RedE

The Resource efficiency deployment Engine

Introduction

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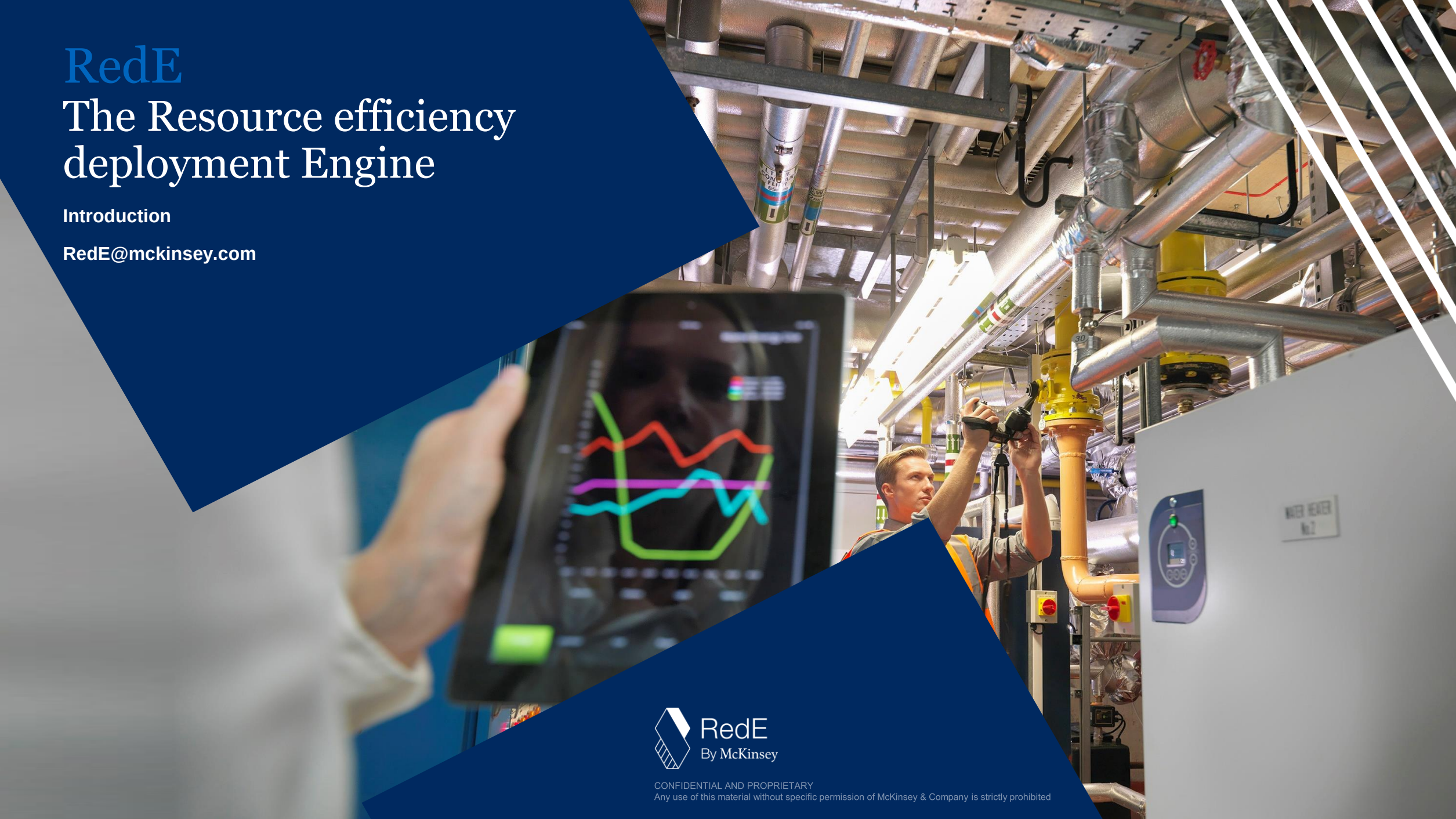
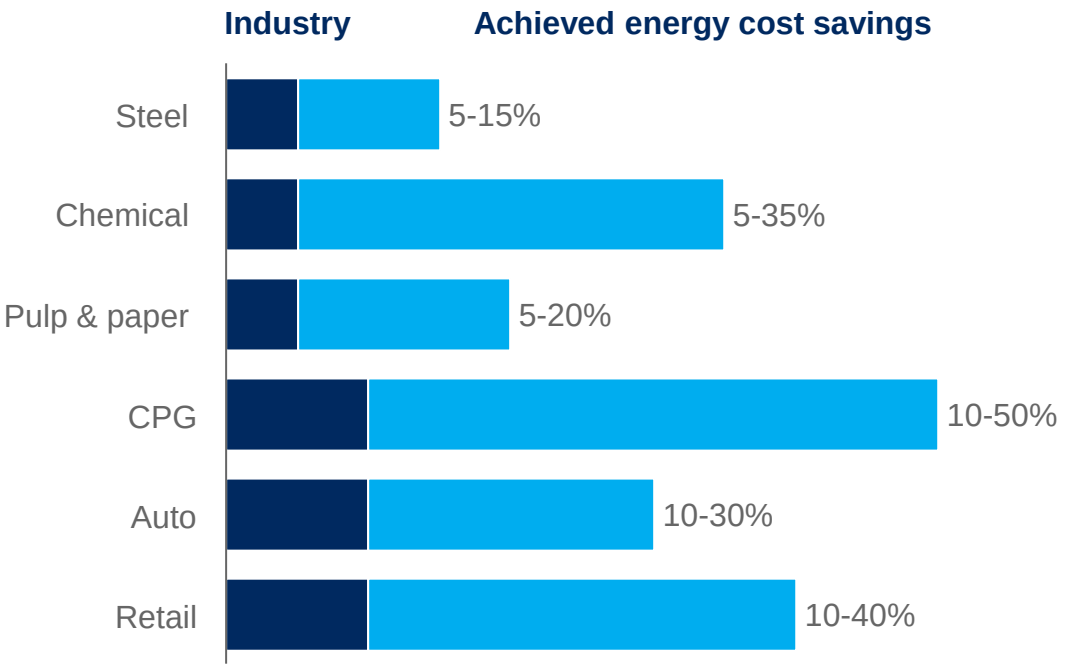


