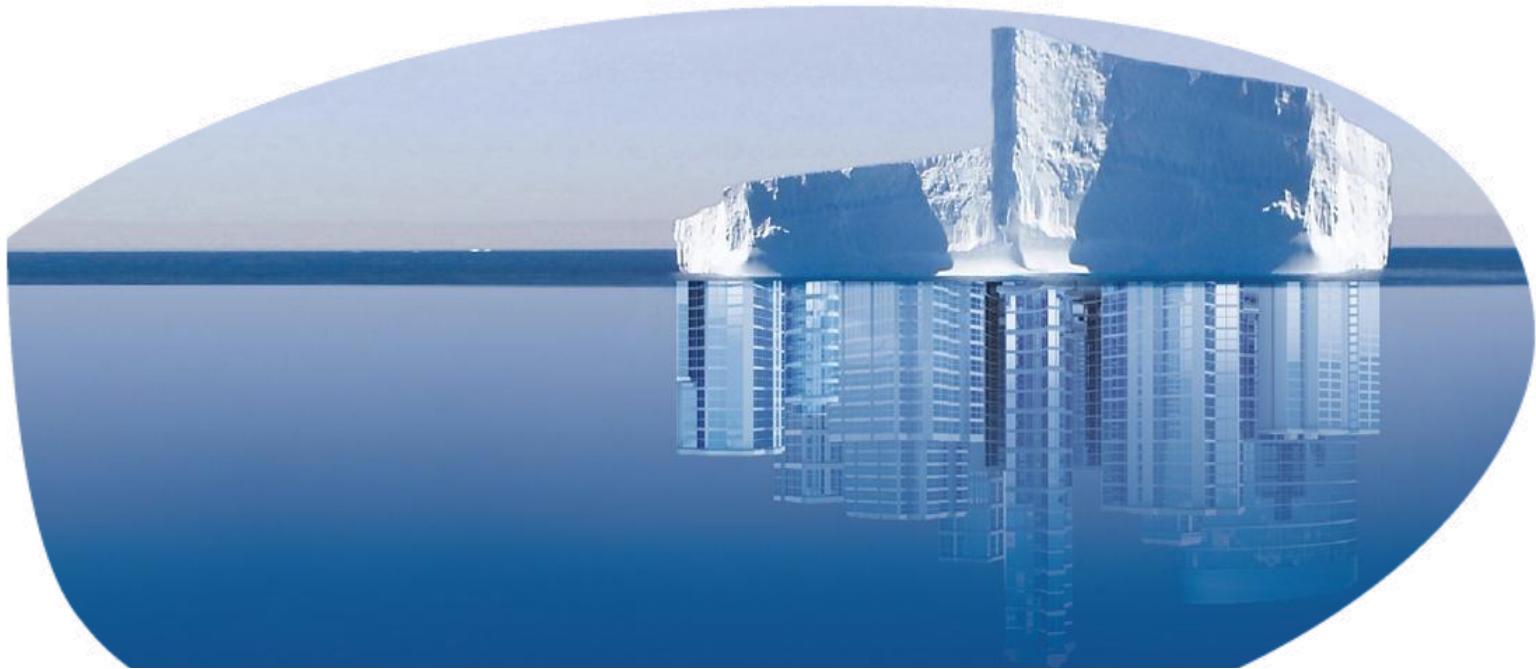


PPP For Energy Efficiency and Environment -Spanish Public Tendering - Executive Summary



EUROPEAN COMMISSION
COMMISSION EUROPÉENNE
EUROPÄISCHE KOMMISSION



European Economic and Social Committee



Topics

- Macroeconomics Indicators
- Market size and Key characteristics
- Activation plan for public buildings-Background
- Conclusions and Suggestions

