

Sustainable Energy Services & Facilities Management for Communities, Industries and Properties - Capabilities

KUWAIT





ENGIE

ENGIE in B2B



We make the zero carbon transition as a service possible for our clients

ENGIE is a global energy and services group operating in the three key business sectors of low-carbon electricity generation (with emphasis on natural gas and renewables), energy infrastructures and client solutions.



Centralized and decentralized production and sale of low CO2-emitting electricity, including renewable energies.

- The world's leading independent power producer (IPP)
- 104.3 GW⁽¹⁾ installed
- 93% of low CO₂-emitting activities
- The leader in wind and solar power in France



Distribute

Distribution, transportation and storage of gas and electricity upstream of supply to clients.

- The European leader in gas transportation and distribution
- 4,500 km of gas pipelines in Brazil
- The first demonstrator of the injection of green hydrogen into the gas distribution network in France

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 A 600 km electricity grid between northern and central Chile



Client solutions

Development of unique integrated solutions to support the transition to zero carbon of businesses and local authorities.

- 24 million contracts worldwide
- N°1 worldwide in cold networks
- N°2 worldwide in recharging systems for electric mobility
- N°1 worldwide in micro-grids



Our worldwide presence*

170,000 employees

€60.1 billion in revenue

€2.5 billion recurring profit after tax

€11 billion of planned investment in growth in 2019-2021

North America

€3.9 billion in revenue

Latin America

€4.2 billion in revenue

Europe

€47.2 billion

in revenue

France

£24.9 billion
in revenue

Africa

€0.4 billion

in revenue

€6 billion in revenue

Benelux

Near and Middle East

€1.4 billion in revenue

Asia and Oceania

€3 billion in revenue

B2B Client Solutions

Energy Efficiency Services
Integrated Facility Management
District Cooling Solutions with Tabreed
Operations & Maintenance (O&M) services for power &
water plants, totalling 20 GW and 836 MIGD
Innovative O&M solutions for gas distribution companies

110,000 people

26 Countries coverage €28 Billion

of worldwide revenue

24.4 million

of individual client contracts worldwide

*on 31/12/2019



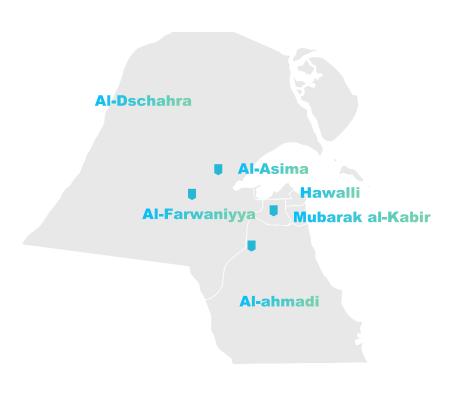
Where we are

3,000 employees

AED 280 billion in revenue B2B

34
Different
nationalities

85
On-going projects



Integrated FM

Healthcare



Retai



Hospitality



Transportation



Infrastructure



Real Estate



Data Centre



Industrial



Education

Kuwait

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Vision & Ambitions

'As a Service' - Scope and Benefits

Complete Asset Management

Energy Services

Smart Building Technology



Vision & Ambitions

Deliver sustainable solutions "as-a-service"

Combining an integrated set of capabilities

- Design & Build services
- Energy efficiency solutions
- Facility Management
- Smart O&M Technology
- Green energy supply
- Smart Energy Technology

Ability to provide cost effective and sustainable solutions

Addressing the total cost of ownership of managed assets while reducing CO₂ footprint

Capability to offer solutions "as a service"

Asset and Energy services DNA and ability to finance solutions for our clients

Commitment on outputs

Ability to guarantee services and energy efficiency targets

We support our clients in their Zero-Carbon transition

engie



Our Offering "As a Service" - Scope

Green Energy as a Service

• We offer turnkey renewable energy solutions
(e.g. Rooftop Solar PV)

• We choose the best technologies

• We are a strong and reliable partner

Utilities as a Service

We manage all your utilities (chilled water, steam, compressed air) We guarantee financial, energy and CO2 savings. Our scope of services and business model are very flexible



