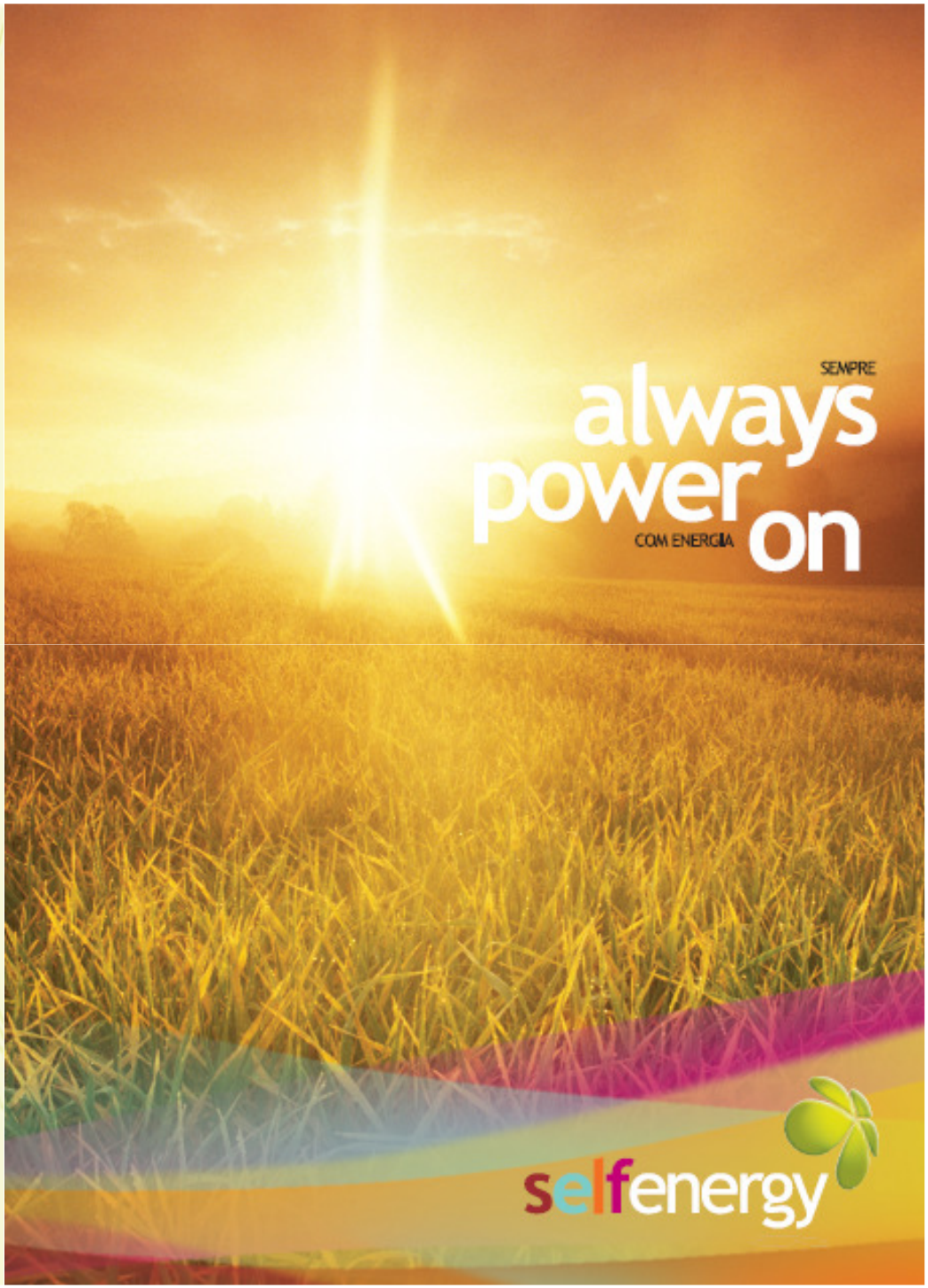
The sESCO Model - Combining Decentralized Generation and Energy Efficiency in EPC Contracts

Miguel Matias
CEO
Self Energy Group

January 2010



Agenda

1. Market Needs
2. EPC Contract – How it works?
3. Decentralized Energy (Feed-in tariff, CHP and Renewables): The IEC
4. Europe (Portugal, UK and Spain) market overview and case studies
5. Self Energy International: IEC/EPC as competitive advantage

