



# raise ENERGY REDUCTION



15% Energy Savings

## Boiler & Chiller Water Energy Saving Treatment

Improves the heat transfer properties of the water within your boiler and chiller systems for significantly increased efficiency.

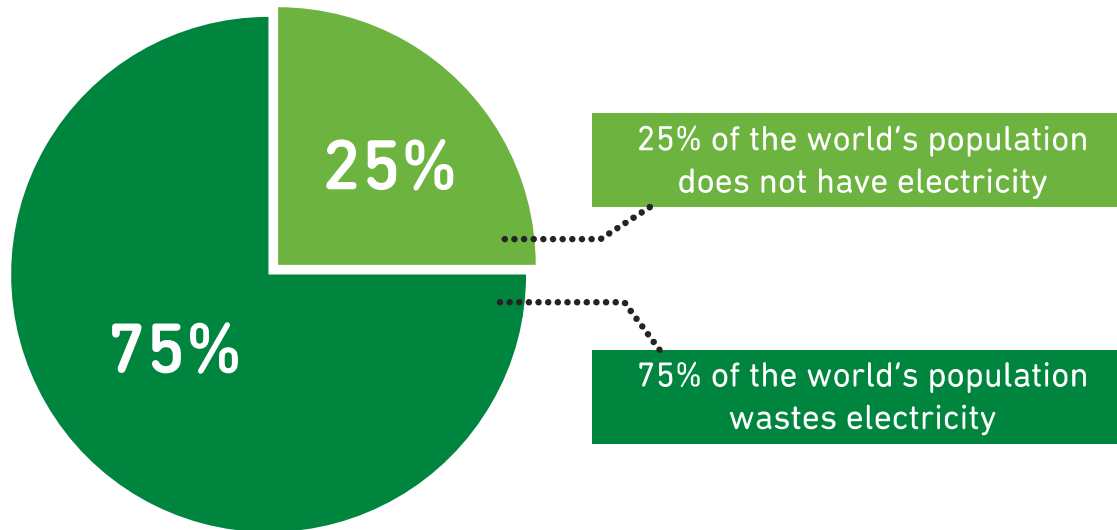


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a **holistic** approach to **energy efficiency**  
that minimizes operating expenses and carbon footprints

# What is RAISE?

**We are trying to solve two problems.**



## **Our Approach:**

- Discover, incubate, and deliver disruptive technologies
- Holistic Approach
- Catapult best-in-class products through our global partners
- Gift Energy to those who need it most

Our innovation incubator is dedicated to partnering with the brilliant minds of inventors

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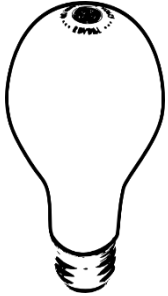
- We bring all the key components for innovative success
- Our brand, our global network of partners, and our infrastructure propel great ideas into commercially viable realities