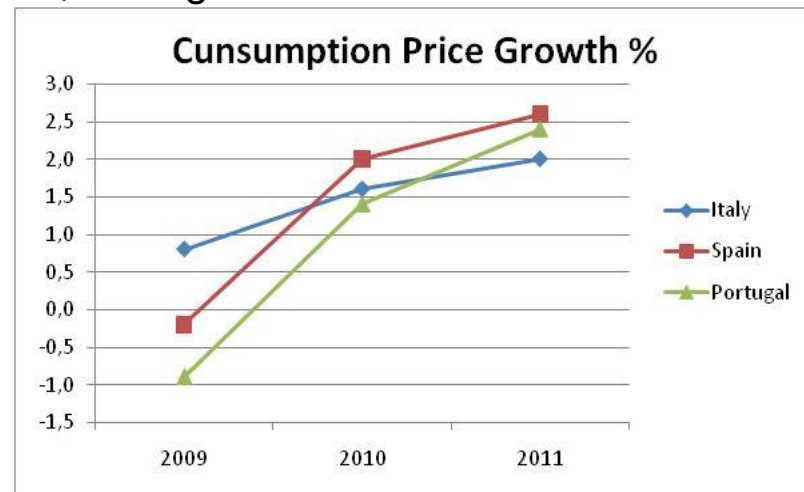
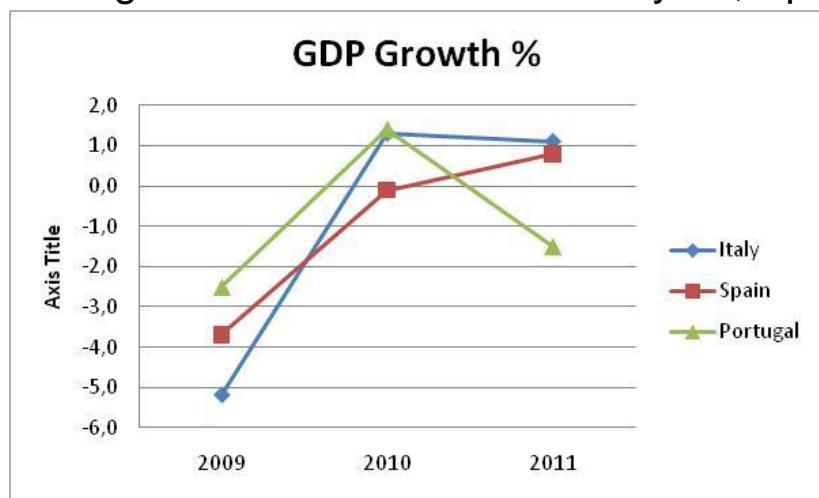
Macroeconomic Indicators

Macroeconomic Indicators

	2009			2010			2011		
	Italy	Spain	Portugal	Italy	Spain	Portugal	Italy	Spain	Portugal
GDP growth ⁽¹⁾	-5.2	-3.7	-2.5	1.3	-0.1	1,4	1.1	0.8	-1.5
Inflation rate ⁽¹⁾	0.8	-0.2	-0.9	1.6	2.0	1.4	2.0	2.6	2.4
Unemployment Rate ⁽¹⁾	7.8	18.0	9.5	8.5	20.1	11.0	8.6	19.4	11.9

