

EPnrj

# Connected clock for controlling street lighting

Ephemeris management | Remote  
management  
Astronomical clock | Real-time  
monitoring



EPnrj

## They trust us

The EPnrj solution supports energy associations and local authorities in their projects to renew and optimise their lighting systems.

*«We've been using EPnrj for several years now, and we're proud to have been among the first to believe in this solution. For SYDEEL, there are a number of advantages to the solution: firstly, optimised operation thanks to remote reading of consumption on a feeder-by-feeder basis and alerts, and secondly, time savings thanks to remote control».*

*SYDEEL is responsible for street lighting in 73 communes in the Pyrénées-Orientales department.*



## Public lighting

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Street lighting is a major item of expenditure for municipalities and local authorities, accounting for over 45% of a municipality's electricity consumption and 37% of its electricity bill.

Street lighting also has a real impact on biodiversity and disrupts ecosystems. Switching off lighting at night helps to protect the environment by reducing light pollution.

It is therefore vital to be able to manage and optimise lighting by deploying innovative and appropriate solutions.

# Controlling public lighting

The EPnrj connected clock can be used to manage ephemerides, monitor consumption remotely and control street lighting remotely.

The data is transmitted via the LoRa IoT network and available in real time on the web platform.



## Remote control

Schedules lighting on and off from the web platform.



## Real-time monitoring

Real-time monitoring of overall consumption using LoRa IoT technology.



## Energy optimisation

Significant reduction in energy bills by programming operating times.



## Time saving

E-mail or SMS alerts can be programmed to inform you when lighting is switched on or off, when a fault occurs, when a threshold is exceeded, etc.



## Lighting management

Remote management of lighting at the cabinet level or on a group of programmed cabinets.



## Enhancing our heritage

Programming of heritage enhancement and festive illuminations.



**EPnrj EP1-L**

### **Connected clock**

By integrating LoRa IoT technology, the EPnrj connected clock can be used to remotely manage one or more lighting systems and monitor consumption.



**EPnrj EP4-GN**

### **Communicating clock**

The EPnrj communicating clock on a wired or GSM network can be used to control public lighting and provide real-time consumption data.



**EPnrj SLT**

### **Supervision of traffic lights**

The SLT connected module provides real-time feedback on consumption and traffic light status, as well as various types of event



# Supervise with the web platform

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The EPnrj solution includes remote management of street lighting cabinets. Measured data and alerts are sent back via the LoRa network and displayed on the EPnrj web platform.

Designed to meet the needs of local authorities and operators, the platform is ergonomic and easy to use. Whether you're an expert or a novice in the field of public lighting, you'll be able to programme the switching on and off of lighting as closely as possible to your users' needs.

Different access rights can be assigned to different profiles.

## **Would you like to see the benefits of your settings?**

Use our dynamic simulator to assess the energy and financial savings generated.

*Don't hesitate to ask our project team for a demonstration.*

## INTUITIVE OPERATION

Remote clock settings, on/off scenarios and real-time consumption monitoring.