RedE
By McKinsey

RedE operationalizes an extensive library of resource efficiency levers, facilitating identification, implementation and performance management

Resource efficiency leads to savings

Potential savings in energy efficiency alone is substantial across industries



RedE solution

- Actionable, client-specific lever engine for resource efficiency projects
- Program management and savings dashboards included for clients

Rapidly expanding impact

10-20%
Average utility cost savings

750+
Active facilities

160+
Available levers

No
Limits on network size

RedE combines our deep knowledge of resource efficiency with an intuitive digital interface for identifying and implementing levers

	Description
Actionable levers	Levers have been developed and honed from hundreds of McKinsey energy efficiency studies over the previous 10+ years.
User-friendly digital interface	Users are guided through a methodical, intuitive digital experience as they provide information on their site's utility usage and production
Refinable business cases	Users can view detailed descriptions of the business cases behind cost savings projections, and refine them to align with their site's situation
Recommendation engine	Recommendation engine that guides clients on most relevant projects for their sites and offers savings/capex projections based on benchmark values
Implementation management	Visual management tools to steer complex projects and see savings; program owner can performance manage and understand impact

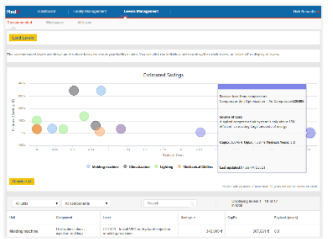
RedE provides a series of deliverables to help you identify the key levers to drive utility savings and emissions reductions

