



Innovation in energy services and management

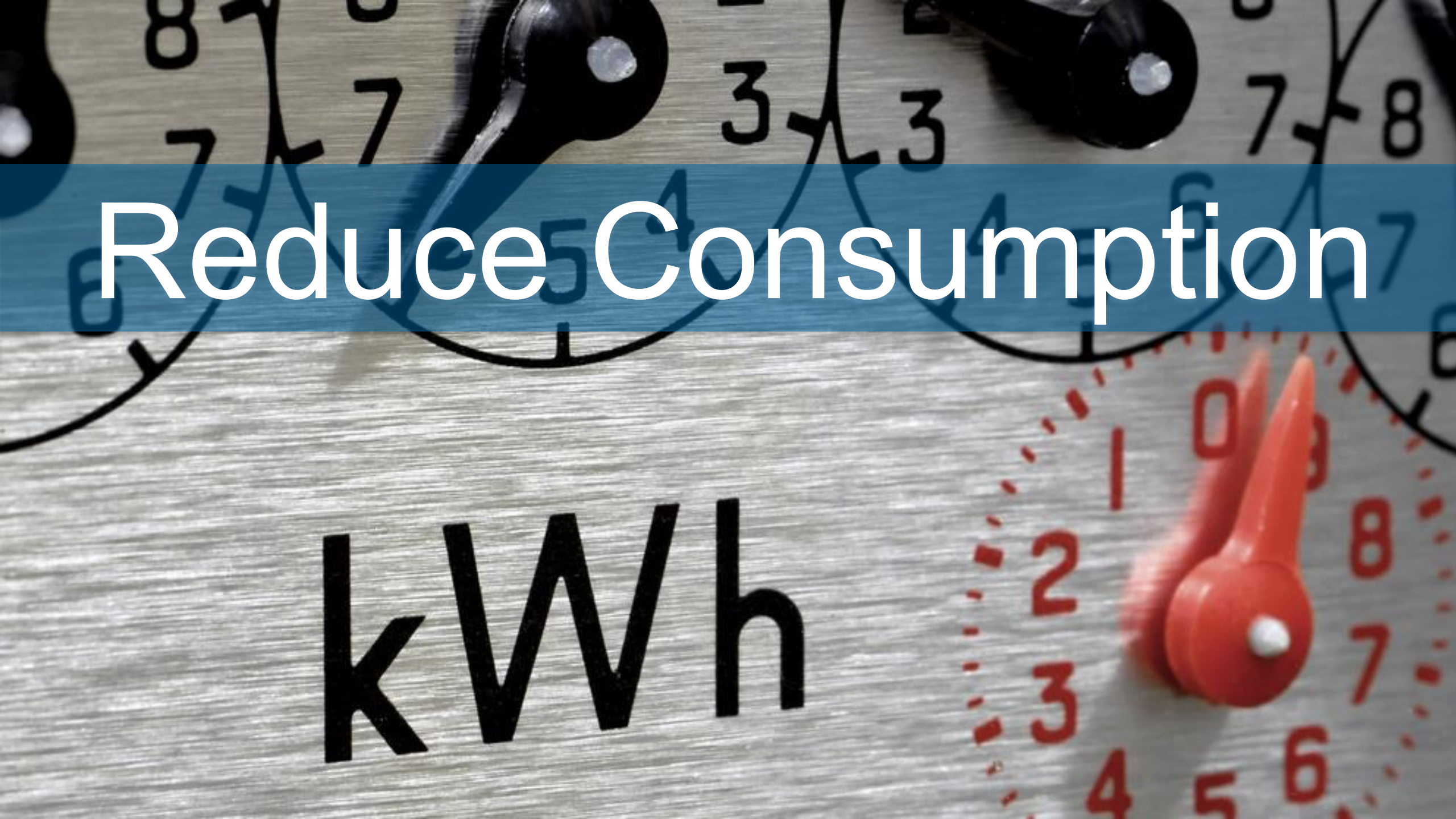
Rob Wheatley, Sales and Marketing Manager

Ameresco

Climate change is
widespread, rapid,
and **intensifying** - IPCC







Reduce Consumption

kWh

A photograph showing a row of black outdoor air conditioning units installed against a light-colored brick wall. The units are mounted on a concrete base. To the right of the units, there is a narrow alleyway with a concrete curb, gravel, and a wire mesh fence. Various tools and equipment, including a red wheelbarrow, a white bucket, and a yellow power source, are visible in the background. A blue semi-transparent banner with white text is overlaid across the middle of the image.

