

London, June 2009



The sESCO model

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Agenda

1. Market Needs
2. New technologies provide new solutions and opportunities
3. Decentralised power generation - trends and challenges - smartgrids
4. The sESCO Model - *Self* Energy Service Company
5. Self Energy UK - an opportunity to develop ESCO Market

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Market Needs



Use Less Energy to do more – consume the least amount of energy while still performing the core mission and continue to grow

Reduce the Cost of Energy – buy energy at the lowest unit cost available, using all the available market possibilities

- **Stabilise Energy Costs** – operating expense predictability and stability
- **Reduce Power Outages** – quality, autonomy and security



Infrastructural Renewal – replace aging building/facility systems with more efficient equipment, buildings and energy resources

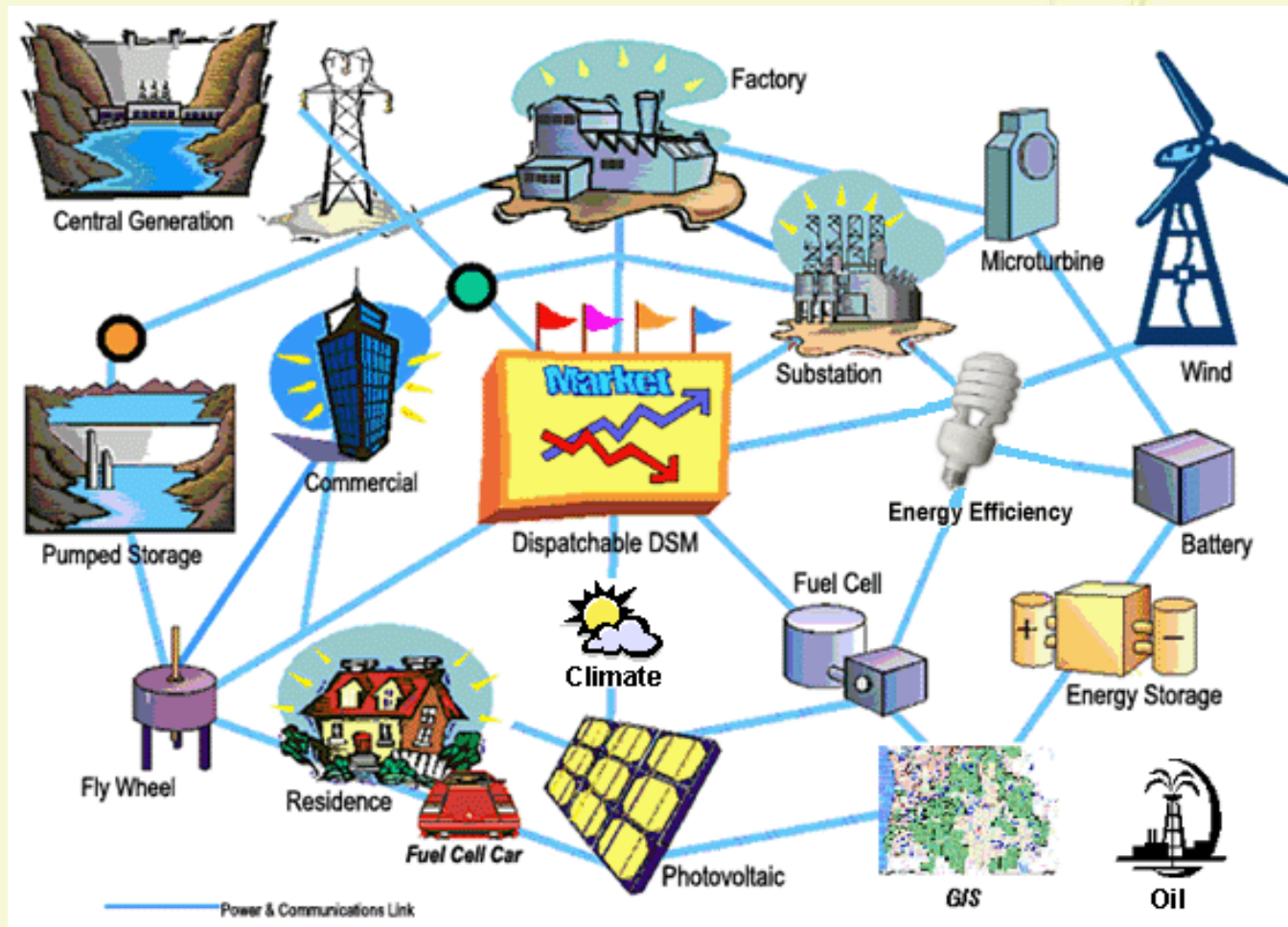
Capital ready for core business – preserve capital funds for core business activities.

