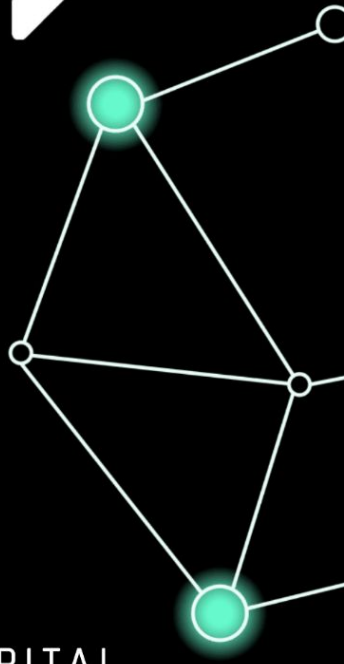
SET ALLIANCE WEBINAR

Financing Efficiency-as-a-Service: Key Insights and Best Practices

metrus

Amberside Advisors



SOLAS CAPITAL

September 24th 2025

ENERGY PARTNERS REFRIGERATION

Aston Business School BIRMINGHAM UK

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About SET

SET ALLIANCE

The SET Alliance builds on the work completed by the Cooling as a Service (CaaS) and the Efficiency as a Service (EaaS) initiatives, both led by BASE since 2018 and 2020. The Alliance is made up of the secretariat (BASE), an esteemed steering committee, with a wealth of experience in deploying service solutions, and members dedicated to driving forward the mainstreaming of the Servitisation model and decarbonising the built environment.

SET SECRETARIAT

BASE

BASE, a Swiss non-profit established in 2001, has earned global recognition for its specialization in pioneering business models and financial strategies. Operating across the globe, BASE is dedicated to advancing cleantech and sustainable solutions, focusing on making them more competitive and affordable in response to climate change.

SET STEERING COMMITTEE & STRATEGIC PARTNERS

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MEMBERS AND OUTREACH PARTNERS

Solution providers & Consultancies
Financiers & Insurers
Customers
Researchers
Associations & Initiatives

"We empower organizations to accelerate the energy transition by adopting energy efficient, accessible, and clean solutions through XaaS."

Housekeeping

SET ALLIANCE

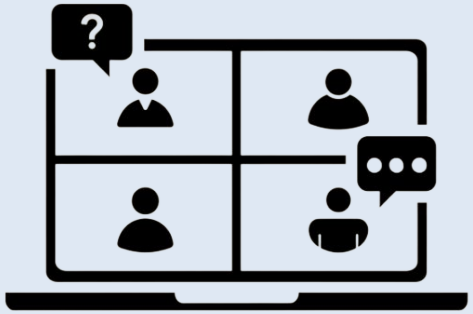
Session Duration
This webinar will run for 60 minutes, including 3 speaker presentations followed by a Q&A session.

Recording & Resources
This session is being recorded. Slides and materials will be shared after the webinar via email and on LinkedIn.

Interaction
- Participate in our live poll
- Use the Q&A function to submit questions at any time
- Use the chat for comments, networking, or technical issues

Survey & Stay Connected
Look out for the feedback survey at the end (help us improve!) and please reach out to us for follow-ups or further discussions

We hope you enjoy the session and thanks for joining us!



Word cloud
37 votes

Poll settings

What are the challenges in financing Efficiency-as-a-Service?

Review answers 46

FINANCING EFFICIENCY-AS-A-SERVICE:
Key insights and best practices

SET ALLIANCE

MODERATOR

SPEAKERS

BASE

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metrus

BOB HINKLE
Founder and CEO

SOLAS CAPITAL

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Amberside Advisors

SHIVALI MATHUR

Associate for Energy Transition

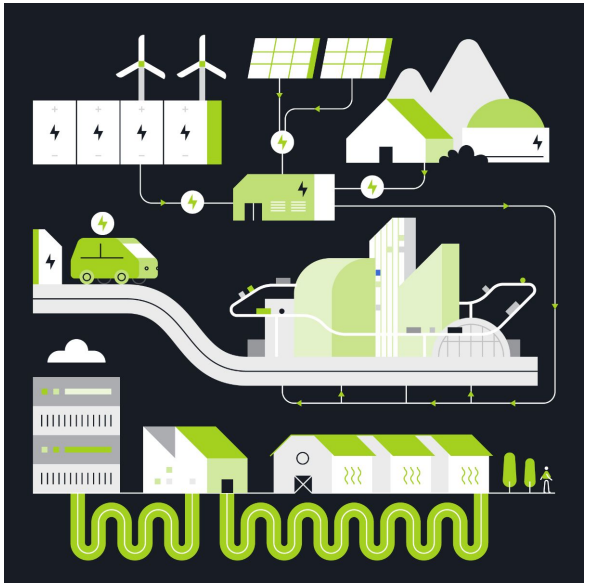
Financing of EaaS projects

Amberside Advisors | A Steer Company

Shivali Mathur

Introducing Amberside Advisors

- We are a full-service financial and commercial advisory practice, providing advice to investors, companies, and local and central government.
- In-depth sector knowledge across infrastructure, renewables and energy transition, with specialism in decentralised energy.
- Founded in 2009, part of Steer Group since 2022. Currently a team of ca. 45 advisors, modellers, analysts.



