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# Consip's Approach to Energy Performance Contracting

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# Before starting...



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1. How many of you have checked your email today?
2. Has anybody checked their finances today or this week? (Credit card, investments,...)
3. How about your household energy use? Has anybody checked that this week or last week? (neither have !!)

## Well!

This is a room filled with people who are passionate about energy saving, and even we aren't paying attention to the energy we use that's driving climate change

# Implementing art 6 of the Energy Efficiency Directive



The Italian Legislative Decree n. 102/2014 is the transposition of EU Directive 2012/27

## EU Directive 2012/27 – Art 6 par.

“Member States” shall encourage public bodies, including at regional and local levels, with due regard to their respective competences and administrative set-up, to follow the exemplary role of their central governments to purchase only products, services and buildings with high energy-efficiency performance. Member States shall encourage public bodies, when tendering service contracts with significant energy content, to assess the possibility of concluding long-term energy performance contracts that provide long-term energy savings

## Legislative Decree n. 102/2014 – Art 6

This article states that **Consip S.p.A.** – the Italian Central Purchasing Body (CPB) – has to align both criteria and procedures for the purchasing of goods and services to ensure highly energy efficient products and services

# Consip's approach to Energy Efficiency



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The Energy team manages a large portfolio of **products** and **services**

## E-Market Place

### Products – Below EU threshold

- Innovative and efficient lighting technologies
- Photovoltaic Systems
- Micro – Cogeneration (MicroCHP)
- Solar thermal hot water systems
- Heat pumps
- Energy Certification for buildings
- Other goods for energy efficiency