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

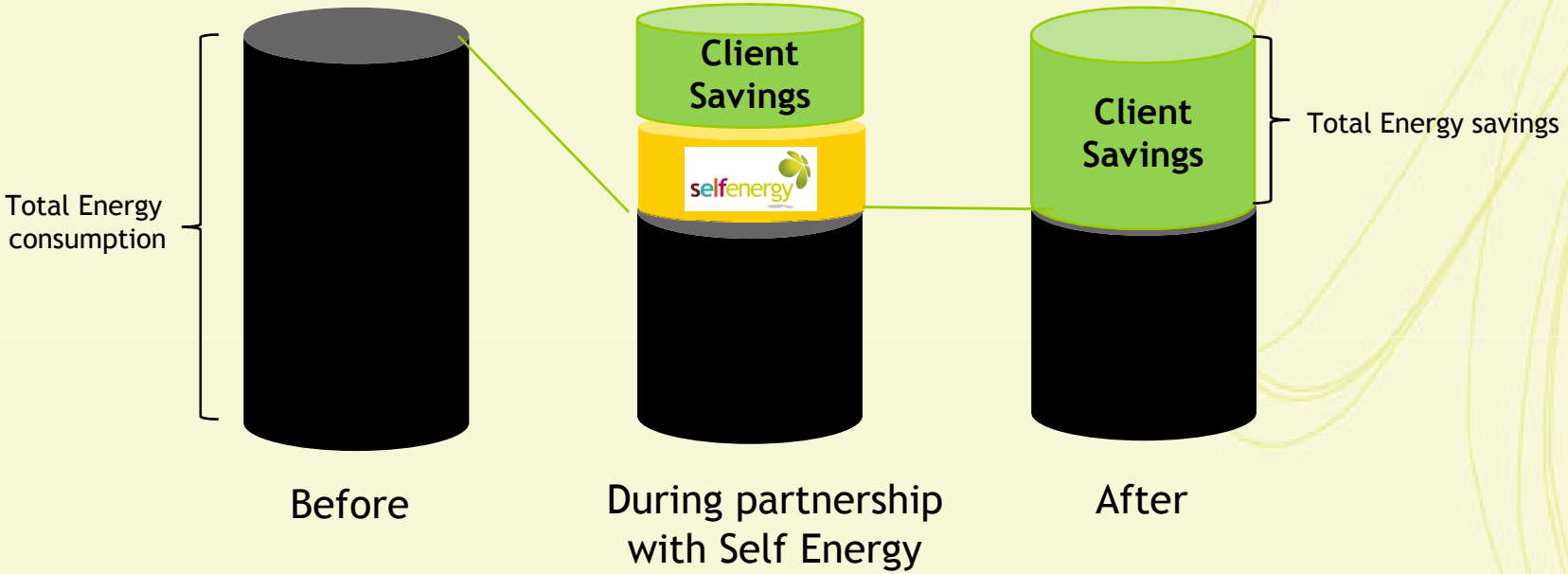
- **Stabilise Energy Costs –** operating expense predictability and stability
- **Reduce Power Outages –** quality, autonomy and security

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.

EPC(Energy Performance Contract) - How it works?



