



Request for Consultant Proposals

Pathways to Connected Lighting

Issued by Efficiency Forward, Inc.:
January 5, 2024

Questions Due Before:
January 19, 2024

Proposals Due:
February 16, 2024



Efficiency Forward/DesignLights Consortium® Background

Efficiency Forward (EF)/the DesignLights Consortium (DLC) is an independent non-profit organization providing decision makers with data and resources on quality lighting, controls, and integrated building systems to reduce energy, carbon, and light pollution. We envision a net zero future where lighting, controls, and integrated building systems enable energy savings, decarbonization, and sustainability for all people and the environment.

We collaborate with utilities, energy efficiency programs, manufacturers, lighting designers, building owners, and government entities to create rigorous criteria for lighting performance that keeps up with the pace of technology. Through these partnerships, the DLC establishes product quality specifications, facilitates thought leadership, and provides information, education, tools, and technical expertise.

Project Goal

The DLC is a non-profit organization that creates resources to help our member energy efficiency programs design and implement incentive programs for commercial and industrial lighting. As the lighting baseline evolves to LED, programs will need to move from incentives for simple, uncontrolled LED lighting components to incentives for connected lighting systems. This project will help members who are not yet focused on connected lighting systems to focus more in that direction, and will help members to be more effective at each step along the path to connected lighting. This work builds on a previous DLC study on connected lighting for grid resilience that explored the potential value for DLC members of connected lighting systems, and found particular potential value from integration with HVAC control systems.

In many present lighting retrofit projects, the extremely low cost of incentivized uncontrolled LED lighting is a major deterrent to networked lighting control (NLC) adoption. If uncontrolled LED lighting had no incentives, then the incremental cost would be smaller to add incentivized NLC, thereby achieving more energy savings.

Definitions

- NLC refers to lighting systems with bi-directional communication between sensors, network interfaces, and controllers that enable lighting changes in luminaires, retrofit kits, or lamps.
- Luminaire level lighting control (LLLC) is a subset of NLC, with sensing for occupancy and daylight on every networked luminaire.
- A connected lighting system is an NLC system with external communication to at least one other building system such as HVAC control—via API, BACnet, comprehensive Bluetooth NLC mesh, or dry contact.

Project Objectives

1. **Create a document to help DLC members transform their lighting incentive programs into connected lighting incentive programs** by learning from each other's experience and by identifying helpful resources. Where important resources do not yet exist, identify the need that could be met by the DLC or others.



2. Interview DLC members and implementers who serve DLC members and document their experience along the pathway to connected lighting, as outlined below in steps 1-7. Interview questions about topics 5-7 may be hypothetical about the future since few, if any, programs are there yet. Implementers have visibility over multiple steps along this path from the various programs that they serve. A draft sequence of steps for incentive programs, to be verified or modified through the interviews, is as follows:

1. Lamps, luminaires, and kits
2. Standalone controls
3. Custom programs for NLC
4. Prescriptive programs for LLLC
5. Drop #1 and #2, so all incentivized lighting has networked controls
 - This may be necessary as the new LED baseline reduces the cost effectiveness of lighting-only projects.
 - Without this measure, lighting-only incentives compete directly with the higher savings achievable by lighting-NLC incentives.
6. All incentivized light sources use drivers with standardized digital dimming signals such as ANSI C137.4/D4i or integrated Bluetooth NLC., for multiple reasons:
 - Compared to conventional 0-10V drivers, standardized digital drivers offer superior performance including 2-way communication for integrated energy monitoring, usage logging for warranty and replacement scheduling, and fault detection and diagnosis (FDD). ANSI C137.4/D4i also offers auxiliary power for sensors. Because of low market volume in North America, this superior performance currently comes at a higher price—so financial incentives can be useful.
 - Standardized digital drivers provide an alternative to #5 with a lower upfront cost, when they are installed without networking. At a later date, NLC can be added with less risk compared to adding NLC to luminaires with analog drivers.
 - Digital drivers support grid-interactive efficient buildings (GEB) with 2-way communication. This will become more important to utilities with electrification of space heating and transportation; and more important to end users with growing demand charges and real-time electricity prices.
7. Describe all incentivized lighting control projects support the capability to communicate with HVAC controls, for multiple reasons:
 - HVAC occupancy controls can save significantly more energy than lighting controls alone, without major upgrades in HVAC equipment.
 - HVAC savings can significantly increase the cost-effectiveness of Lighting-NLC projects, enabling incentive programs to serve a broader range of customer projects.