Ranking vs EU Economies⁽²⁾: Italy 4th, Spain 5th, Portugal 15th

Ranking vs World Economies⁽³⁾: Italy 8th, Spain 13th, Portugal 39th

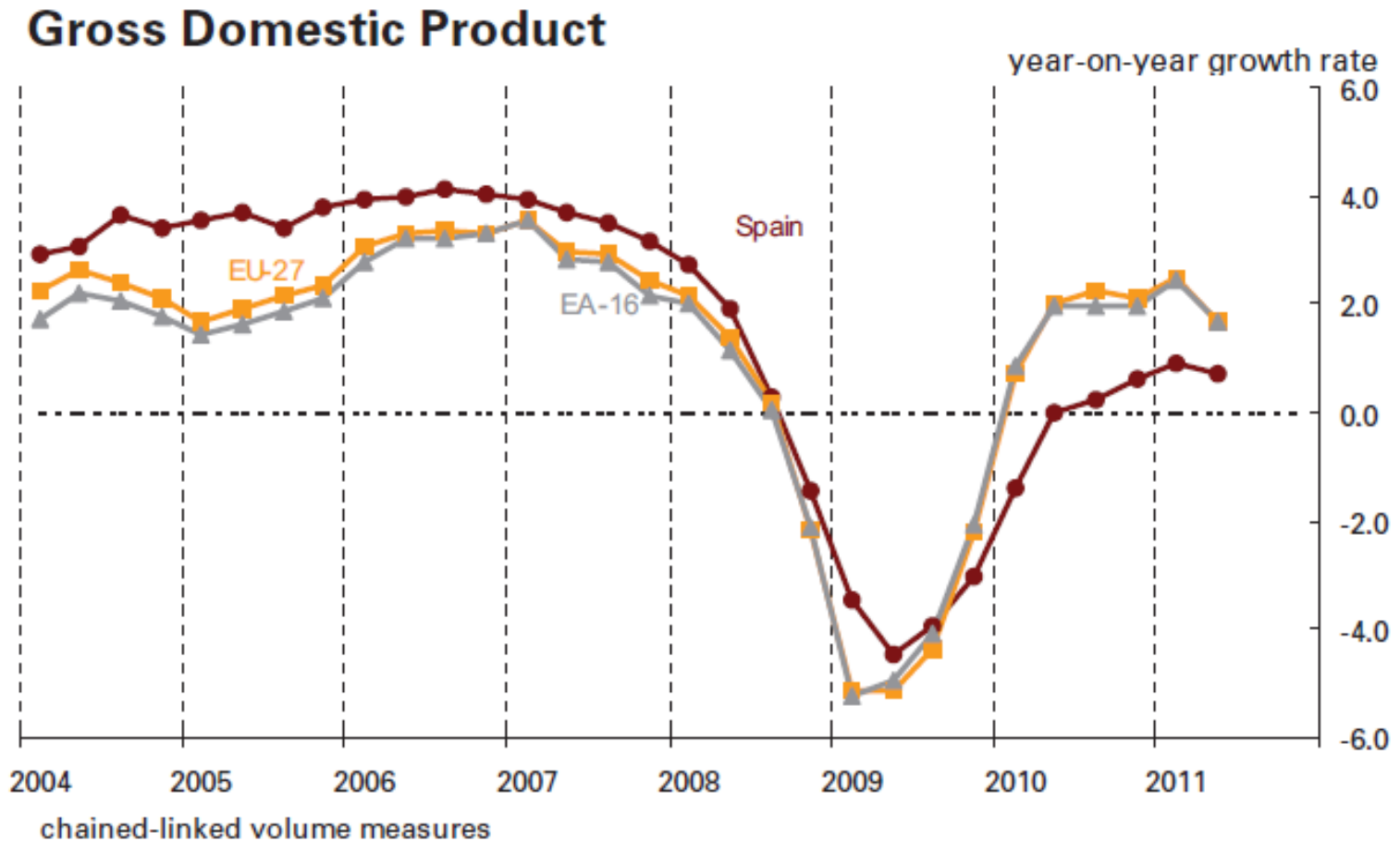


(1) source: World Economic Outlook, International Monetary Fund

(2) Eurostat 2009

(3) CIA World Factum 2011

Macroeconomic indicators: Last quarter second recession wave....

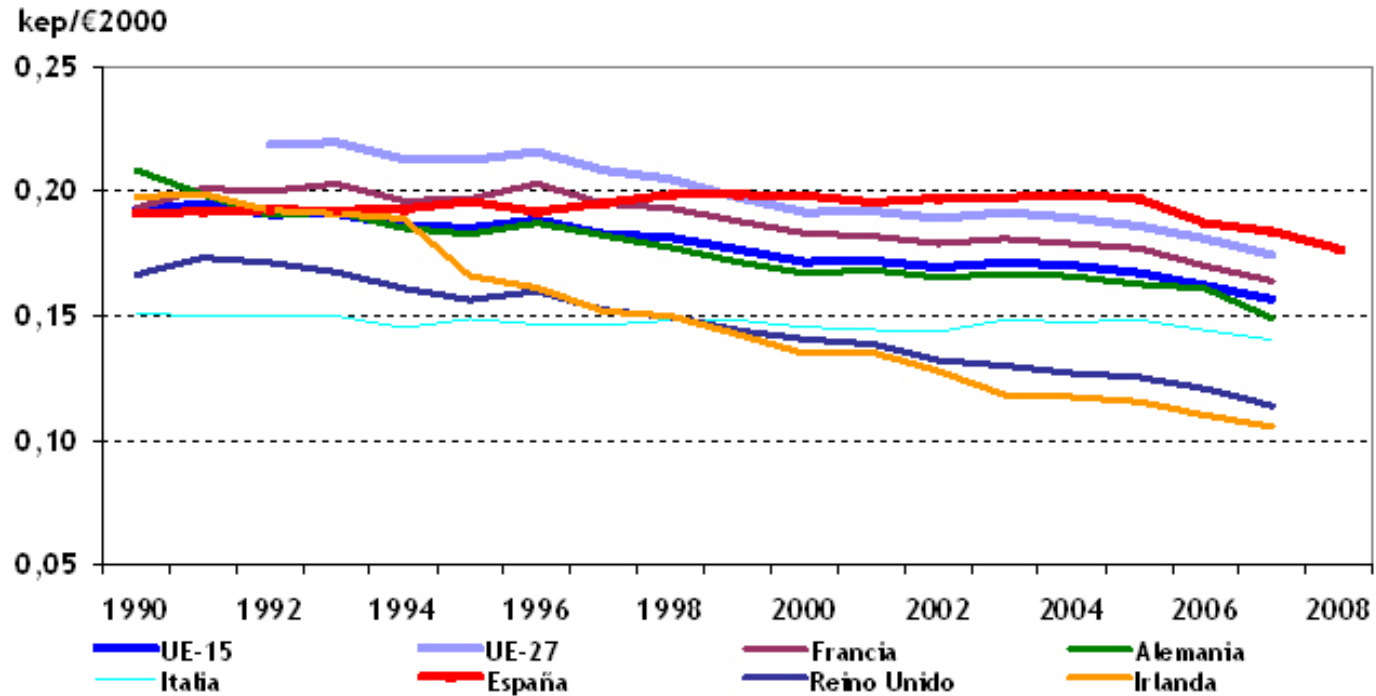


Market size and key characteristics

Market Definition: EU Energy Intensity



Intensidad Primaria en España y UE



Fuente: EnR/IDAE

Nota: Los datos de *Intensidad Primaria* para España se han calculado a partir de las cifras de Producto Interior Bruto publicadas por el INE a precios constantes de 2000 y de acuerdo con el nuevo Sistema Europeo de Cuentas. Según esto, los valores del PIB han sido actualizados en noviembre de 2009.