Improve Efficiency

Generate Renewables



University of West London

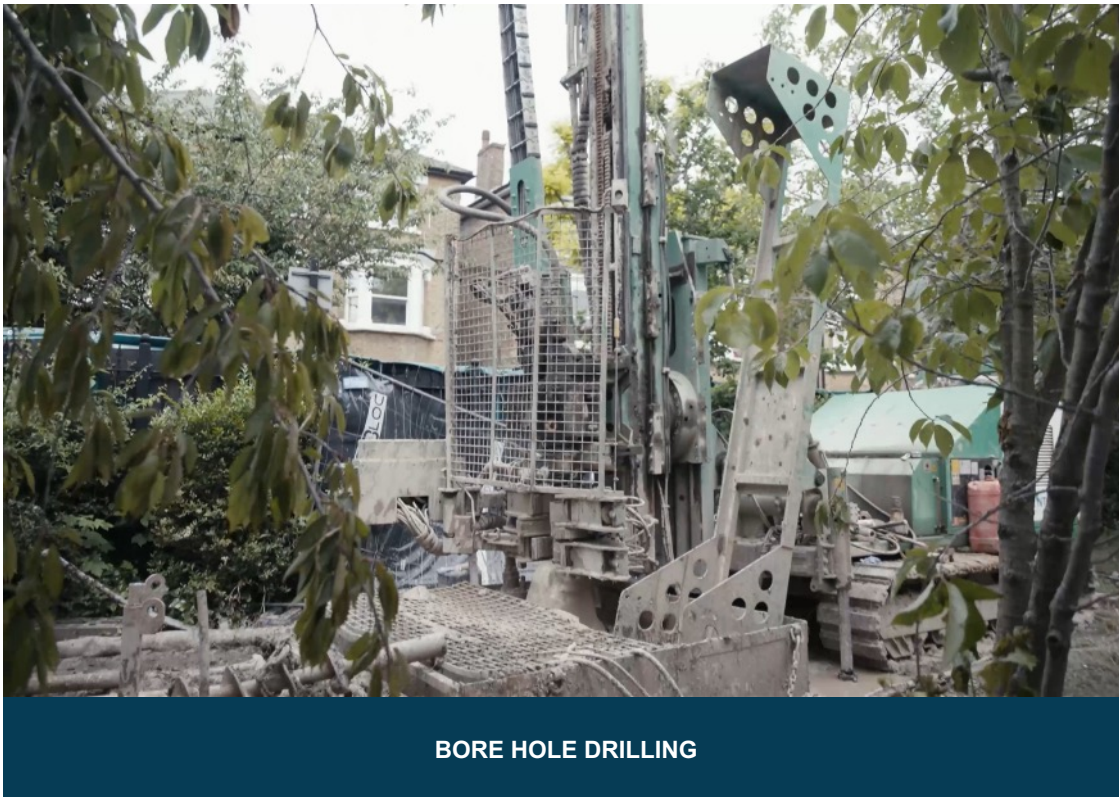
Target 2030





Ground Source Heat Pump

Boreholes

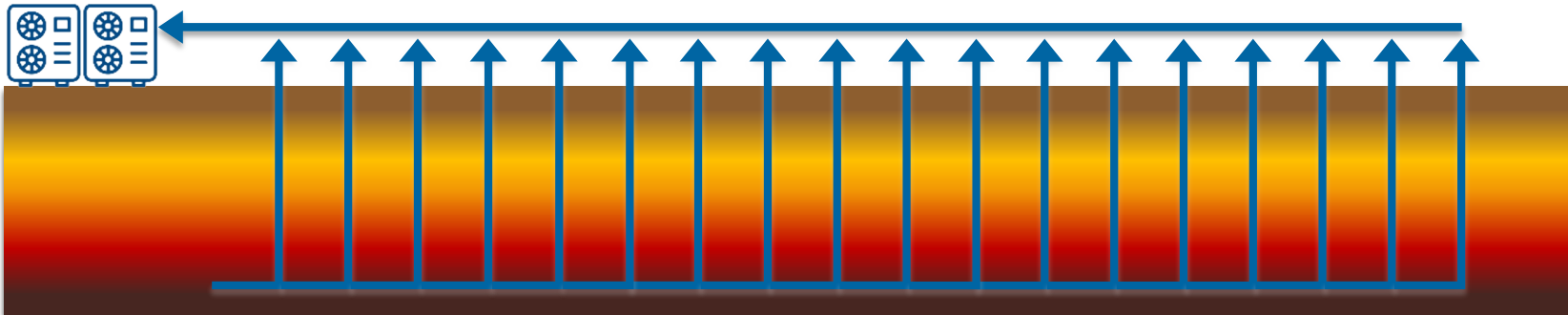
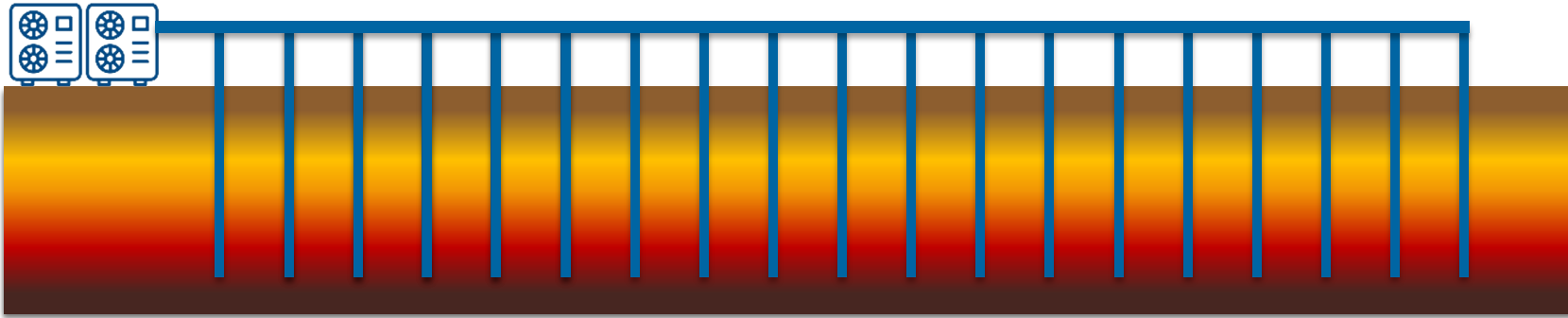