# It's about more than light bulbs.

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## Philips / CREE



- LED Lighting



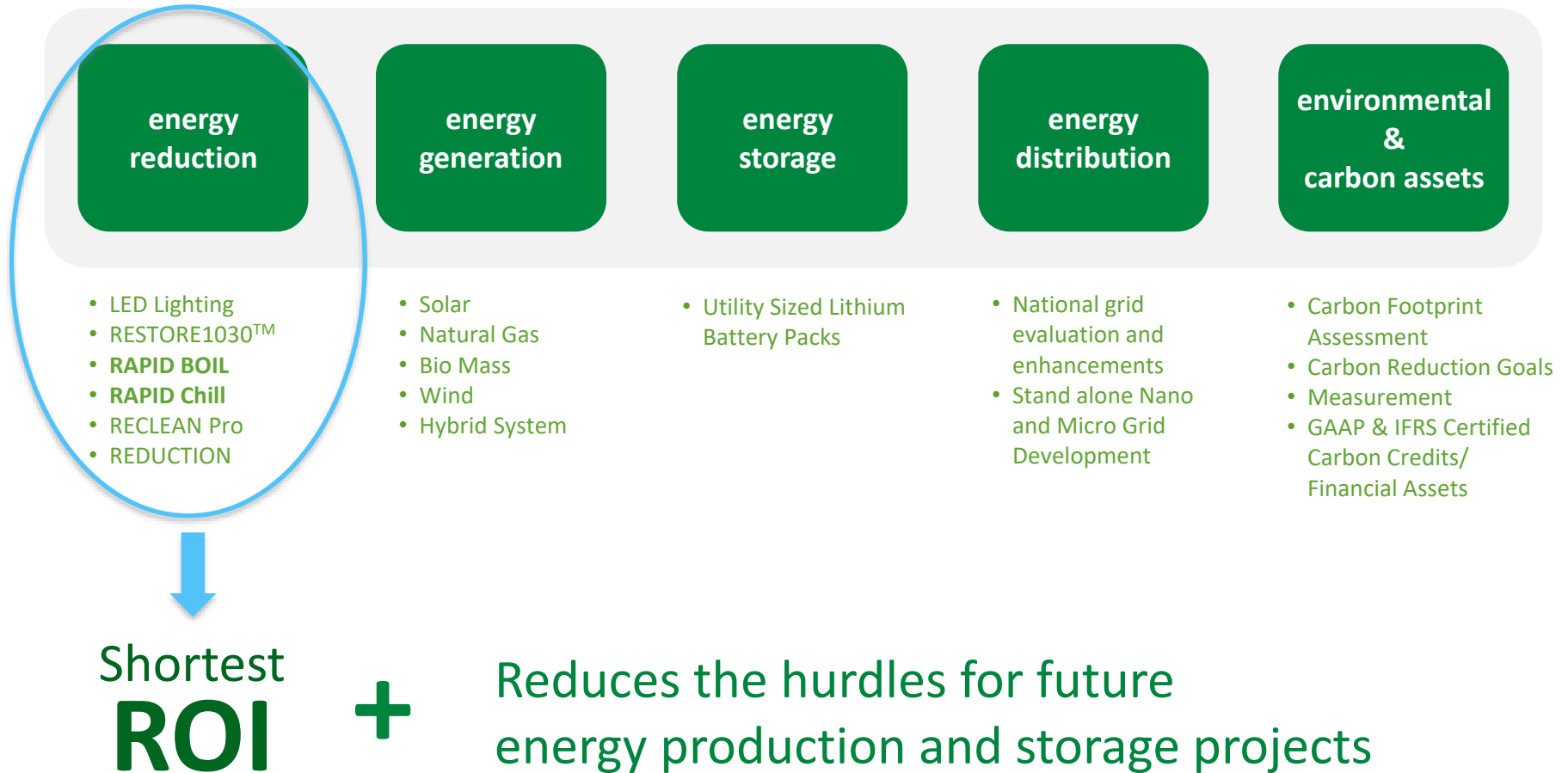
- LED Lighting
- RESTORE 1030
- RAPID Boil
- RAPID Chill
- RECLEAN Pro
- REDUCTION
- Air Filters
- Water Filters
- Energy Generation
- Energy Storage
- Energy Distribution
- New Technology Incubation
- Gift Energy Program
- Woman Owned Business
- GAAP & IFRS Certified Carbon Credits/Financial Assets

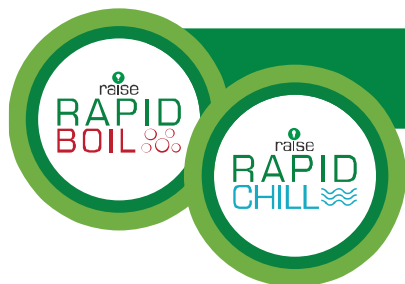
**We are a long-term “energy efficiency” partner**

RAISE's approach is holistic and provides solutions within each area of ENERGY EFFICIENCY

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## holistic solutions





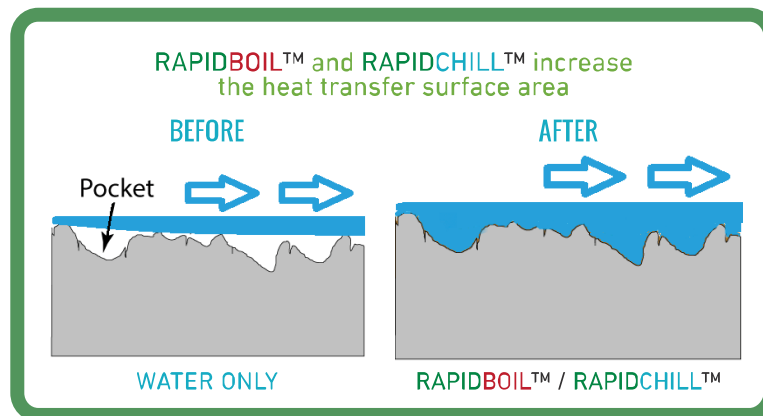
# 15% Energy Savings

## Boiler & Chiller Water Energy Saving Treatment

Improves the heat transfer properties of the water within your boiler and chiller systems for significantly increased efficiency.



