

COLLABORATIONS FOR CHANGE

Global Goals for Tomorrow's Education, Today

19TH ~ 21ST JUNE 2018 KEELE UNIVERSITY



Degrees of Change: Making carbon saving everyone's responsibility

Headline Sponsor



CarbonCredentials



Degrees of Change: Ingredients

I have a reason to change

- It fits with my value system
- The change is my idea
- There is a benefit to me

I know what I need to do

I feel supported to make a change

Fitting with organisational values

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UCL's MISSION

LONDON'S GLOBAL UNIVERSITY: A DIVERSE INTELLECTUAL COMMUNITY, **ENGAGED WITH THE WIDER WORLD AND COMMITTED TO CHANGING IT FOR THE BETTER;** RECOGNISED FOR OUR RADICAL AND CRITICAL THINKING AND ITS WIDESPREAD INFLUENCE; WITH AN OUTSTANDING ABILITY TO INTEGRATE OUR EDUCATION, RESEARCH, INNOVATION AND ENTERPRISE FOR THE LONG-TERM BENEFIT OF HUMANITY.

Community effort



Medium

For our community actions, we've assumed a reasonable level of participation from students and staff. But you might think the UCL community would be far more (or less) responsive. Use this dial to set the level of participation you'd expect from staff and students, and to see the effect it has on your carbon savings.

Your proposal

Budget remaining

£0

Community participation

Medium

Carbon saving per year

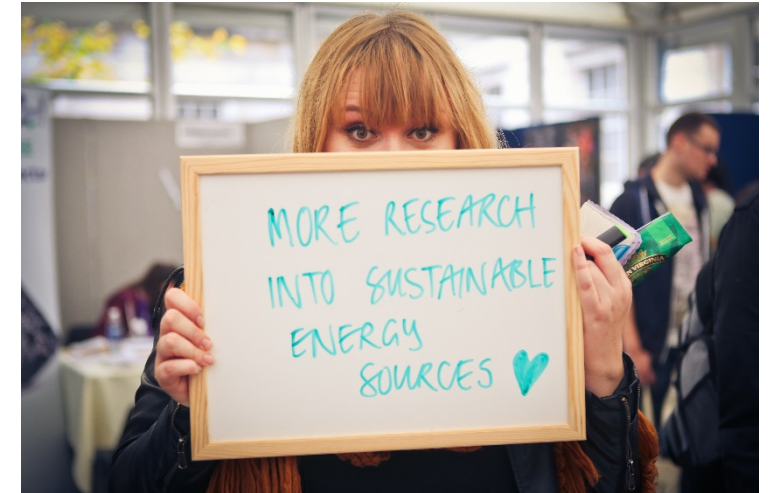
15,437 tonnes

which is a 5% reduction on UCL's current annual carbon emissions

Co-creation

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WHO'S THE BEST?

LEAST ENERGY USED PER PERSON

- 1 Ramsay Hall (Rome Block)
- 2 Schafer House
- 3 Frances Gardner House
- 4 Langton Close
- 5 Goldsmid House
- 6 New Hall
- 7 John Dodgson House
- 8 Ifor Evans Hall
- 9 John Adams Hall
- 10 Prankerd House

IF IT'S
NOT IN USE
REDUCE THE
JUICE

Reward & recognition

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I know what I need to do



Our energy use

From midnight on 7 Feb to 15:52 on 13 Feb, UCL has used:

1,239,481kWh

Energy use

314,196kWh in District Heat

925,284kWh in Electricity

Average 7,377kWh per hour

£85,561

Money

£6,912 from District Heat

£78,649 from Electricity

Average £509 per hour

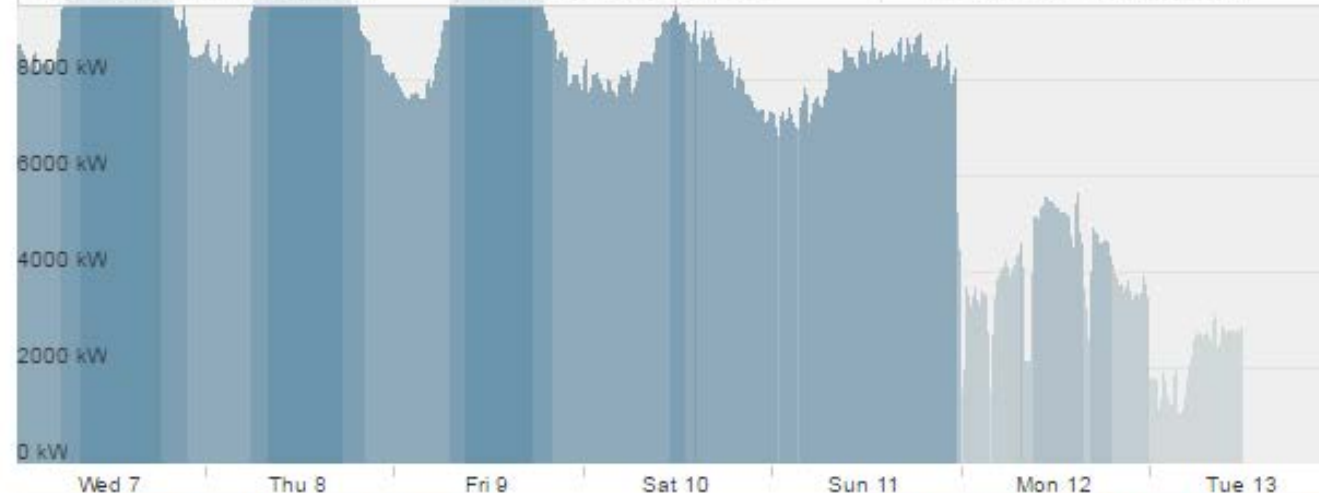
539,410kg

Carbon impact

76,444kg for District Heat

462,966kg for Electricity

Average 3,210kg per hour



< 24 Hours Week 4 Weeks

Total District Heat Electricity

I know what I need to do



[Home](#) > [Major Plant](#) > MPEB - chillers

[\(View config\)](#)

MPEB - chillers

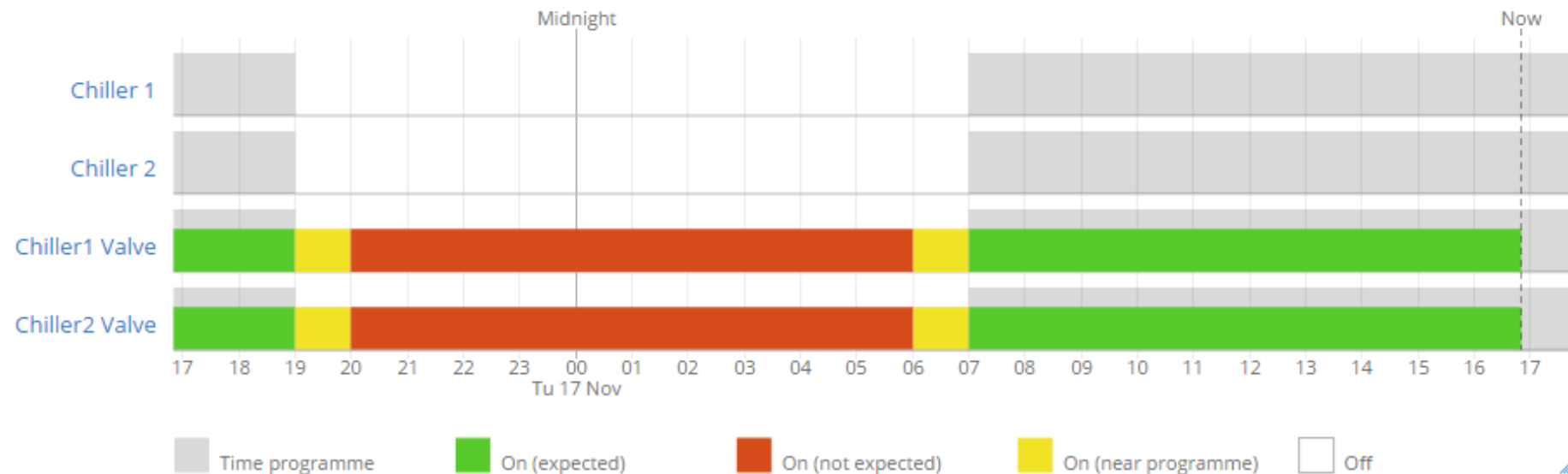
The date range for this view is limited to 14 days