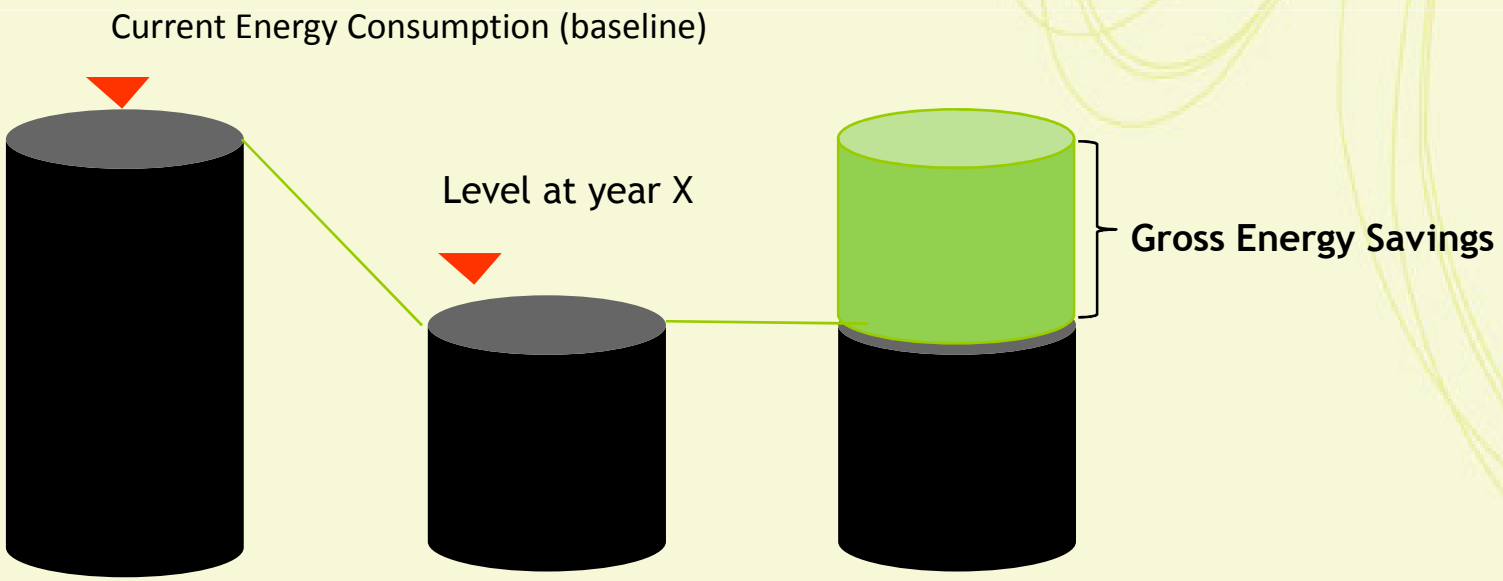
Fixed term contract

Savings shared during the contract

Total customer benefit at the end of the contract

Shared Savings Approach

1. Determine Gross Energy Savings
2. Net Savings = Gross Savings - Costs due to investment
3. Agreement on how savings are shared



Ex:Shared Saving Solution with Performance Guarantee

- Current Energy Bill / year: £254k
- Gross Savings Forecast / year: 13% ***(£33k)***
- ***Total Net Savings Forecast/year: £10k***
- Length of contract: 10 years

- Total investment requirement: £125,000
  - Initial Entrance from CLIENT: £19k (15%)
  - Self Energy Initial Investment: £19k (15%)
  - Financing guaranteed by Self Energy: £87k

  - Pay back Estimate for CLIENT: 3-4 years
  - Annual C02 savings: 102.4 tonnes (9.2%)

Forecasted Energy Savings for Client:

£77k over 10 years

£253k over 15 years

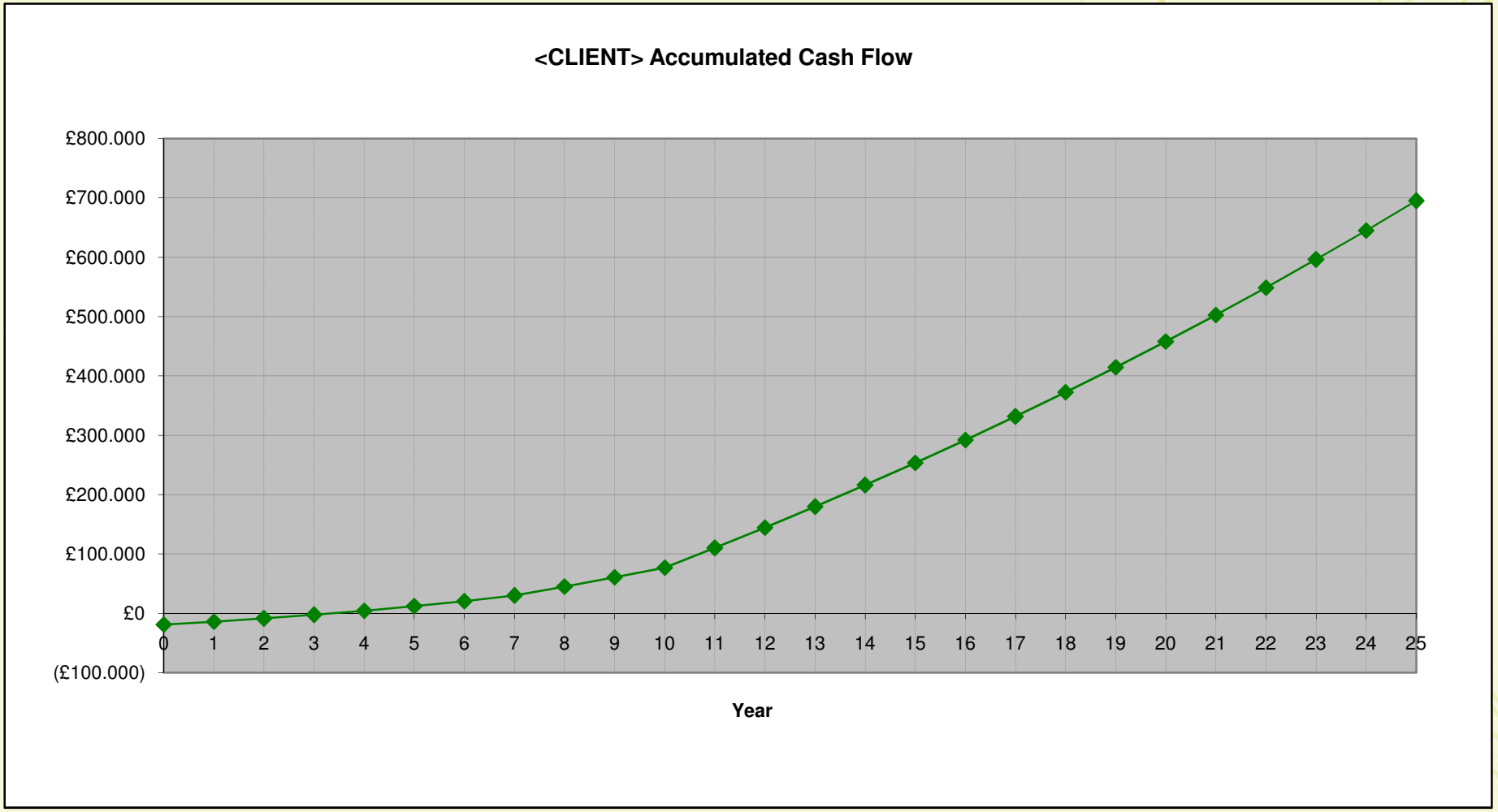
By Self Energy Report Tools®

Project	0	1	2	3	4	5	6	7	8	9	10
Reference value (baseline with inflation)		£254,490	£262,125	£269,988	£278,088	£286,431	£295,023	£303,874	£312,990	£322,380	£332,052
Forecast value (future Energy Consumption with inflation)		£221,384	£228,025	£234,866	£241,912	£249,169	£256,644	£264,344	£272,274	£280,442	£288,855
Gross savings	**13%**	**£33,106**	**£34,099**	**£35,122**	**£36,176**	**£37,261**	**£38,379**	**£39,530**	**£40,716**	**£41,938**	**£43,196**
Leasing (Cap + Int)		£15,326	£14,606	£13,886	£13,166	£12,446	£11,726	£11,006	£0	£0	£0
Insurance		£1,080	£1,112	£1,146	£1,180	£1,216	£1,252	£1,290	£1,328	£1,368	£1,409
Gross Margin after Leasing		**£16,700**	**£18,381**	**£20,091**	**£21,830**	**£23,600**	**£25,401**	**£27,235**	**£39,388**	**£40,570**	**£41,787**
Expenses											
Maintenance		£4,288	£4,417	£4,549	£4,686	£4,826	£4,971	£5,120	£5,274	£5,432	£5,595
Monitoring and Auditing		£3,000	£3,090	£3,183	£3,278	£3,377	£3,478	£3,582	£3,690	£3,800	£3,914
Total Expenses		**£7,288**	**£7,507**	**£7,732**	**£7,964**	**£8,203**	**£8,449**	**£8,702**	**£8,963**	**£9,232**	**£9,509**
Net Savings		**£9,412**	**£10,875**	**£12,359**	**£13,866**	**£15,397**	**£16,953**	**£18,533**	**£30,425**	**£31,337**	**£32,278**
Client	50%	£4,706	£5,437	£6,179	£6,933	£7,699	£8,476	£9,266	£15,212	£15,669	£16,139
Self Energy	50%	£4,706	£5,437	£6,179	£6,933	£7,699	£8,476	£9,266	£15,212	£15,669	£16,139
Investment											
Client Initial Investment	£18,840										
Cash Flow Client	(£18,840)	£4,706	£5,437	£6,179	£6,933	£7,699	£8,476	£9,266	£15,212	£15,669	£16,139
Accumulated Cash Flow Client	(£18,840)	(£14,134)	(£8,697)	(£2,517)	£4,416	£12,115	£20,591	£29,857	£45,070	£60,739	£76,877

Forecasted Energy Savings for Client:

£77k over 10 years
£253k over 15 years

By Self Energy Report Tools®



New technologies provide new solutions and new opportunities

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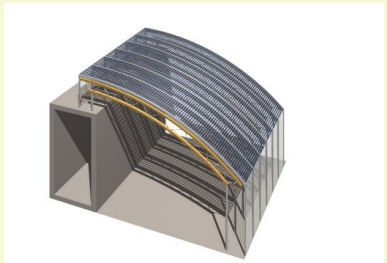
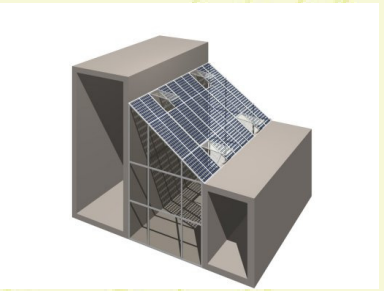
New Technologies permits solar photovoltaics panels applications according to architectural design: BIPV

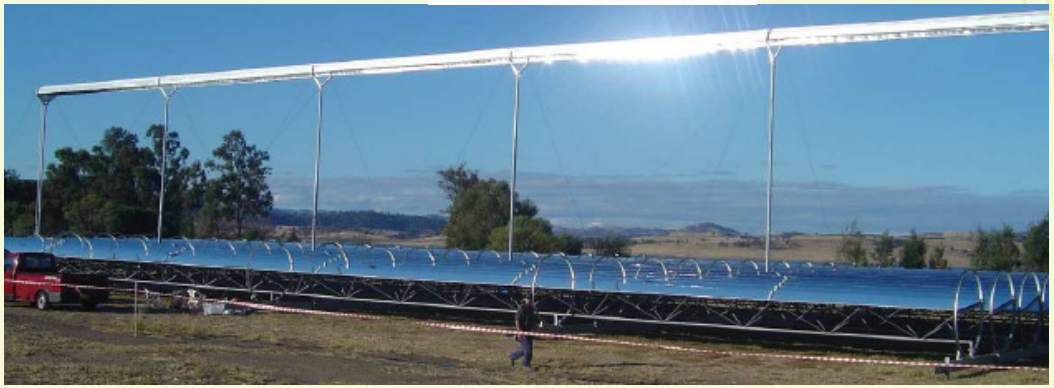
Thin Film solutions: when space is not a problem and costs are