## Framework Contracts

### Services – Above EU threshold



#### Public Lighting Service FC



#### Services to buildings:

- Integrated Energy Service FC
- Health Integrated Energy Multiservice FC

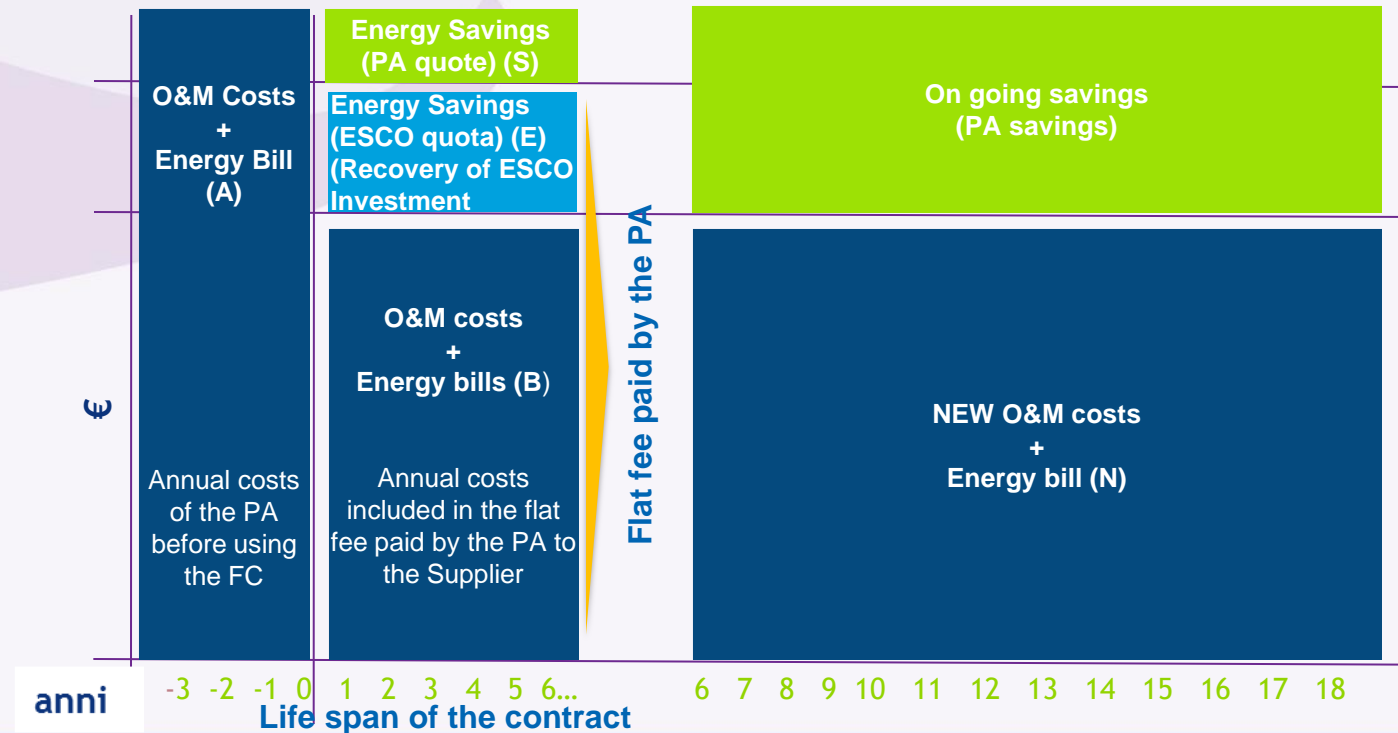
### Energy Performance Contracting

# Goals of a Energy Performance Contract



Consip adopts, in this last edition of its FCs, the “**Shared Savings**” typology of the Energy Performance Contracts (EPCs). This means:

- Present and future guaranteed energy saving for the PAs
- No upfront investment or capital expenditure
- Risk transfer



# The Energy Service Companies (ESCOs) & the Public Sector

## Consip's view



The goal is to spread ESCOs projects (Energy Performance Contracting) throughout the Public Sector

### Results

- More energy savings
- More comfort
- Renovation and Modernisation of systems/ Buildings

### The importance of EPCs in Public Sector

- To demonstrate the exemplary role of the public sector as stated in the Energy Efficiency Directive (EED)
- To reach the saving goal for Public Administrations stated in the EED
- To satisfy the renovation and modernisation needs of Public Buildings/ Systems
- To improve the quality of the services
- To reduce the public spend in energy consumption to have a cleaner world

**Consip's model has inspired the introduction by the Italian government of specific standard definitions (measures, procedures, financial instruments, ...) in order to disseminate Energy Efficiency Programmes**

# Barriers addressed



Consip's FCs have allowed the company to help public sector organizations overcome procurement barriers, improve the energy efficiency, and at the same time, support the economic growth of the ESCOs

Barriers	Solutions
<ul style="list-style-type: none"><li>• Absence of specific standards (measures, benchmarking, procedures, schemes for tenders, financial instruments) and low awareness on the opportunities of Energy Efficiency actions in public buildings</li><li>• Lack of expertise, among public employees, to develop ESCO projects</li><li>• Administrative and financial barriers</li></ul>	<ul style="list-style-type: none"><li>• Identify a technical person within the PA, that the supplier has to train on Energy Efficiency themes</li><li>• Increase the knowledge and awareness of Energy Efficiency benefits and positive impacts, by organizing information meetings and training activities delivered by Consip to public technical staff</li><li>• Overcome administrative and financial barriers by using the FC run by Consip, thus benefiting from Consip's centralized activity that aggregates needs, achieves economies of scale through bulk purchasing, and simplifies and reduces tender cost by implementing "one tender for all"</li></ul>

# The Integrated Energy Service FC



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The Integrated Energy Service is a **performance-based contract** for the management of heating, cooling and electrical systems through which the supplier has to guarantee the following: a pre-determined “comfort situation”; energy savings and carbon dioxide reduction

## “Energy Service A”

- *Fuel Supply (oil, gas,..)*
- *O&M of Heating Systems*

## “Electrical Service B”

- *Electricity Supply*
- *O&M of Cooling Systems “C”*
- *O&M of Electrical Systems “D”*

## **Integrated Energy Service**

Winner of the European Energy Service Award  
(EESA) 2014, Best European Energy Service  
*Promoter*

## “Other Services F”

- *Technical Census*
- *Call Center*
- *Information Systems*

## “Energy Management Service E”

- *Certification of Energy Performance*
- *Energy Efficient Improvement programme*
- *Measurement and Verification of Savings*

