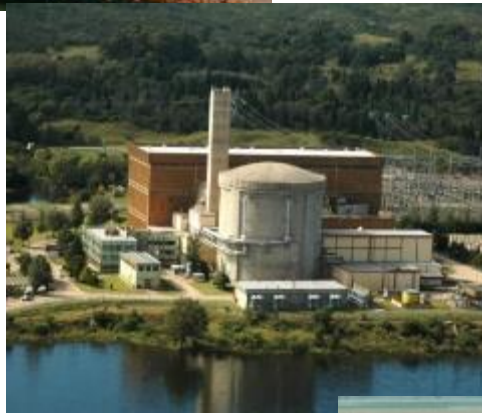
**4% installed capacity**



# NUCLEAR IN LATIN AMERICA: ARGENTINA



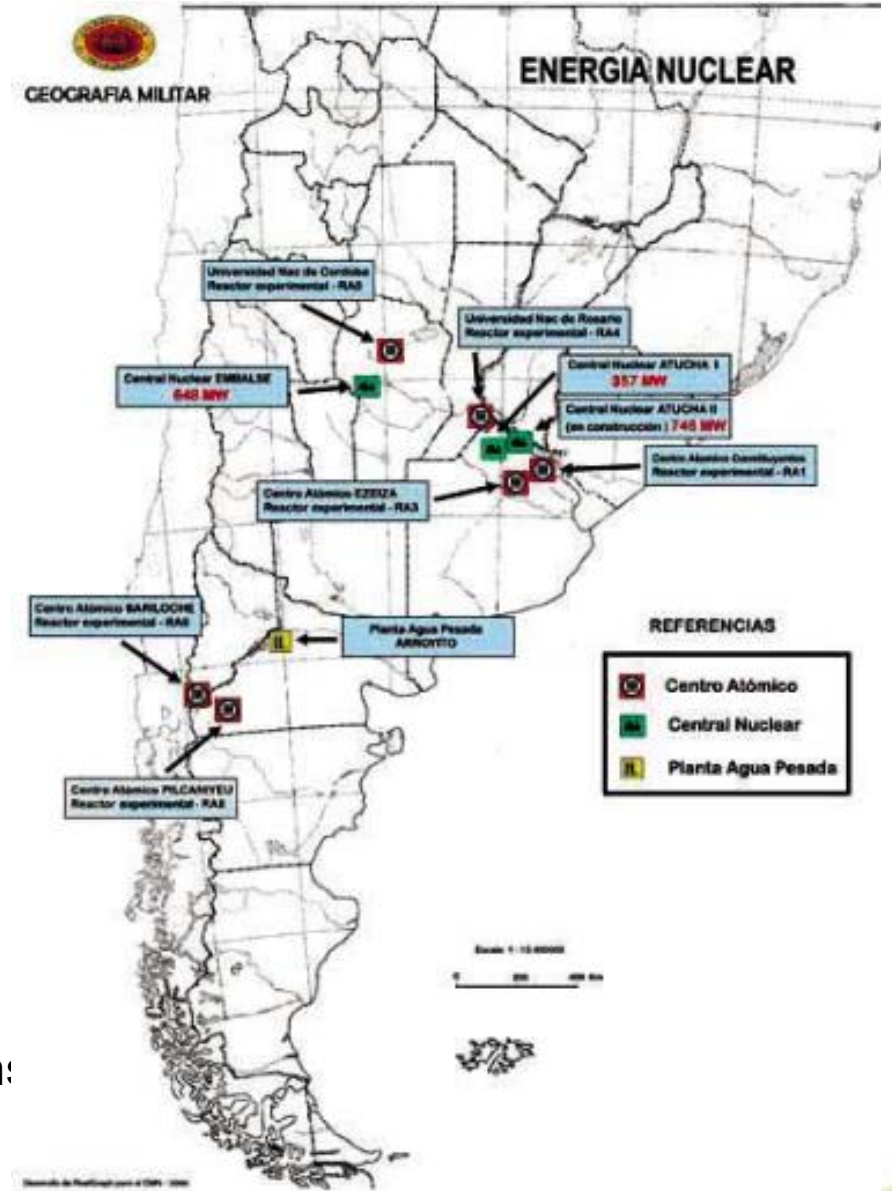
**NPP Atucha I**  
1974  
PHWR (Siemens)  
357 MWe



