Zero Emission Communities

Designing of PPP Best Practice Survey

Annex II – Case Studies

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Annex II – Case Studies

Case study 1: Santa Maria da Feira Swimming Pool (PORTUGAL)

A. General Information

Case study title: Santa Maria da Feira Swimming Pool

Organization: Feira Viva – Cultura e Desporto E.E.M.

Entities involved: Feira Viva – Cultura e Desporto E.E.M. /Self Energy – Serviços de Energia

Date: 2008

B. Territory of PPP Implementation

The County of Santa Maria da Feira is located in Northern Portugal and is part of the Metropolitan Area of Porto. It has an area of 215.6 km2 and an average of 142,295 inhabitants (2006), with a population density of around 660 inhabitants/km2. The county consists of 31 parishes with very heterogeneous characteristics. In what concerns the population density (and for the purposes of analysis), the parish of Santa Maria da Feira has a medium density urban area (population density from 400 to 1500 inhabitants per km2).

Santa Maria da Feira Swimming Pool is a municipal swimming pool managed by a municipal public company called "Feira Viva – Cultura e Desporto E.E.M." and includes two areas: swimming pool area and another inner area including fitness room and others services.

C. PPP Characteristics

Core Activity of PPP

With the PPP the project includes at the beginning the purpose of installation a fuel cell of 100 kW and solar panels to promote the introduction of energy efficiency and renewable technologies with the main aim of reducing energy costs.

Description of PPP

Duration of partnership (in years)	10

Maturity level (mark the right answer)

Completed ☐ Date of completion: ____________

Currently implemented ☒ Expected date of completion: ___________

Fields of interest (please describe briefly)

Renewable energy and energy efficiency: supply of energy equipments and conduction and maintenance of equipment with a performance guarantee to the public entity.

Objectives to be achieved through the PPP (please describe briefly)

Guarantee 10% reduction on energy costs in the swimming pool.

The project includes at the beginning the purpose of installation a fuel cell of 100 kW and solar panels. The provider of the fuel cells, an innovative technology using natural gas to produce hydrogen, was bankrupt last year. Because of that FEIRA VIVA and SELF ENERGY are actually analysing other options to achieve the aim of 10% reduction on energy costs. Possibly it will be installed a cogeneration system using motor technology. Solar panels are already installed.

Service needs to be covered through the PPP (please describe briefly)

P1. Electrical energy and thermal energy supply, including the selling to the public grid of 50% of the electricity produced by the cogeneration system;

P2. Conduction and maintenance;

P3. Total guarantee (10% reduction on energy costs);

P5. Investment in energy saving installations (optional during the 10 years contract).

Management of the Project (mark the right answer)

☒ **Private**

☐ **Public**

☐ **Joint**

☐ **Other:** ____

Ownership of the Project (mark the right answer)

- [ ] **Private**
- [ ] **Public**
- [x] **Joint**
- [ ] **Other:** ____

Risk management plan (mark the right answer)

- [x] **No**
- [ ] **Yes**

Please explain: ____

Additional information (please provide any additional information you think it is important to understand the standards and expectations of the PPP)

A level of 10% reduction on energy costs was established. All the additional benefits in terms of reduction on energy costs belong to SELF ENERGY.

All the investments included on this contract will be financed by the private party during the length of the project. Additional investments will be studied, proposed, executed and financed by the private party through the savings achieved or by selling the energy produced by RES systems.

Initiative to adopt a PPP scheme for the specific service

Reasons to adopt PPP (mark the right answer)

- [x] **Limitations in public funds to cover investment needs**
- [ ] **Efforts to increase quality and efficiency of public services**
- [ ] **Other:** ___ ____

Type of initiative

- [x] **Public initiative**
- [ ] **Private initiative**

PPP type (mark the right answer)

- [ ] **Concession**
- [ ] **Joint Venture**
- [x] **Other:** Energy Performance Guarantee Contract Santa Maria da Feira Swimming Pool (Mixed contract of supply and services)

Implementation Phase

Selection procedure (please describe the procedure form proposal to approval)

Direct Treaty.