Source: IDAE (Spanish National Energy Agency)

Spanish Market Sizing

Marketing Consultant: Portfolio Approach

- Energy Management
- Distributed Renewable (Buildings)
- Central Plants.
- Energy Retrofits.

Countries	GDP (M\$)	Market size (M€)	% Mkt / GDP
	2.178.856	1.396	0,06%
Germany	3.338.675	7.272	0,22%
Austria	382.073	712	0,19%
AVG			0,16%
Spain	1.467.889	2.291	0,16%

Considering 6 years EPC duration

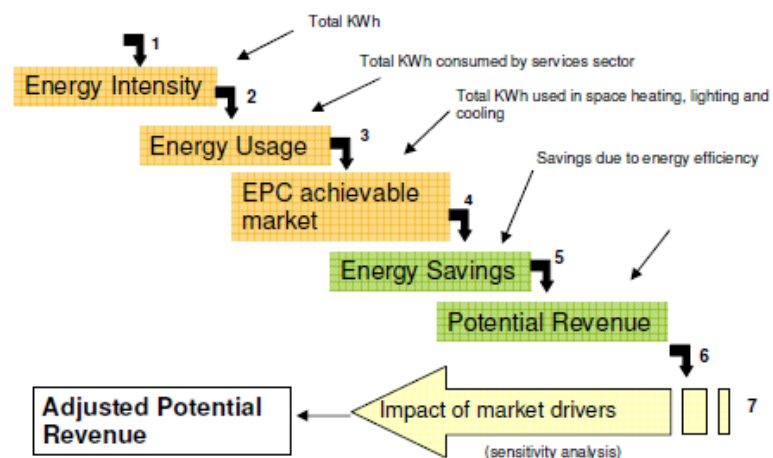
Spanish Market Sizing

London Business School collaboration: Rationale model (logical approach)

Countries	GDP (M\$)	Market size (M€)	% Mkt / GDP
UK	2.178.856	1.967	0,09%
France	2.656.378	1.614	0,06%
Italy	2.118.264	3.510	0,17%
Austria	382.073	328	0,09%
AVG			0,10%
Spain	1.467.889	1.477	0,10%