Social and Environmental Responsibility - consume natural resources and manage waste production in an environmentally friendly way.

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The Energy Internet will be supported by the Decentralised Model and will be built by new companies with new approach



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Self Energy is already building the future

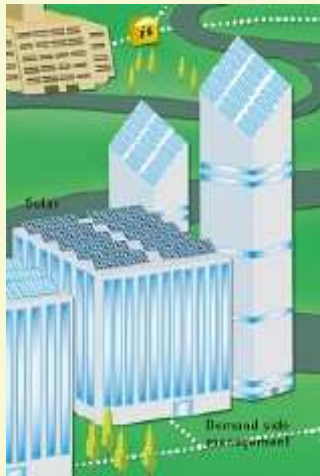


Smartgrids EU Report 2007

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Mini solar power plants on the rooftops of cities



Solar PV and CSP power plants can generate part of the energy needs of every building, without losses in transport and distribution

From 6kW to 6MW

No need for PV mega projects out of cities. The sun is decentralised.

However for CSP Heat&Power, size still matters.



Ex: MARL: Lisbon Logistic Center
6MW PV rooftop

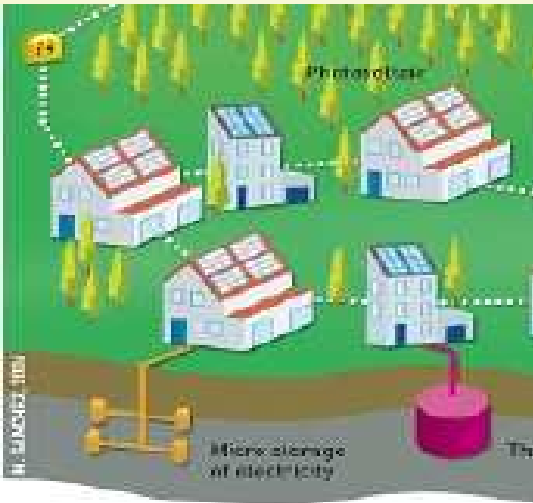
Promotor: MARL Energia / Fomentinvest
(installation phase started, connection in
June 2009)

Self Energy selects and negotiate the
28500 PV panels

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Each house can generate and sell its own energy



- The microgeneration law in Portugal defines a feed-in tariff of 0,62€/Kwh Until 3,68 kW After each 10 MW installed reduces 5%
- Each month there are new licenses available to get through Internet



Self Energy Solutions has specific brands for Solar PV and solar thermal and has contracted and installed more than 150 sites

A national partnership with 2 banks (Santander, Cred. Agricola) and EDP (utility)

There are tax reductions available to use



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Micro wind turbines, outside and inside the city



There is several models available from 100 W to 40 kW, that can be used in rural places and in the city, easy to install.