Time required to formalize definitively the PPP (mark the right answer)

- [x] **< 1 year**
- [ ] **1-5 years**
- [ ] **>5 years**
- [ ] **Other:** ____________________

Construction period - if PPP has been completed (mark the right answer)

- [ ] **0-2 years**
- [ ] **2-5 years**
- [ ] **>5 years**
- [ ] **Other:** ____________________

Marketing Plan (mark the right answer)

- [x] **No**
- [ ] **Yes**

Please explain: ____________________

Total costs with energy (initial plan)	110.000€ (electricity + natural gas)

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Annual reduction of costs with energy	5% guaranteed

Partnership Scheme

Local Authorities (please name them):

1. Feira Viva – Cultura e Desporto E.E.M.
2. ____

Private Investors (please name them):

1. Self Energy – Serviços de Energia
2. ____

Role and Responsibilities of each body (justification of their involvement and description of the competence fields between public and private sector):

1. Feira Viva – Cultura e Desporto E.E.M. – Municipal public company
2. Self Energy – Serviços de Energia – Private company

Duration of Partnership (mark the right answer)

[ ] **<5 years**

[X] **5-10 years**

[ ] **15-20 years**

[ ] **>20 years**

Profit and cost sharing provisions (please describe briefly):

All the investments included on this contract will be financed by the private party during the length of the project. Additional investments will be studied, proposed, executed and financed by the private party through the savings achieved or by selling the energy produced by RES systems.

Economic Framework of PPP

Estimated budget (in the initial plan)	> € 350.000, 00
Real budget	It is not possible to indicate the real budget.

Investing Tools (please describe briefly)

____

____

Financial Contribution of Partners
(please give % of partners Financial Contribution)

Investor	% Contribution
SELF Energy	100%

Profit assurance for the private sector (please describe briefly)

A level of 5% reduction on energy costs was established. All the additional benefits in terms of reduction on energy costs belong to SELF ENERGY.

Public guaranteed for loans (please describe briefly)

____

____

Final Beneficiaries of the PPP (short and long term)

☐ **Local population**

☐ **SMEs**

☐ **Environment:**

Other: Feira Viva – Cultura e Desporto E.E.M.

Results

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Case study 2: Hotel Units of Inatel Foundation (PORTUGAL)

A. General Information

Case study title: Hotel units of Inatel Foundation

Organization: Inatel Foundation

Entities involved: Inatel Foundation /Self Energy – Serviços de Energia

Date: 2000

B. Territory of PPP Implementation

INATEL Foundation is presented all over Portugal Continental and its Autonomous Regions with a network of 22 agencies. INATEL Foundation has a network of social hotels with 16 hotel unities, 3 parks for Camping, 2 Houses for Rural Tourism and two SPAs - which represents a global offer of 4200 beds - and a permanent structure of social and senior tourism and also an organization for the holidays of the beneficiaries and their families; a Theatre - Teatro da Trindade; two sport Stadiums - Estádio 1º de Maio, in Lisbon, and Parque de Ramalde, in Porto.

The project includes 5 hotels distributed throughout Portugal Continental (Covilhã, Guarda, Porto Santo, Manteigas, S. Pedro de Moel).

C. PPP Characteristics

Core Activity of PPP

With the PPP the project includes the installation of photovoltaic micro generation systems to produce at 5 hotels. The 3,68 kW photovoltaic systems sell electricity to the grid, with a fee-in-tariff that allows Inatel Foundation to have some revenues from those systems.

Description of PPP

Duration of partnership (in years)	8

Maturity level (mark the right answer)

Completed [ ] Date of completion: ____________

Currently implemented [x] Expected date of completion: ___________

Fields of interest (please describe briefly)

Renewable energy and energy efficiency: supply of energy equipments and maintenance of equipment wit.

Objectives to be achieved through the PPP (please describe briefly)

The 3,68 kW photovoltaic systems sell electricity to the grid, with a fee-in-tariff that allows Inatel Foundation to have some revenues from those systems.

Service needs to be covered through the PPP (please describe briefly)

P1. Electrical production, including the selling to the public grid of 100% of the electricity produced by the photovoltaic systems

P2. Monitoring and Maintenance

During the period of the contract SELF ENERGY will monitor the electrical production and selling to the grid and all the maintenance procedures.

Management of the Project (mark the right answer)

[X] **Private**

[ ] **Public**

[ ] **Joint**

[ ] **Other:** ____

Ownership of the Project (mark the right answer)

[ ] **Private**

[ ] **Public**

[X] **Joint**

[ ] **Other:** ____

Risk management plan (mark the right answer)

[ ] **No**

[ ] **Yes**

Please explain: ____

Additional information (please provide any additional information you think it is important to understand the standards and expectations of the PPP)

____

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Initiative to adopt a PPP scheme for the specific service

Reasons to adopt PPP (mark the right answer)

- [X] **Limitations in public funds to cover investment needs**
- [ ] **Efforts to increase quality and efficiency of public services**
- [ ] **Other:** ___ ____

Type of initiative

- [x] **Public initiative**
- [ ] **Private initiative**

PPP type (mark the right answer)

- [ ] **Concession**
- [ ] **Joint Venture**
- [x] **Other:** Energy Performance Contract. Hotel units of Inatel Foundation (Mixed contract of supply and services)

Implementation Phase

Selection procedure (please describe the procedure form proposal to approval)

Direct Treaty.