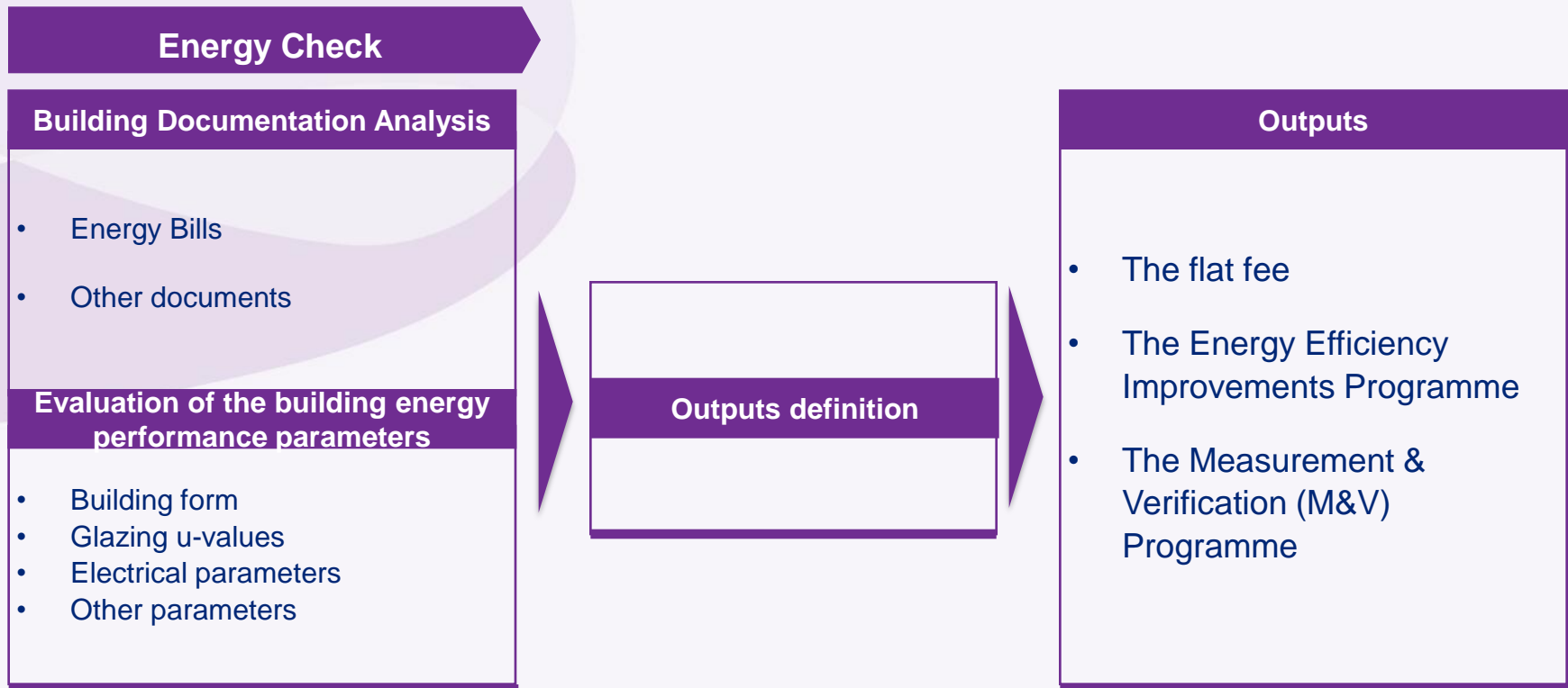


# Focus on the Integrated Energy Service FC (1/2)



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## The energy check



# Focus on the Integrated Energy Service FC (2/2)



How much should a PA pay for the services?



**FLAT  
FEE**

## **HEATING QUOTA = E (energy quota) + M (Maintenance)**

The component “E” is obtained through a mathematical algorithm based on the ISO 13790. Thanks to this algorithm, the ESCOs are able to calculate the energy needs of the buildings. This represents the “energy baseline”.  
The component “M” is obtained by computing the technical elements really present in the buildings.

## **ELECTRICAL QUOTA = E (energy quota) + M (Maintenance)**

The component “E” is obtained through a mathematical algorithm based on the historical consumption. Thanks to this algorithm, the ESCOs are able to calculate the energy electrical needs of the buildings. This represents the “energy baseline”.  
The component “M” is obtained by computing the technical elements really present in the buildings.

