TD Bank's $17 Million LED Investment

March 26, 2018

Kristin Sullivan, CBRE
Vocabulary/Acronyms

- **Yous**: Plural form of ‘you’
- **Jeet yet**: “Did you eat yet?”
- **Ahh-ight**: “Alright”
- **Ga head**: “Go Ahead”
- **Namaste**: “No, I’m going to stay”
- **NBV**: Net Book Value
- **BGIS**: Brookfield Global Integrated Solutions
- **EBA**: Ever Better Alliance
- **Vested**: Partnership with TD
Agenda

- Vested Partnership
- Review of program
- Why this program make sense
- How we approached it
- Core Criteria
- Rebate Recovery
- RFP Anatomy
- Reporting/Communicating
- Lessons Learned
What is VESTED®?
- TD Bank FM/Ops
- TD A&D
- EBA FM Team
- EBA Project Management
- EBA E&S

A WIN/WIN BUSINESS RELATIONSHIP

1. Outcome-based vs. transaction-based business model
2. Focuses on the WHAT, not the HOW
3. Clearly defined and measurable desired outcomes
4. Pricing model incentives are optimized for cost/service trade-offs
5. Insight vs. oversight governance structure
Our Shared Vision and Desired Outcomes

Ever Better Places that Enhance Customer and Employee Experiences

1. ACT LIKE AN OWNER. Lead with integrity to drive business results and contribute to communities.

2. THINK LIKE A CUSTOMER. Provide legendary experiences and trusted advice.

3. EXECUTE WITH EXCELLENCE AND SPEED while only taking risks we can understand and manage.

4. INNOVATE WITH PURPOSE and streamline the way we work.

5. ENHANCE THE BRAND through community stewardship and industry leadership.

6. DEVELOP, INSPIRE AND ATTRACT DIVERSE AND EXTRAORDINARY TALENT.
TD Bank, CBRE, and BGIS = EVER BETTER ALLIANCE
Why?

Purpose
- Replace the existing inefficient lighting with new energy efficient LED technology.

Objective
- Reduce M&R/ Energy Costs
- Reduce CO2/consumption contributing to TD’s E&S goals
- Provide one cohesive lighting strategy throughout the portfolio for consistency with design, manufacturer, fixture color and brightness for interior and exterior using latest cost effective LED technology
- Improve foot candle output and reduce burn hours with occupancy and daylighting sensors where economically feasible
- Comply with ATM security lighting
- Take advantage of utility incentives that we paid into

Challenge
- Sites vary in scope, size and exhibit a wide range of existing lighting conditions that need different solutions
- How far to go- Determining scope
How?

- Did not strive for perfect
- Take a multi-phased approach
  - Exterior- both retail and corporate
    - Phase 1- 322 locations
    - Phase 2- 298 locations
    - Phase 3- 57 locations
  - Interior- mostly retail, some corporate in phase 2
    - Phase 1- 275 locations
    - Phase 2- 241 locations
- Determine Core Criteria
Multi-Phase Approach

- Implemented a pilot program
- Tested different lighting retrofit options
- Roll out the program at facilities that have “passed” filtering exercise
- Rolled out Exterior US first with one vendor- Turnkey-survey, determine the best product, install it, go back when necessary, recover rebates.
- Coordinated with vendor on how to choose install schedule regional climates and weather played a large role
Locations Selection Criteria

- **Energy Star**
- **Utility Rate** $$$/\text{KWh}$$
- **Full Pay** locations (TD pays 100% of site utility bills)
- **Incentives**
- **Market Strategy Optimization**
- **Net Book Value (NBV)** Asset Depreciation
Core Criteria- meet fc & Kelvin requirements

<table>
<thead>
<tr>
<th>Item *</th>
<th>Type</th>
<th>Application</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>[A]</td>
<td>Internal or External Fixture</td>
<td>Power Wall</td>
<td>Prominently highlighted</td>
</tr>
<tr>
<td>[B]</td>
<td>Internal or External Fixture</td>
<td>Mural</td>
<td>Prominently highlighted</td>
</tr>
<tr>
<td>[C]</td>
<td>Feature Drum</td>
<td>Over Concierge @ 8’-0” above finished floor</td>
<td>Marquee fixture to anchor and announce concierge</td>
</tr>
</tbody>
</table>

**Zone**
- Power Wall
- Mural
- Concierge

**Target Light Level**
- 50 fc
- 50 fc
- 45 fc
Core Criteria- Maintain the Same Look & Feel

Before & After at Glen Burnie, MD
Core Criteria- More than just the lamp
Core Criteria - UL Listed & DLC approved

$650,000 in Rebates expected
Recovery of the Rebate- What’s Involved

- Timing spent on each application varies depending on the requirements, research of the utility incentive.