- Independently Tested
- Easy To Install (typically less than 1 hour)
- Flexible (suitable for any water based system)
- Typical ROI less than 12 months
- 100% Organic (1 day Carbon Saving)
- Non-Corrosive (Compatible with Leading Brand Boilers and Inhibitors)
- Multi - Award Winning



Increases Heat Transfer:

$$\text{Heat Transfer} = U \times \Delta T \times A$$

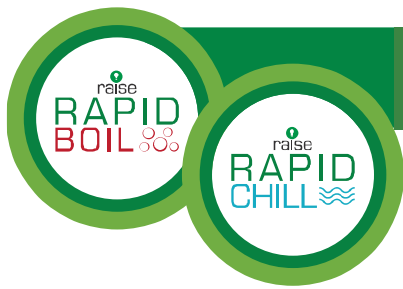
RAPIDBOIL™  
 RAPIDCHILL™

$U$   
 $\Delta T$   
 $A$

= heat transfer coefficient  
 = Temperature difference\*  
 = cross-sectional surface area for heat transfer

\* Between Radiator and Room





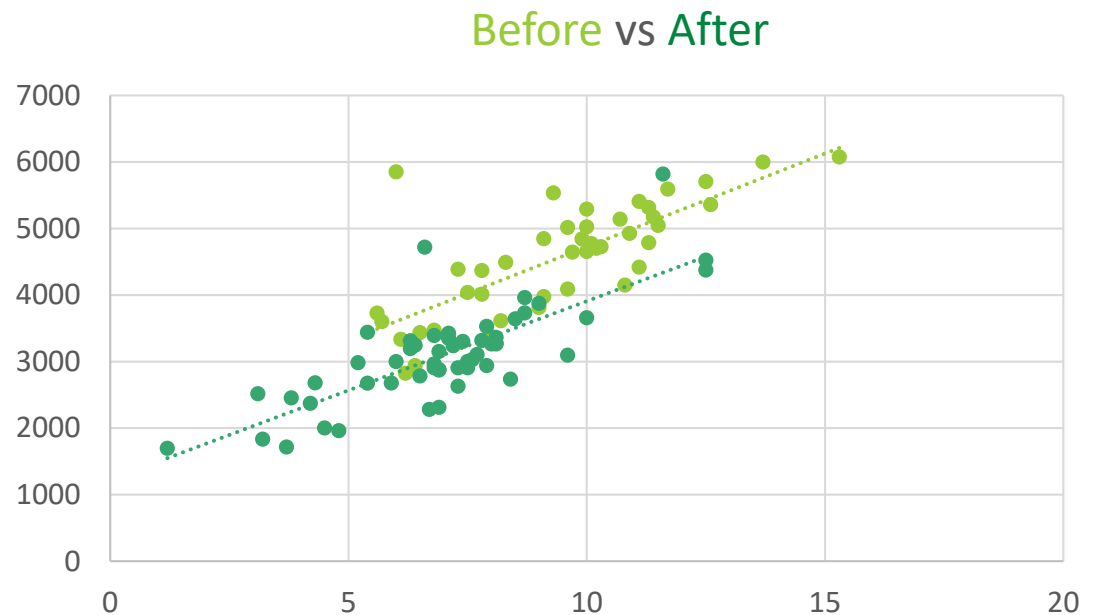
## CASE STUDY

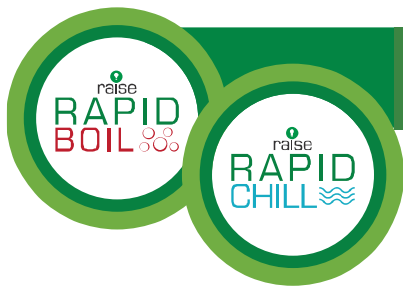
### Example Case Study – Heathrow Airport



RapidBoil was trialled by Heathrow Airport at their engineering complex. The trial was reviewed using IPMVP

- 35L (10 Gal) installed
- 40 days compared using Half Hourly AMR data
- 20.1% Saving compared to baseline
- \$1246.50 saved
- 17,030lb CO2 saved





