City of Clermont-Ferrand Reduces Street-Light Operating Costs

City of Clermont-Ferrand Reduces Street-Light Operating Costs by 40% with Sogexi and Sierra Wireless® - A Sierra Wireless® Energy Management Solution

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A Sierra Wireless® Energy Management Solution

CUSTOMER CRITICAL CHALLENGE:

- Improve maintenance of lighting infrastructure
- Reduce energy consumption

SOLUTION:

- AirLink® devices monitor control units and provides remote connectivity
- Data sent to AirLink® Management Service (ALMS) and provided to other applications for further analysis
- Devices can be remotely managed and configured to provide optimal lighting based on time of day and day of year

RESULTS:

- City able to be proactive in maintenance and energy efficiency
- Annual energy savings estimated to be at least 35%

The City’s goal in deploying the Sogexi infrastructure was to improve overallmaintenance and reduce energy consumption. Although the solution was designed tointerface with the city-wide fiber optic network which connects all access controls forpublic buildings and variety of smart applications, the City determined that doing sowould be cost prohibitive and asked for a wireless solution.

Sogexi, who was awarded the contract by the City in 2011, had already been workingwith Sierra Wireless for several years to integrate an AirLink® programmable modem intoits solution to provide wireless access. In such a solution, host processors are housed incontrol units across the city, which aggregate groups of streetlight fixtures and are ableto control every individual street lamp. The AirLink device monitors the control unit andprovides remote connectivity, allowing the data to be sent over the cellular network toAVMS, which stores all the data and presents it to various applications and users for action.The City is now able to monitor all 16,000 streetlight fixtures and notify maintenancecrews almost immediately of any problems. While maintenance crews once relied on visualreports of problems and then corrected them, typically in a week, the reporting of issueshappens automatically and in real time and can be corrected within a couple of hours.

With electronic control of the streetlight network, the City can leverage Sogeximanagement platform (based on AVMS) to configure all the fixtures based on time ofyear and time of day or night. For example, during the week, the City can configure lightsto operate at 50% or less capacity from 22:00 to 06:00 am; and during the weekend, tooperate at 75% capacity from 22:00 to 0:00, and 50% or less from 0:00 to 06:30 am. Theestimated energy savings that have resulted from the overall system deployment is35% per year, and even higher financial savings.

A City representative explained that the municipal technical services team

nowmanages and controls the complete streetlight system, and is considering othermonitoring applications using this infrastructure. “Energy prices are continuing toincrease, and being able to match lighting to behaviour allows us to reduce our overallcosts and impact on the environment”, said Sarah Bastide, street lighting/parks/trafficlights manager for the City