Overview

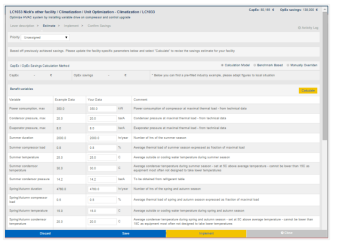
- Facilities provide utility cost and production data
- The RedE lever engine recommends specific energy efficiency improvements
- Levers are selected based upon relevance, user-refined savings, and projected costs
- Facilities visually manage execution and track performance versus peers
- Program owners track performance and drive overall network savings

Key deliverables

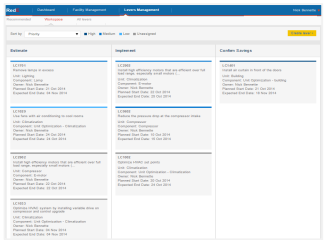
Site-specific recommendations



Dynamic project business cases



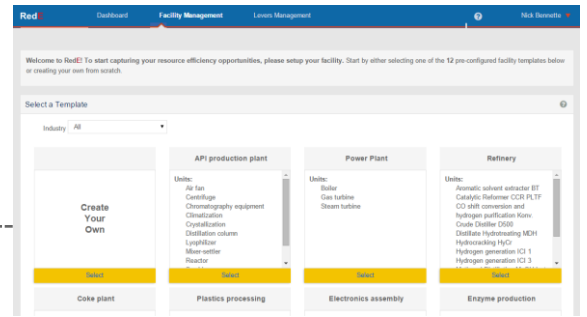
Implementation support

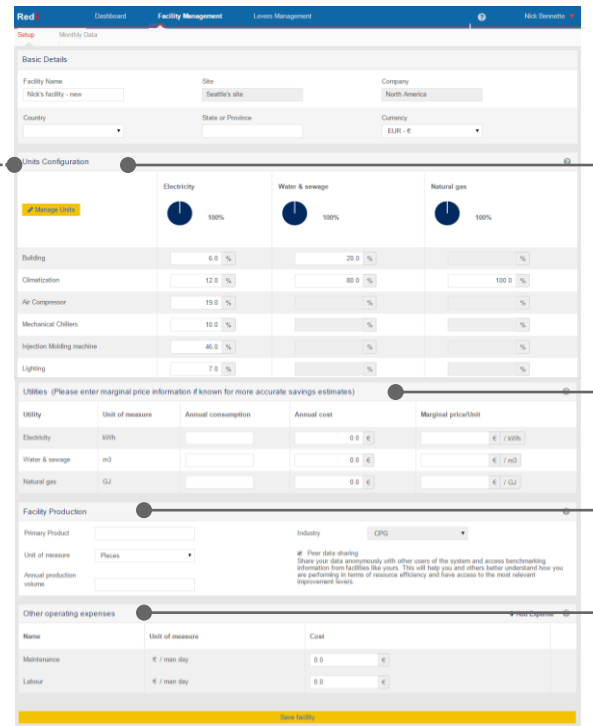


Performance management

How does RedE work in practice?

For sites or suppliers, the facility setup process consists of a few main sources of information, all contained on a single intuitive page