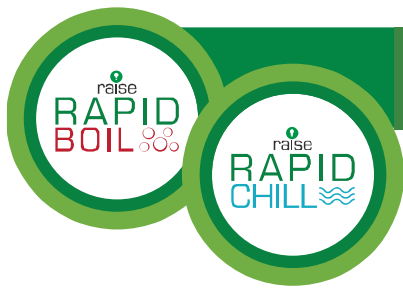
## CASE STUDY

### RapidBoil Summary

Project Name	Authority	Savings	Time Period
Enertek International	Enertek International	15%	LAB TEST
UCLAN	UCLAN	10.4%	LAB TEST
Tomorrow Air Solutions	Tomorrow Air Solutions	23.7%	LAB TEST
Whidbey Island	US Navy	12.54%	3 Months
Merante Apartment	Main Street Equity Corp – Alberta, Canada	17.4%	4 Months
United Utilities	EMCOR UK	15.53%	10 Months
3 Sites in Bristol (with Powerflush)	Royal Bank of Scotland	29.25%	12 Months
Town Hall	Preston Council	12.93%	10 Months
Teviotdale Leisure Centre	Borders Sport & Leisure Trust	17.9%	10 Months
Prestwick Airport	National Air Traffic Service (NATS)	16.36%	10 Months
Dale House	Cushman & Wakefield	11.35%	3 Months
Civic Centre	Middlesbrough Council	20.56%	5 Months

There are now over 200 RapidBoil case studies (and 10,000 installs) worldwide. Typical ROI is less than 12 months





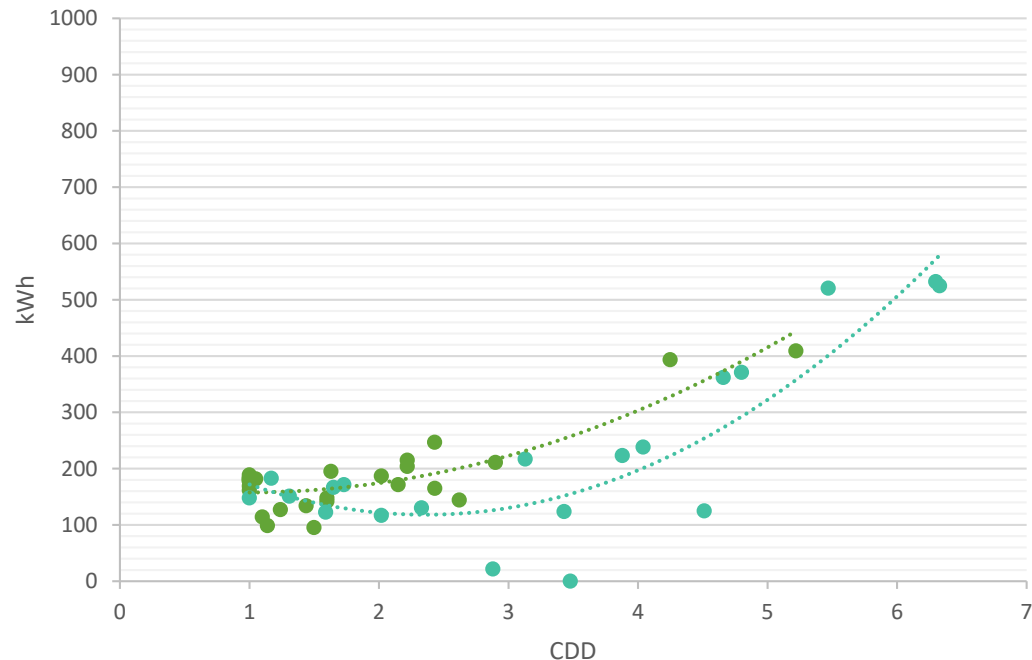
## CASE STUDY

### Example Case Study – EMCOR UK

RapidChill is a new development project with first installs in Summer 2017. Property is used for comfort cooling in the North West, UK

- 50L (13.2 Gal) installed
- 3 week test study using 1 minute AMR data
- 22.16% Saving compared to baseline
- \$181 saved (1 year ROI)
- 1467lb CO2 saved

Comfort Cooling – Office (Before and After)





Save Energy. Make Energy. Gift Energy.

RAISE Energy Solutions is an incubator, manufacturer, and integrator of intelligent LED lighting, innovative energy efficiency products, renewable power generation, and energy storage and distribution technologies. Our holistic approach to energy efficiency begins with energy conservation and includes generation, storage, and distribution. Visit [www.RaiseEnergySolutions.com](http://www.RaiseEnergySolutions.com) to learn more.

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