BORE HOLE DRILLING

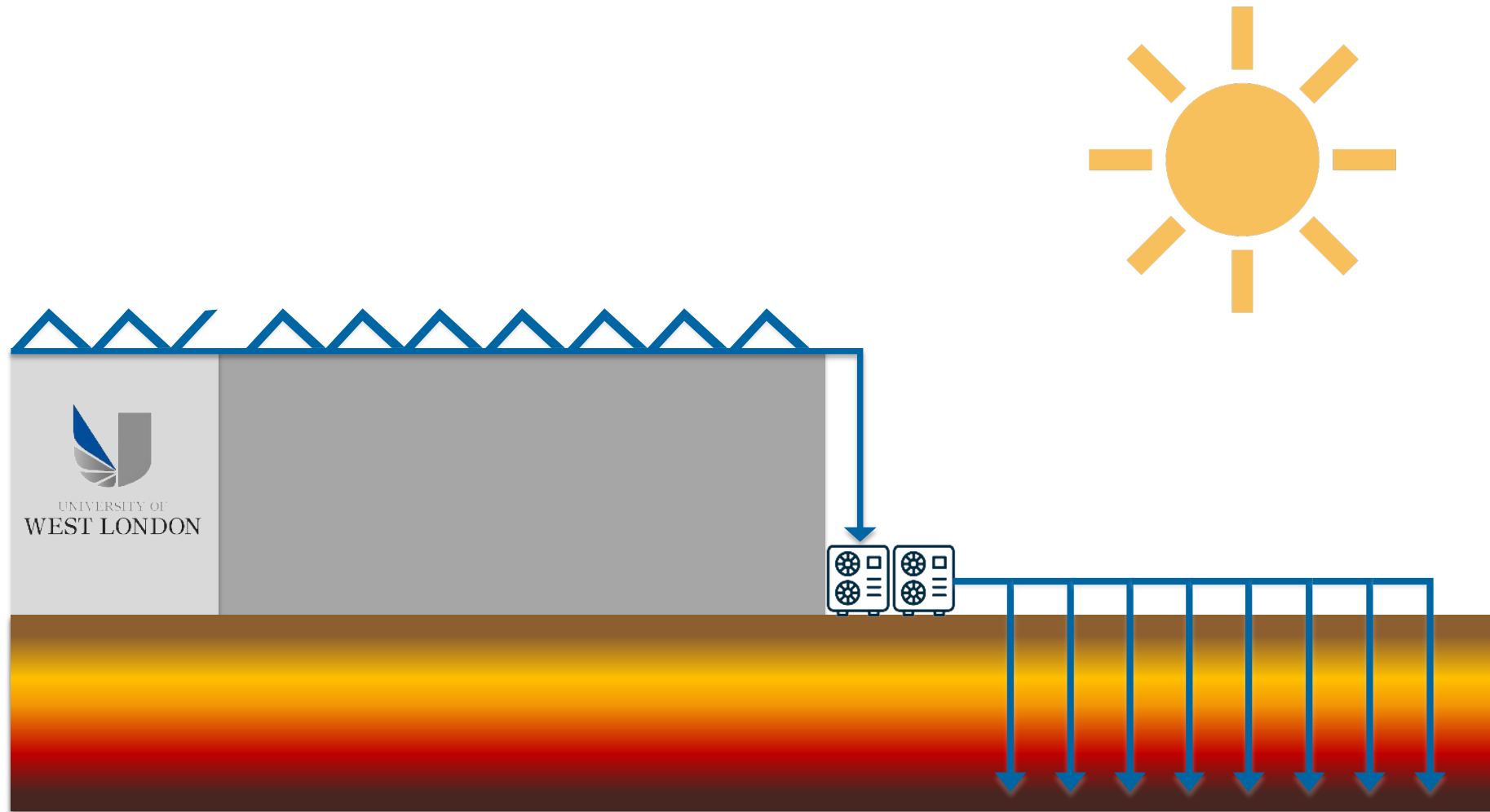
- 34 bore-holes
- 170m deep
- 15 Heat pumps