£40bn+
Total project asset value

2,500+
Projects

65%+
of PFI/PPP's projects in the UK

12 GW
of renewable investment

45+
Countries

35+
Sectors

Market Context:

- The Market is Broadening: Service-Based Models Gaining Traction
- Traditional models: CapEx purchase, EPC contracts, ESCO frameworks.
- Emerging models: Efficiency (or Energy)-as-a-Service (EaaS), Cooling-as-a-Service (CaaS), Lighting-as-a-Service (LaaS), BaaS (Battery as a Service).

Market evidence:

- Global EaaS market valued at approx $52–74 billion (2024).
- Forecast to grow 10–12% CAGR over the next 5 years.
- Sources: Fortune Business Insights, Grand View Research, Markets & Markets.

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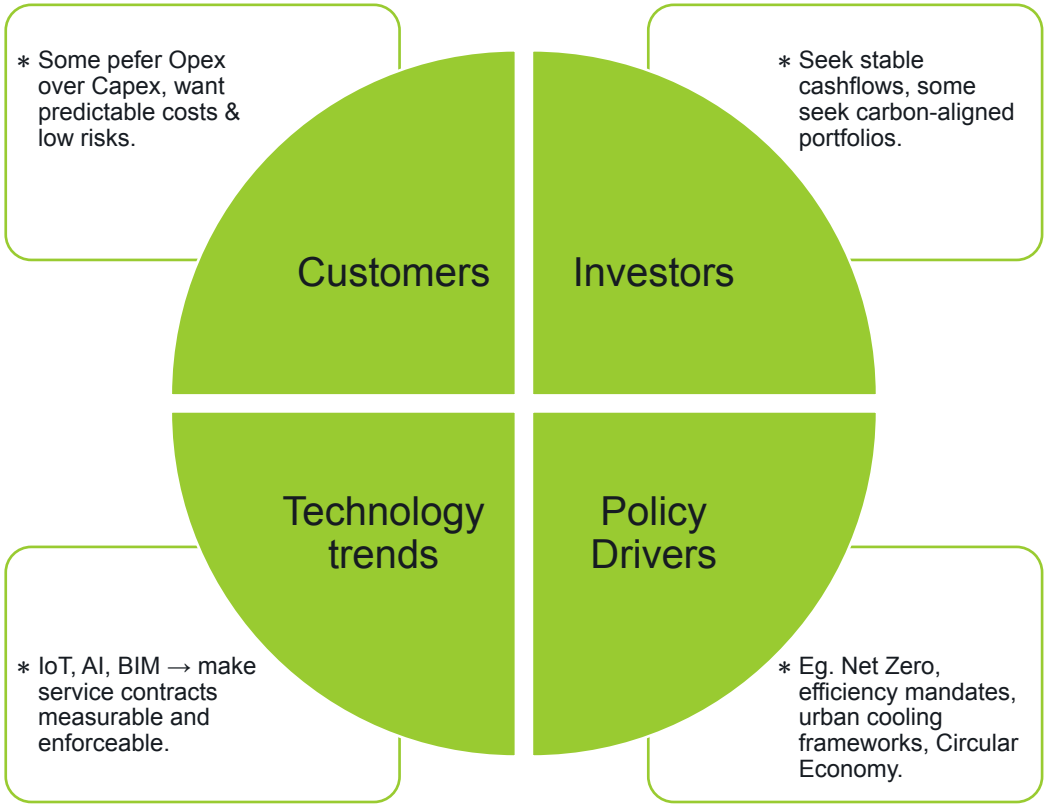
Why service models are emerging?



