



AmpLight™ Case Study

Ayedaş



Streetlight Intelligence

amplex



Centralized streetlight control

The city of Ayedaş in Turkey reaps the rewards of intelligent streetlight management:

- 25% lower energy bills
- Heading for a decrease in CO₂ by 45,000 tons per year
- Easier maintenance
- Improved service quality and public safety

Client: Ayedaş Energy Distribution Company (AEDC) - Istanbul, Turkey

Objective: Energy savings, maintenance efficiency and improved management reporting capabilities

Results: Immediate 25% energy savings; improved visibility and control of the streetlight network; reduced maintenance costs.

The Challenge

AEDC serves more than 1.8 million customers on the Asian side of Istanbul, making it one of Turkey's largest utility businesses.

The company identified a series of shortcomings in its existing streetlight management. The lack of visibility prevented coordinated fault monitoring and maintenance – instead, the company had to rely on visual inspections and citizen reporting of faults. Furthermore, the inability to gain meter readings remotely was costly and inefficient.

Collectively, these issues compromised operational management. Not only was it disadvantageous from a cost perspective – it also lowered customer satisfaction significantly. AEDC also knew that it was missing out on huge potential energy savings.

Keen to tackle these issues, AEDC approached vendors to evaluate how alternative streetlight solutions could contribute to its Smart Grid vision.

AEDC had three main objectives:

- Delivering savings through lower streetlight energy consumption
- Achieving centralized control of the streetlight system
- Enabling remote reading of energy data

Standout solution

At the conclusion of the vendor evaluation process, AmpLight™ was selected as the stand-out solution. "The AmpLight™ specification far exceeded our initial expectations", explains AEDC CEO Fikret Akbas.

AmpLight™ offered a series of compelling cost, performance and service benefits, from increased streetlight quality to reduced carbon emissions and fast return on investment. All this was evidenced by an impressive record of successful implementations.

Deployment could start right away – without making major changes to the existing streetlight equipment – making AmpLight™ an even easier choice.



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Straightforward implementation

The AmpLight™ implementation was an easy and efficient process.

An Amplex technician held a one-day training course for AEDC's staff, enabling them to implement the solution themselves. The installation time for each streetlight cabinet was just two hours. When you consider that each cabinet controls 150-200 poles, the benefits of this approach versus pole level solutions are obvious.

Amplex equipped AEDC with a single, centrally located photocell to manage streetlight activation. This simplifies maintenance and ensures consistent streetlight operation. As a backup measure, a twilight table is built into the AmpLight™ software, ensuring correct operation even if the photocell fails or communication is interrupted.

Intelligent monitoring and control lies at the core of the AmpLight™ effectiveness. To facilitate this, a smart power meter was installed in each substation, allowing performance and energy consumption to be tracked and managed centrally.

Fast returns

Two levels of Energy Savings Mode gave AEDC immediate, significant cost savings. From 11 p.m. to midnight voltage is decreased from 220V to 205V. Then from midnight until 6 a.m. the voltage is lowered further to 195V.

Managing the voltage level during off-peak traffic hours in this way greatly reduces streetlight energy consumption.

Easy-to-use web interface

Ease of operation was an important goal for AEDC to avoid lengthy and costly staff training. AmpLight™ delivers this with an easy-to-use Web interface.

The interface makes it simple for users to generate comprehensive reports on energy savings, alarms, burn hours, etc. and to display the location of alarms instantly. Armed with this information, the entire management task is made faster, easier, more effective and efficient.

The Smart Grid

Incorporating intelligent streetlight into their Smart Grid efforts, utilities gain several advantages:

- Energy Savings Mode and on/off control are great tools for load balancing
- Streetlights can be turned on during over-capacity and set to Energy Savings Mode or partially shut off during lack of capacity



Results

AmpLight™ delivers energy savings of 25% for AEDC - even before the additional financial gains achieved by:

- Optimizing burn hours by adjusting on/off times
- Increasing Energy Savings Mode in selected (e.g. industrial) areas
- Lowering maintenance costs, e.g. with a scheduled routine maintenance strategy

A satisfied customer

Customer feedback from AEDC has been very positive. CEO Fikret Akbas concludes, "All in all, we've saved approximately 25% with the new solution, which fully meets our expectations. Amplex has handled the project highly professionally throughout. We will definitely make use of their expertise in the future, and recommend Amplex warmly to all energy distribution companies".

The bottom line

AmpLight™ makes it easy to take control of every streetlight while driving down costs, energy usage and carbon emissions.

Because it deploys quickly and easily at the cabinet level – and because it cuts energy usage by 25-35% – AmpLight™ achieves return on investment in a fraction of the time of over-engineered pole-level solutions. And the savings and energy reduction continue year after year after year. It's the perfect first step towards a smarter, greener city.

About Amplex

Amplex is a well-grounded company with a large customer base. We control millions of streetlight worldwide, and our cutting-edge solutions prove their worth every day, when CO₂ emissions are reduced and more customers invest in our future-proof enterprise systems. Our streetlight solution, AmpLight™, is installed at sites of all sizes and in any geographical environment. They enable centralized control, Energy Savings Mode, monitoring and consumption readings.

Combining energy savings with high quality is our core business. For a fully configurable, low maintenance and extremely reliable solution, AmpLight™ is the right choice, now and in the future.

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