Start

End

[Change](#)

[Live](#)



I know what I need to do

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UCL Sustainable Building Standard

A standard for the sustainable design, construction and operation of building, engineering, maintenance and infrastructure works at UCL



I know what I need to do



Building:

Maz Ragne House

HOME

STEP 1: DEFINE

STEP 2: CALCULATE

• STEP 3: RESULTS

DATA

Carbon saving:

141,334

(kgCO₂e in year one)

Cost saving:

27,968

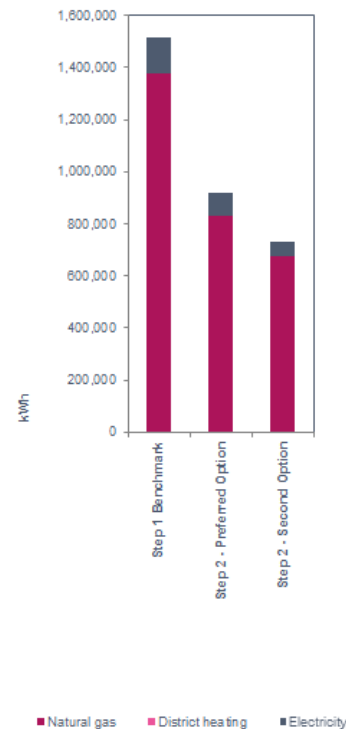
(£ in year one)

Step 3: reviewing and reporting the included changes

Back

Review the 'year one' energy savings and the 25 year cost and carbon projections.

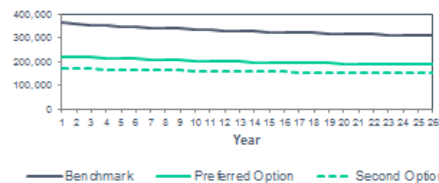
ENERGY IN YEAR ONE



ENERGY COST PROJECTION



ENERGY CARBON PROJECTION



Generate
business case outputs

V 1.0

Data

SELECTIONS

Include fabric change?

Yes

Include vent. change?

No

Include boiler change?

Yes

Include VRF/Chiller change?

No

Include lighting change?

No

Include bespoke change A?

Yes

Include bespoke change B?

Yes

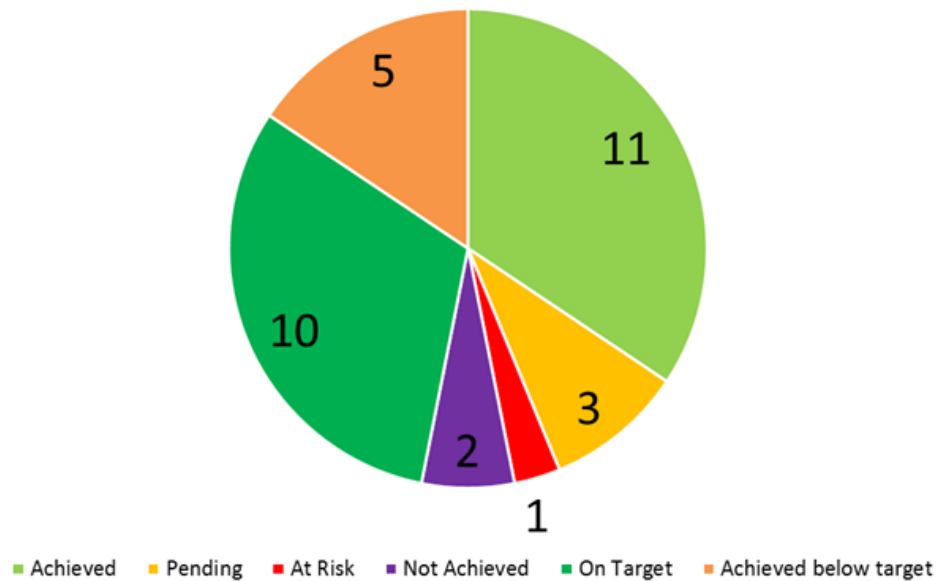
Include bespoke change C?