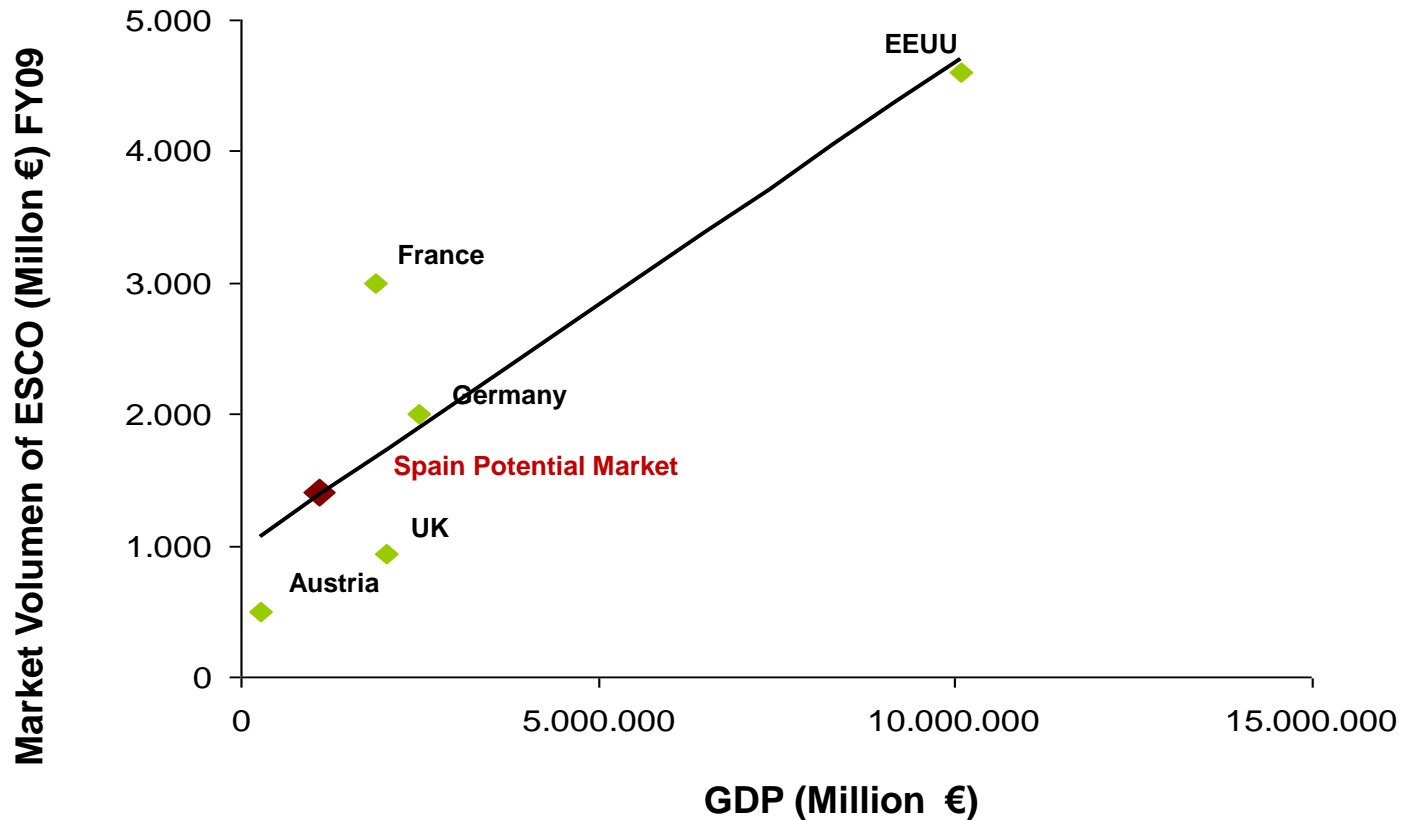
Considering 6 years EPC duration

LOGICAL APPROACH



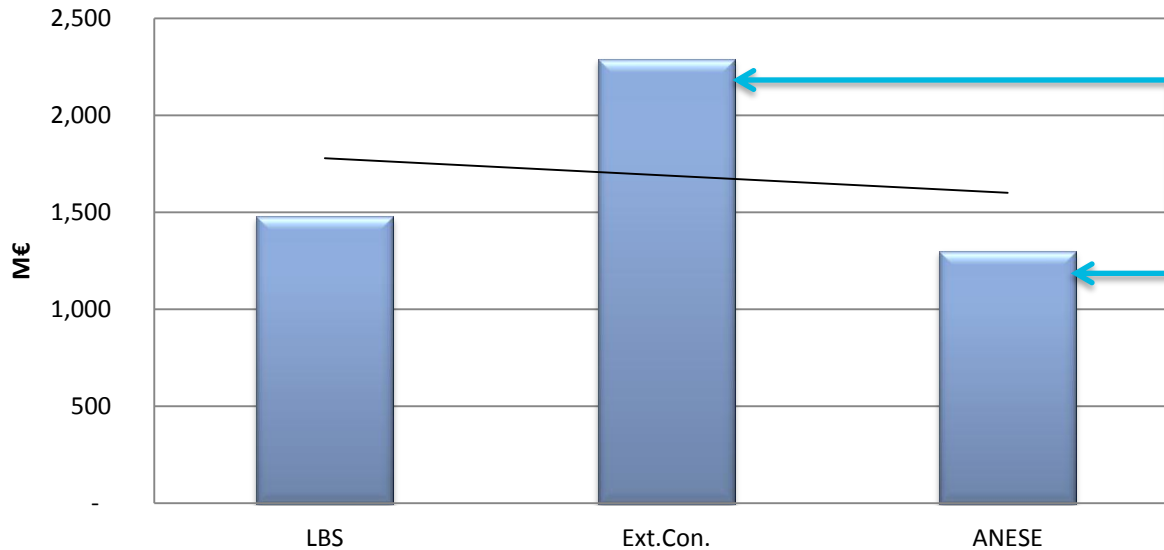
Spanish Market Sizing

Anese survey (Esco Association): Enterprise vs. GDP analysis



Spanish Market Sizing

Market Volum.Size
2010 (M€)



EPC Potential
Market must be
somewhere
between

Market Definition



□ Key sectors

		Consumption (GWh)	Consumption of Our Interest	Intensity (kWh/m2*year)	Intensity US (kWh/m2*ye)	Cost (€/GWh)	Total (M€)
	Private						
	Retail (Shopping Malls)	1.657	1.325	106	126	61.644	82
	Education	2.532	2.026	88	95	61.644	125
	Healthcare (Hospitals)	552	441	218	284	61.644	27
	Office	4.554	3.643	132	205	61.644	225
	Hospitality (Hotels)	3.826	3.061	256	126	61.644	189
	Others	65.326	52.261		133	61.644	3.222
	Total Private	78.447	62.757			61.644	3.869
	Public						
	Education	7.265	5.812	88	95	61.644	358
	Healthcare	939	751	218	284	61.644	46
	Others	20.322	16.257		133	61.644	1.002
	Total Public	28.526	22.821			61.644	1.407
	Total	106.973	85.578			61.644	5.275