Time required to formalize definitively the PPP (mark the right answer)

- [x] **< 1 year**
- [ ] **1-5 years**
- [ ] **>5 years**
- [ ] **Other:** ____

Construction period - if PPP has been completed (mark the right answer)

- [x] 0-2 years
- [ ] 2-5 years
- [ ] >5 years
- [ ] Other: ____

Marketing Plan (mark the right answer)

- [x] No
- [ ] Yes

Please explain: ____

Total costs with energy (initial plan)	Not analyzed because the PPP is not going to change the actual energy consumption but will generate revenues.
Annual reduction of costs with energy	The project will generate revenues from electricity selling to the grid by the 5 solar photovoltaic systems.

Partnership Scheme

Local Authorities (please name them):

1. INATEL Foundation
2. ____

Private Investors (please name them):

1. Self Energy – Serviços de Energia
2. ____

Role and Responsibilities of each body (justification of their involvement and description of the competence fields between public and private sector):

1. The Inatel Foundation, presently under the tutelage of the Ministry of Labour and Social Solidarity
2. Self Energy – Serviços de Energia – Private company

Duration of Partnership (mark the right answer)

	<5 years
X	5-10 years
	15-20 years
	>20 years

Profit and cost sharing provisions (please describe briefly):

According to this 8 years contract, SELF ENERGY will receive 75% of the revenues from the selling of electricity to the grid, and Inatel Foundation will receive the remaining 25% of the revenues.

75% of the investment included on this contract was financed by the private party (SELF ENERGY) and 25% of the investment was financed by the public party (Inatel Foundation).

Economic Framework of PPP

Estimated budget (in the initial plan)	€ 90.000,00
Real budget	€ 90.000,00

Investing Tools (please describe briefly)

75% of the investment included on this contract was financed by the private party (SELF ENERGY) and 25% of the investment was financed by the public party (Inatel Foundation).

Financial Contribution of Partners
(please give % of partners Financial Contribution)

Investor	% Contribution
Inatel Foundation	25
Self Energy	75

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Profit assurance for the private sector (please describe briefly)

75% of the revenues from electricity selling to the grid.

Public guaranteed for loans (please describe briefly)

25% of the revenues from electricity selling to the grid.

Final Beneficiaries of the PPP (short and long term)

☐ **Local population**

☐ **SMEs**

☐ **Environment:**

Other: Ministry of Labour and Social Solidarity

Results

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Case study 3: Santurtzi Municipal Sports Institute (SPAIN)

A. General Information

Case study title: Energy Management Contract. Santurtzi Municipal Sports Institute (Vizcaya, Spain)

Organization: Santurtzi Municipal Sports Institute. Santurtzi Town Council

Entities involved: Santurzi Town Council and Eulen S.A.

Date: 2006

B. Territory of PPP Implementation

(Brief description)

Santurtzi is a municipality of 47.019 inhabitants located in the north of Spain, 14 km from Bilbao. The main economic activity has been, until very recently, farming. The basic exploitation unit, the farmhouse, combined cereal, vineyard, fruit and vegetable crops, with the care of domestic animals.

C. PPP Characteristics

Core Activity of PPP

(Please describe the core activity that the PPP carries out in the field of energy)

Santurtzi Municipal Sports Institute is a municipal sports centre that includes two areas:

Inner area: it includes three conditioned swimming pools, playfields, squash room, fitness room, spinning room, dressing room, aerobic gym, etc.

Outside area: athletics tracks, Olympic swimming pool, swimming pool for children, paddle courts, football field, etc.

The PPP includes the global management of the installation in order to achieve an energy saving and economical saving.

Description of PPP

Duration of partnership (in years)	10

Maturity level (mark the right answer)

Completed [ ] Date of completion: ____________

Currently implemented [x] Expected date of completion: 2016

Fields of interest (please describe briefly)

- Supply of energy resources (electricity, fuel and water).
- Maintenance of energy consuming installations and equipment.

Objectives to be achieved through the PPP (please describe briefly)

- Reduce maintenance cost.
- Reduce energy consumption.

Service needs to be covered through the PPP (please describe briefly)

The project includes global management of electricity, fuels, water, chemicals for the swimming pool water treatment and maintenance of the installations. Works in the boilers room are included in order to substitute oil by natural gas. 100 m2 of solar panels are installed. The water supply system and the lighting systems are upgraded. A centralized control system for the installation is installed. An UV system for the swimming pool water treatment is installed. The cooling system is also changed by a more efficient one.