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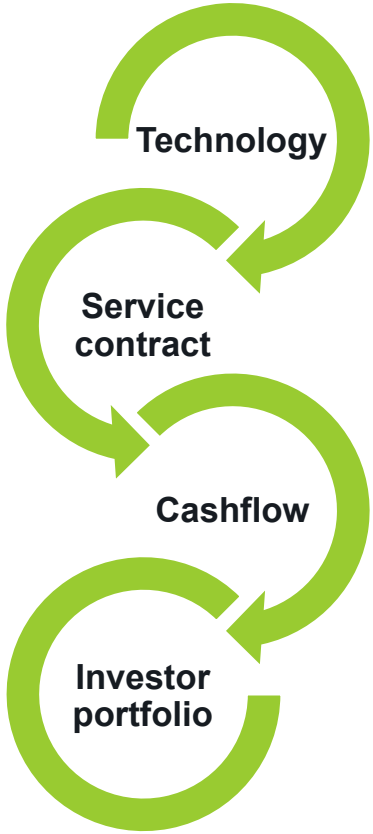
Investor Perspective

Why investors are allocating capital to service models

- Predictable, recurring cashflows from long-term service contracts (similar to utilities or real estate)
- Portfolio logic: bundling many small contracts into investable portfolios; potential for securitisation
- Risk allocation & guarantees: use of warranties, delivery partners, and guarantee instruments reduces perceived risk.
- ESG alignment: measurable outcomes in efficiency, carbon reduction, and resilience strengthen investor appetite



Activity and confidence in service-based models

- **Redaptive:** large credit facilities & warehouse financing used to scale EaaS receivables (institutional capital).
- **eEnergy / Redaptive partnership (UK):** up to £100m funding line + local delivery partner model (illustrates investor + operator split).
- **Metrus / others:** multi-site commercial EaaS programmes (demonstrate portfolio approach).
- **Budderfly / Ember / Sunnova / CAS Energy / Alternus / Keppel (with Huawei) / AlphaStruxure / Energia Real / CBRE IM (Finnish platform)** — examples of companies and transactions deploying EaaS, microgrids, solar-plus-storage, or long-term energy service partnerships across regions (US, Europe, APAC, LatAm).
- **Programmatic pilots:** BASE/UNEP, university P3s, and public sector strategic EaaS procurements show public interest.

Implications for Technology Providers

	CapEx model (traditional)	Service model / SPV
Owner	End user	SPV / investor / operator
KPI's prioritised	Purchase cost, warranty, nominal efficiency	Uptime, delivered performance (kW/TR), availability, SLA compliance, verified carbon savings
Financing	Customer own-balance sheet or bank loan	institutional capital, credit lines, green bonds; cashflows are service fees

Financing mechanisms & structures enabling EaaS growth

- **Blended finance:** concessional + commercial capital lowers risk (e.g. IFC's Scaling Cooling Program; Singapore Green Bond framework)
- **Energy Service Agreements (ESAs):** long-term contracts (cooling/heating purchase agreements) de-risk investments
- **Climate-focused venture debt:** e.g. Climate Investment Funds, Breakthrough Energy
- **Guarantees:** credit guarantees for EE projects provided by development banks / local banks
- **Sustainability-linked loans:** interest rates tied to achieving performance or ESG targets
- **Selling receivables / securitisation:** bundling service contract cashflows into investable portfolios (institutional investors, banks)
- **Policy drivers:** regulatory schemes reduce risk and unlock uptake (e.g. Italy's "Superbonus 110%" for energy efficiency)
- **Golden share structures:** public retains strategic control while enabling private capital participation

How technology increases investor returns (practical levers)

- **Performance consistency:** products that meet/exceed forecast lower risk premium.
- **Predictive O&M & AI:** reduce downtime, lower O&M cost — directly improves returns.
- **Interoperability & data:** open APIs, BIM readiness, M&V protocols for financiers.
- **Grid/network integration:** products that can participate in demand response/grid services in constrained areas can create additional revenue streams.
- **Regulatory resilience:** design for refrigerant rules, building codes, and carbon reporting to avoid retrofit costs.

The Impact of Contract Design on Investor Confidence

Today's corporate environments =

uncertainty + long-term contracts.

- Reallocating property rights (service provider owns the asset) balances incentives & risks. Investors prefer limiting their risk exposure (example - with off-takes agreement for long term assuring revenue)
- Flexibility is key: contracts must adapt to changing customer needs, market dynamics, and regulatory environments.
- Optimal contracts = distribute incentives fairly across supplier, customer, and financier.