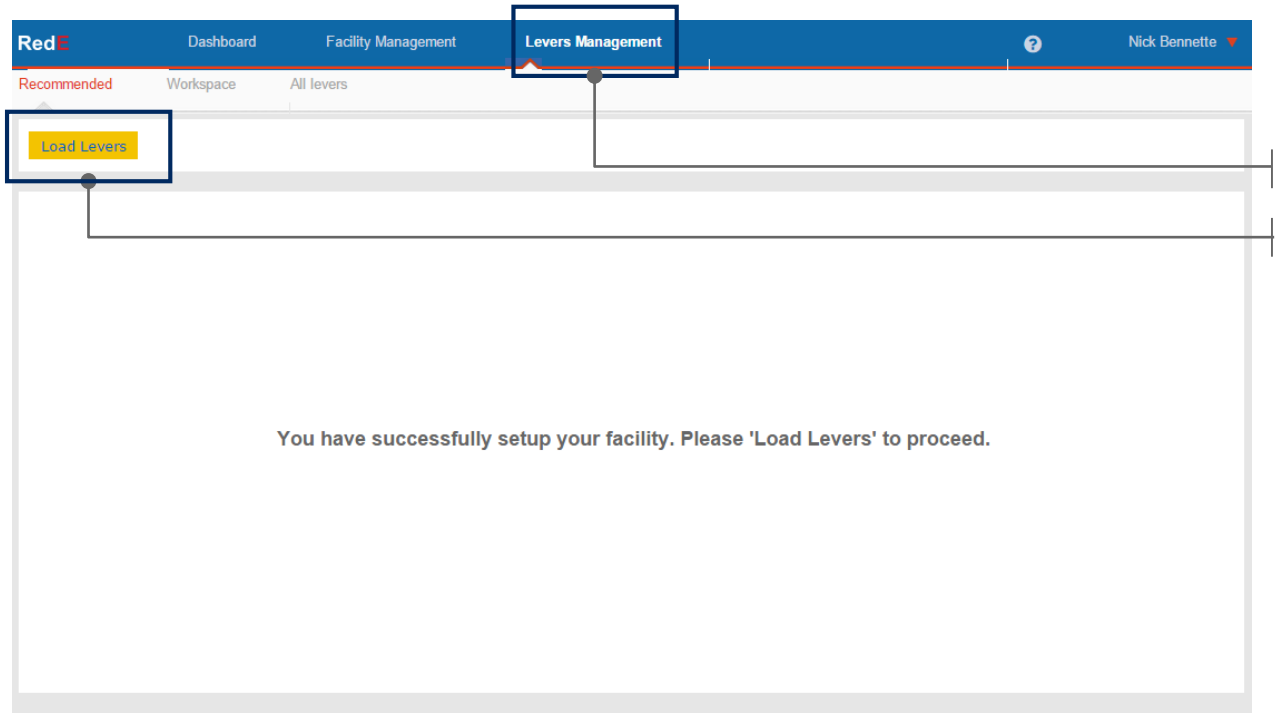
STEP 1: Select a template or build your own

- Existing library of 30+ industry templates available for a quick, easy start
- Option to create your own template completely from scratch

STEP 2: Configure the facility

	Category	Specific inputs
1	Unit configuration (auto-filled if template chosen)	a) All major resource-consuming equipment and/or processes ('unit'), and for each: b) Estimated relative consumption of each purchased utility
2	Utility consumption and spend	For each utility (e.g., electricity, gas, water): c) Annual consumption d) Annual Spend e) Marginal cost (if known)
3	Production information	f) Type and units of major product output g) Total annual production volume
4	Labor and maintenance	h) Average daily maintenance cost i) Average daily labor cost (e.g., installation)

Once facility setup is complete, the lever recommendation engine is run to identify a targeted set of projects from the RedE database