	Energy Cost [M€/year]
Total Target Private Market	647
Total Target Public Market	405

So, Public Market represents 35% and Private 65%



Legislative Market Drivers – Spain

Key Legislation, Communications	Focus
Activation Plan for Public Buildings (APPB)	330 Buildings from central government + 2000 more from municipalities have been chosen to be retrofitted by means of an ESCO tender before 2016.
Elections to be held on 2012	The government will be pushing to present new ideas and increasing the Activation Plan for Public Buildings could be a key issue in the campaign.
Renewed Energy Efficiency Strategy (expected March 2011)	Review of 2006 Action Plan will focus on measures in building and transport sectors. There will be no binding targets. Measures likely to focus on finance, training, and enforcement of existing legislation.
Recommendation on the use of ICT to support energy efficiency	Focus on harnessing information technologies for energy efficiency gains

Implications for ESCOS

- Energy efficiency is high on the agenda. Utilities encouraged to do ESCO work, others entering the space (ex. large construction companies)
- The PPP is moving towards ESC contracts. ACTECIR (Energy Technicians association) is pushing to include some tenders as EPC.
- Additional financing mechanisms (European and national) proposed to help fund energy efficiency projects
- Emerging potential of Smart Grid projects and member states mandating smart meters

Spanish Three major industries converging towards the same market



Activation Plan for public Buildings- Background

Activation Plan for public Buildings - Background

❑ Objective: 20% reduction of energy consumption till 2016 in Buildings, EU Directive 2006/32,

❑ 2009 is been approve PLAN 330 CCE

List of most Energy intensive consumer buildings of State Administration
Over 400 k€ annual Energy Consumption

❑ 2010 is been approve PLAN 2000 SE

List of most Energy intensive consumer buildings 1000 buil. of State Administration and 1000 buil. of Regions Administration
Over 400 k€ annual Energy Consumption (State List)
Over 200 k€ annual Energy Consumption (Region List)

Activation Plan for public Buildings: 2011

- ❑ Government Budget Funds Amount for 2011= 52 Million € (15% of investment)
- ❑ ESCO Volume of possible investment corresponding to the public funds equal to 346 Million €
- ❑ Represents optimistic 430 buildings projects
Taking in consideration 800 k€ average building investment (base in average consumption/savings/payback)

IDAE - DIRECCIÓN DE AHORRO Y EFICIENCIA ENERGÉTICA

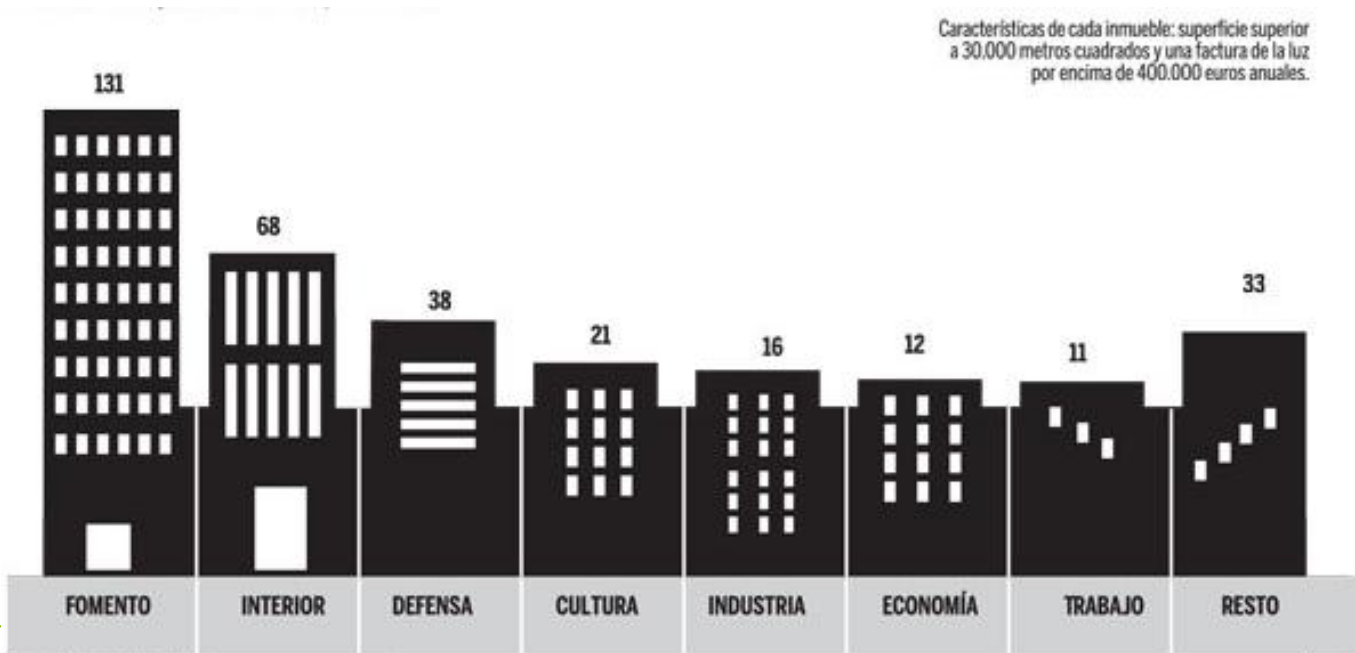
Línea de financiación y apoyo económico a las ESE