***The flat fee, both for the heating quota and for the electrical quota, is updated according to:***

- ✓ ***Prices variations of the fuels;***
- ✓ ***Volumetric variations;***
- ✓ ***Climatic variations***

# The Public Lighting Service FC



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The Public Lighting Service is a contract that entails the integrated management of Public Lighting as well as the supply of electrical energy. The supplier has to guarantee energy saving and carbon dioxide reduction

## “Street Lighting Service A”

- *Electricity Supply*
- *O&M of Street Lighting Systems*

## “Traffic Lights Service B”

- *Electricity Supply*
- *O&M of Traffic Light Systems*

**Public  
Lighting  
Service**

## “Other Services D”

- *Smart Cities*
- *Technical Census*
- *Call Center*
- *Information Systems*

## “Energy Management Service C”

- *Certification of Energy Performance*
- *Energy Efficient Improvement programme*
- *Measurement and Verification of Savings*

# Results achieved

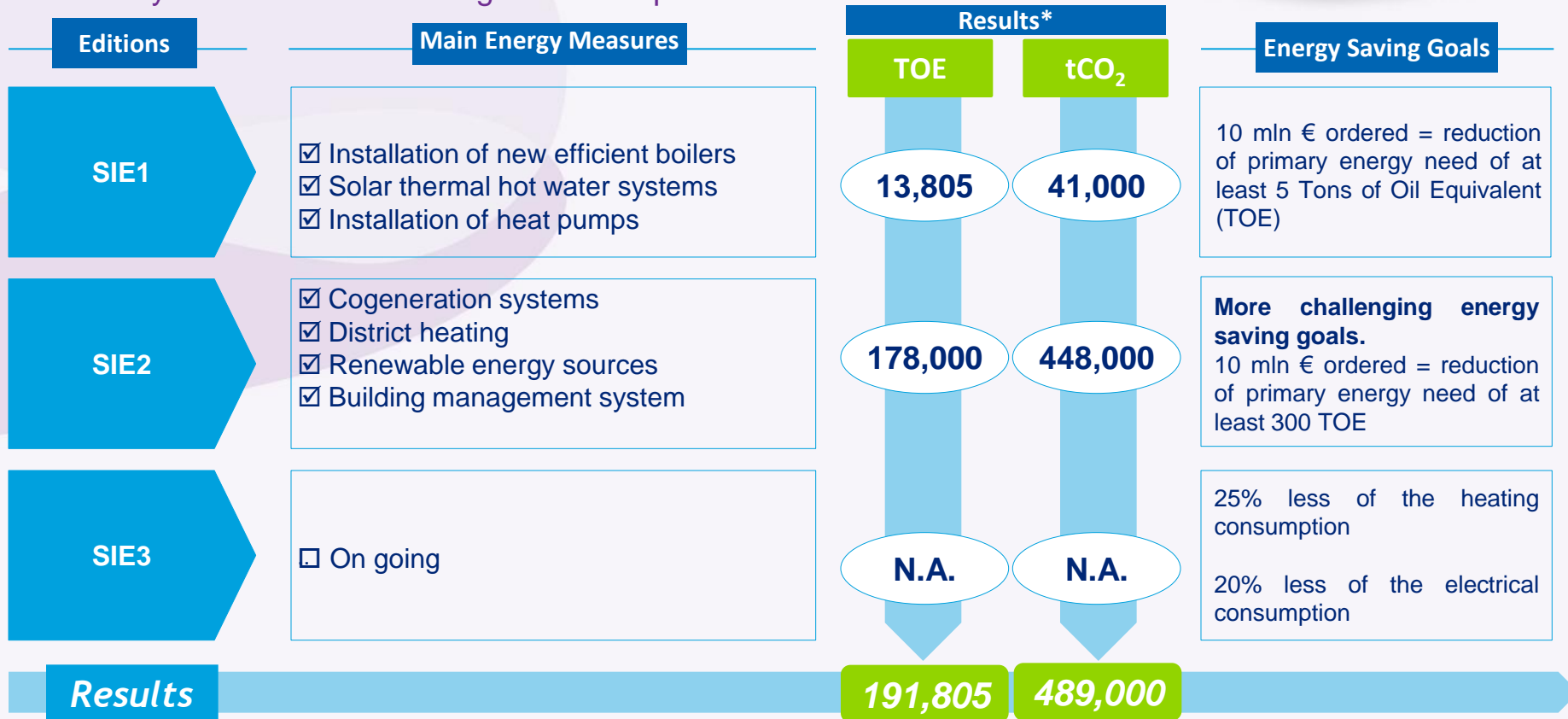


1. **Overall Improvement** of approximately 13,000 public buildings and 1,000,000 street light units
2. **Energy consumption reduction**
3. **Raising awareness** of the benefits of sustainable heating production and renewable sources
4. **Improved comfort** of public buildings (i.e., building comfort temperature, humidity control....)
5. **Further development and growth of the energy efficiency market** by an increased use of sustainable and renewable sources
6. **Contract bond increase** between workers and ESCOs vis à vis the duration of the contracts, fighting illegal and a-la-carte labor

# The Integrated Energy Service FC - Results



The ESCOs must reach the Energy Saving Goals (both heating and electrical) for which they had undertaken during the tender process

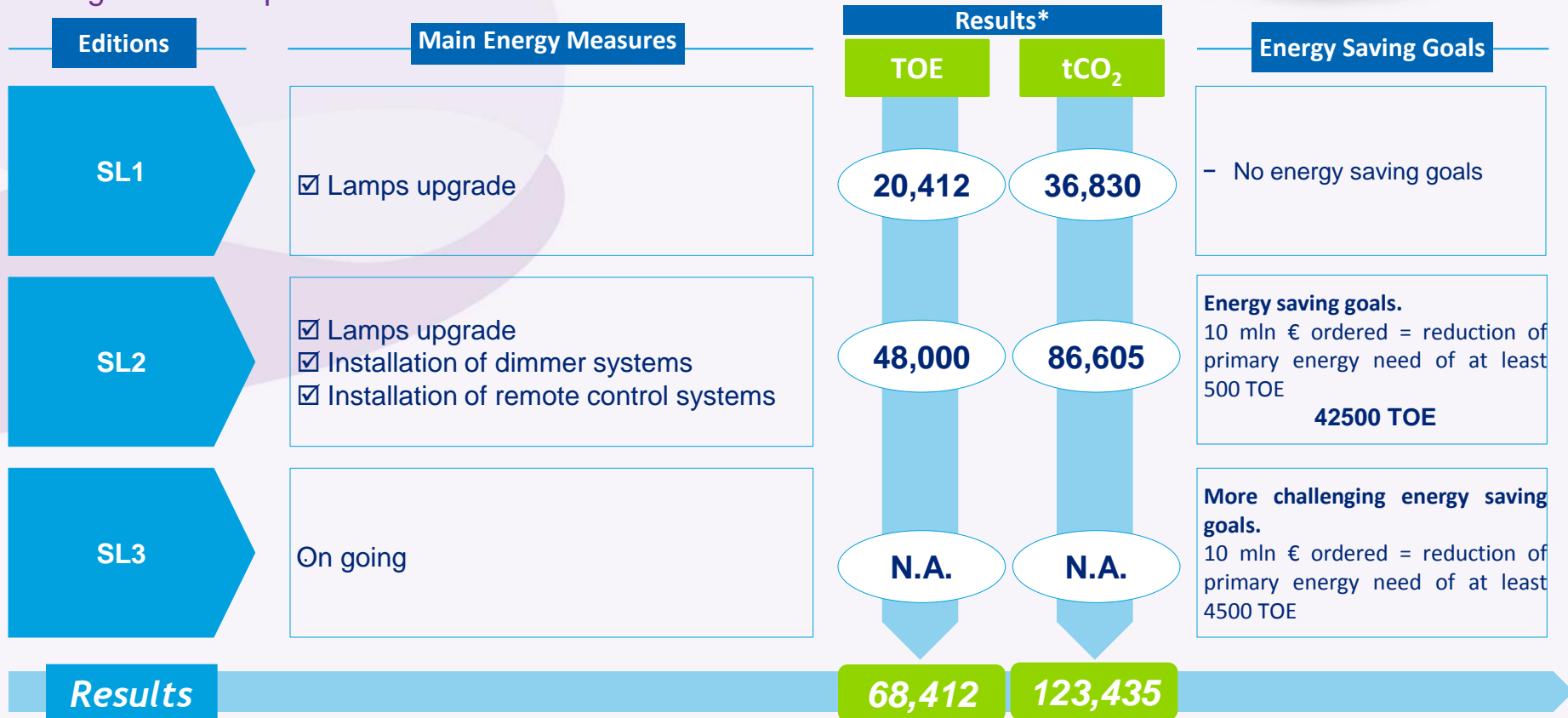


The Italian energy saving goal for the period 2014 – 2020 is 0,04 MTOE (40,000 TOE)