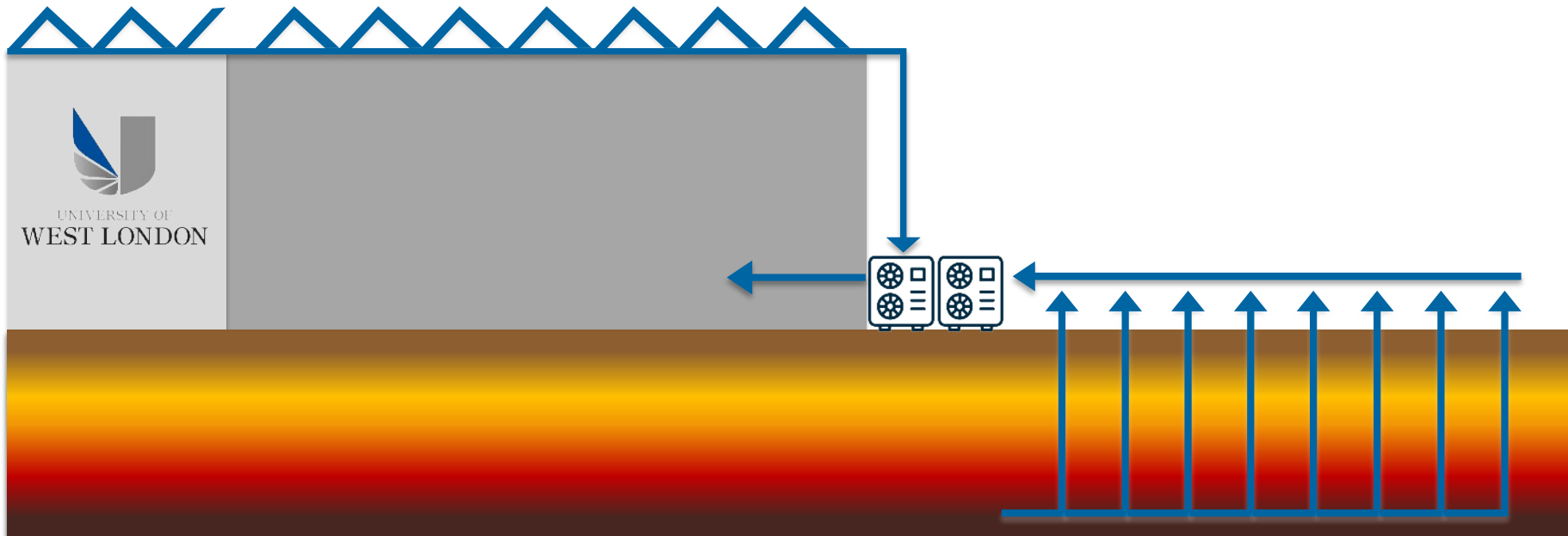
Ground Source Heat Pumps



Hybrid GSHP with PVT - Summer



Hybrid GSHP with PVT - Winter



Innovation and enhanced compatibility



MODULAR OFF-SITE MANUFACTURE



SIMPLE INSTALL



QUICK - MINIMISED DISRUPTION

Innovation in Energy Services

Commercial Models : EaaS



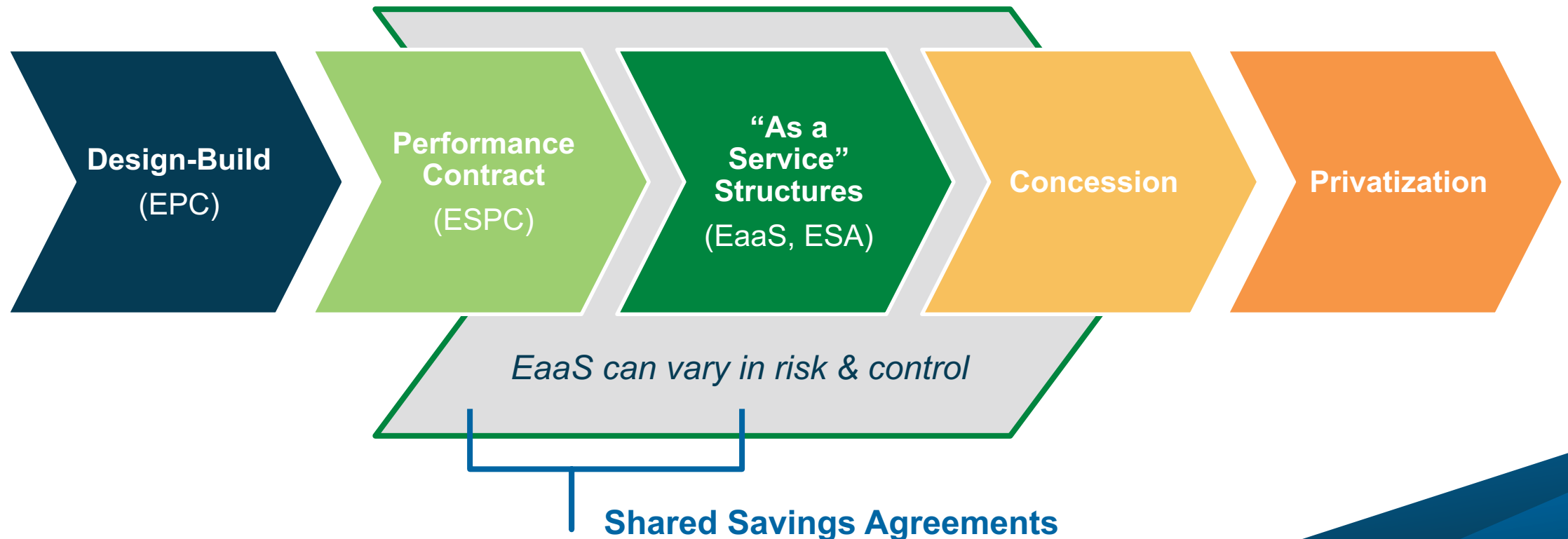
Ameresco's Approach to EaaS



- Starting with **energy analytics** that create a roadmap for reducing cost and self-funding improvements
- ↓
- Implement **energy efficiency**, demand management, and **infrastructure improvement** measures to reduce energy consumption / load
 - Optimise the plan with **distributed energy generation, storage and microgrid** – incorporating renewable energy solutions – and **energy supply management**
 - Deliver **operations and maintenance** services while leveraging ongoing **analytics**
 - All solutions delivered with an **innovative financing** model without capital in an **off-balance sheet** or off-credit vehicle

