



Efficiency as a Service
Plugging a new energy model

Context

The European Union (EU) has set the ambitious objectives of reducing GHG emissions and achieving energy savings by 2030 and soon higher ambitions, as a carbon-neutral continent by 2050 can be set.

According to the EU, it is estimated that an additional investment of EUR 177 billion per year is necessary to reach overall energy and climate objectives for 2030.

For long, energy efficiency has been one of the most underrated opportunities to reduce our carbon emissions. Since 1975 energy efficiency measures have been responsible for reducing 30 times more carbon emissions than clean energy. End-use energy efficiency alone can deliver 35 per cent of the cumulative CO₂ savings through 2050 required to meet the climate goals of the Paris Agreement.

Although energy efficient technologies are available, there are still several barriers that prevent it from being deployed at its full potential, including high up-front costs, higher-risks perception, uncertain returns, other priority investments, lack of maintenance skills and limited financing options.

Servitisation represents an effective way to increase investments in energy efficiency needed for the economic recovery after COVID-19 and to deliver the EU targets, the Paris Agreement goals and achieve a low-carbon economy.





Efficiency as a Service

Efficiency as a Service (EaaS) is a servitisation game-changing business model that makes efficient and high-tech efficient competitive with cheaper, less efficient systems through a pay-per-use model.

With EaaS, end customers pay for the service they receive, rather than the physical product, therefore avoiding the upfront costs of expensive modern efficient systems. The technology provider installs and maintains the equipment, recovering the costs through periodic payments made by the customer. This fee includes maintenance, repairs, and running costs – such as electricity and water.

Because manufacturers maintain ownership of the efficient technology, it is in their interest to provide state-of-the-art, reliable systems that require minimal operation and maintenance. It also makes business sense for manufacturers to provide the most efficient technology because utilities, such as electricity and water, which make up 80 per cent of lifetime costs.

The technology provider can recapitalise through innovative mechanisms such as sale and leaseback, or the securitisation of cash flows. A payment guarantee can be established to reduce the risk of default from the end-client, which can be endorsed to the banks to reduce their exposure to payment default by technology providers seeking the use of the above-mentioned financing mechanisms.

In addition, the EaaS supports a circular-economy model, by incentivising technology providers to make their equipment modular, with parts being reusable/recyclable since the ownership of the equipment is never transferred to the client. EaaS helps to overcome many of the current barriers that hinder investments in energy efficient equipment.

Benefits of EaaS



Efficiency as a Service is a strategic partnership between end-users, technology providers and investors.

The technology suppliers will benefit from a long-term sustainable revenue stream, and access to new potential clients who are interested in the service, but not willing to make the upfront investments for high quality efficiency equipment.

The customer benefits from lower whole life equipment costs, the absence of upfront capital investments, industry-leading equipment uptime made reliable through revolutionised predictive maintenance practices, and a transparent pricing structure.

Efficiency as a Service is also a massive investment opportunity for global finance. Investors can rapidly grow their exposure to this significant market with stable, long-term contracts. For example both the efficient equipment and the EaaS contract can serve as collateral, making investments in EaaS is also a secure way for investors to rapidly grow their ESG financing portfolio.

Efficiency as a Service is a strategic partnership between end-users, technology providers and investors. End-users benefit from access to efficient equipments at a competitive price and without the need to operate an asset, technology providers benefit from being most competitive with their most efficient technologies, investors benefit from a stream of well-backed cash flows on green investments and the planet benefits from lower energy demand – it is a win-win for all parties.

Supported by the European Commission

BASE, AGORIA, ANESE and Innoenergy are leading the Efficiency as a Service (EaaS) project in Europe with funding received from the European Union's Horizon 2020 research and innovation programme. The project aims to develop and deploy the servitisation model and a financial structure to enable the transition and accelerate the market adoption of energy efficient solutions by Small and Medium-sized Enterprises (SMEs) in Belgium, the Netherlands and Spain.

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