

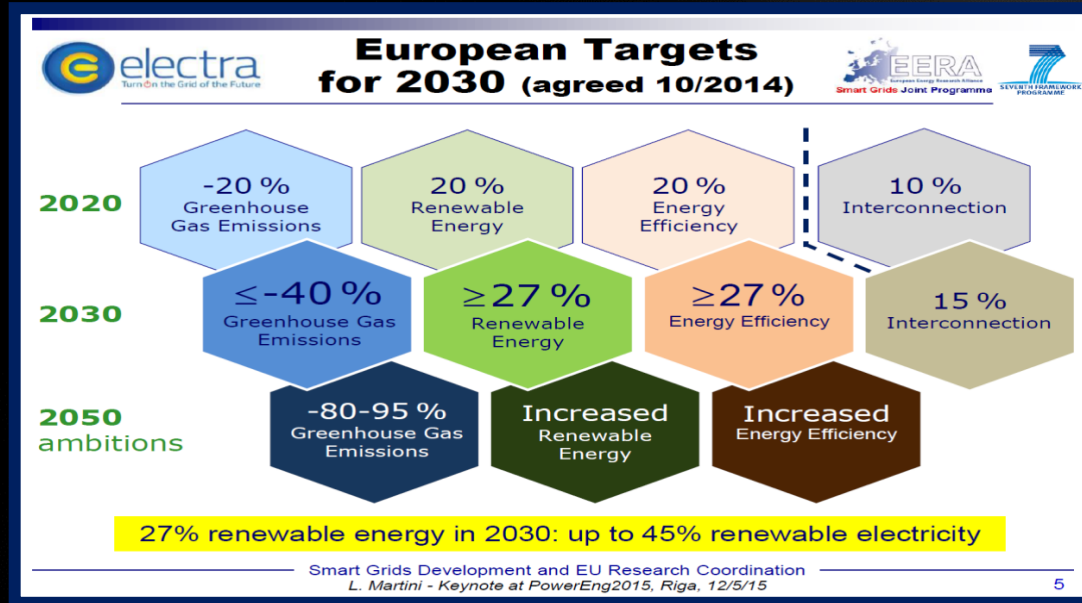


# The transition to a new market model through the Networks

*Nikos Hatziargyriou*

*Chairman of the Board and CEO of  
Hellenic Electricity Distribution  
Network Operator-HEDNO*

# The energy market in transition



Transition to an energy market that will both meet high environmental standards and offer high quality services at a low cost can only be achieved through the use of smart grids

For this purpose, smart grids at the center of the strategic planning of the modern Electricity Distribution Corporations. Smart Grids open the way for the transition towards the advanced systems of the future

Technology is the key to achieve European Targets and execute transition to zero-carbon economy

# Towards smart distribution systems



- ❑ European networks will require **€600** billion of investment by 2020
- ❑ **€400** billion of this investment will take place in **distribution grids**
- ❑ The **DSO** share of overall network investments is estimated to grow to almost 75% by 2035 and to 80% by 2050
- ❑ **€62** billion on digitalization for European Power Grids through 2025



# The Greek electricity market towards 2020



The economic crisis negatively affects electrical energy demand  
Consumers, industry and businesses asking for lower electrical energy rates

Full-force **RES penetration** generates a surplus of power and, as RES are taking priority over **conventional units, these are less likely to achieve investment amortization**

## Re-organization

- New players in the market; a change in the PCC share, hence a change in the role of HEDNO, IPTO, LAGIE, etc.
- NOME auctions
- Implementation of a single model in the European Market (EU Target Model)

# The New role of DSOs

the value chain

The digital utility of the future captures opportunities all along the value chain.



McKinsey&Company

DSOs (Distribution System Operators) are becoming Data Centric companies

They are transformed from traditional grid operators to ICT-IT technology and data operators