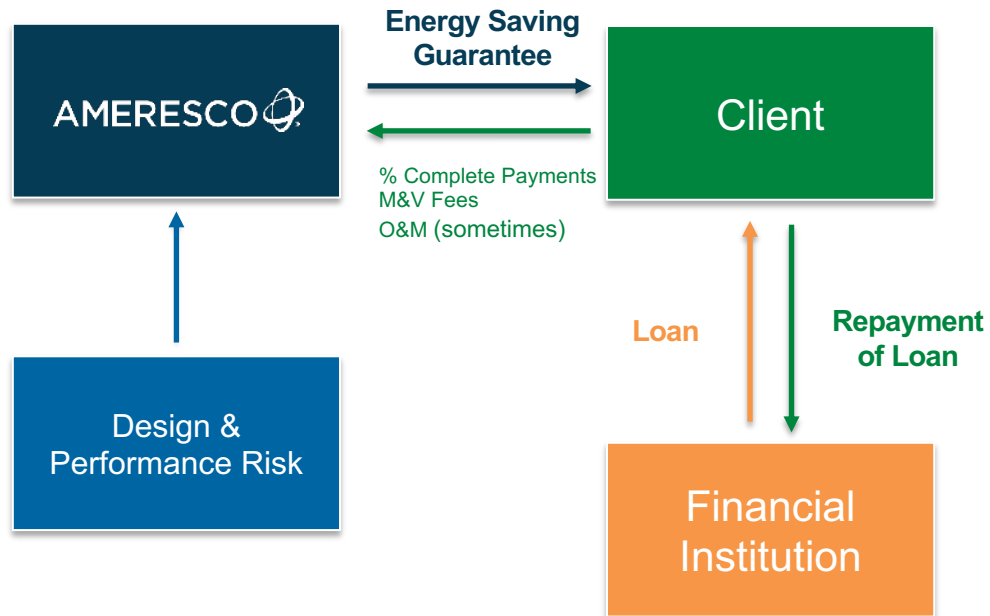
Level of Risk Transfer and Control

Under the EaaS umbrella, different projects can be implemented under different structures:

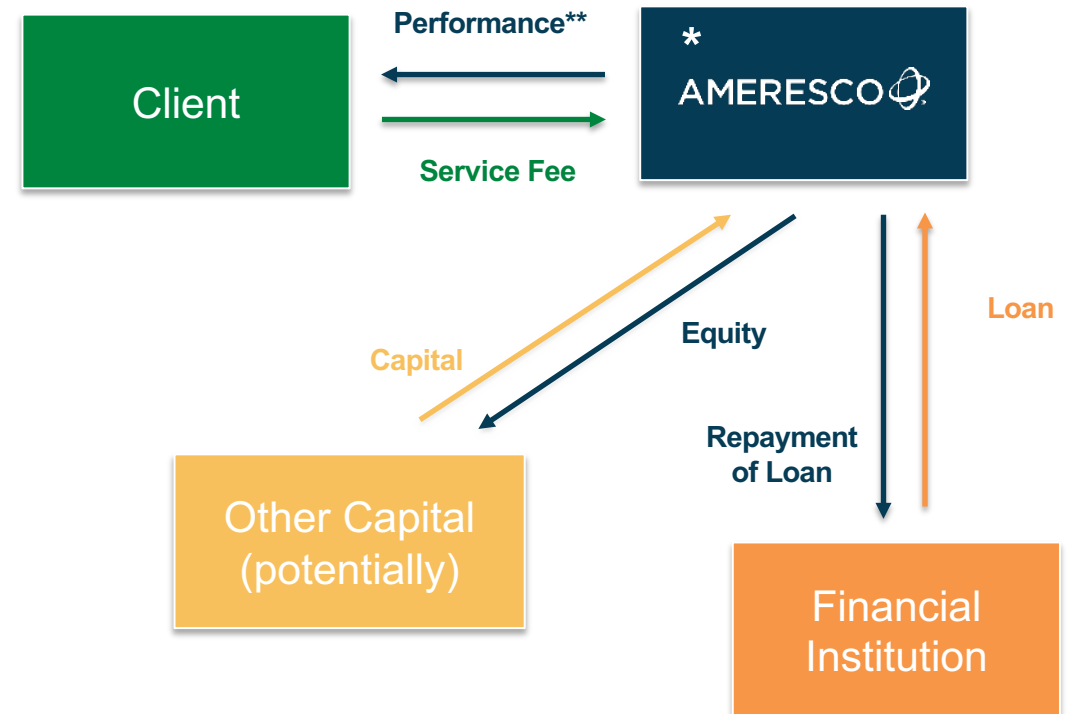


Comparing EaaS Structure/Model

Typical Performance Contract



Typical Energy as a Service



Balance Sheet Impact

- Service agreement structure such that customer **payments are contingent** on Ameresco achieving certain **performance criteria**
- Under the EaaS, the transaction is **structured as a service agreement** and **Ameresco* owns** the equipment and/or assets being installed
- Properly structured, the EaaS should have a **neutral or positive impact on your credit rating** and may be treated as **off-balance sheet** (*you will determine whether off balance sheet or not*)

* Ameresco can own the assets, however an EaaS can be structured in a number of ways to optimize the tax and customer requirements - a special purpose company, Ameresco's capital partner may own the assets, customer. Ameresco will assume risks typically associated with ownership.



Benefits of Energy as a Service



Address **deferred maintenance** backlogs with **no capital** outlay or requirements to take on debt



Progress toward **sustainability targets** with efficiency and green, renewable energy solutions



Rely on an **experienced partner** to address facility and energy needs, **removing ongoing risk** and burden of energy infrastructure and management



Enhance **energy conservation** and **modernize energy systems** with comprehensive solutions



Leverage an **experienced and dedicated team** of operators, engineers, construction personnel



Reduce energy costs and grid reliance while **increasing resiliency** and energy security

Summary

Technology

- We have the tools and know-how required to limit warming
- We can find more solutions as we push further with innovate combinations

Commercial models

- There is more money available to invest than opportunities to invest in
- If we can unlock the barriers to funding, we can have a fighting chance

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- We have the tools and know-how required to limit warming
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Thank You!

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Back up slides

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University of West London



The University partnered with Ameresco to design and develop a decarbonisation project. The retrofit encompassed energy efficient upgrades and integrating renewable energy sources to replace its ageing heating, ventilation, and lighting systems. The project was also recognised as a top decarbonisation project in the higher education sector by the Energy Managers Association

Project Highlights

Solution Types:

LED Lighting | Energy Efficiency |
Solar |
Renewable Energy | Building
Management Systems |

**9,460 tonnes of CO2 saved
across equipment**

**£5 million award from the
government's Public Sector
Decarbonisation Scheme**

**Annual Gas Savings:
3,116,738 kWh**

“As a University, we are taking a **leading role** in our community and doing our bit to tackle the **global climate crisis** and build a better future. This major decarbonisation project will allow us to create our own renewable electricity and run our buildings more efficiently.”

Professor Peter John CBE
Vice-Chancellor

Investment

£5 million

Carbon Savings

530 tCO₂e

Gas Savings

3 GWh

Example

University of Winchester

Target 2025



Integrated solution

220 LED lights

34 Air Source Heat Pumps

151kW Solar PV panels

98 flats with smart building controls



“The low carbon plant and equipment will support savings of over 500tCO₂e a year, with Scope 1 and 2 emissions **falling to almost zero**, which equals financial savings of up to £100k”

Gavin Hunter
Chief Operating Officer

Investment

£3 million

Carbon Savings

500 tCO₂e

Gas Savings

3 GWh



Manchester City Council

England, UK



Manchester City Council (MCC), the authority for the third largest UK city, partnered with Ameresco to complete significant upgrades and optimisations to its energy infrastructure. These modernisations deliver long term carbon, energy, and cost savings across the Council's estate to help toward achieving their carbon zero goal by 2038. Upgrades to energy infrastructure provide a significant reduction in carbon emissions and annual energy costs for the community.