Solar Thermal gets cheaper and efficient

Solar Heat & Power: Sun Power without silicon



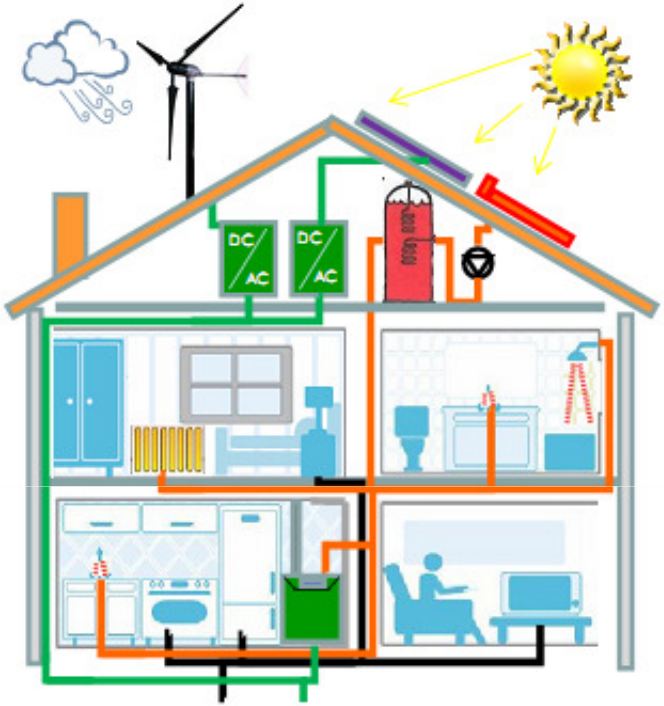




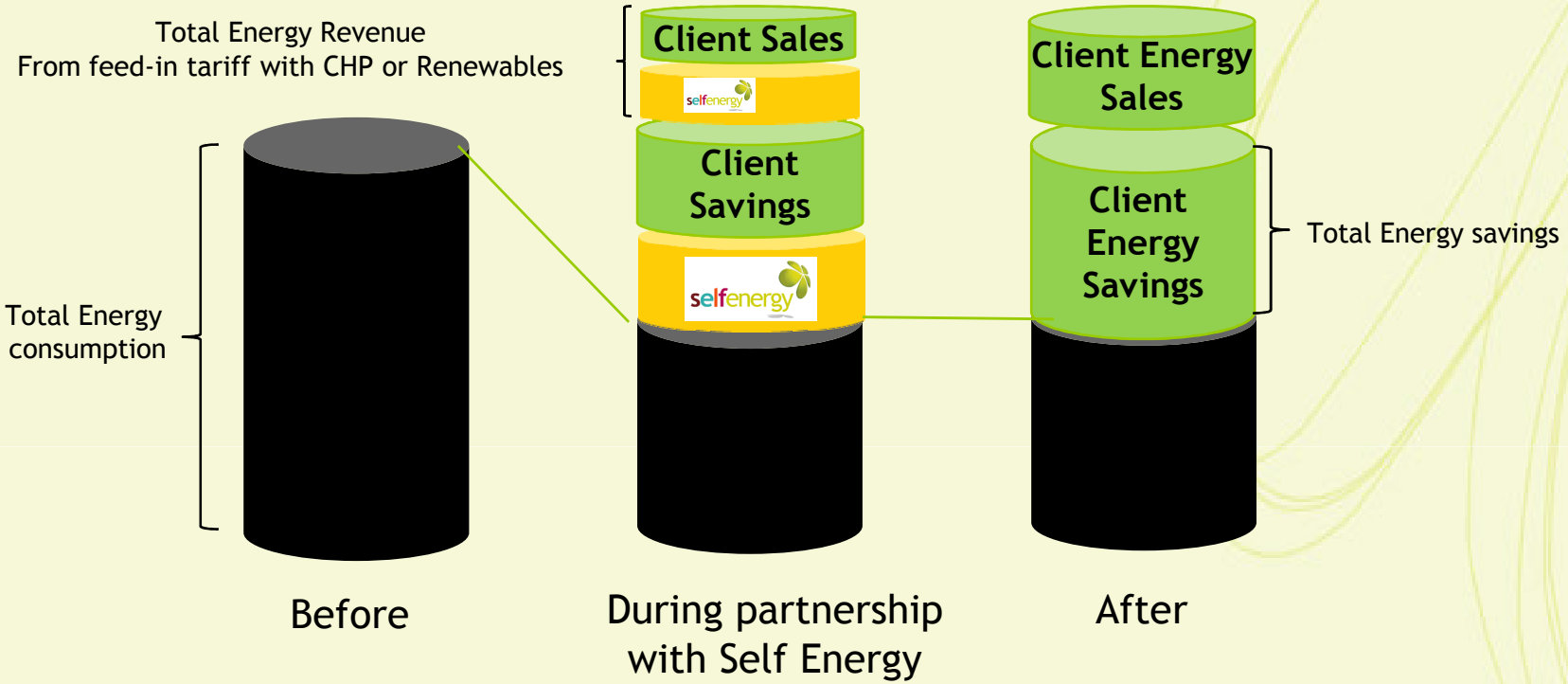
Decentralised Power Generation: the most convenient solution

Smartgrids Report EU 2007

Decentralised Energy Generation impact in EPC



Feed in tariff, CHP and Renewables impact in EPC
The Integrated Energy Contract (IEC)



Fixed term contract

Savings shared **and Revenues** during the contract

Total customer benefit at the end of the contract

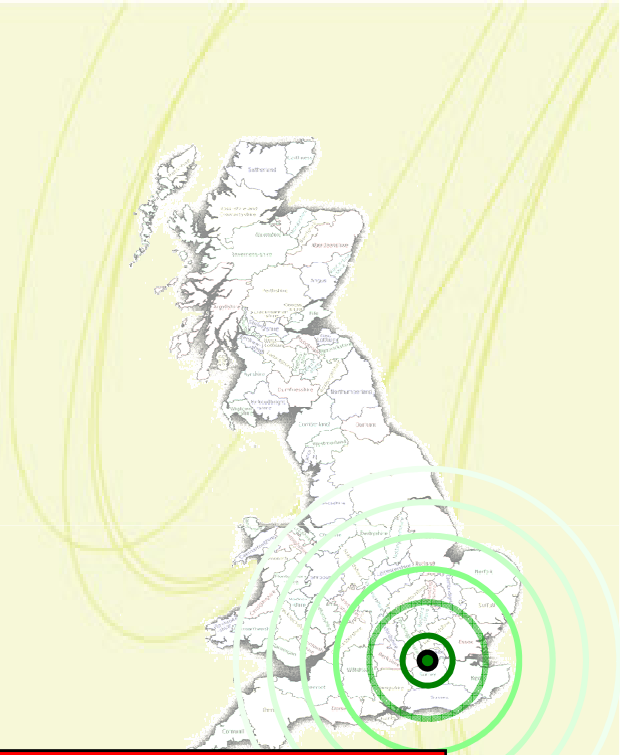
Potential$/kWh or $/negaWh tariff to be simpler to bill