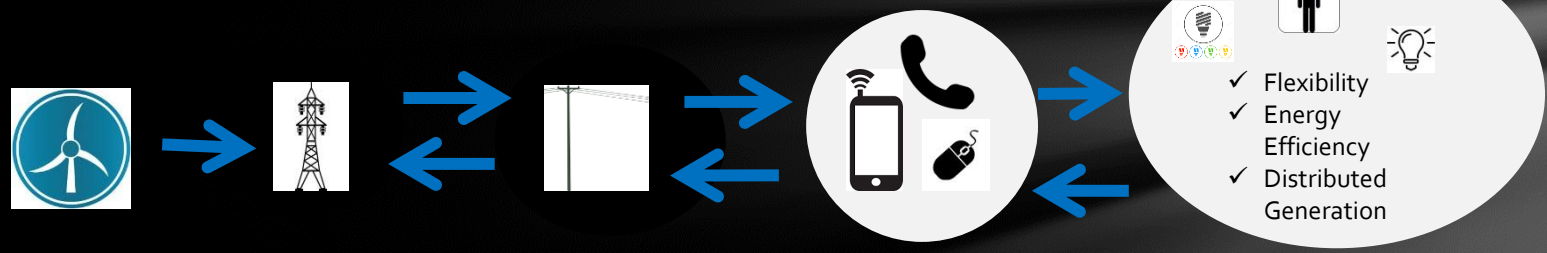
# The New model of the market- The rise of the prosumer

existing model

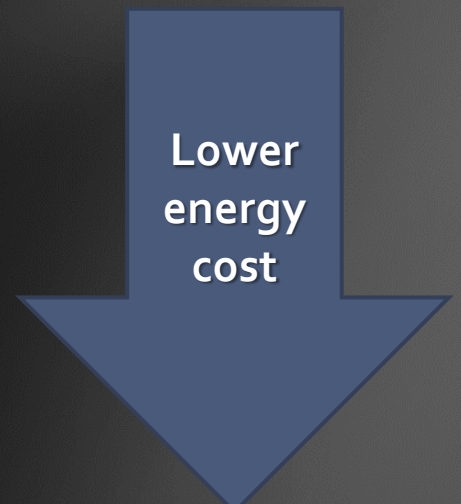
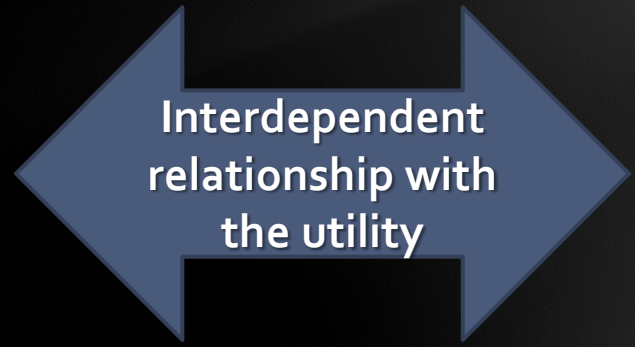
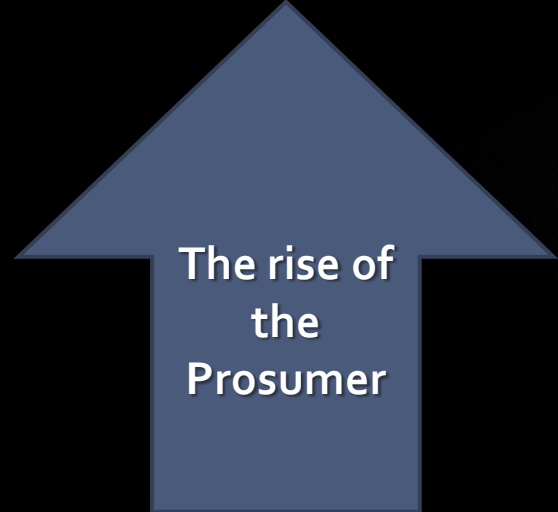