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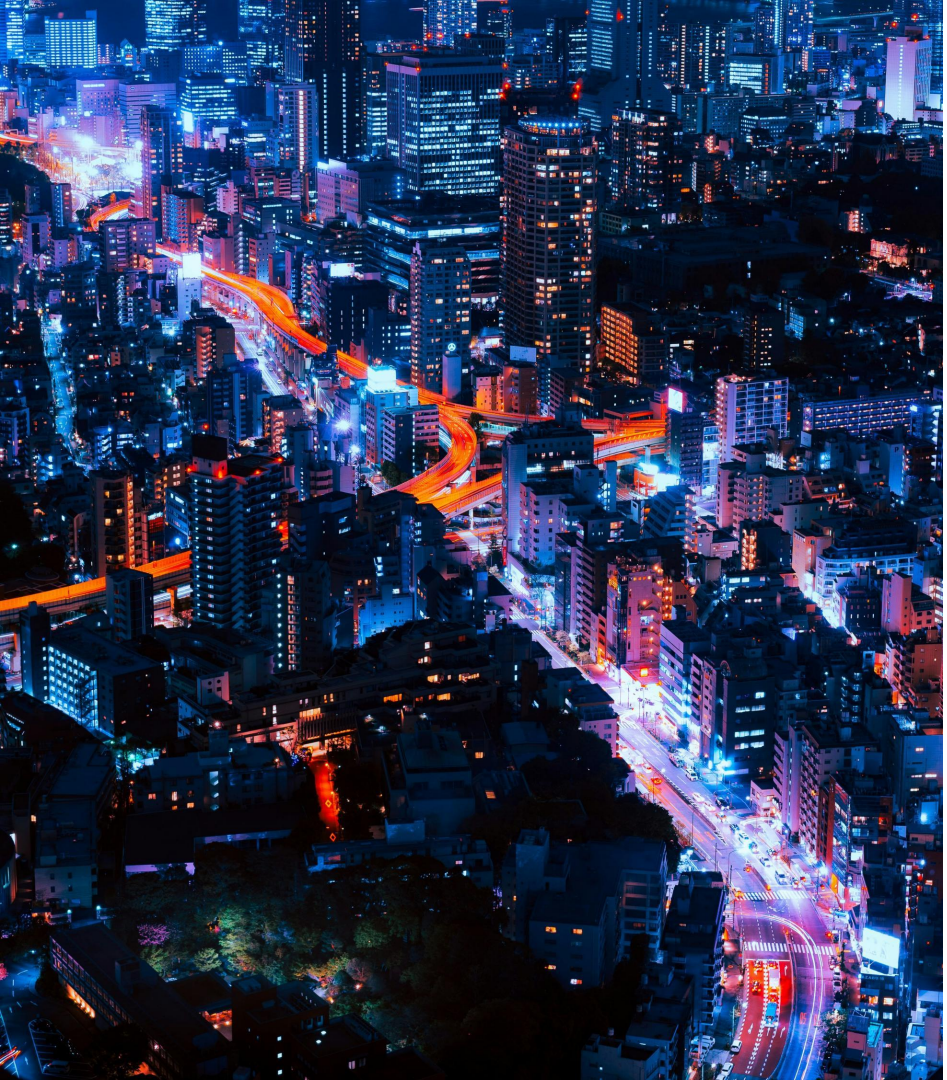

Practical actions for technology providers – what investors look for

- Design for outcomes: sensors, AI, remote diagnostics to evidence performance
- Support investor due diligence: standard M&V, warranties, and life-cycle data
- Enable integration: grid participation, demand response, storage compatibility
- Partner for scale: collaborate with ESCOs, SPVs, and aggregators
- Show social value: link to skills, inclusion, and public sector objectives

Complex challenges.
Powerful solutions.

Please contact:

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Thank you

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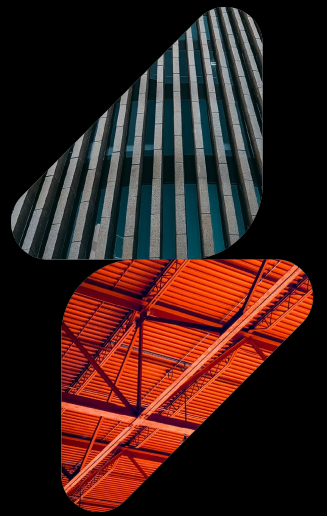
BOB HINKLE
Founder and CEO

SET ALLIANCE

Financing Efficiency as a Service

Key Insights & Best Practices



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Energy as a Service: Bringing Upgrade Projects to Life

We make complex energy upgrades possible through an Energy as a Service approach. That means we fund and own the equipment, and partner with turnkey providers on project design, construction, maintenance, and monitoring. Customers pay based on measured performance.

Over the past 16 years, our EaaS solution has helped leading organizations implement energy upgrade projects across 34 states and 30+ upgrade types.

