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By Tony Marano - Energy Efficiency: New Life For Old Facilities

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Facilities are increasingly required to make tough decisions on energy efficiency, but "green" can be turned into "gold" in at least one respect—lighting control. Nowhere is that more clearly demonstrated than in the nation's sports venues, with their heavy use of energy in general and lighting in particular. The N.Y. metro area has seen an upsurge in construction of stadiums and arenas. With new construction, state-of-the-art systems can be installed, immediately turning venues into paradigms of energy efficiency. But what about older facilities, built decades ago? They can clearly become targets for retrofitting.

With Nassau County voters' rejection of a proposal for a new arena for the N.Y. Islanders NHL team, the focus at Nassau Coliseum can shift to making necessary upgrades. One key component is retrofitting it with an advanced lighting control system to improve light levels while reducing operating costs and energy use. Encelium's Energy Control System (ECS) is a prime example of a lighting control solution. ECS is a proven commodity in the sports field - namely, the Rogers Centre in Toronto, Ontario, a premier sports and entertainment arena and home of the Toronto Blue Jays MLB club.

The 1.4 million s/f Rogers Centre has 7,000 lighting fixtures governed by ECS. That installation has realized savings of 77% of energy consumption, a 39% reduction in energy demand, and 76% savings in energy costs. The numbers are striking: \$300,000 saved per year and reduction of over 3.7 KWh annually in energy use (enough to power 400 homes).

ECS meets or exceeds today's sustainable requirements by reducing carbon emissions and lighting energy expenditures by 50-75%. Encelium has also introduced Polaris 3D, the next generation of software, providing a 360-degree, three-dimensional view of lighting energy use, enabling users to identify areas of lighting inefficiency.

With the latest technology, lighting controls not only save money and provide sustainability for the life of a facility, but they can also be the foundation for a wider energy efficiency strategy. Typically the largest single electrical-load factor in a commercial facility, lighting accounts for 20-40% of average electricity costs. From that perspective, it is easy to recognize how any substantial reduction in that cost can impact the larger energy consumption picture.

Lighting control systems, such as Encelium's ECS, should therefore not only be considered for new construction, but for retrofitting existing properties where an investment in energy-efficient technologies makes sense. So while billions of dollars are spent on new sporting venues, with this approach there can indeed be new life for existing stadiums and arenas.

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