Self Energy has contracted and installed more than 20 myWind turbines

Ex: Rock in Rio (Red Cross)

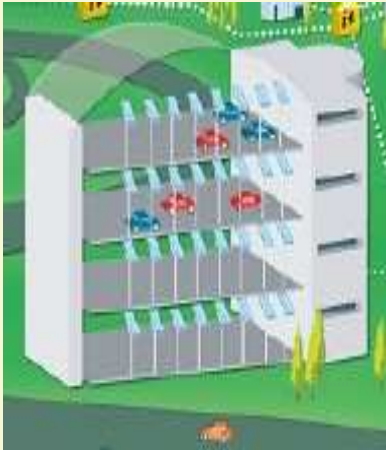
Festival Delta Tejo (with EDP - MY Energy)



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CHP - Combined Heat and Power and Trigeneneration



- CHP is the most convenient solution for buildings where heat is needed as long as electricity during all year (ex: hot water, climatized swimming pool, industrial processes, etc)
- Combined with other measures like efficient lighting can reduce more than 60% CO2 emissions and a 40% cost reduction



Self Energy contracted the first ESCO CHP Fuel Cell agreement in Europe with a swimming pool in Oporto with a 100 kW CHP Fuel Cell + 50 m2 solar thermal

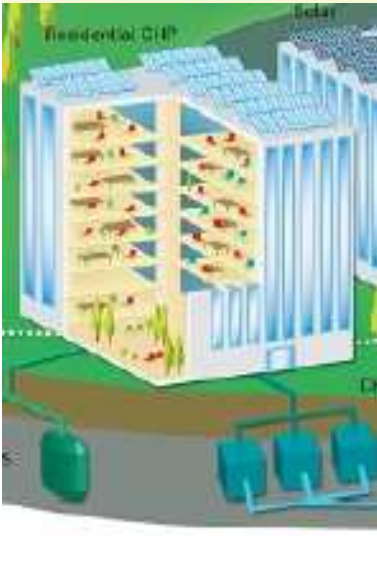


3 hotels in Algarve contracted ESCO CHP of 450 kW + 150 m2 solar thermal (under implementation)

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Energy Efficiency: solar thermal is mandatory



- In the residential sector and in the industrial sector the energy efficiency is the key because there are new mandatory audits and certifications in place since Jul 2008
- “Bioclimatic architecture” could also help and should be introduced when its needed
- Lighting efficiency is also key, including the use of Leds, both internal and external with leading partners.



Self Energy design and build complex solar thermal solutions, like Grupo Inocencio (Loures, Portugal) for 12 residential buildings, with 150 kWt and Kings College (London, UK - Design)

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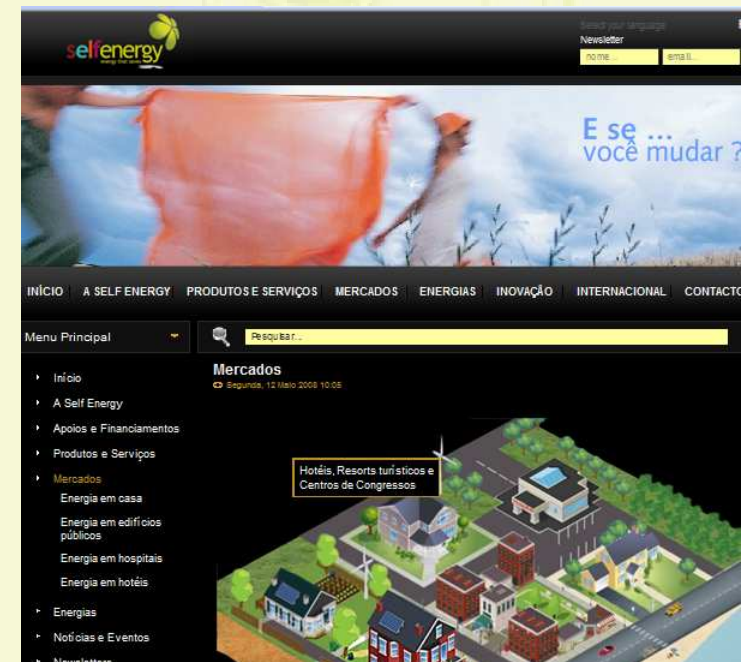
Innovation in energy: smart-meters, Web, solar3