Agenda

1. EPC Contract – How it works?
2. Decentralized Energy (Feed-in tariff, CHP and Renewables) in EPC
3. **UK, Spain and Portugal market review and case studies**
4. EPC new challenges in Europe
5. EPC basic structure
6. Self Energy International: EPC as competitive advantage

UK Market review

- Further increase in pressure on public and private sector facilities to reduce carbon emissions and energy costs
- Market demanding more than kWh from energy companies – they need a bespoke service to

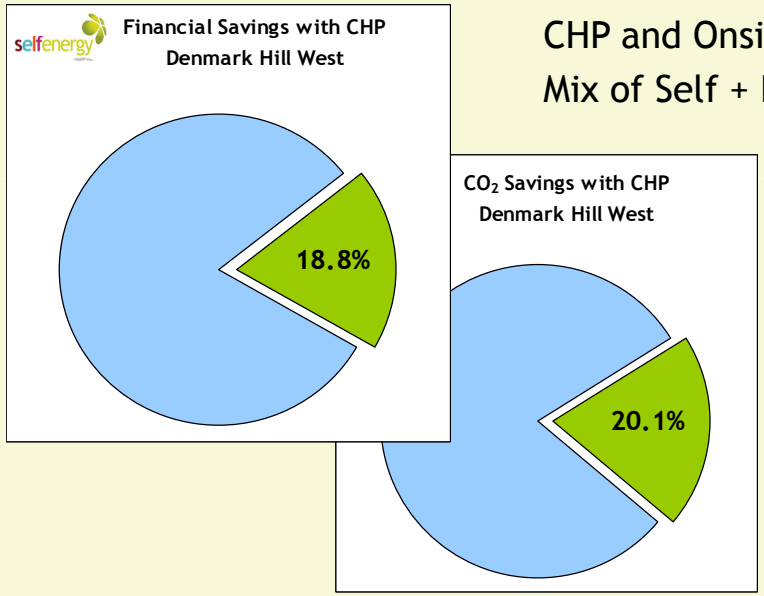


What the market is demanding in the UK:

Reduce Energy Costs	Reduce Carbon Emissions	Ensure security of supply
Energy is most volatile commodity	CRC and growing public pressure	Major issue in London Feed in tariff in 2010

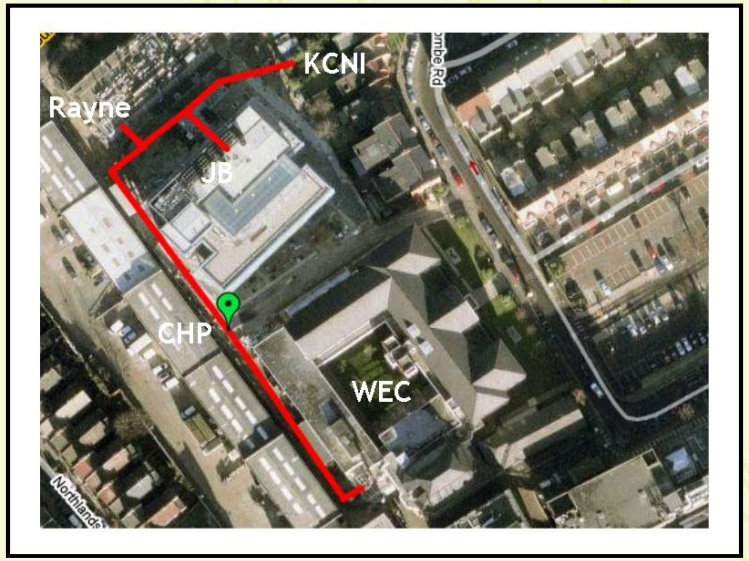
Self Energy UK – case study

Conducting substantial work with KCL on a number of central London Campuses



CHP and Onsite – renewable energy potential
Mix of Self + ESCO financing

"I would recommend Self Energy to any organisation serious about reducing carbon emissions and energy bills."
Energy and Environment Manager, King's College London



