



light  
life

# ITALO FOR MILAN 2015: THE CASE STUDY



The procedure for the award of the tender convened by A2A, the service utility company that manages Milan's electrical supply, was based on a complex calculation that took into account many factors.

The most influential aspect was represented by the EFFICIENCY guaranteed by the fixture.

The choice of the best product gave us the possibility to make a proper comparison among the different proposals, (taking into consideration the cost of the devices).

## THE PROCEDURE

After identifying the power required to meet the request of the managing authority (my means of specific lighting calculation complete with certified photometry), the examination board analyzed the energy consumption of the different devices and officially awarded ITALO as the most efficient one.

This "prize" was recognized in the form of economic bonus.

## WHAT'S THE BONUS?

The bonus is a number that identifies, in economic terms, the added value of the most efficient solution.

## HOW THE BONUS IS CALCULATED?

The bonus is the result of a calculation that takes into account the following aspects:

A = Energy cost (kWh)

B = Plant management time period (in years)

C = Operating hours (per year)

D = Cost of each W (per year)

The cost of each W per year is calculated as following:  $A \times C / 1000$

$BONUS = D \times B \rightarrow \text{€€€}$



## EVALUATION EXAMPLE

- Competitor A = 100W
- Competitor B = 105W
- Difference between competitor A and B = 5W.
- Difference quantified in economic value = 5W x bonus = €€

Let's assume that:

- the managing authority will be in charge of the plant management for 15 years (4200 hours per year)
- the cost of energy to be paid is €0.25 / kWh.

In this specific case the bonus would be equal to €15.75;

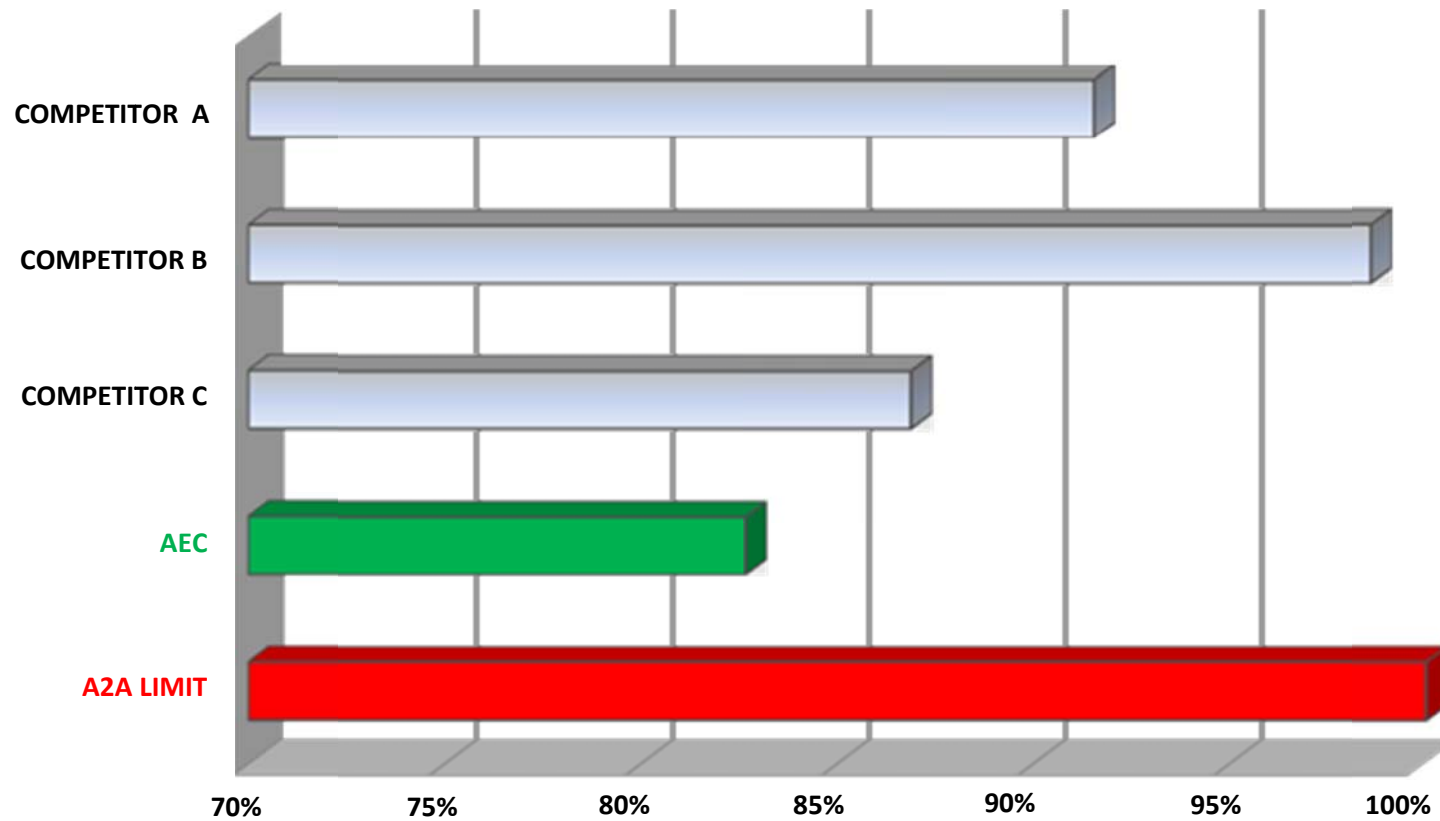
- Calculated bonus = 15.75 €
- Difference (in W) between the luminaires = 5W

Economic benefit = 15.75 x 5 = 78.75 € for each luminaire

The luminaire offered by competitor A guarantees an energy consumption minor of 5W in comparison with the one offered by competitor B. As a consequence, the managing authority gets an economic advantage of €78.75 (amount equal to the relative energy savings).



## A2A CASE STUDY: TOTAL ENERGY CONSUMPTION



## A2A CASE STUDY: ENERGY SAVING (W | kWh )

	SAVING (W)	SAVING (kWh) – 15 years / 75.000h
<b>AEC</b>	<b>827.850 W</b>	<b>62.088.750 kWh</b>
<b>COMPETITOR A</b>	504.400 W	37.830.000 kWh
<b>COMPETITOR B</b>	70.700 W	5.302.500 kWh
<b>COMPETITOR C</b>	696.300 W	52.222.500 kWh

*\*The above mentioned data refer to Lot 1 (70.000 luminaires)*

**The economic saving guaranteed by the most performing solution is calculated taking into account the energy cost that the managing authority has to incur.**