Description

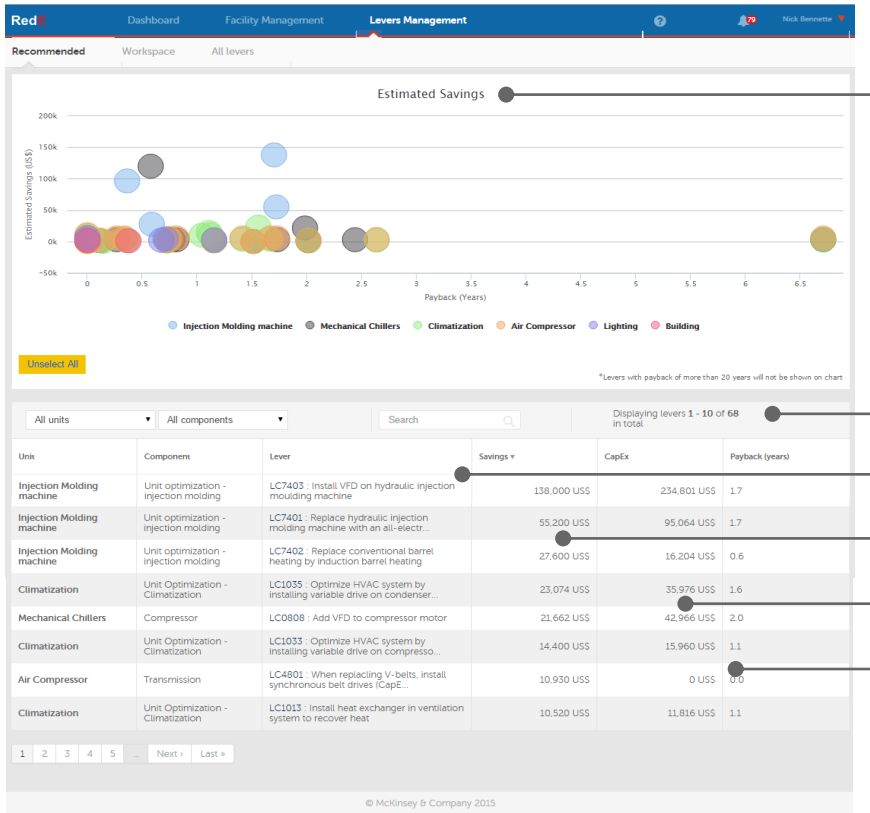
Go to **Levers Management**

Select **Load levers**

Load levers takes the facility setup information, identifies the relevant levers, and estimates the projected savings and cost

This process typically takes several minutes to complete

RedE generates a list of recommended "levers," each with benchmark-based savings, capex, and payback estimates



Description

Visual display of savings vs. payback, grouped by unit

Total lever count

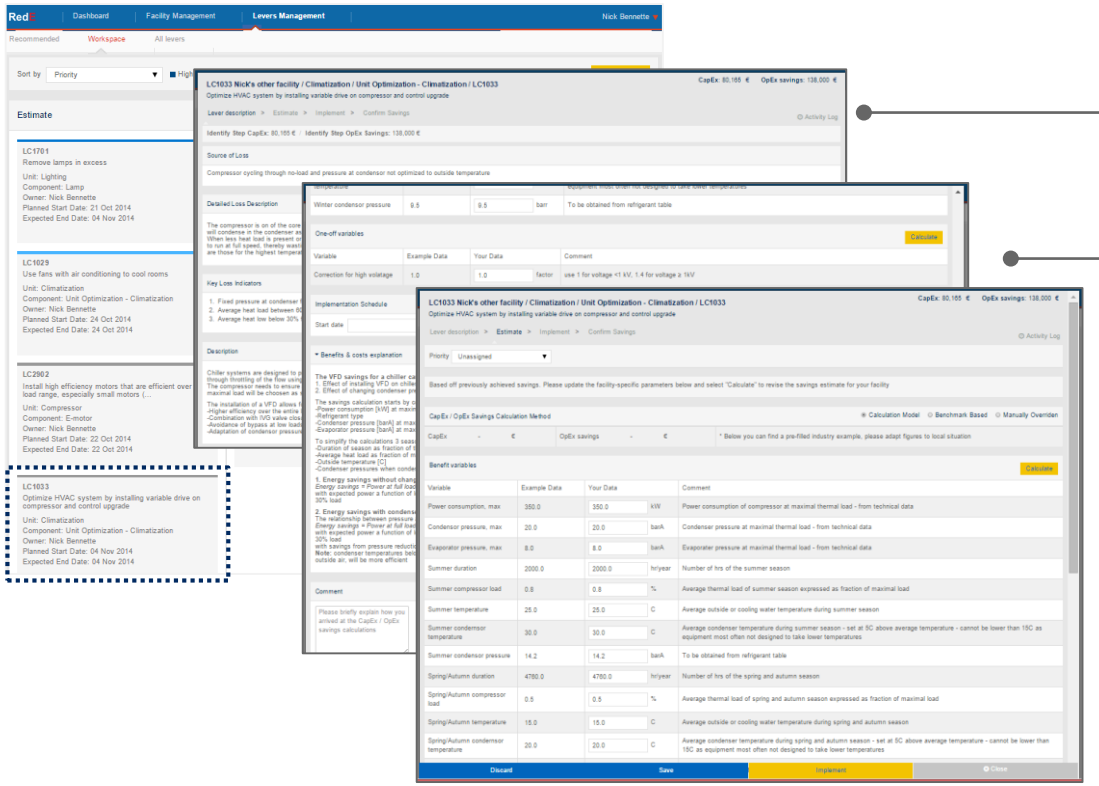
Project (lever) title

Savings (sortable)