- The typical initial applications includes
  - complete application
  - signature pages
  - Excel worksheet,
  - Cutsheets
  - utility bills
  - DLC/Energy star
  - W9
  - Tax clearance certificate
  - final documentations

- After install, typically there is another set of documentations that need to be signed, invoices provided, possible photos or post inspections and any other additional documentation the utility requires.
Elements to think about when it comes to (soundbyte)

- 88 different utilities in 3 exterior phases
- Each with their own incentive level and requirements
- Some have some; some had none
- With all others what makes it challenging:
  - The level of requirements they have and understanding how the application/worksheet works.
  - Copy of the utility bills. The time, the effort to get them, sorting them and submitting them it is time consuming when we already providing the utility account number.
  - When product needs to be DLC (but as mentioned, almost all utilities require them to be to be consider for incentive).
  - Pre and post inspections requirements
- Lack of consistency in programs
  - Some applications are prescriptive others custom.
  - Some applications to be submitted before or after installation.
  - Some are based on fixture quantity others by kWh saved.
- Most utility require that product be DLC or Energy star qualified (now there is premium or standard DLC products).
- Utility changed program or ran out of fund.

What makes it easier:
- When States have state program as the application/requirement is the same or similar for several utility companies.
- When there is a utility direct contact person that we can reach out with questions.
RFP Anatomy

- Clear Scope
- Turnkey proposal requested
- Itemize expected activities
- Explain the pilot that would lead to hundreds of locations. So while the product choice is specific to the few pilot locations, the pricing is for xxx+ locations and explain roll out to xxx+ locations
- Ask for how they will survey and suggested what it should entail
  - Requested review of circuit panel and lighting controls situation
- Provide facility count, SF, by utility territory, city, and state
- Provide Core Criteria as a guide for vendors
## How Much?

- Costs, Costs per Site, savings, savings per site
- Rebates
- Total Investment
- Equivalencies

<table>
<thead>
<tr>
<th></th>
<th>EXTERIOR</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Status</strong></td>
<td>Phase 1</td>
<td>Phase 2</td>
<td>Phase 3</td>
<td>Phase 1</td>
<td>Phase 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete</td>
<td>Complete</td>
<td>Complete</td>
<td>Complete</td>
<td>Complete</td>
<td></td>
</tr>
<tr>
<td><strong>Install Count</strong></td>
<td>322</td>
<td>298</td>
<td>36</td>
<td>275</td>
<td>201</td>
<td></td>
</tr>
<tr>
<td><strong>Cost</strong></td>
<td>$6,477,997</td>
<td>$4,700,000</td>
<td>$765,000</td>
<td>$2,202,214</td>
<td>$1,784,157</td>
<td></td>
</tr>
<tr>
<td><strong>Rebates</strong></td>
<td>$312,348</td>
<td>$171,663</td>
<td>$37,131</td>
<td>$85,886</td>
<td>$52,000</td>
<td></td>
</tr>
<tr>
<td><strong>Cost / Site</strong></td>
<td>$19,148</td>
<td>$46,077</td>
<td>$20,219</td>
<td>$7,696</td>
<td>$8,618</td>
<td></td>
</tr>
<tr>
<td><strong>Annual Energy Savings</strong></td>
<td>$888,269</td>
<td>$469,246</td>
<td>$93,525</td>
<td>$408,375</td>
<td>$413,990</td>
<td></td>
</tr>
<tr>
<td><strong>Annual O&amp;M Savings</strong></td>
<td>$388,000</td>
<td>$351,976</td>
<td>$70,150</td>
<td>$44,000</td>
<td>$32,160</td>
<td></td>
</tr>
<tr>
<td><strong>Total Annual Savings</strong></td>
<td>$1,276,269</td>
<td>$821,222</td>
<td>$163,675</td>
<td>$452,375</td>
<td>$446,150</td>
<td></td>
</tr>
<tr>
<td><strong>Simple Payback</strong></td>
<td>4.83</td>
<td>5.51</td>
<td>4.4</td>
<td>4.7</td>
<td>3.9</td>
<td></td>
</tr>
<tr>
<td><strong>kWh Savings</strong></td>
<td>6,344,780</td>
<td>3,344,092</td>
<td>720,518</td>
<td>2,846,250</td>
<td>2,957,072</td>
<td></td>
</tr>
<tr>
<td><strong>SF of building (not parking area)</strong></td>
<td>1,870,239</td>
<td>1,855,617</td>
<td>168,071</td>
<td>1,067,099</td>
<td>1,395,295</td>
<td></td>
</tr>
<tr>
<td><strong>Cost / SF</strong></td>
<td>$3.46</td>
<td>$2.53</td>
<td>$4.55</td>
<td>$2.06</td>
<td>$1.28</td>
<td></td>
</tr>
</tbody>
</table>
WHAT DOES 10.9 MILLION KWH/YEAR LOOK LIKE?