Total sq. ft. of properties upgraded:
36 million

Total kWh saved:
2.2 billion

Cars taken off the road per year:
189,246

Buildings retrofitted:
944

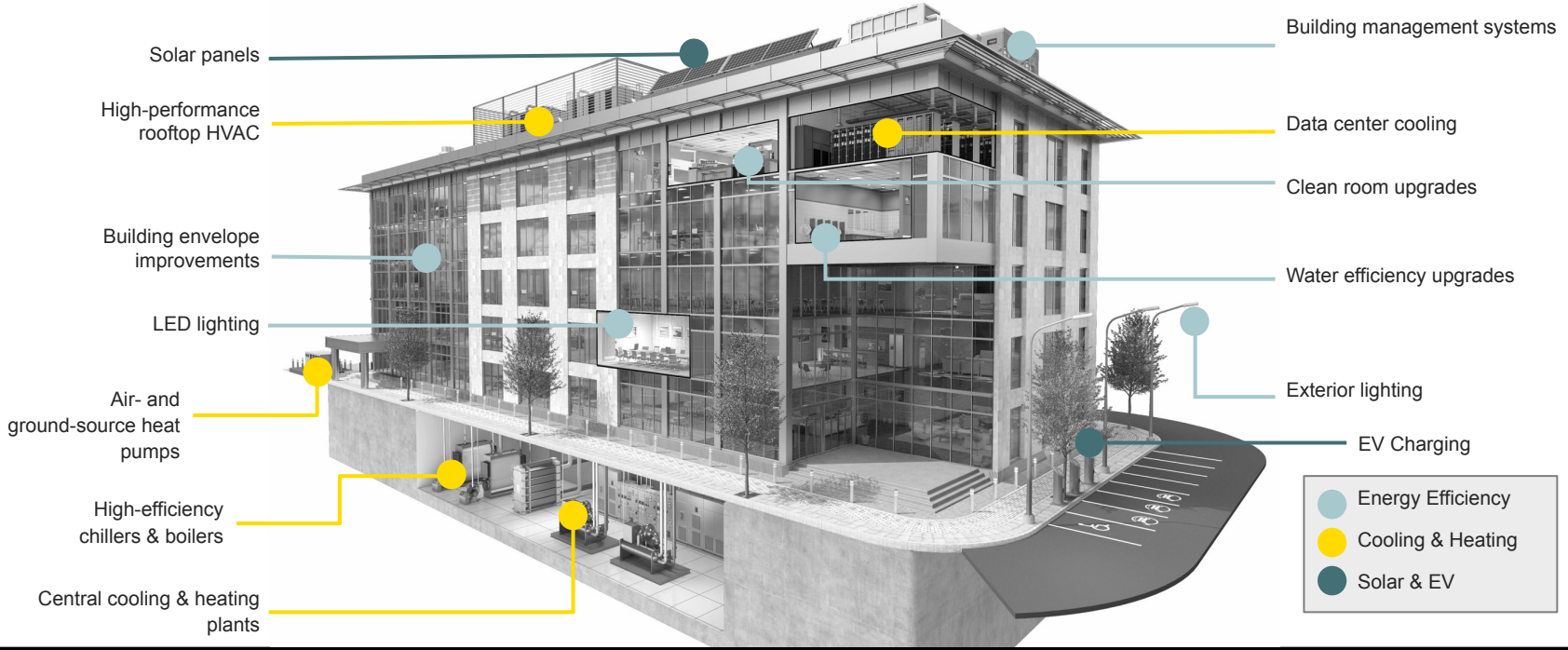
Metric tons of CO_2 saved:
811,327

Total trees planted:
13 million

IBM · Daimler Trucks North America · Queens University of Charlotte · BAE Systems · UNOH · Bristol Health · Arconic · AmerisourceBergen · amazon · Masonic Homes Kentucky · United Technologies