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Facilities as a Service

- We manage all the maintenance and technical services of your building
- We offer Smart Building solutions
- We always proactively look for OPEX & CAPEX reductions and quality improvement

Design & Engineering

Investments

Installation

Operation & Maintenance

Energy Supply

Integrated solution made possible by ENGIE Services Kuwait



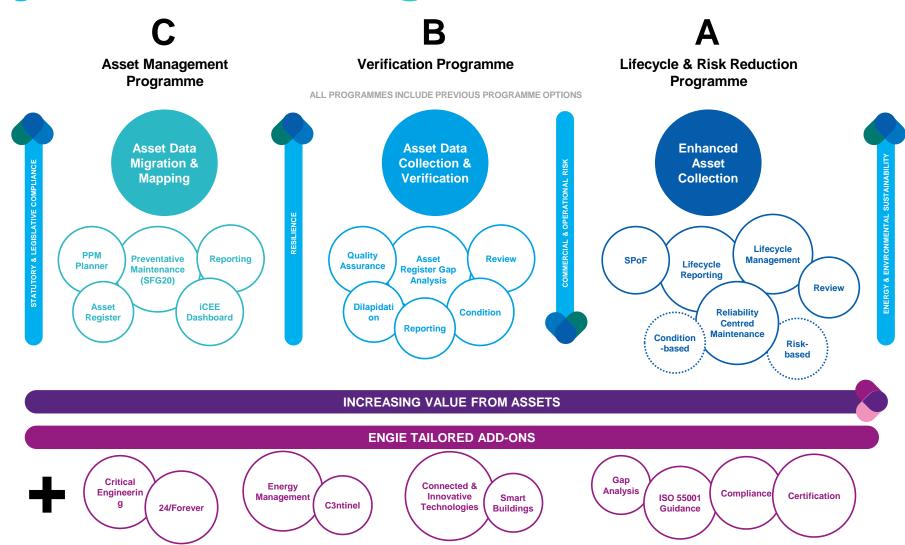
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Complete Asset Management





Lifecycle Asset Management





Lifecycle Asset Management

Collection/Validation Process



Output from Collection



Benefits

C – Asset Management Programme Our Asset

Management programme takes your current asset register and maps the information to ENGIE's asset classifications to enable standardised maintenance and reporting.

An asset register mapped to SFG20 enabling the generation of a PPM planner delivering all statutory and routine tasks.

Assets are mapped to BIM standards.

An operational reporting dashboard (iCEE).

A PPM Planner mapped to SFG20 will enable labour loading of resource against the maintenance required.

Mapping the assets to BIM standards allow for better communication and collaboration on future projects.

Dashboard reports will enable you to track your asset activity and reactive work volumes.

B – Verification Programme

The verification programme consists of an asset collection carried out using Mobile technology. Asset data including condition codes and criticalities are collected for enhanced reporting. Asset tagging is optional. We then verify this data against our clients existing asset register.

Asset collection verified against a pre-existing asset register.

Quality assurance on the asset collection from our team of Asset Managers.

Dilapidation & condition reports supplied with photographs.

A quality assured asset register mapped to ENGIE Services Kuwait classifications highlighting any missing assets from your pre-existing register.

Dilapidation reports showing assets in poor and beyond repair conditions with supporting photographic evidence.

Assets graded using CIBSE condition codes for enhanced reporting.

A - Lifecycle & Risk Reduction Programme

This programme is an enhanced asset collection allowing for the capture of more data involving asset lifecycles and risk reduction. The data will allow for future capital expenditure costing and risk analysis.

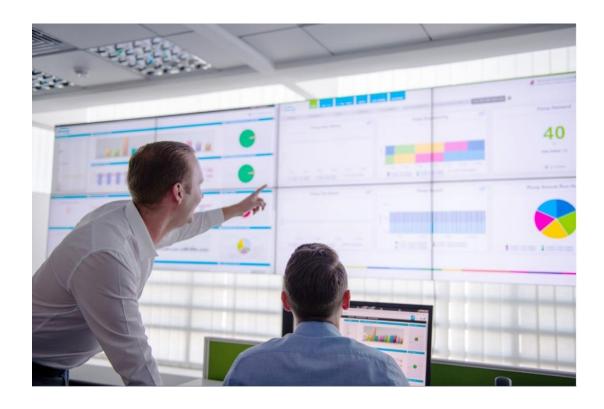
An asset Register with enhanced data. A Lifecycle Replacement Report for the duration of the contract. Single point of failure analysis. Reliability centred maintenance strategies (including business focused maintenance).

