

**"The distribution networks digitalization  
and its impacts on companies, tariffs and consumers"**

# **Welcome to the XII Latin America Smart Grid Forum 2019**

**São Paulo, September 9th & 10th, 2019**

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## **Belief, Passion and Contribution**

More than 15 years ago I started to firmly believe that energy business were critically and rapidly being transformed by a set of technologies that challenged the traditional status quo, and would also contribute to the health and well-being of mankind.

Since then I decided to engage myself working to improve energy services by employing better technologies, innovation, contract intelligence and regulatory knowledge and evolution. And passionately I have been working to provide greater efficiency, profitability and reduced costs in the final use of energy by society.

Because of this, in order to share my experience and knowledge in a broad international professionals network, I structured and organized the Latin American Smart Grid Forum, which aims to put into practice and accelerate the introduction of new technologies and innovations in energy, in a sustainable way, in Brazil and in the Latin American countries.

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# 21st. Century Society

• From Profit



hierarchies

Controlling



Planning

Privacy



• To Purpose



Networks & Collaboration

Empowering



Experimentation



Transparency





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## Smart Grid Forum Latin America

- **Pioneer** initiative in 2008.
- **Open** periodic and systematic information exchange and policy formulation – **focus on articulation and synthesis.**
- **Collaboration** with other similar initiatives around the world.
- **Neutral, independent and inclusive (non exclusive)** vehicle to include the broader possible matrix of stake holders on the debates.
- Seeks for **modernization** achievable in a **sustainable way** considering technical, economical, environmental, political, legal and societal aspects.
- **No fees:** meetings are self sustainable, by the annual meeting or case by case.
- **Edition number TWELVE Starts TODAY !!**





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## Smart Grid Forum Latin America

- **Business oriented perspective for technology deployment**
- **Up to date worldwide progress review**
- **More focus on the next steps rather than on past achievements**
- **No easy answers or silver bullets: the Forum commits to raise and debate the fundamental basic questions for the next building blocks to move forward in the LA region**
- **The work does not finishes after the Conference - it really starts – every Conference is a new set up of the relevant questions for the region's next year's debate and progress**
- **This 11<sup>th</sup> edition will tackle the Utilities of the Future & Smart Cities**



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## Smart Grid: Dramatic Electricity's Sector Technological Transition

Traditional Centralized Industry



Heavy Assets – Capital Intensive  
Concessions, Monopoly,  
Captive Markets, Regulation,  
Capital Intensive & Large Scale  
End of Cycle Technologies

New 21st Century Industry



Free Access to Small Scale Renewable Energy  
Decentralization + Electrification  
Digitalization = Connectivity + AI + Analytics + IoT  
Competitiveness, New Uses & Free Mkts  
Emerging Technologies under faster development



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Traditional Industry

New 21st Century Industry

**Discontinuity: a New Electricity Generation...**



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## Why and How Business Model is changing worldwide?

| <b>Traditional Business Model</b>   | <b>Smart Grid Business Model</b>   |
|---|--|
| Infra-structure Concessions, based on public tariffs  | Free and ad-hoc access to technology, build your own energy infra-structure      |
| Captive Market and Unique Energy Supplier from Power Plant to final use                                     | Multiple Energy Sources, from multiple users & owners working                    |
| Capital Intensive Use, focus on Energy and Demand growth  | Competitive Costs, focus on Energy Efficiency and Demand Management              |
| Investment Return in decades, 30 years  | Investment return in less than 10 years  |
| Prices policies defined on required investments and scale (Sales Volumes), political cross subsidies inside | Prices defined by the user case, required reliability, technology and efficiency |
| Main Products: kWh and kW   | Main Products: Usage Management  |



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### 21st Century Energy: Distributed Energy Resources

- Better Practices over:
  - Energy efficiency
  - Demand side management
  - Renewable small scale and distributed generation
  - Co-generation
  - Back up power - CHP
  - Building & Processes Automations
  - Micro grids
  - Energy Storage & Demand Flexibility
  - Other coming tools & disruptive technologies....

### Fast Development & Grow

- Massive Investments & faster than expected market penetration
- Technology evolution, convenience and market prices speeds up client's adoption
- Penetration will change dramatically the traditional utility business model based on scale and permanent growth = Disintermediation

The combined use of DER & ITC technologies provides leveraged and much faster return of investments compared with individual cost benefit assessment

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**Thank You!**

**And**

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