# The Public Lighting Service FC - Results



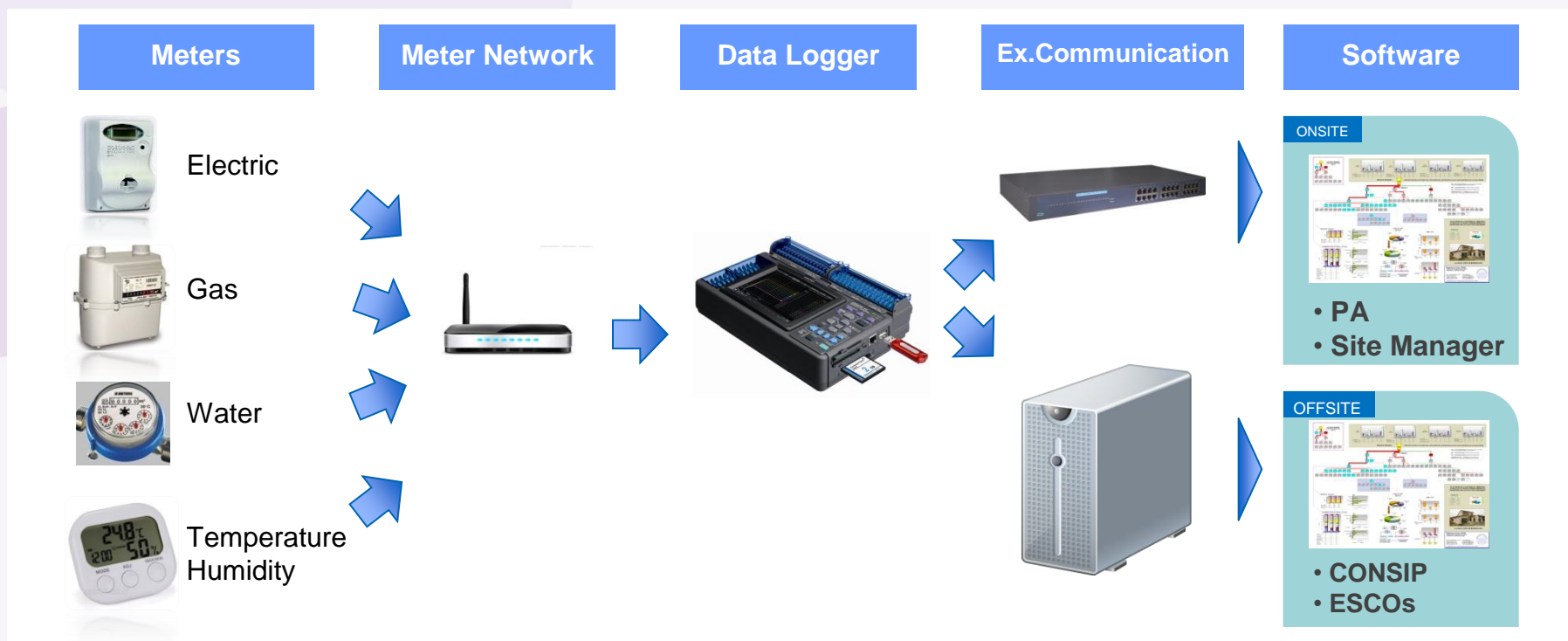
The ESCOs must reach the Energy Saving Goals for which they had undertaken during the tender process



# The Measurement and Verification Programme (M&VP)



The M&V programme has been introduced in the last edition of the Integrated Energy Service FC. The M&VP will also be introduced in the new edition of the Public Lighting Service FC. In the previous editions of these FCs, the results of the energy efficiency programme were certified by the Italian Electrical Energy and Gas Authority.



# What we want



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- Increased energy savings in the public sector
- Increased number of exemplary PAs
- Reduced energy consumption and therefore reduced carbon emissions
- Enlarged ESCO markets
- Continued improvement in our efforts toward Energy Efficiency



# Thank you for your attention



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