Mini district heating at KCL

Spain Market review

- Further increase in pressure on public and private sector facilities to reduce carbon emissions and energy costs, and to use CHP

- CHP Potential in Services is 97%:

		Potencial Tecnológico Mw	Potencia Instalada Mw	Grado de Penetración	Grado de Disponibilidad
Sector Secundario	Industria	9.393	5.593	59%	41%
	Refino	1.421	857	60%	40%
Sector Terciario	**Residencial y Comercial**	**6.414**	**175**	**3%**	**97%**
Sector Primario	Tratamiento de Residuos	2.084	412	20%	80%

Source: IDAE , Ministerio de Industria

What the market is demanding in Spain:

Reduce Energy Costs
Energy is most volatile commodity

Decentralized Generation
Still good
Feed in tariff

Ensure security of supply
Major issue in Barcelona
CHP increase competition in utilities

Self Energy Spain – case studies

EPC Contract with Grupo Bali Hotel in Beniform

✓Medidas : Enfriadoras y Calderas.
✓Valor de Proyecto : 87.600€
✓Ahorro energético : 17.000€
✓Amortización : 4,61 años

EPC Contract with Clinica de Neurociencias

Medidas : Sustitución de 2 Calderas de Propano por Calderas de Biomasa,
Valor de Proyecto : 94.700€
Ahorro Energético : 24.000€
Amortización : 3,95 años

EPC Contract (in Consortium) for a total 3MW for a set of Gran Canaria Primary Schools

Medidas : Solar PV in Rooftops,
Valor de Proyecto : 12-15M€
Feed in Tariff : 0,32€/kWh
Amortización : 10-12 años

Portuguese Market review

- National energy efficiency Plan in place. First ESCO support mechanism under public procurement process

- We have settled the first PPP with a Municipalities Association in the North of Portugal
- Major integration of micro-generation solar PV feed-in tariffs in EPC contracts
- Major cost savings from solar thermal and biomass use for heating water
- EPBD and Energy Certificates in place and mandatory for all buildings

What the market is demanding in Portugal (small video):

Reduce Energy Costs	Micro-generation	Decentralized Generation
Energy is most volatile commodity	Feed in Tariff of 0,62€/kWh until 4kW	On-site generation competition CO2 reduction

The 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 Engineering, Procurement and Contracting knowledge along with available public grants to minimize the investment needs. We are managing more than **30M€ contracts, with a Group Turnover of 10M€ in 2009;**

- Self Energy Group started in 2006 in Portugal and it is owned by its Founders , by Fomentinvest (the biggest Energy Fund Manager in Portuga)l, by Inovcapital (the biggest portuguese VC) and also by NAVES (AESE/IESE) and Crédito Agrícola Bank.

- International: It started Self Energy UK in 2008, Self Energy Spain in early 2009, in Africa, Self Energy Mozambique in September 2009 and projects done in Angola and Jordan.

- Seeking opportunities in Asia and USA to develop partnerships or co-investments

IEC/EPC as a competitive advantage

Experience in IEC/EPC in 3 idioms and 3 continents:

- Gives a broader perspective that EPC could work in different markets and legislations, not only EU

Having a standard IEC international approach gives:

a) Cumulative knowledge for the engineering team (ex: Self Energy Report Tools)

a) A competitive advantage for global customers like hotel chains (ex: Marriot, Pestana)

b) Additional Trust and Synergies with Banking for Financing (ex: Santander, Barclays)

c) “A Fast start” for new ESCO business: 3 months

d) Reduced costs to start and operate a new ESCO

e) Increased Confidence to customers, both sides legal departments and shareholders

Self Energy new ESCO Projects in Angola and Jordan

selfenergy

Visit Lisbon for
ESCO Europe 2010

Paul Lewis
(SE UK CEO)
Paul.Lewis@selfenergy.co.uk
Guillermo Romero
(SE Spain General Manager)
Guillermo@selfenergy.es
Rogerio Ponte
(SE Portugal CEO)
Rogerio.ponte@selfenergy.eu
Carlos Matos
(SE Mozambique Gen. Manager
Carlos.matos@selfenergy.eu

Miguel Matias (SE Group CEO)
+351918708839
miguel.matias@selfenergy.eu

www.selfenergy.eu
www.selfenergy.co.uk
www.selfenergy.es
www.selfenergy.co.mz