Management of the Project (mark the right answer)

[ ] **Private**

[ ] **Public**

[x] **Joint**

[ ] **Other:** ____

Ownership of the Project (mark the right answer)

- [ ] Private
- [x] Public
- [ ] Joint
- [ ] Other: ____

Risk management plan (mark the right answer)

- [x] No
- [ ] Yes

Please explain: ____

____

Additional information (please provide any additional information you think it is important to understand the standards and expectations of the PPP)

____

____

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Initiative to adopt a PPP scheme for the specific service

Reasons to adopt PPP (mark the right answer)

- [x] Limitations in public funds to cover investment needs
- [ ] Efforts to increase quality and efficiency of public services
- [ ] Other: ___ ____

____

Type of initiative

- [x] **Public initiative**
- [ ] **Private initiative**

PPP type (mark the right answer)

- [ ] **Concession**
- [ ] **Joint Venture**
- [x] **Other:** Mixed contract of supply and service according to the P4 scheme.

This kind of contract fits the project needs as it includes supply of energy resources and maintenance of equipment. According to the Spanish law, the length of this kind of contract can be agreed by the parties that sign it. The duration agreed was 10 years and the scheme followed is the P4 model. Within this contract the ESCO can offer up to five services to the client. A previous audit is also required in order to establish the conditions of the contract. It was used the model of contract for energy services and maintenance elaborated by IDAE. The Spanish Institute for the Diversification and Saving of Energy (IDAE) has elaborated a proposal of a contract model for energy services and maintenance in public administration buildings. It includes templates to elaborate the tender process documents. P4 contract is the model adopted.

Within this contract the ESCO can offer up to five services to the client. A previous audit is also required in order to establish the conditions of the contract.

The services that can be offered are:

P1: Energy management. It includes the energy management required for the correct functioning of the installations included in the contract (energy supply management, quality control, etc).

P2: Maintenance. It includes the maintenance of the installations included in the contract in order to keep the capacity of the equipment.

P3: Total guarantee. Repairing and substitution of all the damaged items of the installations included in the contract.

P4: Works to upgrade and refurbish energy consuming installations. It includes the financing and realisation of the works to upgrade and refurbish energy consuming installations included in the contract. The client decides the installations to be included. The ESCO assumes the financial risk corresponding to new equipment. The return of the project investment to the ESCO is done through a periodical payment by the client, though the foreseen savings are not achieved.

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P5: Investment in energy saving and RES. It aims to promote the energy efficiency. It includes the substitution of non efficient equipment for efficient one as well as well as the promotion of RES. The return of the project investment assumed by the ESCO is based on the energy savings achieved.

Implementation Phase

Selection procedure (please describe the procedure form proposal to approval)

A tender process was established. A baseline price to be paid by the public administration to the private company was established in the tender. The tenderers could offer a lower price on their own risk.

The services included were:

P1. Electrical energy, thermal energy and water supply

P2. Maintenance

P3. Total guarantee

P4. Works to upgrade and refurbish energy consuming installations

P5. Investment in energy saving installations

Time required to formalize definitively the PPP (mark the right answer)

- [x] **< 1 year**
- [ ] **1-5 years**
- [ ] **>5 years**
- [ ] **Other: ____**

Construction period - if PPP has been completed (mark the right answer)

- [ ] **0-2 years**
- [ ] **2-5 years**
- [ ] **>5 years**
- [ ] **Other: ____**

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Marketing Plan (mark the right answer)

- [x] **No**
- [ ] **Yes**

Please explain: ____

____

Total costs with energy (initial plan)	€
Annual reduction of costs with energy	€

The annual energy saving is 844 MWh/year. It represents 20% of the energy demand foreseen in the tender process.

Partnership Scheme

Local Authorities (please name them):

3. Santurtzi Town Council

Private Investors (please name them):

3. Eulen, S.A.

Role and Responsibilities of each body (justification of their involvement and description of the competence fields between public and private sector):

3. Santurtzi Town Council: control of the project implementation.
4. Eulen S.A.: project implementation.

Duration of Partnership (mark the right answer)

- [ ] **<5 years**
- [x] **5-10 years**
- [ ] **15-20 years**
- [ ] **>20 years**

Profit and cost sharing provisions (please describe briefly):

Regarding electrical energy, thermal energy and water supply, the first year of the project implementation, the successful tenderer (private party) must register the consumption data in order to establish the baseline data. If the consumption in the following years is increased, the public party will pay the difference. The price (€/m3, €/kWh, etc) is the one offered by the successful tenderer in the tender process. If the consumption decreases, the private party will pay the difference to the public party at the same price.