To date, TD’s and EBA’s LED Exterior & Interior portfolio program has reduced TD’s electricity usage by 10,969,619 kWh/year. Once all phases are complete, TD will have reduced a total of 14,101,691 kWh/year.

The program has been one of the most significant contributors to meet TD’s Sustainability goals.
PROGRAM HIGHLIGHTS

FY16 vs FY15 Program Stats

- Energy Consumption Savings: 8.2%
- Water Consumption Savings: 4% (Retail only)

Major Highlights

- Energy Costs YTD (OCT) are down 12% compared to FY15
- Since 2015, more than $2.3 mil in utility cost has been avoided due to energy efficiency efforts.
- TD LEED certified over 1.29 mil SF across 199 buildings; Combined with landlord-certified LEED space, TD occupies a total of 4.4 million square feet of LEED certified real estate.

Major ECM Updates

- LED Exterior Phase 2B & Skylights- In Progress
- LED Exterior Phase 3- Review for approval
- LED Interior - 181 locations installed
- Water Irrigation- ET Water- Ph 2 complete
- BMS 10 locations- remote access obtained
- Reviewing Low Cost No Cost concept
- Phase change material Pilot cost- 3 locations $30,000

LED PROGRAM ROADMAP

Goal: 100% LED install where feasible by Spring 2017; Excludes 50 from Phase 3

% Completion of LED Program Phases

- LED Interior
- LED Exterior
- Exterior Canopy
- LED Exterior Ph 3

REBATE RECOVERY

Goal: Recover what we pay in to the program

Rebate Dollars Expected vs Recovered

<0 is GOOD!!! 84% of sites’ kWh went down

We currently can not track the dollars paid into utility’s energy efficiency funds, but will once we have the UBM database.

ENERGY STAR SCORES

Scores are compared Sept-Aug of FY15 vs FY16; 77% of sites’ scores improved

kWh Usage Trend for Exterior LED

% Change in kWh from FY15 to FY16 of 555 locations with Exterior LED Retrofits Installed Prior to September 2016
**Did it work?**

### EXTERIOR LIGHTING WORK ORDER HISTORY FOR 322 LOCATIONS OF PHASE 1

<table>
<thead>
<tr>
<th></th>
<th>Total Cost</th>
<th>Daily Cost</th>
<th>Annual Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 months before Phase 1 Start</td>
<td>$1,017,129</td>
<td>$1,813</td>
<td>$661,768</td>
</tr>
<tr>
<td>18 month after Phase 1 Completion</td>
<td>$419,255</td>
<td>$747</td>
<td>$272,777</td>
</tr>
<tr>
<td>Delta Pre to Post</td>
<td></td>
<td></td>
<td>$388,991</td>
</tr>
<tr>
<td>Percent reduction from pre to post</td>
<td></td>
<td></td>
<td>59%</td>
</tr>
</tbody>
</table>

**Electricity Use Delta Pre & Post LED Ext Ph 1**

6,344,780 kWh Reduction across 322 locations
Retail Smart Controls Business Case Process

AGAIN - SLOW GOING
Any questions?

Kristin Sullivan, CEM
US Energy & Sustainability Manager for TD Bank
Kristin.Sullivan@cbre.com
TD Office: 17000 Horizon Way, Mt. Laurel, NJ 08054
CBRE Office: Two Liberty Place, 50 S. 16th Street, Suite 3000, Philadelphia, PA 19102
215 681 5562