**NPP Embalse**  
1984  
PTHWR (Candu)  
648 MWe  
**Co-60 production**  
(3rd in world)



**NPP Atucha II**  
2015  
PHWR (Siemens)  
745 MWe

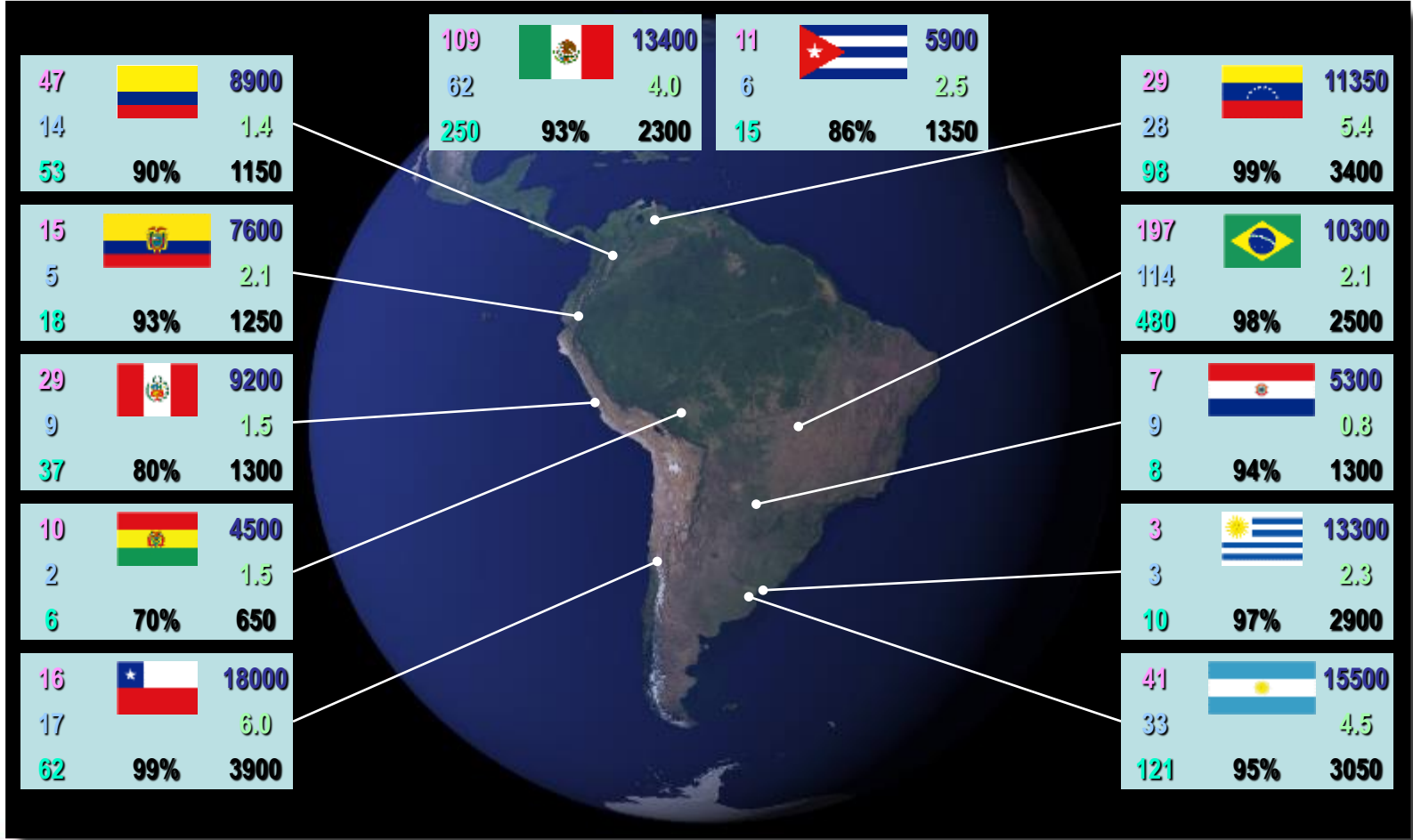


# LATIN AMERICA CONTEXT

590		10400
320		2.7
1250	91%	2150

M#	Country	PIBp/#
GW		tCO <sub>2</sub> /#
TWh	⚡ (%)	kWh/#

## Different economic, energy and social realities



# LATIN AMERICA ENERGY SCENARIOS

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# Three Possible Futures for Energy in Latin America



## Samba

LAC shaped by successful reform and strong innovation and high productivity with market forces

- Innovation and economic diversification beyond commodity exports
- Energy access for all



## Tango

LAC shaped by governments to achieve sustainable growth and resilient energy system