The works to upgrade and refurbish energy consuming installations must be financed by the private party during the length of the project. Also the investments in energy saving installations, that will be studied, proposed, executed and financed by the private party through the savings achieved or by selling the energy produced by RES systems.

Economic Framework of PPP

Estimated budget (in the initial plan)	€ 420.000,00
Real budget	€ 377.500,00

Investing Tools (please describe briefly)
The works to upgrade and refurbish energy consuming installations must be financed by the private party during the length of the project. Also the investments in energy saving installations, that will be studied, proposed, executed and financed by the private party through the savings achieved or by selling the energy produced by RES systems.

Financial Contribution of Partners
(please give % of partners Financial Contribution)

Investor	% Contribution
Eulen S.A.	Energy saving installations
	Works to upgrade and refurbish energy consuming installations
Santurtzi Town Council	Cost of the energy, fuel and water supply

Profit assurance for the private sector (please describe briefly)

The public sector pays to the private sector, according to the price offered in the tender process, the supply of energy, water and fuel. If the consumption in the following years is increased, the public party will pay the difference. The price (€/m3, €/kWh, etc) is the one offered by the successful tenderer in the tender process. If the consumption decreases, the private party will pay the difference to the public party at the same price.

Public guaranteed for loans (please describe briefly)

____

____

____

Final Beneficiaries of the PPP (short and long term)

- [x] **Local population**
- [ ] **SMEs**
- [x] **Environment**

Other: ____

____

Results

The agreement means a saving of 42.500 € compared with the cost established by Santurtzi Town Council in the tender process documents, where the financial risk of the investment in energy saving installations and upgrading and refurbishing energy consuming installations had to be assumed by the tenderer (private party).

The annual energy saving achieved is 844 MWh/year, that means 20% of the demand of energy freseen in the tender process documents.

Case study 4: Public Hospital Area Juan Ramón Jiménez (SPAIN)

A. General Information

Case study title: Public Hospital Area Juan Ramón Jiménez (Huelva, Spain)

Organization: Andalusia Regional Government. Health Area

Entities involved: Andalusia Regional Government (Health Area), Clece S.A. and Endesa S.A.

Date: 2006

B. Territory of PPP Implementation

(Brief description)

Huelva is a city in south-western Spain, the capital of the province of Huelva in the autonomous region of Andalusia. It is located along the Gulf of Cadiz coast, at the confluence of the Odiel and Tinto rivers. According to the 2008 census, the city has a population of 148,950 inhabitants.

C. PPP Characteristics

Core Activity of PPP

(Please describe the core activity that the PPP carries out in the field of energy)

The Hospital Area Juan Ramon Jiménez includes three buildings: Juan Ramón Jiménez Hospital, Vázquez Díaz Hospital and Virgen de la Cinta Hospital. The project was focused on energy saving and energy efficiency in the three buildings that constitute the Area.

Description of PPP

Duration of partnership (in years)	10

Maturity level (mark the right answer)

Completed [ ] Date of completion: ____________

Currently implemented [x] Expected date of completion: 2016

Fields of interest (please describe briefly)

- Energy saving and energy efficiency.

Objectives to be achieved through the PPP (please describe briefly)

- Reduce energy consumption in the buildings that include the Hospital Area.

Service needs to be covered through the PPP (please describe briefly)

The project was focused on energy saving and energy efficiency. It included the following measures:

- Upgrade of the climatization system of the JRJ Hospital.
- Installation of solar panels for producing warm water in JRJ and VD Hospitals.
- Increasing the capacity of the converter of the JRJ Hospital.
- Changing the climatization system in Virgen de la Cinta Hospital and increasing the capacity of the converter.

Management of the Project (mark the right answer)

- [ ] **Private**
- [ ] **Public**
- [x] **Joint**
- [ ] **Other:** ____________________

Ownership of the Project (mark the right answer)

- [ ] **Private**
- [x] **Public**
- [ ] **Joint**
- [ ] **Other:** ____________________

Risk management plan (mark the right answer)

- [x] **No**
- [ ] **Yes**

Please explain: ____

____

Additional information (please provide any additional information you think it is important to understand the standards and expectations of the PPP)

Initiative to adopt a PPP scheme for the specific service

Reasons to adopt PPP (mark the right answer)

- [x] **Limitations in public funds to cover investment needs**
- [ ] **Efforts to increase quality and efficiency of public services**
- [ ] **Other:** ___ ____

____

Type of initiative

- [x] **Public initiative**
- [ ] **Private initiative**

PPP type (mark the right answer)

- [ ] **Concession**
- [ ] **Joint Venture**
- [x] **Other:** Energy Performance Contract (EPC).