Capex

Payback

Once a lever is selected, user have access to the underlying dynamic business case that refines savings based on actual operating parameters



Description

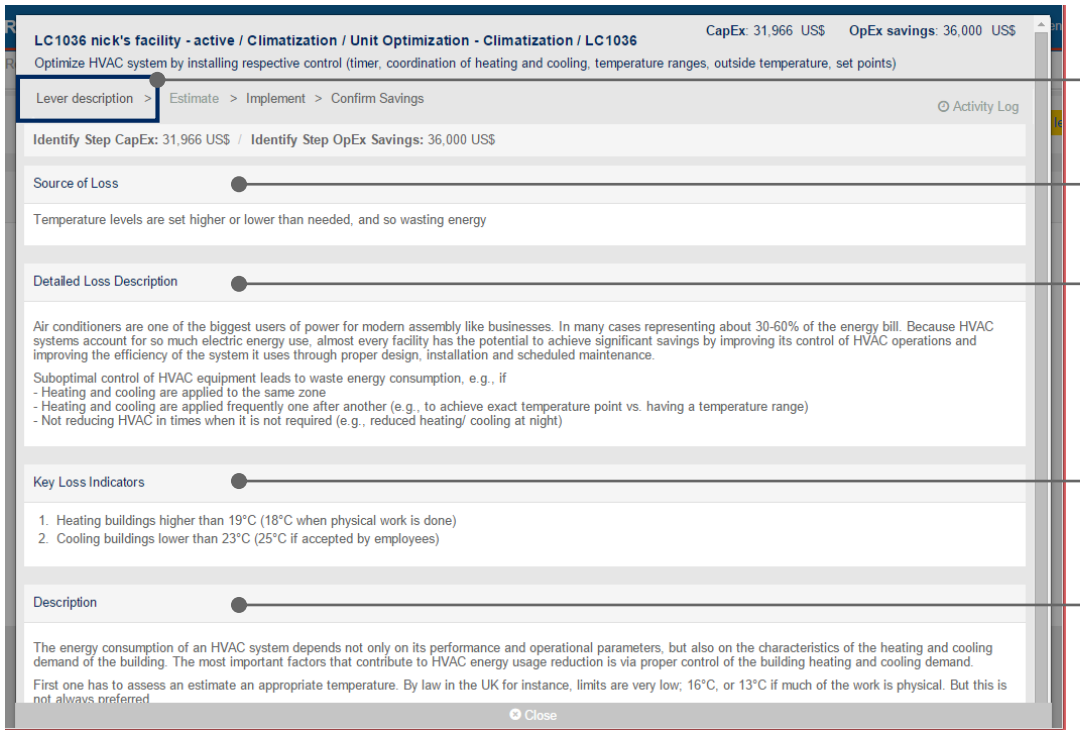
Extensive summary of the nature and key identifiers of the loss, plus improvement approach

Overview of the savings calculation methodology

Dynamic technical model to determine the facility-specific business case

SOURCE: RedE

Lever description allows the user to review details on the source of loss, improvement details, and calculation approach