- Strong regional integration
- High investment on regional adaptation and mitigation



## Rock

LAC shaped by weak economic growth and waning support from global and regional institutions

- Limited infrastructure investment
- Policies inwardly focused and reform process delayed

# Potential of Regional Integration Development across Scenarios



- Progress on Arco Norte and SIEPAC II interconnection projects
- More progress on gas integration projects
- Mexico develops its relationship with the US



- All countries of LAC are integrated as a result of full progress on projects like Arco Norte, SINEA and SIEPAC II
- Mexico wants electricity interconnection to the Caribbean



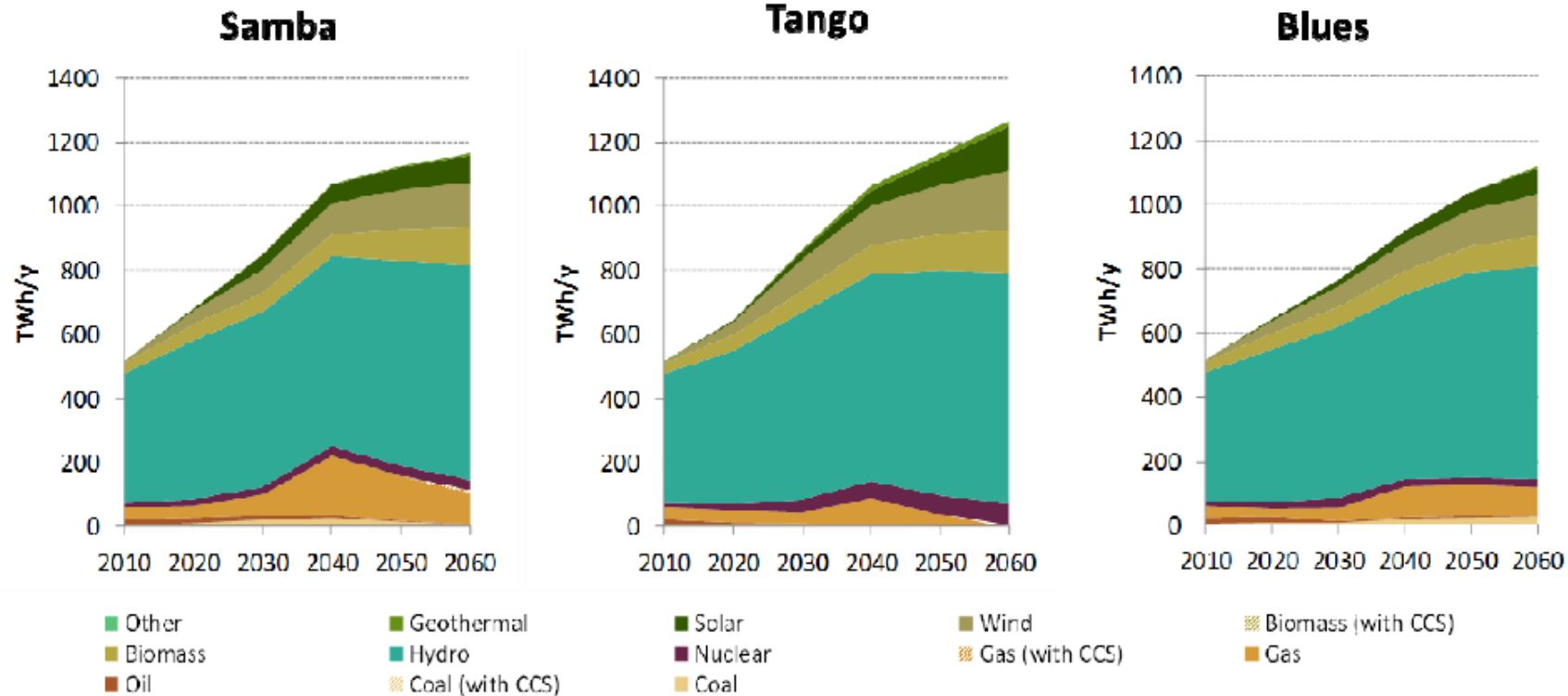
- Risk increases in the existing regional integration
- Less progress on new regional integration projects
- Mexico explores new export / collaboration opportunities with LAC



# LATIN AMERICA ENERGY SCENARIOS

*“Nuclear remains very limited in LAC region due to lack of institutional capacity and high capital costs”*

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# LATIN AMERICA NUCLEAR ENERGY SCENARIOS



- Current Capacity
- Low Estimate
- High Estimate