This should include the following:



- A. Major pain points, barriers and drivers for programs trying to progress to the next step;
 - o An example of a driver would be policies in NY and MA to phase out #1 lighting-only incentives in 2025. Are similar policies coming in other states, provinces and cities?
 - B. Existing and potential resources needed to address (A) above, with particular attention to potential resources that DLC could develop; and;
 - C. SWOT analysis for a typical program at that step.
3. **Describe two adjacent pathways: one for retrofits, and another for new construction and major renovation**, with a rough estimate of the percentage of incentives spent and energy saved by members, for each of these two pathways.
 4. **Include an appendix of interview notes.**
 5. **Leverage the DLC’s recent process map characterizing key decisionmakers in lighting acquisition.** This report will be available for your use by Q2 2024.
 6. **Review the DLC’s 2018 work on this topic, “DLC Networked Lighting Controls Program Guidance.”**

Deliverables

Kickoff meeting and work plan	End of March 2024
List of potential interviewees and questions	End of April 2024
Draft report	End of June 2024
Final report	September 2024

Tasks and Schedule

- I. Project Management
 - A. Kickoff meeting to allocate resources and review work plan
 - B. Weekly 30-minute status meetings with the DLC to review progress and plan next steps
- II. Month 1: Planning
 - A. Develop questionnaire
 - B. Plan interviewees to invite, based on a draft list from the DLC
 - i. DLC members (efficiency program managers and implementers)
 - ii. Regional efficiency alliances (NEEA, MEEA, etc.)
 - iii. DLC non-member efficiency programs are specifically excluded, including ComEd
 - C. Compose email invitation template and obtain approval from DLC staff



III. Months 2 and 3: Interviews and Draft

- A. Conduct at least 25 interviews of 30 to 60 minutes each
- B. Revise questionnaire as needed, based on early responses
- C. Write Draft Report in DLC report format template, including an Executive Summary with key findings, and appendix of interview notes

IV. Months 4-6: Revisions and Final

- A. 2-week review of Draft Report by the DLC in early July
- B. 2-week review of nearly-final report by the DLC in second half of August
- C. Final Report including:
 - i. Informative graphics suitable for presentations
 - ii. Detailed list of important resources that exist now and that DLC could create
 - iii. Map(s) of policy drivers across the US and Canada. For example, for a map of mandatory building energy benchmarking and transparency policies for existing buildings in the US, see <https://www.imt.org/resources/map-u-s-building-benchmarking-policies/>

Budget

This is a time and materials project with budget determined by task not to exceed \$50,000. Budget criteria will be based on hourly rates for the purposes of procurement.

Contact and Communications

All communications between bidders and EF are to be directed to:

- Stephen White, Chief Operating Officer, swhite@designlights.org

Bidders' Questions and Responses

Bidders may submit questions on this RFP via email. All questions submitted prior to January 19, 2024 will be answered to the best of our ability.

RFP Submittal Deadline and Format

Bidders are required to submit their proposal by February 16, 2024 via email to Stephen White, COO, swhite@designlights.org.

- The proposals should be submitted in both Microsoft Word and PDF format.
- A confirmation of receipt will be sent to those who submit proposals on time.
- Late submittals will be rejected.



- Bidders are not required to submit print copies of their proposals.
- The transmittal letter contained in the proposal package must have an electronic signature and must be signed by a person who is authorized to bind the proposing firm.

EF reserves the right to reject as non-responsive any proposals that do not contain the information requested in this RFP. EF is not liable for any costs incurred by any person or firm responding to this RFP or participating in best and final interviews.

Milestone Schedule

To allow adequate time for proposal submission and evaluation, the schedule below will be followed:

RFP Issued	January 5, 2024
Questions & Responses	January 19, 2024
Proposals Due	February 16, 2024
Anticipated Notification to Successful Bidder	March 1, 2024
Contract Awarded	March 18, 2024
Kickoff	March 27, 2024

Minimum Qualifications

This RFP is not open to implementers of energy efficiency programs, because a primary activity will be interviewing implementers who compete with one another.