Description

The **Lever description** tab contains detailed information on the lever

Simple summary of the loss

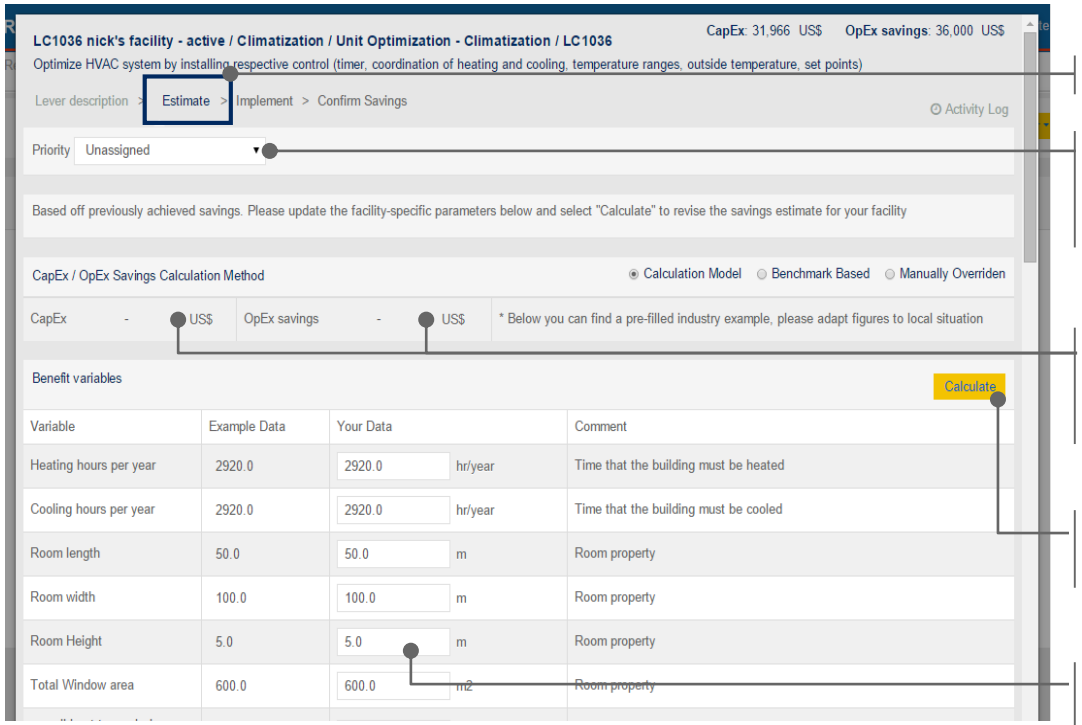
More elaborate description of the loss and explanation on how to identify

Description how to "observe" the loss

Additional description and explanation on how to fix losses

CapEx and OpEx savings estimates at this step are based on benchmark data for industry and equipment

Individual parameters affecting a lever are all adjustable, allowing the user to dynamically update the business case



Description

Selected lever card is in the **Estimate** step

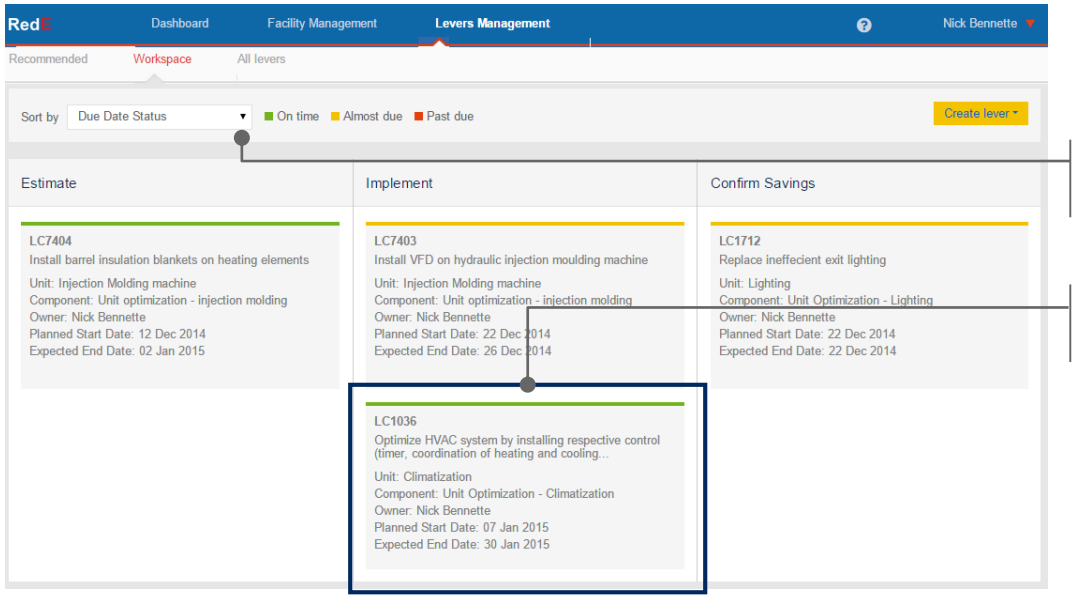
Each lever should be assigned a **Priority** in order for users to better assess which levers to focus on

