



# The Berlin Energy Saving Partnership

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## Berliner Energieagentur – Facts and Figures

### Foundation:

in 1992  
as Public-Private Partnership

### Shareholders:

- Vattenfall Europe
- GASAG
- Federal State of Berlin
- KfW Banking Group

### Annual Turn-Over:

about 5 million €

### Know - how

40 members of staff



# The Berlin Energy Saving Partnership

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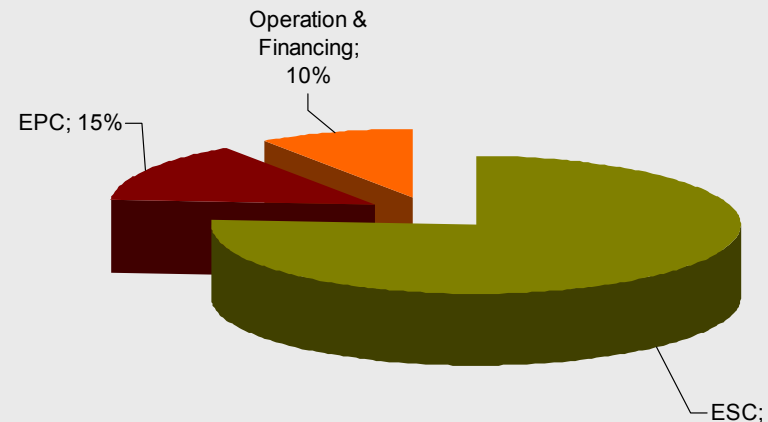
## What does it do?

- Leveraging private capital for public sector energy efficiency
- Unlocking dead capital
- Stabilising / Increasing the building value through technology upgrade and operational optimisation
- Reduction in operation cost
- Operational reliability
- Positive effects on environment

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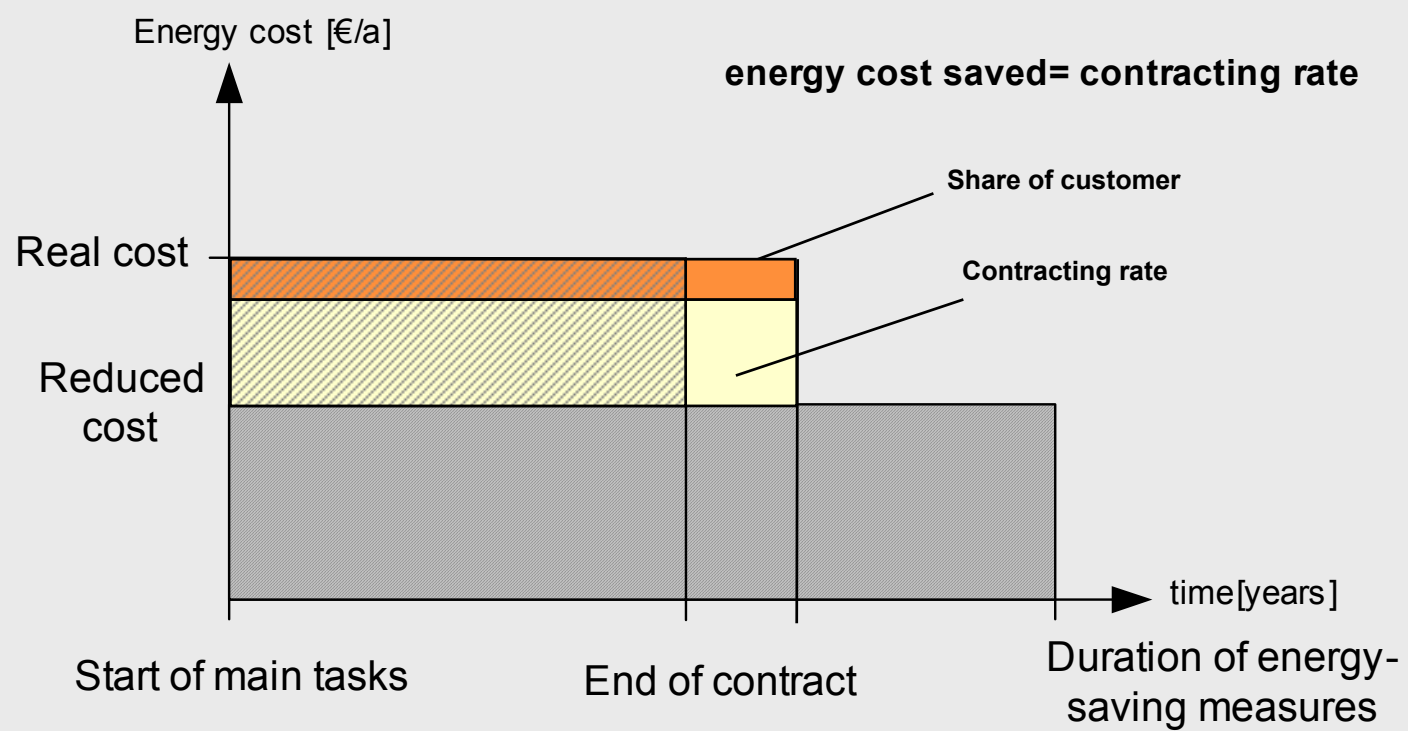
Client	User of existing equipment
Aim	Reduce energy consumption and costs
ESCO Services	Partial replacement, optimisation, operation and maintenance
Refinancing	Through savings
Risks of ESCO	Savings, Operation and Maintenance
Economies for Client	Feasible through savings