Within this kind of contract, the private party undertakes a previous audit of the installation in order to determine the potential savings. Then the private party offers the implementation of the project during a certain period and guarantees the savings during this period.

Since the beginning of the project, the private party guarantees some energy savings, and so economical savings that will be used as return of the project investment.

The EPC contract can adopt two formulas: shared savings or guaranteed savings. The most common one is a mixture of both formulas.

In the shared savings formula the financial risk is completely assumed by the private party. A pre-established percentage of the savings is distributed between the public and the private party. Normally it is agreed a constant payment, that corresponds with the rate of return of the project investment, a maintenance fee and a variable payment that depends on the savings achieved. The private party is the owner of the equipment during the length of the project, that is transferred to the public party at the end of the project. Over costs must be assumed by the public party if the energy cost is increased or the savings decrease (unless special guarantees are established).

However, in the guaranteed savings formula the financial risk is completely assumed by the public party and the private party must guarantee the minimum saving to be obtained. Whether actual savings are less than guaranteed savings, the private party must pay the difference.

Implementation Phase

Selection procedure (please describe the procedure form proposal to approval)

A tender process was established. The objective of the tender process was to contract an ESCO to undertake the following actions:

- Upgrade of the climatization system of the JRJ Hospital.
- Installation of solar panels for producing warm water in JRJ and VD Hospitals.
- Increasing the capacity of the converter of the JRJ Hospital.
- Changing the climatization system in Virgen de la Cinta Hospital and increasing the capacity of the converter.

Time required to formalize definitively the PPP (mark the right answer)

- [x] **< 1 year**
- [ ] **1-5 years**
- [ ] **>5 years**
- [ ] **Other: ____**

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Construction period - if PPP has been completed (mark the right answer)

- [ ] **0-2 years**
- [ ] **2-5 years**
- [ ] **>5 years**
- [ ] **Other:** ____

Marketing Plan (mark the right answer)

- [x] **No**
- [ ] **Yes**

Please explain: ____

____

Total costs with energy (initial plan)	€
Annual reduction of costs with energy	€

Decreasing of the energy bill in 26,7%. It means a saving of 427.895,64 €/year.

Partnership Scheme

Local Authorities (please name them):

1. Andalusia Regional Government. Health Area.

Private Investors (please name them):

1. Joint Venture Clece-Endesa

Role and Responsibilities of each body (justification of their involvement and description of the competence fields between public and private sector):

1. Andalusia Regional Government: control of the project implementation.

2. Clece - Endesa: project implementation.

Duration of Partnership (mark the right answer)

- [ ] **<5 years**
- [x] **5-10 years**
- [ ] **15-20 years**
- [ ] **>20 years**

Profit and cost sharing provisions (please describe briefly):

The ESCO guarantees the savings during the length of the contract (10 years). The financial risk is completely assumed by the ESCO. The ESCO receives a percentage of the annual savings as return of the project investment.

Economic Framework of PPP

Estimated budget (in the initial plan)	2,7 M€
Real budget	2,7 M€

Investing Tools (please describe briefly)
The ESCO assumes the financial risk with own resources.

Financial Contribution of Partners
(please give % of partners Financial Contribution)

Investor	% Contribution
Clece-Endesa	**100**

Profit assurance for the private sector (please describe briefly)

- The private sector receives a percentage of the annual savings as return of the project investment.

Public guaranteed for loans (please describe briefly)

____

____

____

Final Beneficiaries of the PPP (short and long term)

- [x] **Local population**
- [ ] **SMEs**
- [x] **Environment:**

Other: ____

____

Results

- Reduction of 20% of the natural gas consumption as it was installed solar thermal panels for warm water.
- Fuel for heating was eliminated (180.000 l/year).
- Reduction of 45% in electricity consumption.
- Reduction of 2% of energy consumption due to the installation of double glass windows.
- 70% of electricity consumption saving due to the substitution of 500 lamps by Down-lights.

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Case study 5: Public Lighting in Mombeltrán (SPAIN)

A. General Information

Case study title: Public lighting in Mombeltrán (Ávila).

Organization: Town Council.

Entities involved: Town Council and Iberdrola Generación S.A.U.

Date: -

B. Territory of PPP Implementation

(Brief description)

Mombeltrán is a municipality located in the province of Ávila, in the Spanish Castile and León province. According to the 2006 census (INE), the municipality has a population of 1,145 inhabitants.