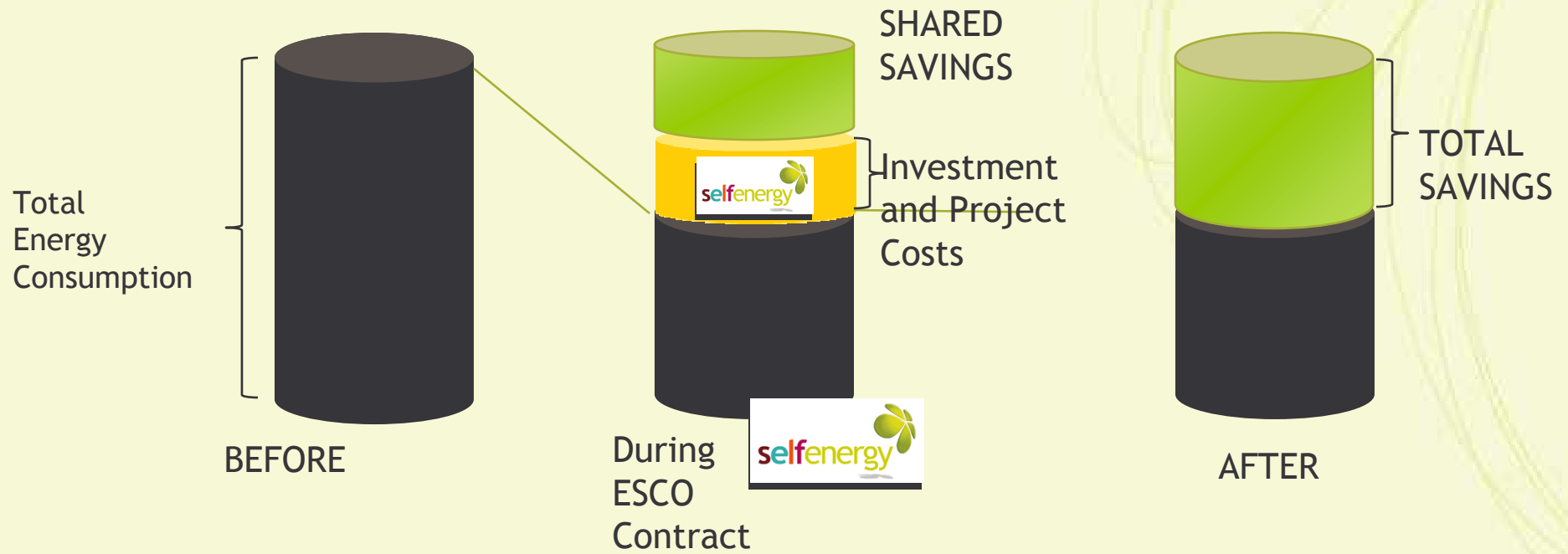
- The smart-meter is the gateway to the Energy Internet, where you can measure efficiency and also from where you can sell to the grid .
- Web site can be more efficient like www.selfenergy.eu: less 7w/day/user

www.selfenergy.eu

Self Energy Engineering and Innovation with ISA, a meter expert hardware company are developing iEnergy, a new smart-meter for the Energy Internet along with Universities



The sESCO Model - How?



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Energy Efficiency
+
Decentralised Power Generation (mainly with
Local Renewables and CHP)
=
sESCO Model (self energy service company)

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The sESCO Model - Self Energy Group



- The first **Self-Energy Service Company (sESCO)** that combines the energy service provider competences with the ability to self generate part of of energy needs, through renewall, zero emissions micro power generation.
- We provide a complete suite of cost-effective integrated energy solutions and services to maximize the value of energy resources; using performance contracting, project financing and available public grants to minimize the investment needs. We are managing now more than **15M€ contracts**.
- **An experienced team** in energy and project management sectors with the **best universities** in Portugal and UK in this sector and some of the best and **competitive suppliers in energy technologies**, in Europe, EUA and Asia
- Self Energy started in 2006 and it is owned by its Founders , by Fomentinvest (the biggest Energy Fund Manager in Portuga)l, by Inoycapital (the biggest portuguese VC) and also by NAVES (AESE/IESE) and Crédito Agrícola Bank.



**What if...
you change?**

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