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**duration model** / participation model





## Principles

- **Energy Consumption and cost reduction is guaranteed by ESCO**
- **Investment and Services by ESCO are prerequisite**
- **Refinancing is based on guaranteed savings**
- **Customer is (immediately) participating in savings and receives payment of balance in case of non-performance**
- **Contract duration depends on savings potential, Investment level and %age of client's immediate participation in savings**
  
- **Contract with specific and separate guarantee of savings**
- **Functional tender for selection of ESCO**
  
- **Tested standard documents and calculation approaches**
- **Neutral process management for win-win of both contract partners**

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## Scope - Single technology versus systemic approach

Single measure	Systemic solution
Replacement/ optimisation of a single technology	Systematic implementation of savings potential
Limited responsibility of ESCO	Comprehensive responsibility of ESCO
Min. 75k € energy costs per annum to be feasible	Min. 250k € energy costs per annum
5-8 years contract duration	10- 15 years contract duration
Used for e.g. lighting system	Used for one or more real estates

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## Success

**Total number of Pools:** 20  
 more than 1,300 buildings

**Guaranteed savings in total:** € 10.16 million (26 %)  
**Annual plus to the public household:** € 2.5 million

**Annual CO<sub>2</sub>-Reduction** 60,484 t

**Total net Investment:** € 43.13 million

	Pool 1	Pool 2	Pool 3	Pool 4	Pool 5	Pool 6	Pool 9	Pool 11	Summe
Summe Nettoerträge									294
Baseline-Kosten DM/a	0.023.000	0.777.000	0.020.224	9.100.220	2.000.770	1.012.000	2.102.000	2.010.941	07.186.235
Baseline-Verbrauch MWh/a									33.169
Energiesparung									
Vertragsbeginn									
Vertragslaufzeit	12 Jahre	12 Jahre	12 Jahre	14 Jahre	14 Jahre	14 Jahre	10 Jahre	11.10.07.2001	
Erstinvestition in DM									72.200
Garantieertrag in %									
Garantieertrag in DM	1.000.000	1.000.000	000.000	000.000	002.222	200.000	410.000	000.000	7.041.402
Einsparung des Auftraggebers									
Garantierte Entlastung									11.222
Zusätzliche des AG ab									
Einsparung									
von	30 - 50	30 - 50	15,7 - 10	24,2 - 60	23,6 - 50	22 - 50	19,67 - 90	dem 3. Jahr	

In den Verträgen Pool1 und Pool 2 bezieht sich die Garantierhaltung lediglich auf die Beteiligung des Auftraggebers

## Financing issues

- Energy Savings = Cash-Flow
- Contractually stipulated Guarantee = Risk management
- Standardised calculation- and saving verification method = Risk management
- Fixed price Baseline = minimising risk of results
- Good contract design = Good Risk management



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- Financing of investment is based on the guaranteed savings
- ESCO can control technical risk (stipulated in contract)
- Forfeiting of future payments /receivables is interesting for ESCO to refinance
- Credit risk therefore corresponds to municipal finance risk

## Success Factors

### Market development needs

- Public sector leadership and clear mandate for energy services
- Harmonised tested procedures
- Competition
- Independent experts for project management and market mediation
- Further capacity growth in the financial sector

# The Berlin Energy Saving Partnership



## International Know-How Transfer – EPC

### Berlin experience transferred

- Slovenia, Bulgaria, Romania
- Chile, India

### – Clearinghouse for Energy Contracting in CEE

- Model contracts and tender documents
- Local capacity building
- CZ: >10 contracts signed since 2003

### – EUROCONTRACT

- Model contracts and tender documents
- core target: getting projects off the ground



**Vielen Dank!**

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**[www.berliner-e-agentur.de](http://www.berliner-e-agentur.de)**  
**[www.eurocontract.net](http://www.eurocontract.net)**