

# IMPLEMENTATION OF WIND-SOLAR SYSTEMS FOR SPEED DETECTION DEVICES

IMPLEMENTATION OF TWO WIND-SOLAR SPEED DETECTION DEVICES FOR SERVEI CATALÀ DEL TRÀNSIT



Context

## lorem

Servei Català del Trànsit (SCT) is the body that manages road traffic and safety in Catalonia.

When the project for installing speed detection devices along different points of the Catalanian road network was underway, the need to install two devices using renewable energies was detected.

Indra designed the wind-solar power generation system, adapted the CIRAN0500 speed detection system for low-consumption operation, and performed the installation and implementation.

### Implementation of systems with renewable energy power supplies

After researching the power requirements, the best available options adaptable to the area's power generation were sought. It was decided that the preferable alternative was a wind-solar hybrid.

We adapted the electricity generation system to the design of the current CIRANO500, permitting its installation in

areas where it was previously not possible due to difficulties in receiving electricity from the network.

The project, currently underway, allows for the installation of ITS (Intelligent Transport Systems) devices wherever they are actually required, instead of as permitted by the electric power grid.

The engineering phase included adapting the radar for low energy consumption, designing the energy generation, regulation and accumulation devices and, in a subsequent phase, the implementation and start-up of the systems.

### Benefits

#### We make it possible to complete projects wherever they are needed

- The use of renewable energies enables the installation of ITS devices in places where it was previously impossible due to limitations of the power supply grid, where the cost for implementation exceeded acceptable limits and where the impact of the power grid on the surrounding areas made the project unfeasible.
- Decreased dependency on the electric power supply grid.
- Elimination of harmful gas emissions to the atmosphere derived from the consumption of power from the grid.

### Results

## 1

Promotion of technological innovation and boost for the use of renewable energies as a viable alternative to the electric power grid.

## 2

Renewable energies are a proven reality.

## 3

System sustainability

### Indra in the sector

#### Solutions for smart management and specialized offering

At Indra, our strategy is built on smart management solutions for infrastructures, optimizing energy consumption, managing assets and coordinating logistics. All of this involves an optimal management of the infrastructure's resources.

We provide a specialized offering in system management and control, automation, smart management of energy/lighting/climate control to strengthen existing

infrastructures without negatively impacting the environment.

Indra orients its strategy toward developing new technologies and solutions for energy efficiency and sustainability, for areas encompassing the generation, transmission, distribution, as well as for industrial, residential and transportation consumption. The company currently has a number of new smart infrastructure projects (Smart Grids)

that guarantee sustainable, secure and economically sound development, and assumes an advisory role for the National Energy Commission (Spain) in the development of Smart Grids, within the Smart Grid Working Group, responsible for standardizing Smart Grid systems pursuant to Mandate M/490 of the European Commission's Smart Grids Task Force.

