CT R1963 Short-Term Residential Lighting Analysis

Lighting Evaluation Focused on Near-Term Market

Presented by:
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Kickoff Meeting
October 4, 2019

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Evaluation Scope

- Background: All signs point to a transforming residential lighting market. The timing of transformation and the role of energy efficiency programs over the next few years are of great interest to program administrators, regulators, and evaluators.

- Evaluation Purpose: As stated in the RFP, the primary objective of this study is to produce the best characterization of the status of residential lighting markets in Connecticut that is feasible within the available budget. **Coordination with R1963b lead by SCS Analytics is required. R1963b will be conducting shelf stocking studies and providing legislative updates**

- NMR Team Members:
  - NMR: David Barclay, Nicole Rosenberg, Lisa Wilson-Wright, and Shirley Pon
  - Cadeo: Rob Carmichael, Ethan Wilkes

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Methods

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- Quantitative
  - Third-party sales data (CREED)
  - Connecticut program tracking data
  - Shelf stocking field work (SCS – separate SOW)
- Qualitative
  - Stakeholder panel
  - EISA status review (SCS – separate SOW)

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Overview of R1963a Tasks

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Task	Deliverables	Expected Completion
Task 1: Workplan and Kickoff	Kickoff Slides & Workplan	October
Task 2: Program Tracking Review	Data Request & Tracking Data Analysis	November
Task 3: Sales Data Review	2018 CREED Sales Data Analysis 2019 CREED Sales Data Analysis	December July
Task 4: Stakeholder Panel (n = 18) *Piggyback with Massachusetts for Wave 1	Wave 1 Stakeholder Results Wave 2 Stakeholder Results	December July
Task 5a: Reporting • Program Tracking Review • 2018 Sales Data Analysis • Stakeholder Wave 1	Draft Report (to EA Team) Revised Report (EA Team) Draft Public Report Final Report & Presentation	January February March April
Task 5b: Reporting Update • 2019 Sales Data Analysis • Stakeholder Wave 2 • Results integrated with 5a	Draft Report (to EA Team) Revised Report (EA Team) Draft Public Report Final Report & Presentation	July August August September

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Task 1: Workplan & Kickoff

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- Completed Actions
  - NMR issued data request (Sept.)
  - Data call with Utilities (Sept.)
  - Program Information Call (Sept.)
  - Kickoff Meeting (today)

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Task 2: Data Tracking Review

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- To look ahead – must understand current program
- Comprehensive review of tracking data:
  - What products are driving participation?
  - What are the program trends?
  - What products are driving savings?
  - How do participation trends align with market trends?
  - Is program activity geographically diverse?
  - How do supported products fit within federal standards?
- Data and analysis will inform later tasks

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Task 3: Sales Data Analysis

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- Data Sources:
  - 2018 & 2019 LightTracker Sales Data
  - National Electrical Manufacturers Association (NEMA) Shipment Data
- Draw backs and challenges with both data sets
- Best available full category data
- Interpreted within context of other tasks / findings
- Note: some risk associated with 2019 data set

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Task 3: LightTracker

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Point-of-sale (*POS*) data – **Excludes: home improvement, hardware, online, and select club stores.**
- **Partial coverage of channels**
- **All sales within channels**

National Consumer Panel (*NCP*) – includes all channels.
- **Full coverage of channels**
- **Partial sales within channels**

Combine data sets = Full Category Data (*FCD*).
- **Leverage strengths from each data set**

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Task 3: Limitations

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- Best nationwide sales data available
- More robust at national level
- Data gaps (as discussed above)
- Decisions made by LightTracker in combining data
- Method changes over time (including improvements)
  – ENERGY STAR Designation
  – Alignment of FCD with known program LED sales
- Subset analyses have reduced reliability

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Task 3: NEMA Shipment

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- Recent changes to what is reported
- Makes time series comparison obsolete
- Only includes EISA covered products (original def.)
  – Previously exempt lamp categories not included
  – Primarily A-lamps within covered lumen range
- National level data only
- Lack of ability to drill down by lamp characteristics
- Useful for overall comparison of trends with FCD

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Task 3: Topics Examined

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Topic	Years Analyzed	Areas Examined	Data Source	Market Coverage
Current market share (sales) by bulb type	2018/19	CT, US, program states, non-program states	FCD	100% for all areas
Market share overtime	2015 to 2019	CT, US, program states, non-program states	FCD	100% for all areas
Market share overtime	2009 to 2019	CT, US, program states, non-program states	POS	~26% of market
Market share by bulb shape, lumen bins, ENERGY STAR qualifications	2018/19	CT, US, program states, non-program states	POS	~26% of market
Market share (shipments)	2011 to 2019	Entire US only	NEMA	100% for reporting manufacturers
Bulb sales overall and by program spending	2018/19	CT, program states, non-program states	FCD and state program activity data	100%
Bulb Price Analysis	2018/19	CT, non-program states	FCD	100% for all areas

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Task 4: Stakeholder Panel

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- A lot changing in the market!
- Stakeholders can provide crucial qualitative data
  - Stakeholder include: Suppliers, manufacturers, distributors, retailers, advocates, implementers
- Two waves
  - Wave 1: Piggyback with Massachusetts (Oct – Nov '19)
  - Wave 2: Mid 2020 (May – Jun '20)
  - Note: if 2019 Sales Data are unavailable, a third wave may be added

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Task 5: Reporting

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- Report in early 2020
  - Program Tracking Review, 2018 Sales Data, & Wave 1 Stakeholder Interviews
  - Integrate key findings from SCS efforts
  - Draft to EA Team in late January
  - Draft posted to public in February
- Updated report in mid-2020
  - 2019 Sales Data, Wave 2 Stakeholder Interviews, & SCS findings
  - Draft to EA Team in July
  - Draft posted to public in August

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