Savings and capex will update based on site-specific data once the calculation engine is run

Calculate updates the cost and savings estimates based on **Your data**

All data in the Benefit variables fields should be updated to represent actual facility and equipment parameters

RedE contains an implementation interface to track your projects from estimation through completion



Description

Selected lever card is in the **Implement** step

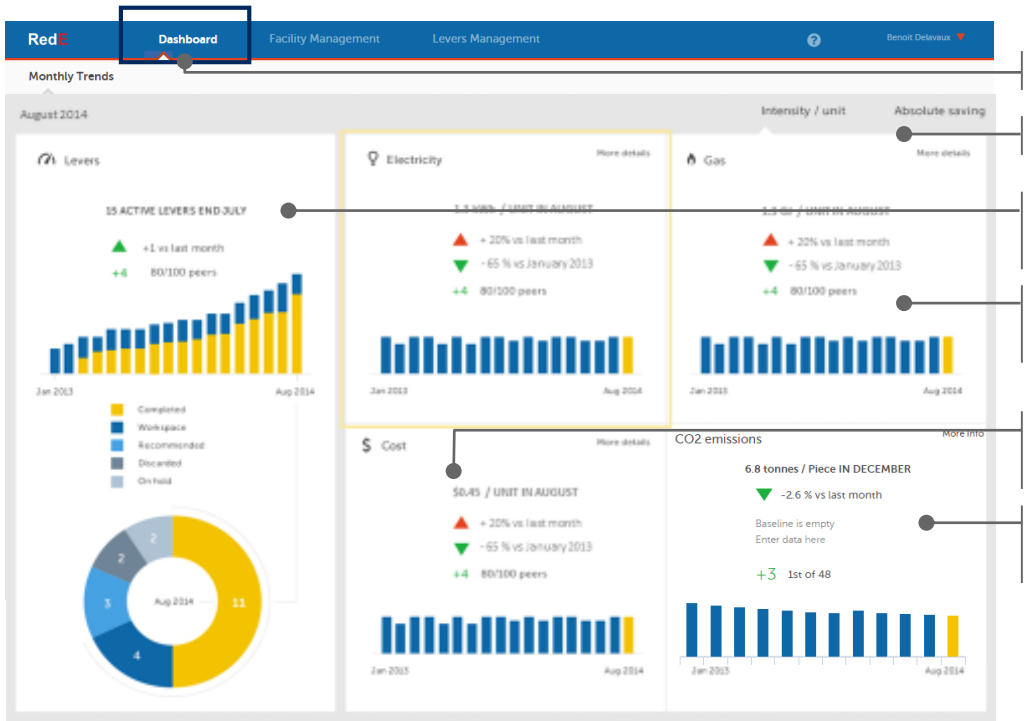
Levers can either be viewed by **Priority** or **Due Date Status**

Go to **Implement** to update lever capex and project timing

Lever **Priority** is assigned at the Estimate step

Lever **Due Date** is based on the time in a given step; fixed timing for **Estimate** and **Confirm Savings** steps and the end date in **Implement**

The Dashboard is composed of tiles, each one is tracking improvement on one dimension across time and peers



Description

Go to **Dashboard**

Intensity / absolute saving display toggle

Levers tile shows implementation of levers over time

Utility tiles show performance over time, either per unit or savings

Cost saving tile shows utility improvement converted to cost

CO_2 saving tile is utility savings converted in CO_2 savings

“Intensity / unit” gives you a view on use for producing one unit, giving consistent context across time and peers

“Absolute saving” is your saving compare to your baseline

How can you contact our team?

Want more information?

Please reach out to us at **RedE@mckinsey.com**