A single firm or a team of firms under a single primary contractor may submit bids. Key staff members must have demonstrated expertise in energy efficiency programs for non-residential lighting and energy efficiency objectives. Changes in proposed key staff members may not be made during the execution of the work without written approval of EF.

Modifications to the RFP

EF may modify the RFP prior to the proposal submission deadline by the issuance of an addendum.

Post Proposal Negotiation and Awarding of Contracts

EF reserves the right to negotiate both price and non-price factors during any post-proposal negotiations with a finalist. EF has no obligation to enter into an agreement with any respondent to this RFP and may terminate or modify this RFP at any time without liability or obligation to any respondent.

Acceptance of Terms and Conditions

EF will utilize its standard Consulting Agreement to contract for the services outlined in this RFP.



All proposals submitted to EF pursuant to this RFP shall become the exclusive property of EF and may be used for any reasonable purpose by EF.

Response Guidelines and Requirements

Proposals should provide straightforward and concise descriptions of the bidder's ability to satisfy the requirements of this RFP. Omissions, inaccuracies, or misstatements will be sufficient cause for rejection of a proposal. Proposals not submitted as indicated may be rejected.

EF is looking for proposals demonstrating creativity, expertise, and experience in how bidders approach the work scope – not necessarily a detailed final approach. Once the consultant is selected, an initial task will be to review the scope and deliverables with EF and finalize a Scope of Services.

Bidders are requested to provide a concise yet complete description of the bidder's approach and capabilities for satisfying the required services outlined in this RFP. Excessive length is discouraged. In addition, bidders are encouraged to proactively present additional information and responses, not specifically requested, that help demonstrate understanding of this project's objectives and needs as well as bidder's creativity, experience, and/or expertise.

Proposals must include the following:

- Proposal Cover
- Signed Cover/Transmittal Letter
- Table of Contents
- Executive Summary
- Work Scope and Schedule
- Staffing and Subcontracting Plan
- Qualifications and Experience
- Budget and Billing Rates
- Exceptions to Contract Terms (if needed)
- Conflicts of Interest (if needed)
- Appendix – Resumes of Key Staff

The proposal cover must indicate the RFP name, the proposal date, bidder's name, and list of subcontractors. The transmittal letter must also state that the person signing the letter is authorized to commit the bidding organization to the proposed work scope, budget, and rates; that the information in the proposal is accurate; and that the proposal is valid for 90 days from the date of submittal.

Supplier Diversity

It is the policy of Efficiency Forward Inc. DBA DesignLights Consortium (DLC) to ensure full and equitable economic opportunities to all persons and businesses that compete for business with the DLC. To that end, the DLC's Supplier Diversity efforts are a key criteria in bid scoring.



Suppliers representing that they are diverse should be certified as such from a recognized certifying state and/or federal authority. For this purpose, the categories of diverse businesses include: Minority (MBE: African-American, Hispanic, Native American, Asian, Indian/Pacific), Women (WBE), Veterans (VBE-including Service Disabled), and Disadvantaged Business Enterprises (DBE/SDB). Such suppliers may be formed as a sole proprietorship, partnership, limited liability company (LLC), joint venture or corporation.

Evaluation of Proposals

EF will base their evaluation of proposals on the scoring matrix below. As noted above, the qualifications of key staff assigned to lead this project and the amount of time they commit to the project will be weighed heavily.

RFP Evaluation Criteria/Scoring Matrix:

Part A: General Approach <ul style="list-style-type: none">• Proposal quality: comprehension and clarity regarding meeting project objectives and quality of proposed approach for meeting those objectives• Thoroughness and practicality of approach• Creativity of approach
Part B: Management Approach <ul style="list-style-type: none">• Dedicated resources• Demonstrated management competence of key staff• Approach to use and management of subcontractors (if applicable)
Part C: Qualifications and Experience <ul style="list-style-type: none">• Demonstrated competence and experience of key staff and firm(s)• References
Part D: Supplier Diversity <ul style="list-style-type: none">• Demonstrated certification with MBE, WBE, VBE, DBE program
Part E: Cost <ul style="list-style-type: none">• Hourly rates and total project cost