Yes

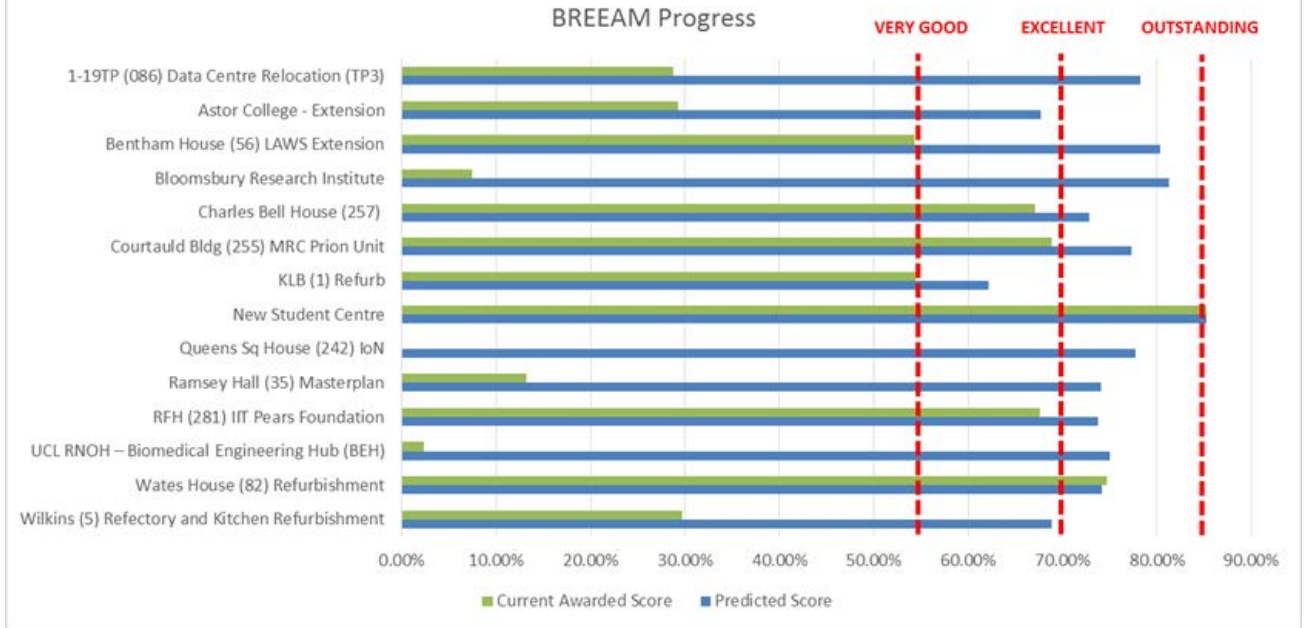
I am supported to make a change



Ska Progress



BREEAM Progress



I am supported to make a change



SLMS Energy dashboard 2016/17

Energy and carbon emissions

	Electricity	Heating	Total	Variance to 15-16
Energy consumption (kWh)	57,081,069	42,186,828	99,267,897	0%
Energy cost (£)	6,278,918	1,265,605	7,544,522	4%
Carbon emissions (tonnes)	20,067	5,011	25,079	-6%