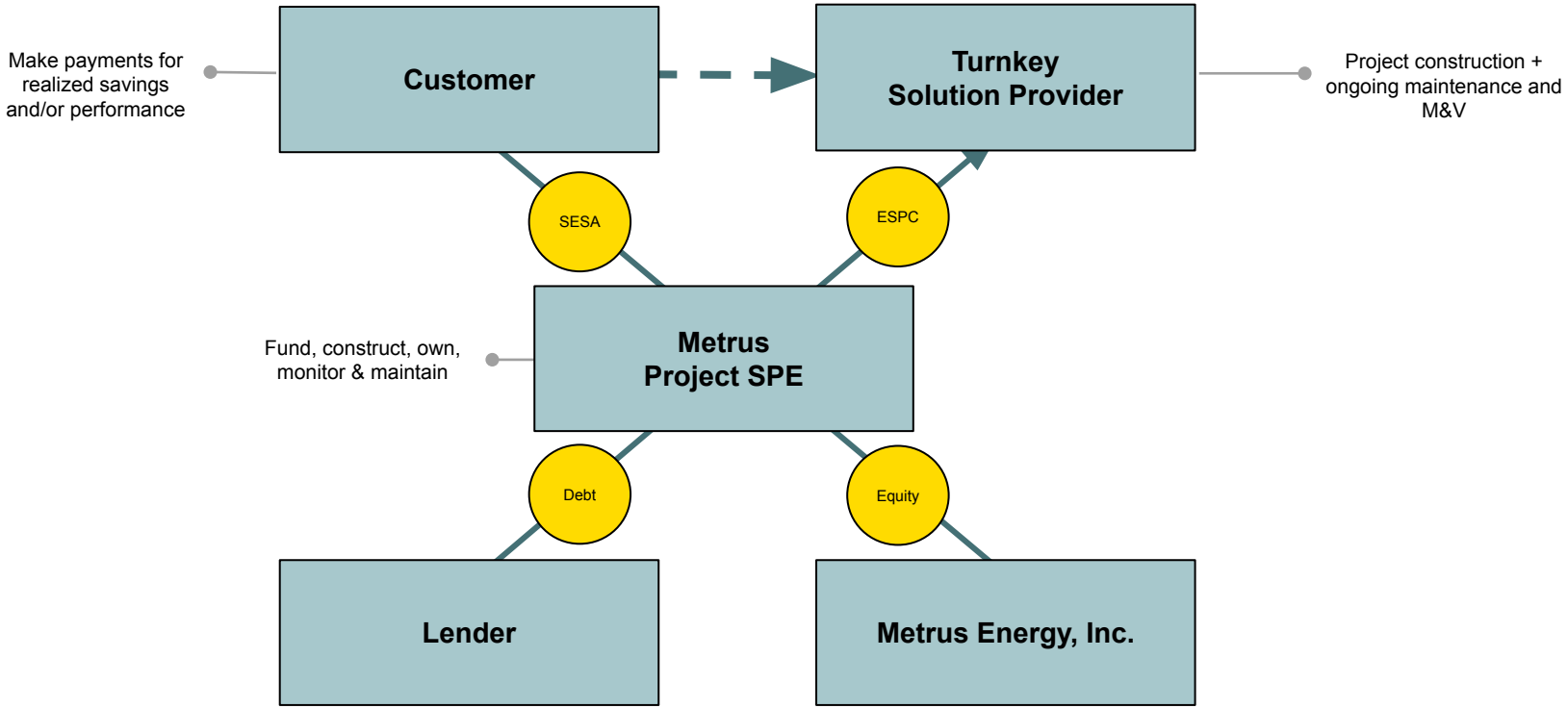
The Power is in Our Sustainable Energy Services Agreement

Our Sustainable Energy Services Agreement (SESA) is a 100% financing solution for bundling all the equipment, technologies, maintenance, and monitoring into one flexible contract, to achieve portfolio-wide results.



SESA Structure: Designed for Optimal Outcomes

Our SESA is a traditional project finance structure with clear roles and responsibilities between stakeholders.



Managing Risk for Customers & Capital Partners

Customer Risks	Mitigation Strategy
Construction:	Customers pay only after the project is completed and commissioned.
Operations:	We cover selected O&M services and include long-term equipment warranties.
Budget/Cost Certainty:	We set the service charge at levels that provide customers with budget certainty (an energy price hedge).
Performance:	Customers pay based on measured, verified performance.
Technology:	We choose proven technologies and vendor warranties to ensure reliability.
SESA Service Charge:	Our service charge is set below actual realized savings, ensuring projects are cash flow positive for customers.
Capital Partner Risks	**Mitigation Strategy**
Credit/Counterparty:	We put our own equity into deals in a first-loss position (and do our own underwriting of the customer).
Construction/O&M Costs:	We fix EPC costs and annual O&M service costs with the ESCO.
Revenue Certainty:	We fix service charge rates for the life of the contract.
Performance:	We obtain performance guarantees from the ESCO for a portion of the project.
M&V Standardization:	We prepare M&V plans in accordance with IPMVP and document them in project-level contracts.
Independent Engineering (IE) Review:	We engage independent engineers to review M&V plans and savings/performance estimates.
Equipment Useful Life:	We align SESA contract terms with the expected useful life of the equipment.

CASE STUDY

Amazon

56 Sites / 23 States / 5-year term

Challenge

With facilities across the US, Amazon needed to quickly implement energy-efficiency upgrades across the enterprise with varying utility rates and landlord requirements, and little to no capital outlay.

Project Scope

- LED lighting upgrades
- Building management systems

centrica Business Solutions

citi

Metrus Investment

$74.3 million

Annual metric tons of CO_2 saved

66,495

Annual Savings

$16.9 million

CarbonCount™*

0.95

*Annual metric tons CO_2/$1,000 invested.

CASE STUDY

Bristol Hospital

2 sites / 12-year term

Challenge

After years of deferring maintenance, maintaining the health of Bristol Hospital's mission-critical equipment was an uphill battle. They needed to reduce operational costs, simplify maintenance, enhance environmental quality and reduce energy and water consumption — without access to CAPEX.