- Línea ayuda a la inversión medidas de eficiencia energética
 - (15% ayuda): 52,5 M€
 - 40 M€ presupuesto 2010 + 12,5 M€ presupuesto 2011
 - Certificado de aceptación, recepción o entrega de la instalación, conforme a lo pactado en el contrato de colaboración público-privada, firmado por el técnico competente de la Administración titular del edificio.

Activation Plan for public Buildings : Results

- ❑ First tendering; Cuzco
- ❑ Second; Oficina de Patentes
- ❑ Third, Ministry of Defense

List by building use



Fuente: Ministerio de Industria

Expansión

Cuzco Complex Tendering

First tendering (finished)

- ❑ 114,000 m², 1973, 5.372.790 kWh/year Diesel, 16.691.534 kWh/year Electricity
- ❑ Competitive Dialog
- ❑ Contract details: 2.502.397 € /year, 16 years, +10% energy reduction, maintenance and energy management,
- ❑ Won by Gas Natural & Clece (ACS), Utility and Maintenance (Contractor)



Oficina de Patentes y Marcas

Second Tendering (on going)

- ❑ 9.832 m2, 20 floors, 1974, 3,800,000 kWh/year Electricity, 900,000 kWh/year Diesel*
- ❑ First Round Competitive Dialog resolution

IBERDROLA (Utility) - COFELY (Contractor)- PGI (Engineer Consult.)

EMTE (Contractor) - ENDESA (Utility)- URCULO (Engineer Consult.)

OHL (Contractor) - HONEYWELL (ESCO)- HC NATURGAS (Utility)

* Note that the annual cost of energy is around 340k€, less than 7% of Cuzco's



Conclusions and Suggestions

Conclusions

Why Public Action Plan started last 2009 have been delayed in showing results?

❑ Legal Barriers

❑ **Main Enemy of PPP is being LCSP** (Contratos del Sector Público) Difficulties to applied any innovated clause under Public Contract model. At the end must complete LCSP and concretely RGLACP (Reglamento General de la Ley de Contratos de las Administraciones Públicas) So finally model of contract to be applied is being a closed model called “Mixed Contract of Construction, supplies and Services (contracts administrativo mixto de obras, suministro y servicios)

“ROMAN LAW CULTURE”

Conclusions

□ Administrative Barriers – Requirements to Bid

		Requirement	Details
Administrative		ID (Empowered)	
		Temporary Warranty	100k€
		Able to construct	Public Contractor Classification
Technical	40%	Engineering *	3 projects in the last 5 years with HVAC >25.000m2
		Building Works *	3 projects in the last 5 years with > 6M€
		Retrofit *	25,000m2 in the last 3 years
		Maintenance	Similar references with +35.000 h/year
	20%	Personnel	1 Ind engineer, 1 architect , 1 tec. Eng, 1 sup. Eng (+3 years)
	40%	Energy Audit *	3 contracts
Economic		Revenues	+ 10M€/year in the last 3 years
		Equity	Minimum of 3M€/year in the last 3 years (or group)
		Insurance	1 M€

Conclusions

- ❑ Administrative Barriers – **Clarification of some requirements:**
 - ✓ Public Contractor Classification:
 - ✓ Enterprise Grade delivered by Public National Administration which represent enough accreditation to develop certain scope of project
 - ✓ It is gained base in justified history commissioning project in private as well as public sector.
 - ✓ It is capped by type of installations done and size of them.
 - ✓ Process to obtained needs 6 to 12 months.

Conclusions

- ❑ Lack of Culture of Energy Saving Projects on Public Buildings
 - ❑ Confusions between ESP and EPC.
 - ❑ Misunderstanding how to link SAVINGS of EPC in a rigid administration accounting system which separates structurally Opex and Capex.
 - ❑ Energy Projects Tenders ask to include extra services under Esco agreement more of them totally out of Energy Performance Project.