Project Highlights

Solution Types:

LED Lighting & Controls | Building Management System (BMS) Optimisation | Boiler Upgrade | Combined Heat & Power (CHP) | Heating Controls | Pipework Insulation | Pool Cover | Solar PV | Transformer Optimisation | Variable Speed Drive (VSD) Optimisation

1,416 tonnes of CO2 saved per year

Project Size: ~ £6.1M

Annual Gas Savings: £694,000+

Renewable Generation Capacity: 2.6MW

U.S. Marine Corps Recruit Depot

Parris Island, SC



The U.S. Marine Corps Recruit Depot Parris Island chose Ameresco to deploy a comprehensive Energy as a Service ESPC project over 120 buildings to further the Marine Corps Installation Command mission. The project ensures a **reliable, secure energy supply** and **reduce lifecycle operating costs** of Marine Corps facilities while **managing future commodity price volatility**.

Project Highlights

Solution Types:

Efficiency Measures; Energy-as-a-Service (EaaS); Solar; CHP; Microgrid; Storage; Operations & Maintenance

Utility Energy Demand:
75% Reduction

Water Consumption:
25% Reduction

Onsite Electric Generation:
10 MW

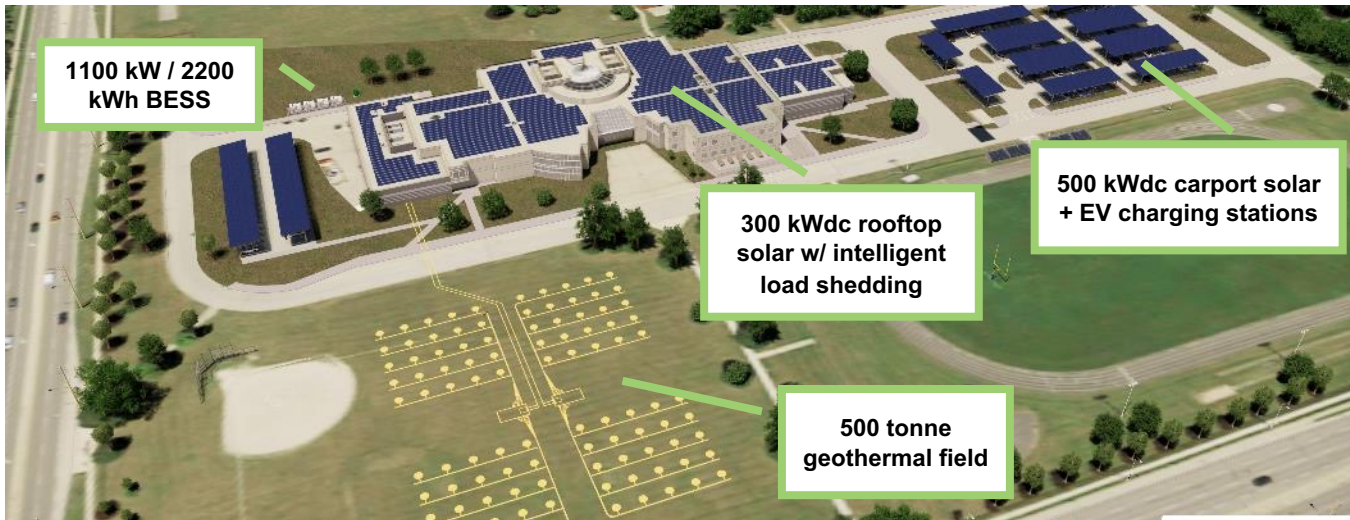
Battery Energy Storage System:
4 MW / 8.1 MWh

Annual Energy Savings:
\$6,000,000

John Paul II Secondary School (JP II)

London District Catholic School Board

London, ON



After several phases of work with LDCSB, the \$9.9M (CAD) EaaS project with the JP II involves Ameresco assuming 100% responsibility for the facilities' energy needs over a long term service agreement under which Ameresco will design, build, own, operate and maintain an **on-site microgrid-controlled renewable generation system** including BESS, PV, and geothermal. These implemented solutions will also **decarbonize the school** and enable **islanding** capabilities and **reliability of electricity** to the facility during extended outages.

Project Highlights

Solution Types:

Battery Energy Storage System; Efficiency Measures; Energy as a Service (EaaS); Energy Analytics; Geothermal; EV Charging; Solar PV – Rooftop & Carport; Microgrid; Operations & Maintenance

Onsite Solar Generation:

700 kW AC

Onsite Geothermal System:

100 Borehole Heat Exchanger

(Remove fluid coolers & boilers)

Battery Energy Storage System:

1,100 kW / 2,200 kWh

(Supports both school & utility)

Contracting Model:

25-Year Carbon Free EaaS