Assets scored on their risk to allow for improved maintenance strategies, such as business focused maintenance. Assets with lifecycle and replacement cost to provide yearly capital expenditure budget. Enhanced asset reporting. List of single point of failures. Tailored approach to maintenance, with a business focus, ensuring critical assets achieve maximum up time.



Digital Initiatives & Innovation

- ENGIE Services Kuwait are utilising data to transform the way we operate
- Providing industry leading Smart Services
- Through optimising operating models and reducing client costs
- Data insights allow us to:
 - Optimise operations
 - Reduce asset & energy costs
- Giving our clients control of cost across their portfolio









ENGIE's added Value Scope of Work

Energy Efficiency:

- ENGIE is the World Leader in Energy Efficiency
 - → Guaranteed results with High savings targets
- Energy Management based on, and recognized, by International Standards
 - → CEM, IPMVP, EVO World, ISO 50001,....
- Energy Audit
 - → Complete diagnosis of technical facilities by certified Energy auditors
- Performance and Savings
 - → Cost reduction
 - → ENGIE is designing and investing in the solutions











Energy & Smart Building Process



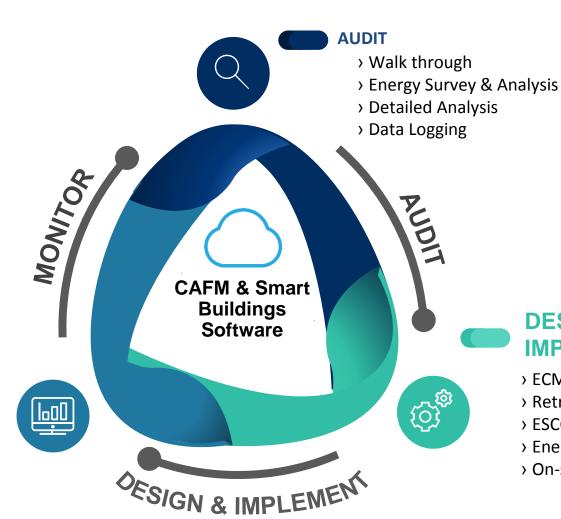
Technology

- > Smart Buildings Gateway
- > Energy Dashboards
- > Command & Control Centre
- Non-intrusive Load Monitoring
- > Smart Metering

MONITOR

Process

- > Measurement & Verification
- > Operational Control Plan
- > ISO 50001
- > Energy Bureau Services
- › Data Management Services
- > Technical Maintenance



DESIGN & IMPLEMENT

- > ECM Implementation
- > Retro-Commissioning
- > ESCO / EPC Model
- > Energy as a Service (EaaS)
- > On-site Generation & Renewables

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Energy Audit

Energy efficiency is using less energy for a similar level of service.

The 1st Renewable Energy is **Energy Efficiency**

Primary objectives of the Energy Audit:

- Evaluate the potential of energy savings
- Identify improvements to minimize energy use, create cost savings and reduce environmental impact
- Identification (non-quantitative) of specific energy and cost-savings projects
- Define the most effective scenario for the energy management program

3 Groups of : Energy Conservation Measures (ECMs):







Main criteria:

- CAPEX
- Energy saved per year (MWh)
- CO_2 emissions savings per year
- Payback period (years)



Energy Efficiency

Energy efficiency is using less energy for a similar level of service.

The 1st Renewable Energy is **Energy Efficiency**

ENGIE is pleased to propose a (Free of Cost) Preliminary Energy Audit of the Assets.