### Traceability and security

History of alerts and settings sent and management of access rights



### Budget Tracking

Integration of pricing elements for budget monitoring



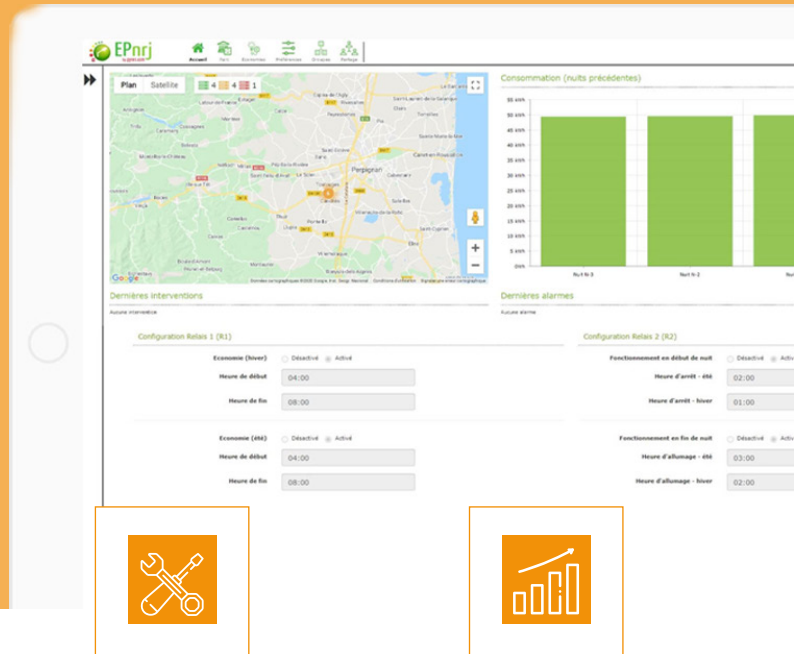
### Maintenance

Set alerts to notify you of a fault, a threshold being exceeded, a door opening, etc.



### Analysis

Extraction of data in various digital formats for analysis



# Technical specifications



## Astronomical clock

Local integration of the ephemeris table corresponding to the GPS location of the cabinet.



## Consumption monitoring

Recovery of consumption data via the ICT port on the Linky meter.



## Innovative communication via LoRa

The LoRa network makes it possible to transmit data in real time at low cost. Our clocks can be integrated into public or private LoRa networks.



## Optimising maintenance actions

Alerts for each cabinet sent directly by email or on the web platform, depending on your criteria.



## Control and configuration

Remote control of 1, 2 or 3 independent relays. Set up exceptions and night-time blackouts.



## API interface

EPnrj API can be used to automatically send EPnrj data feedback to a supervisor.



# Technical specifications



	EP1-L	EP4-GN
Installation	Rail-DIN	
Dimensions	Box DIN 2U	Box DIN 5U
Power supply	24V	24V
Antenna	Internal / external antenna	Ethernet network (optional 3G/4G, WIFI)
Acquisition interface	TIC (remote customer information) RS 485 or RS 232 2 configurable inputs: digital pulses	TIC (remote customer information) RS 485 or RS 232 5 configurable inputs: digital pulses
Control interfaces	Controls 2 external relays <i>(3 relay options)</i>	Controls 2 external relays

# Services and accessories

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## Platform and network configuration

Configuration of the web platform.  
Activation fee per connected module.

## Commissioning and skills transfer

Validation of cabling.  
On-site commissioning support.  
Transfer of skills to technical teams.  
Training in the use of the platform.



## 3 relay switch

Controls 3 independent relays

## Auxiliary trip contact

Fault status feedback for each feeder in the cubicle

## Highlighting

Controlling a scheduler (*SIO/DMX*)

## Door opening contact

Sends alerts if cabinets are opened

## Auxiliary sub-meter

Feed-back of consumption data for each outlet

# Client --- feedback

## SYDEEL 66

Sydeel is responsible for street lighting in 73 communes in the Pyrénées-Orientales department, which means it operates around 400 control cabinets and 13,000 light points.

### Is street lighting a major issue for you?

«Street lighting represents a number of regulatory, economic and ecological challenges. For Sydeel, this network, and more specifically its maintenance and renovation, is the challenge of the decade. As is the case nationally, more than half of the network is obsolete and energy-consuming, which is why the Syndicat is committed to developing an efficient network.»



*M. PORTAFAIX, RESPONSIBLE FOR TECHNICAL SERVICES AT SYDEEL 66, SHARES HIS EXPERIENCE ON THE INSTALLATION OF EPnrj CONNECTED CLOCKS IN THE COMMUNITIES MANAGED BY THE SYNDICATE.*

### What are your main problems with street lighting?

«During the operation of our network, we noted problems with the number of hours of operation, which were disparate and inconsistent with the current operating hours, and with the inability to monitor and analyse the actual consumption of our cabinets, making it impossible to control EDF billing. It's also vital to be able to justify energy savings to our financial partners with precise calculations of our renovation programmes.»

### How long have you been using the EPnrj solution on your network?

«We've been using EPnrj for over a year and we're proud to have been among the first to believe in this solution, as evidenced by the signing of a partnership agreement in February 2017. Since 2018, we have equipped more than 120 cabinets with EPnrj modules across 32 municipalities.»



**EPnrj**

**Connected astronomical clock**

**Contact**

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