“CONSTRUCTION AND MANTENAINCE CULTURE”

Conclusions

- ❑ Lack of Energy Saving Financing Culture
 - ❑ Finance Traditional Entities: Banks, Other today worries
 - ❑ New finance Entities: Funds, Private Capital
 - ❑ Not easy access to the Public Funds thought traditional Finance Entities
 - ❑ Double finance guarantees: Requirements to bid + Financing the projects investment
 - ❑ Plan of National Administration which deliver 50% projects finance warrantee:
 - ❑ So complicated thought traditional Banks
 - ❑ IDAE, Not enough structure to manage

FINANCE TRADITIONAL SYSTEMS AND FINANCING MARKET POSITION IS NOT FAVORABLE

Suggestions

- ❑ Against Legal and Administrative Barriers as well as Cultural
 - ❑ EPC integrated under LCSP (Spanish Public Contracting law)
 - ❑ Using Eurocontract model and recommendations.
 - ❑ Using other EUR previous experience energy offices, BEA...
 - ❑ ANESE made a formal proposal to IDAE to collaborated in the EPC development (last March 2011)
 - ❑ ACTECIR made a formal planned proposition to ICAEN to created a Working Group “ICAEN-ACTECIR” with the collaboration of BEA for developing EPC in Catalonia (last September 2011).
 - ❑ EPC development
 - ❑ Pilot EPC project.
 - ❑ Training for EPC use: Administration and Escos.

Suggestions

□ Against Legal and Administrative Barriers as well as Cultural



Contenido

- | | | | |
|--|---|--|--|
| <ul style="list-style-type: none">• Recogida de datos en diferentes niveles de la administración (local, regional, estatal)• Estudio de la tipología de edificios públicos españoles• Análisis de las características necesarias que debería presentar el modelo de contrato para ese tipo de consumos• Estudio del proceso de licitación actual y de las dificultades que presenta | <ul style="list-style-type: none">• Adaptación del contrato Eurocontract al mercado español en función del análisis realizado y de la LCSP. | <ul style="list-style-type: none">• Soporte consultor al seguimiento de una licitación piloto con contrato EPC como ejemplo de éxito | <ul style="list-style-type: none">• Divulgación del modelo de contrato entre las diferentes administraciones públicas<ul style="list-style-type: none">- Formación de las administraciones competentes para una aceptación del contrato en procesos de licitación y contratación |
|--|---|--|--|

Equipo

- | | | | |
|--|--|---|---|
| <ul style="list-style-type: none">• ANESE (personal propio)• Consultoras especializadas | <ul style="list-style-type: none">• ANESE (personal propio)• Asesoría legal | <ul style="list-style-type: none">• ANESE (personal propio)• Consultoras especializadas• Asesoría legal | <ul style="list-style-type: none">• ANESE (personal propio)• Consultoras especializadas• IDAE (si así lo desea) |
|--|--|---|---|

Suggestions

❑ Against Legal and Administrative Barriers as well as Cultural

Diferencias entre los contratos ESC y EPC

	Potencial de ahorro anual*	ESE típica	
ESC (Energy Supply Contract)	 140 millones €/año	<ul style="list-style-type: none">• Ideal para grandes constructoras y suministradores de energía	} EXCLUYE PYMES
<ul style="list-style-type: none">• Indicado para grandes edificios<ul style="list-style-type: none">- Consumos >400.000 €/año en admón. central- Consumos >200.000 €/año en admón. local y autonómica• Procesos lentos y costosos			
EPC (Energy Performance Contract)	 333 millones €/año	<ul style="list-style-type: none">• Ideal empresas tecnológicas.• Empresas especialistas• Empresas de conocimiento e innovación	} NO EXCLUYE A LA EMPRESA POR SU TAMAÑO
<ul style="list-style-type: none">• Ideal para edificios medianos o pequeños• En España la mayoría de edificios son medianos<ul style="list-style-type: none">- Hospital pequeño : ~180.000 €/año**- Escuela: ~17.000 €/año**- Universidad: ~83.000 €/año**- Edificio admón. pública: ~26.000 €/año**• Procesos más ágiles			

Suggestions

- ❑ Against of Energy Saving Financing Culture
 - ❑ Created a government Credit Structure to deliver Public funds a part of Traditional Banks
 - ❑ Facilitate and Support the creation of Private Energy Investment Funds
 - ❑ Internationalization of Energy Investment Fund.

Suggestions

- ❑ Against of Energy Saving Financing Culture
 - ❑ Last October 24th was constituted CWT- Country Work Team



IEEFP-Spain Country Work Team (“CWT”)

By: **Thomas K. Dressen**
Chair - IEEFP Committee
Vice Chair, EVO

24 October 2011 Meeting

Suggestions

- ❑ Against of Energy Saving Financing Culture



“IEEFP” Benefits

- **Standardized, easily-accessible and cost-effective EE finance training for LFIs**
- **Capacity Building of LFIs to finance EEPs:**
 - Decreased risk perception of EEP Savings
 - Reduced loan process & transaction costs
- **Market-based, sustainable commercial lending sector that promotes energy efficiency**
- **Increased financing of EEPs by LFIs**
- **Sustainable Energy & GHG reductions**



Question and Answer

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I ♥ Sustainability!

