SSL Postings

U.S. DEPARTMENT OF ENERGY

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Earlier this year, the Next Generation Luminaires™ (NGL) design competition took a quantum leap forward and transitioned its focus from luminaires to Next Generation Lighting Systems (NGLS). The new NGLS features multiple competitions, a tighter focus on specific lighting applications, and an expanded evaluation process that involves installations in real-world settings and greater interaction among entrants, judges, and



host sites. The response has been extremely positive, and the first competition is well underway. We'll be sharing regular updates throughout the multiphase evaluation process, highlighting key findings and lessons learned.

Kicking Things Off



The first NGLS competition focuses exclusively on connected lighting systems for interior applications. It reflects the growing importance of easy-to-use luminaire-integrated control systems, especially for use in existing spaces, and the intense and widespread interest in learning more about the installation, economics, and operation of these systems. To qualify for this first NGLS competition,

systems had to be a) marketed as "easy" to install and configure, b) intended for contractor setup and configuration without prior training, and c) configurable without manufacturer assistance.

Seven systems have been accepted for initial evaluation: from Cree (with a SmartCast[®] control system), Crestron Electronics (with a ZumTM control system), LumenWerx (with a Magnum control system), Philips (with the SpaceWise DT control system), Nextek Power Systems (with a Nextek control system), RAB (with a LightcloudTM control system), and Selux Corporation (with a Philips EasySense control system). The system designs were submitted in May, the systems were shipped in June, and installation began July 27 at Parsons School of Design, The New School, in New York City. The systems will be installed in accessible working spaces, with each system lighting and controlling its own space – providing manufacturers with the opportunity to observe and improve their

products. The NGLS indoor installations will remain in place at Parsons for practical use and ongoing evaluation for at least two years.



NGLS is serving as the "specifier," Parsons' architectural review board is serving as the "owner," and contractors were pre-screened to ensure they had little or no experience with connected lighting systems. Installation and configuration evaluations are taking place this month.

Multiple Phases of Evaluation

The system performance phase of the evaluations will take place in September and will focus on both lighting and controls. That phase will be followed by long-term evaluations, which will focus on system performance, user satisfaction, and reliability.

In addition to the installation, configuration, and performance, NGLS will evaluate the specification process, including design and performance parameters, with the goal of simplifying the specification of connected lighting systems. Findings will be published as each phase is completed and will include such elements as the time required and challenges faced in design, installation, and configuration; the level of energy savings achieved; and user acceptance and satisfaction. NGLS will not select "winners"; rather, through this detailed, multiphase evaluation process, it will recognize superior performance and identify areas for improvement. The overarching goal is to educate both manufacturers and specifiers, and influence product innovation.

Ways to get involved in the NGLS Competition

- Participate in site visits to the living lab at Parsons
- Share your own connected lighting experience to inform continuing educational materials
- Submit systems for future competitions

Contact us at ngl@pnnl.gov