C. PPP Characteristics

Core Activity of PPP

(Please describe the core activity that the PPP carries out in the field of energy)

The Town Council is responsible for the management of the construction and maintenance of the street lighting. In order to reduce the energy consumption of this installation the Town Council requires from the energy supplier (Iberdrola Generación, S.A.U.) the installation of voltage regulators in order to reduce the lighting intensity during the night and avoid over consumptions.

Description of PPP

Duration of partnership (in years) 3

Maturity level (mark the right answer)

Completed [x] Date of completion: 2009

Currently implemented [ ] Expected date of completion:

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Fields of interest (please describe briefly)

- Energy saving.

Objectives to be achieved through the PPP (please describe briefly)

- Reduce energy consumption in the street lighting.

Service needs to be covered through the PPP (please describe briefly)

- The project was focused on energy saving in street lighting.

Management of the Project (mark the right answer)

[x] **Private**

[ ] **Public**

[ ] **Joint**

[ ] **Other:** ____

Ownership of the Project (mark the right answer)

[ ] **Private**

[x] **Public**

[ ] **Joint**

[ ] **Other:** ____

Risk management plan (mark the right answer)

[x] **No**

[ ] **Yes**

Please explain: ____

____

Additional information (please provide any additional information you think it is important to understand the standards and expectations of the PPP)

Initiative to adopt a PPP scheme for the specific service

Reasons to adopt PPP (mark the right answer)

- [ ] **Limitations in public funds to cover investment needs**
- [x] **Efforts to increase quality and efficiency of public services**
- [ ] **Other:** ___ ____

____

Type of initiative

- [x] **Public initiative**
- [ ] **Private initiative**

PPP type (mark the right answer)

- [ ] **Concession**
- [ ] **Joint Venture**
- [x] **Other:** Energy Supply Contract (ESC).

The private party is responsible for supplying to the public party agreed energy services (heating, lighting, etc) plus the fuel or electricity supply. It consists on contracting the energy management to the energy supplier. The public party pays an agreed amount to the private party, that corresponds to the energy bill less a fixed saving percentage (between 5 and 10%). On the one hand, the private party guarantees to the public party an immediate saving in the energy bill. On the other hand, the private party is responsible for improving the energy service in order to reduce the energy bill. The more efficient the project is the more revenue for the private party.

Implementation Phase

Selection procedure (please describe the procedure form proposal to approval)

A tender process was established. The objective of the tender process was to contract an ESCO to undertake the most effective measures to reduce street lighting energy consumption. The project included an energy audit and the proposal and execution of the most suitable measures.

Time required to formalize definitively the PPP (mark the right answer)

- [x] **< 1 year**
- [ ] **1-5 years**
- [ ] **>5 years**
- [ ] **Other:** ____

Construction period - if PPP has been completed (mark the right answer)

- [ ] **0-2 years**
- [x] **2-5 years**
- [ ] **>5 years**
- [ ] **Other:** ____

Marketing Plan (mark the right answer)

- [x] **No**
- [ ] **Yes**

Please explain: ____

____

Total costs with energy (initial plan)	€
Annual reduction of costs with energy	€

Annual energy saving: 88 MWh/year. Annual economical savings: 7.072 €/year

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Partnership Scheme

Local Authorities (please name them):

1. Mombeltrán Town Council.

Private Investors (please name them):

1. Iberdrola Generación, S.A.U.

Role and Responsibilities of each body (justification of their involvement and description of the competence fields between public and private sector):

1.Mombeltrán Town Council: control of the project implementation.

2. Iberdrola Generación, S.A.U.: project implementation.

Duration of Partnership (mark the right answer)

- [x] **<5 years**
- [ ] **5-10 years**
- [ ] **15-20 years**
- [ ] **>20 years**

Profit and cost sharing provisions (please describe briefly):

- Iberdrola S.A. assumes completely the financial risk.
- Since the beginning of the project, the Town Council profits energy savings.
- Iberdrola S.A. charges monthly pre-established fees to the Town Council during the duration of the contract (3 years). The fee is lower than the savings achieved.
- The Town Council is the owner of the equipment since the beginning of the project, though Iberdrola S.A. keeps the control of the equipment till the global amount established in the contract is paid.

Economic Framework of PPP

Estimated budget (in the initial plan)	37.800 €

Real budget	37.800 €

Investing Tools (please describe briefly)
The ESCO assumes the financial risk with own resources.

Financial Contribution of Partners
(please give % of partners Financial Contribution)

Investor	% Contribution
Iberdrola Generació, S.A.U.	100 %

Profit assurance for the private sector (please describe briefly)
The private sector receives a monthly pre-established fee as return of the project investment.