Production Transmission Distribution Retail Customer

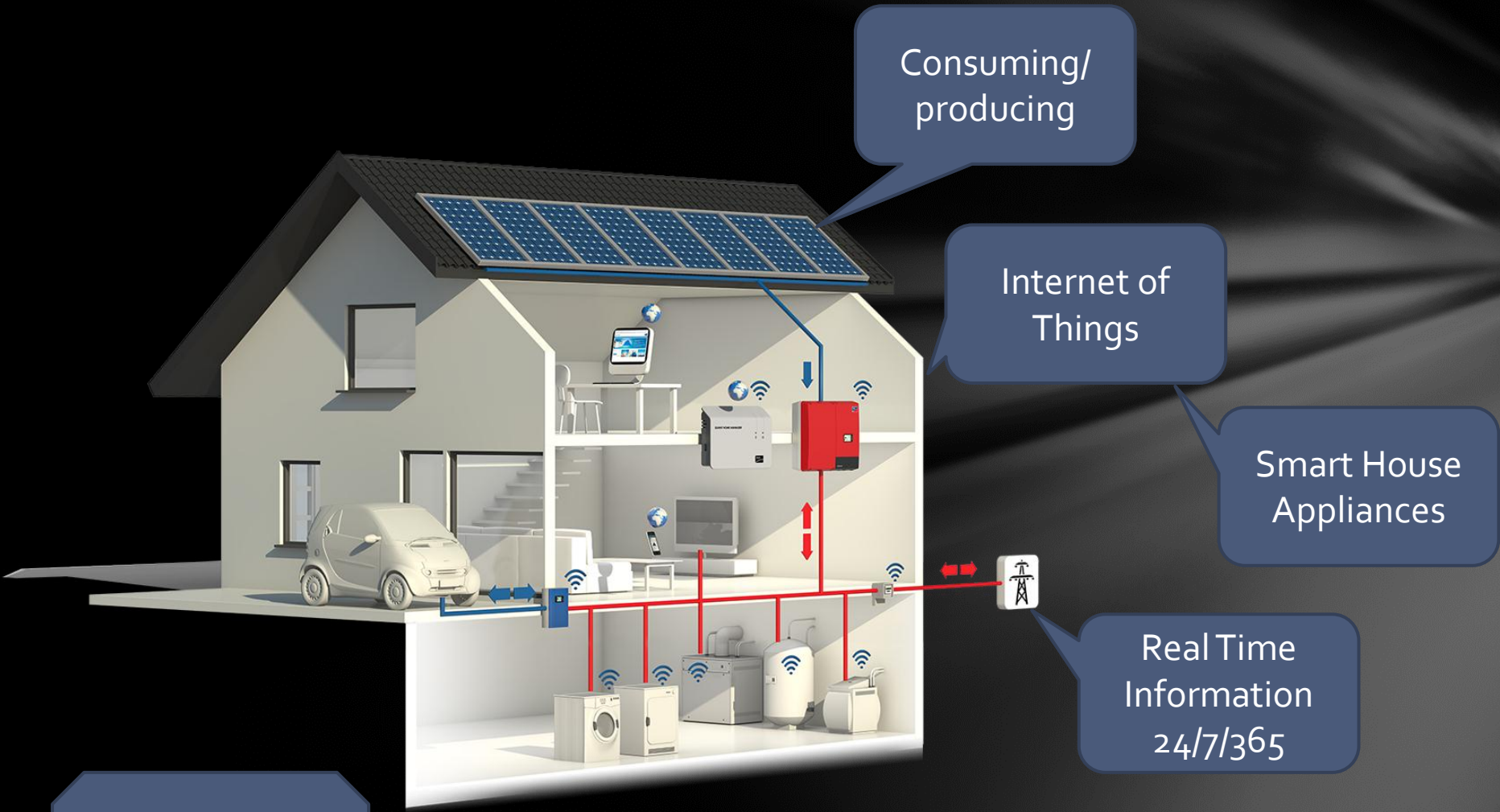
Future model



Production Transmission Distribution Retail Customer



# Multiple choices for the prosumer



Consuming/  
producing

Internet of  
Things

Smart House  
Appliances

Real Time  
Information  
24/7/365

Electricity  
triple play on  
the way.....

# Towards a Smart Hellenic Electricity Distribution Network

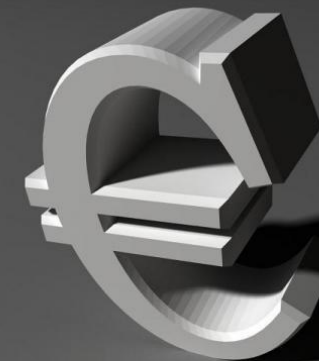


Our strategy is built upon the implementation of new technologies



HEDNO's Transformation Plan (2015-2020):

1. Modernize Attica network Control Centers
2. Establish Island network Control Centers
3. Modernize network control centers in the rest of the Country
4. Upgrade remote metering equipment of the regional networks
5. Set up a Geographic Information System (G.I.S.)
6. Set up a new web-based Customer Service System
7. Set up remote customer service systems
8. Upgrade Network Development Planning
9. Build infrastructure in Non-Interconnected Islands to implement NII Code
10. Develop "Smart Island", Pilot project – Further expansion plan
11. Apply remote metering for LV customers, Pilot project - Further expansion plan
12. Re-organize supply chain



**1.25 billion investments**





*We connect*

*People*

*Businesses*

*Infrastructures*

*Information*

*Technologies*

*Thank you very much.*