Project Scope

- LED lighting retrofit
- Energy management systems
- Power factor correction
- Steam trap replacements
- HVAC and AHU replacement
- Water efficiency

TRANE

amalgamated bank

Metrus Investment

$4.2 million

Annual metric tons of CO_2 saved

1,112

Annual Savings

$454,889

CarbonCount™*

0.29

*Annual metric tons CO_2/$1,000 invested.

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SOLAS CAPITAL

SLAWOMIR HUSS
Partner and Investment Director

SOLAS CAPITAL

Introduction to SOLAS CAPITAL

Wednesday, September 24th

Solas Capital finances on-site infrastructure and energy efficiency

We are **based in Zurich, Munich, and Dublin,** with a European-wide focus.

Solas Capital's ambition is **to support society's move to a carbon-neutral economy** by matching the investment needs of sustainable energy projects and institutional investors.

As a specialist investment advisor, we partner with:

- Technology firms
- Project developers
- Energy service companies ("ESCOs")

to **help fund and built energy efficiency / behind the meter PV infrastructure projects.**

Backing from our cornerstone investors of the EUR 220m Solas Sustainable Energy Fund ("SSEF") including:

European Investment Bank

MEAG
A Munich Re company

supported by the EU LIFE Programme helps us to achieve our **climate impact investment strategy** complying with the highest SFDR art.9 sustainability requirements.

We are fully aligned to the

- UN Sustainable Development Goals
- Paris Agreement
- EU taxonomy and climate targets

SOLAS CAPITAL

Financing Efficiency as a Service

Benefits, business models, and regulatory framework

Technology and locations: Energy Efficiency Assets Across the EU

LED lighting

Building controls

Rooftop solar

Mature and reliable efficiency technologies

Insulation

Heat pumps

Batteries

Public

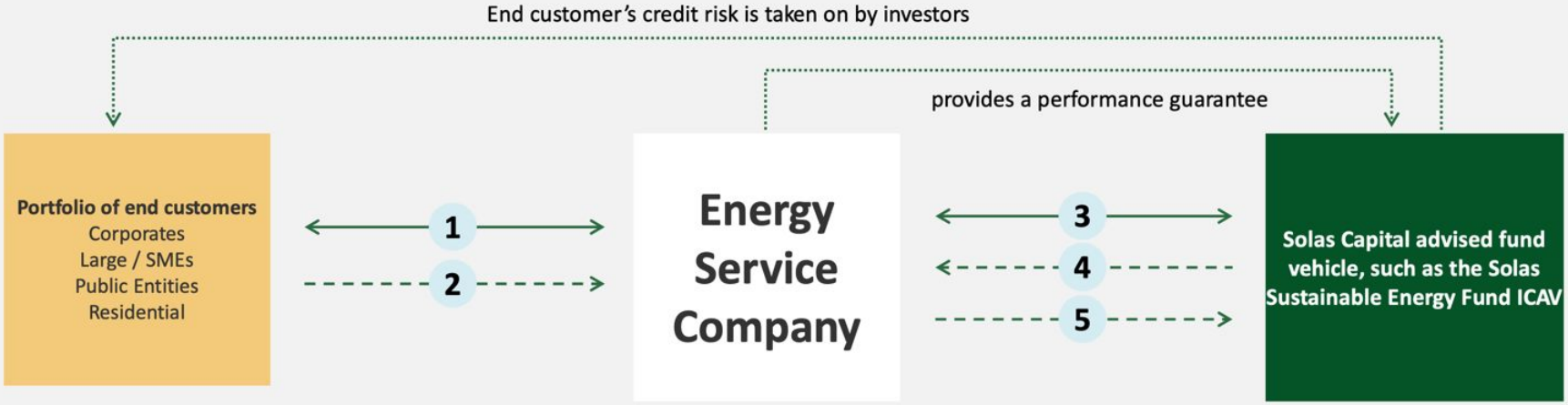
Commercial

European Energy Users

Residential

Industrial

Simplified structure and process of the ESCO Financing



1. Service contract / long term off-take agreement (PV, Lighting, Heat, etc.)
2. Service payments
3. Financing agreement to (re-)finance project contracts
4. Purchase price for receivables or cash flow-based bonds
5. Pass-through of service payments

Bridging a financing gap left by mainstream institutions, Solas Capital supports niche energy transition markets

Instead of traditional bank/institutional structures, a flexible boutique approach is needed with years of experience of dealing with the challenges of mid and small size project developers und the extreme granularity in the buildings sector.