Public guaranteed for loans (please describe briefly)

____

____

Final Beneficiaries of the PPP (short and long term)

- [x] **Local population**
- [ ] **SMEs**
- [x] **Environment:**

Other: ____

____

Results

Voltage regulators installed has meant a saving of 40% in the street lighting energy consumption. The mechanism to measure the savings was also included in the contract. The maintenance of the installation is also included during the duration of the contract (3 years).

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Case study 6: Solar Thermal Energy Installations in the Municipality of Follonica (ITALY)

A. General Information

Case study title: Solar Thermal Energy Installations

Organization: Municipalty of Follonica, Italy

Entities involved: Fanelli Energia s.r.l.

Date:

B. Territory of PPP Implementation

Follonica is a small town in the province of Grosseto (Tuscany); the town situated on the Tyrrhenian Sea and more exactly by the Follonica Gulf. The area has a high environmental value because of the biodiversity and the conjunction between the Apennine and the sea. The sports centre cover an area of 9866 square meter and is composed by three swimming pool and one gym.

C. PPP Characteristics

Core Activity of PPP

With the PPP the municipality wants to build a solar thermal plant to reduce their consumptions of non-renewable resources and to decrease their energy bill related to the public buildings.

Description of PPP

Duration of partnership (in years)	6

Maturity level (mark the right answer)

Completed [ ] Date of completion: ____________

Currently implemented [x] Expected date of completion: __01/12/2010__

Fields of interest (please describe briefly)

Renewable energy and energy efficiency

Objectives to be achieved through the PPP (please describe briefly)

Reduce thermal energy consumption in the sports centre of Follonica

Service needs to be covered through the PPP (please describe briefly)

Installation of Solar Thermal Plant on the roof of the bar and around the boiler house.

Management of the Project (mark the right answer)

[X] **Private**

[ ] **Public**

[ ] **Joint**

[ ] **Other:** ___

Ownership of the Project (mark the right answer)

[ ] **Private**

[ ] **Public**

[X] **Joint**

[ ] **Other:** ___

Risk management plan (mark the right answer)

[X] **No**

[ ] **Yes**

Please explain: ___

Additional information (please provide any additional information you think it is important to understand the standards and expectations of the PPP)

The open call delivered by the Environment Ministry established that in case of the TFP the contribution to the public bodies increases from 50% to 65%.

Initiative to adopt a PPP scheme for the specific service

Reasons to adopt PPP (mark the right answer)

[X] **Limitations in public funds to cover investment needs**

[ ] **Efforts to increase quality and efficiency of public services**

[ ] **Other:** ___

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Type of initiative

- [x] **Public initiative**
- [ ] **Private initiative**

PPP type (mark the right answer)

- [ ] **Concession**
- [ ] **Joint Venture**
- [x] **Other:** ____ _EPC - Third Financing Party____

Implementation Phase

Selection procedure (please describe the procedure form proposal to approval)

Call for competitive bids

Time required to formalize definitively the PPP (mark the right answer)

- [x] **< 1 year**
- [ ] **1-5 years**
- [ ] **>5 years**
- [ ] **Other:** ____

Construction period - if PPP has been completed (mark the right answer)

- [x] **0-2 years**
- [ ] **2-5 years**
- [ ] **>5 years**
- [ ] **Other:** ____

Marketing Plan (mark the right answer)

- [x] **No**
- [ ] **Yes**

Please explain: ____

Total costs with energy (initial plan)	€ 35.416,16

Annual reduction of costs with energy	€ 14.898,00

Partnership Scheme

Local Authorities (please name them):

4. **__Follonica Municipality____**
5. **____**

Private Investors (please name them):

4. **_Fanelli Energia s.r.l.____**
5. **____**

Role and Responsibilities of each body (justification of their involvement and description of the competence fields between public and private sector):

5. Municipality of Follonica - administrative
6. Fanelli Energia s.r.l.– project implementation

Duration of Partnership (mark the right answer)

	<5 years
X	**5-10 years**
	15-20 years
	>20 years

Profit and cost sharing provisions (please describe briefly):

65% Public Administrations

35% Fanelli Energia s.r.l.

Economic Framework of PPP

Estimated budget (in the initial plan)	€ 300.681,38

Real budget | € |

Investing Tools (please describe briefly)

____

Financial Contribution of Partners
(please give % of partners Financial Contribution)

Investor	% Contribution
Ministry of Environment	65%
Fanelli Energia	35%

Profit assurance for the private sector (please describe briefly)

____

Public guaranteed for loans (please describe briefly)

____

Final Beneficiaries of the PPP (short and long term)

☐ **Local population**

☐ **SMEs**

☐ **Environment:**

Other: __Municipality of Follonica and Sport Centre administrator________________

Results

____
____
____
____
____

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