New LED traffic lights (left) save power; parking ticket vending machines (right) can be remotely monitored.

The former PSE (Program and System Engineering), which became a part of IT Solutions and Services in January 2007, is another major Siemens outpost in the region. With the help of its 500 employees in Budapest and Szeged, the company focuses on worldwide information technology services for Siemens sales and service organizations. Projects are spread across several locations. In addition to its offices in Hungary and Vienna, Austria, the company has branch offices in the Czech Republic, Slovakia, Romania, and Croatia. “A typical project involves three or four countries,” says Martin Nedved, the company’s managing director in Hungary. “In Szeged, for example, we worked with colleagues from China, who came to learn about our system solutions.”

Electronic Authorities. Siemens develops solutions for industrial automation, information and communication systems, the energy sector, traffic and transport applications (including toll collection systems), building information technology, medical systems, space programs, and biometric applications. More than 90 percent of its project volume is accounted for by Siemens Groups, with the remainder consisting of services for local companies, government authorities, and various public facilities. In February 2007, Siemens delivered an IT system to the city of Szeged (population: 200,000) that now enables authorities to carry out administrative operations independently in Szeged, for example. We staff can log in and discuss new technologies, ideas, and concepts with colleagues in Jakarta, Indonesia, for example.

The company has also been working with Budapest University of Technology for many years. One joint project is the Mobile Innovation Center established two years ago. The center—a federation of companies, universities, and research and development institutes—is working on a cross-system mobile radio infrastructure.

Siemens contributes its expertise in communications here, giving Nedved reason to be optimistic about the future. “The integration of PSE offers us the possibility to globally market our expertise in areas such as embedded software,” he says. “We have to find innumerable business opportunities, which we plan to exploit,” he says. ■ Sylvia Torge

The facility is scheduled to go online in December 2007—two months ahead of its original target. When it does, it will be more efficient, more powerful, and less polluting than its predecessor. “You put a dollar of gas into an average gas turbine, and it produces 35 cents of electricity; the other 65 cents is wasted,” explains Co-op City power plant director Brian Reardon, using his favorite metaphor. “In our system, we’re getting 76 cents out of every dollar.”

That’s because the steam produced by the waste heat of the combustion turbine exhaust is used to power a steam turbine that generates additional electricity. Part of that turbine’s waste heat is then used to create hot water for the entire complex.

Additional steam produced by the combustion turbine exhaust will also be used to power the plant’s “steam drivers” and “chillers,” which create heat and air conditioning for the entire complex.

At maximum capacity, the plant can produce 40 megawatts of electricity, about twice the amount needed at Co-op City on an average day. If it chooses, Co-op City can sell its excess electricity back to Con Edison at the prevailing market rate. Between efficiency upgrades and potential sales, RiverBay Corporation, the company that manages Co-op City, expects to save $15 million to $25 million a year. At the same time, it hopes to pay off the cost of the plant in three to five years and create a new revenue stream for future improvements.

As a bonus, the modernization allows Co-op City to use gas-burning fuels, meaning that despite the expansion, the complex will wind up emitting fewer pollutants. Siemens is the main equipment supplier for this challenging project. The scope of supply for Siemens PG comprises two gas turbines, a steam turbine, and the control system. In addition, Siemens is supplying medium-voltage controllers and turnkey manufacturing and installation of medium-voltage switchinggear.

One of the reasons Reardon is extremely enthusiastic about the plant is Con Edison’s ability to purchase electricity on the open market and sell the surplus to the grid. “There’s no doubt about it, this is one of the best projects I know,” confirms Jeff Torbitt, who is the contractor project leader. Torbitt is also convinced that completing a project ahead of schedule is a rare achievement.

Twice as Much Power as Needed. The idea of over-sizing the plant came up after the first calculations were completed and everyone was asking, “Where should this money come from?” One big item on the list was Con Edison’s back-up power. “The information showed that we would have to spend a lot of money, not for electricity, but just for the assurance that we might get it if we were in trouble,” recalls Freedman.

He came up with the great idea of not spending money for Con Edison but selling power instead. “Building a plant twice as large as needed and selling the surplus electric- tity was the break-through idea,” he re- calls. With this, the project became not only feasible, but also profitable. In a few years, after paying back the current debt, the plant will provide a comfortable stream of revenue for further enhancements of the whole complex, and with electricity prices on the rise, the plant may become profitable much sooner than originally expected.

“As established mega cities like New York come to terms with their power needs, the people of Co-op City residents, but also provides a mechanism by which lower income citizens can improve their quality of life,” says Randy Zwim, president and CEO of Siemens Power Generation USA and member of the PG Executive Management Committee. “For RiverBay management agrees. ‘Years ago, when we looked at the plant and the conditions we knew we had to put money in it and had to do major work,’ says Herb Freedman of Marion Scott Real Estate, which manages Co-op City for RiverBay. “And if you’re going to do major work, why not do it right?” he asks. ■ Harold Weiss

Siemens Worldwide | Energy Economics in New York City

O n June 27, 2007 — a scorching, humid day with temperatures topping 32 de- grees Celsius — parts of Manhattan and the South Bronx lost power for 10 hours. Many New Yorkers recalled the epic blackout of four years ago, when their city and large parts of the northeast and midwest were without power for days. Consolidated Edison (Con Ed), which provides power to 3.2 million customers in New York City and surrounding areas, is fighting an uphill battle. Its infrastructure is in decline while load and demand are up. Correspond- ingly, Con Ed is ever-reorganizing its major customers to consider independently in- stalling power stations to support their own demands.

Co-op City, a large residential complex lo- cated in the northeast of the Bronx, will soon become an independent customer because Siemens is providing the equipment for the re-powered power plant, which will have a capacity of 40 MW. The $65 million plant will provide some 16,000 housing units with electricity, heat, hot water, and air condition- ing. In addition to meeting the needs of all 60,000 residents, it will also provide a surplus that can be sold back to the grid.

With help from Siemens, a residential community in New York City’s northern borough has increased the capacity of its power plant to such an extent that it will be able to sell surplus energy to the local utility at market prices, thus generating substantial profits. Future revenues will be channeled into improvements for the complex’s 16,000 housing units.

The Bronx’s Co-op City wants to use its power plant as a springboard to local economies renewal.

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