Key Challenges Faced with Traditional Financing		Solas Capital Advantage
Tenor mismatch	Bank loans (3–7 years) too short for EPC/ESCO contracts (10–15 years).	Tenor up to 15 years, matching EPC/ESCO contracts.
Cultural mismatch	Mindsets are used to single/big projects with very high DD standards, slowing the processes.	Experience in dealing with the entrepreneurial challenges and openness for practical approaches needed.
Scaling challenges	ESCO projects are often distributed and individually sub-scale, below the size thresholds of institutional lenders.	Structured to finance small, distributed portfolios efficiently.
Pipeline risk	Project-by-project basis, with limited flexibility across technologies/jurisdictions, requiring fixed drawdown schedules.	Flexible framework financing facility can cover multiple projects, customers, technologies, and jurisdictions.
<100% Less than 100% CAPEX financing	Equity contributions from the project developer or client, limiting project uptake and slowing deployment.	Competitive off-balance sheet funding up to 100% CAPEX allowing for speedy scaling.

Solas: Reporting Requirements

Regulatory Framework

Technology:
- EU Taxonomy for Sustainable Activities (**EU Taxonomy**)

Financial Sector:
- Sustainable Finance Disclosure Regulation (**SFDR**)

Corporate Sector:
- Corporate Sustainability Reporting Directive (**CSRD**)
- Corporate Sustainability Due Diligence Directive (**CS3D**)

Customers' Reporting to Solas

Initial Reporting:
- Project-specific information
- Energy savings (kWh)
- CO2 savings

Quarterly Reporting:
- Customer payment behavior (defaults/delinquencies)
- Updates on Reserve Accounts (DSRA/O&M Reserve)

Annual Reporting:
- Financial statemnts (Customers & ESCOs)
- Updated credit rating reports
- Update on energy savings

SOLAS CAPITAL

Case studies

Light as a Service

Heating as a Service – Multi Family Homes

Public Sector Deep Building Retrofits

Case Study: Light as a Service with PHILIPS Lighting

Signify Framework Information	
Signing Date	June 2025
Framework Volume	€10m
Technology	LED
Business-model	Light as a Service (LaaS) and deferred payment
Maturity	4 to 10 years
Structure	Sale of receivables - off-balance sheet (IFRS 9)

The investment will finance **connected lighting installations** for public and private customers across various EU markets, providing **cost savings and quality sources of light** for the customers.

CO2 savings of approx. **800 tons per €1 million** invested. LED retrofits of conventional lighting installations result in about **67% electricity savings.**

Solas purchase receivables from various Signify project contracts and **takes over the credit risk of the customer,** while Signify guarantees the performance of the project.

Case Study: Heating as a Service

Apartment Building in Frankfurt

Building Data:
Number of floors: 19
Number of units: 80
Total living space: 6400 m^2

Energy efficiency class: F
Energy source: natural gas
Construction year of heating: 2023

In 2021, more than 45% of German properties were categorized as energy efficiency class F or below.

Project outcomes:

	Before Implementation	**After** optimization of heating system
Energy consumption	1,243,982 kWh	995,186 kWh
Emissions	298,556 kg CO_2	238,845 kg CO_2
Energy costs	182,990 €	146,292 €
	Energy Efficiency Class **F**	Energy Efficiency Class **D**

20% savings in:

Using 2024 figures for energy prices

Energy consumption | Energy costs | Carbon emissions

- Significant savings **on ancillary costs** lead to more affordable housing for tenants.
- Increased EE rating should result in **better financing conditions for** building owners and effectively **more stable rents for tenants.**

Case Study: Retrofitting public buildings with HVAC*, LED & PV

Environmental Finance IMPACT Awards 2024 Winner
Impact project/investment of the year: Infrastructure (not including renewables)

A building retrofit financed by Solas Capital

Primary School & Health Centre
In the municipality of Ilirska Bistrica

Installed measures:

- Energy management
- Roof insulation
- Façade insulation
- New windows & doors
- Renovation of heating system
- Lighting
- HVAC for sports hall
- Thermostatic valves

Before

After

Project outcomes (yearly)

757’387 kWh
Energy consumption saving

351’390 kg
Carbon emissions saving

Equal to

16’830 EVs that could be fully recharged by the electricity saved

*one e-car consumes on avg. 45kWh per year
Source: Energy Prices

42 households powered for a year (avg. 4 people)

*one household consumes 17’851 kWh per year
Source: DeStatis

*HVAC: Heating, Ventilation and Air Conditioning

SOLAS CAPITAL

YOUR CONTACTS

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Q
A

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Now Open!

2025 Efficiency-as-a-Service Innovation Showcase Awards

Who can apply?

Organisations delivering or finalising Efficiency-as-a-Service projects, ready to share their impact.

Why apply?

- Showcase your innovation and inspire industry peers
- Accelerate global adoption of efficient service-based solutions
- Receive a professionally developed case study
- Gain extensive visibility through our networks

Quick and easy: 10–15 minutes to apply

Apply now

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Contact us:**info@set-alliance.org**

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