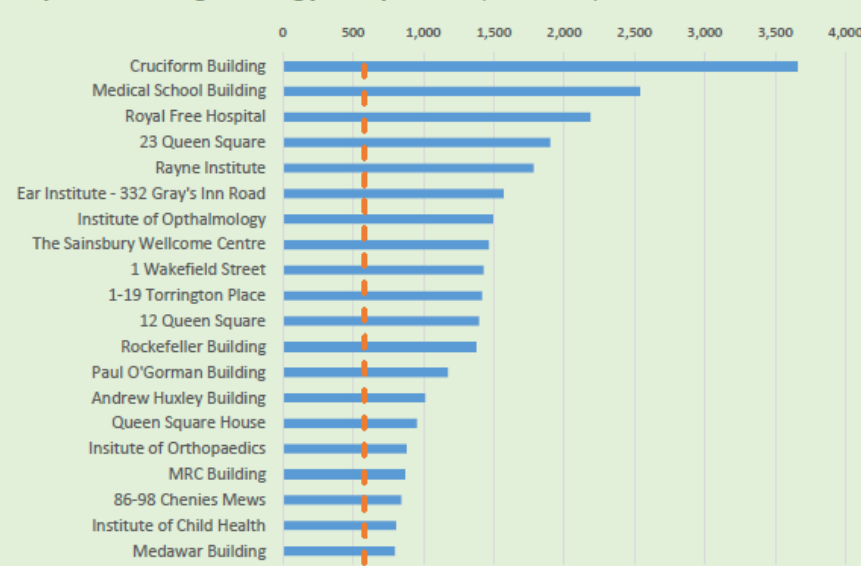
61%

School's share of UCL's total energy use

Energy Intensity School ranking Based on kWh energy/m2

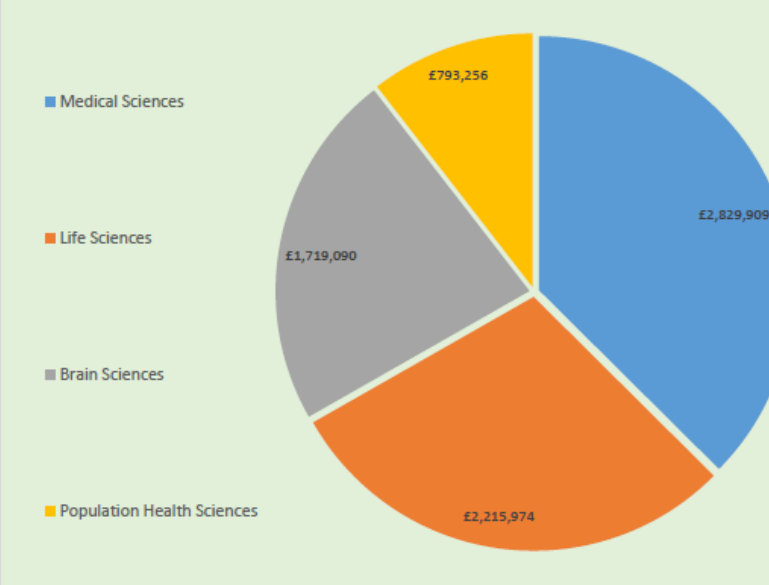
4th	SLMS	1,000
3rd	BEAMS	771
2nd	SLASH	441
1st	IOE	353

Top 20 buildings' Energy use per m2 (kWh/m²)



Benchmarks based on typical energy use for medical/life science buildings in UK HEIs

Energy Costs by Faculty



Energy consumption/costs for buildings are apportioned based on floor area occupied by the School

Find out more

www.ucl.ac.uk/greenucl

Workshop



Each table has a different environment where you want to reduce carbon emissions:

1. A scientific laboratory
2. A hall of residence
3. A catering kitchen

For each environment identify:

- A. What do you want to happen differently?
- B. Who needs to change?
- C. What do you think their key priorities will be?

Prepare an Action Plan for your environment including:

- i. How will you involve them in the change process?
- ii. What information do they need?
- iii. What incentives can you provide?

Questions?

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The SDG Accord

The University and College Sector's Collective Response to the Global Goals



End extreme poverty, inequality and climate change

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www.sdgaccord.org

