APPLICATION CASE STUDY



Rutgers University's Unique Parking Lots Demonstrate the Power of Solar



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 Michael Kornitas, Energy Conservation Manager, Rutgers University Utilities Operations



Project Summary

Challenge: Illuminate a 30-acre solar parking facility for pedestrian and vehicle safety while attaining Rutgers University's sustainability goals.

Solution: Kenall TekDek[™] 50-watt LED parking luminaires powered by solar panels

Benefits: 150,000 hour LED lifetime (L70) virtually eliminates maintenance; *DesignLights Consortium (DLC)* Qualified Products Listing (QPL) helps earn various rebates and incentives; TekDek luminaires have the highest efficacy rating in the USDOE's Lighting Facts program at over150 Lumens Per Watt (LPW).



TekDek™ LED Luminaires Keep Energy Demand Low and Students Safe

Rutgers University, Piscataway Township, NJ



In 2009, Rutgers, The State University of New Jersey, constructed a seven-acre solar parking canopy on its Livingston campus. The solar farm quickly proved its financial worth and created a buzz among students, faculty and staff interested in learning more about photovoltaic systems and renewable energy.

Just two years later, the University Board approved a second facility consisting of almost 30 acres of solar canopies. Mounted on the underside of the solar panels are a total of (342) Kenall 50-watt TekDek™ LED luminaires. These luminaires sip just a fraction of the energy generated by the panels and, along with security cameras, help ensure staff, student and visitor safety.

Completed in 2013, the solar parking lot includes 31,032 high efficiency solar panel structures of 260W each. Annually, the system generates 8mW of electricity worth \$1.2 million, which, when combined with the university's first solar parking canopy, supplies 63% of the electrical needs on campus.

Reductions in the construction costs of solar canopies, combined with incentives from the New Jersey Board of Public Utilities (NJBPU), have provided Rutgers with a very attractive return on investment: the university expects to net \$28 million from the solar project over a 20-year period.

Financial incentives and rebates from state, federal and local sources help reduce the initial cost of investment and provide attractive payback scenarios. But without Congressional action, the expiration and reduction of the Solar Investment Tax Credit (ITC) is expected to lead to a 57% decline of installed solar capacity in 2017. According to Forbes.com, "Those best positioned to survive the post-ITC apocalyptic world will be those companies that gain market share by accelerating activities through 2016..."

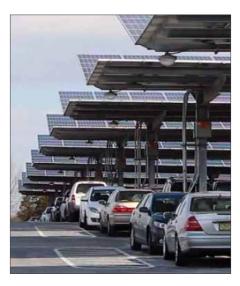
Michael Kornitas, energy conservation manager for Rutgers utilities operations clearly understands that the time for solar investment is now.

"Because of the subsidies that are in the state of New Jersey and the federal credits that are available, it became a no-brainer to do it, We'll be pretty much cash-positive right from the get-go."

 Michael Kornitas, Energy Conservation Manager, Rutgers University

Kenall TekDek Features:

- Highest efficacy rating—over 150 LPW in the USDOE's Lighting Facts program
- DLC Qualified Products List; assists in qualifying for rebates and incentives



All photos courtesy of Solaire Generation.

- Reduced maintenance costs due to long life LEDs—up to 150,000 hours
- Certified to perform; Ingress Protection rated and Wet Location listed
- Vandal resistant design
- Lifetime Peace of Mind Guarantee®

Benefits for Rutgers:

- Parking canopies are brightly lit, making them more secure for students, staff, faculty and visitors
- Specialized optics reduce disabling glare, optimizing safety
- LED luminaires consume up to 52%* less power compared to traditional metal halide parking lights
- Rugged fixtures resist weather, dust and tampering—making them ideal for challenging applications in public areas
- * Source: energy.gov/eere/ssl/gateway-demonstration-outdoor-projects

For additional information, please visit us on the web at www.kenall.com