<u>Primary objectives of the Energy Audit:</u>

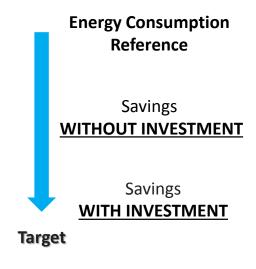
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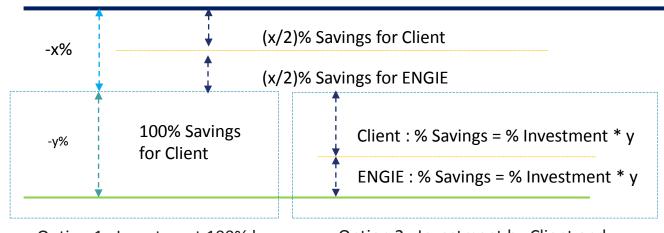


Proposed Model

Energy Efficiency: Proposed Model

To be Confirmed by an Energy Audit

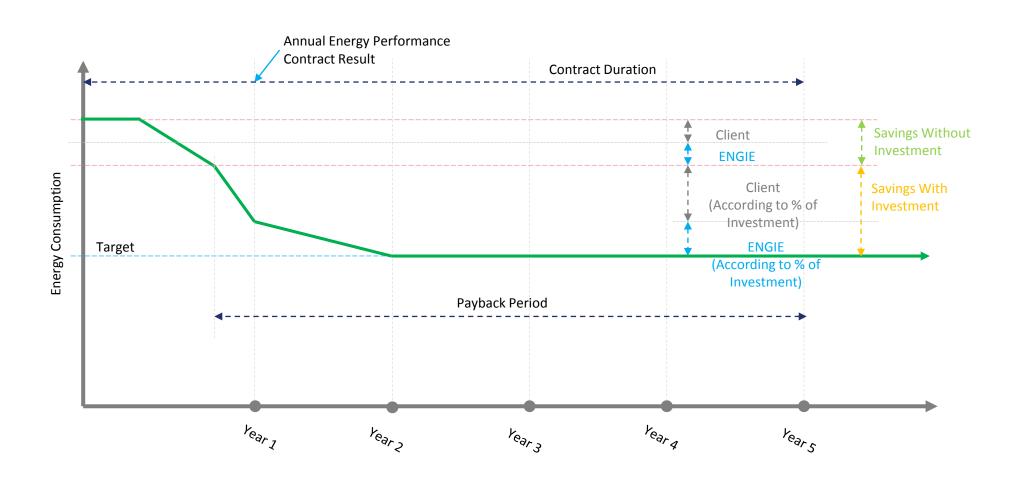




Option 2 : Investment by Client and ENGIE

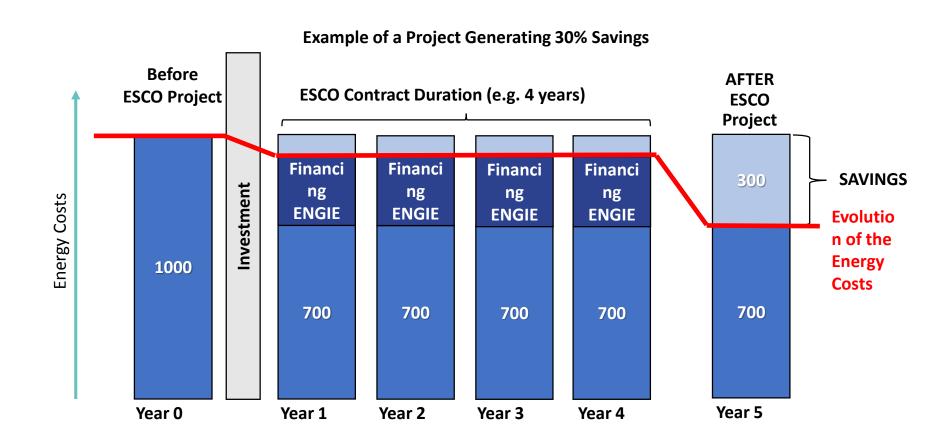


Proposed Model Continued...





ESCO Model





Estimated Action Plan



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OUR SECTOR REFERENCES



Sectors References





FOUR SEASONS HOTEL

Operations and Maintenance of MEP systems and kitchen and laundry equipment of the hotel along with the provision of a 24/7/365 helpdesk centre.











National Bank of Kuwait

Consultancy – Development, Implementation and Certification of Facilities Management Services











Taiba Hospital

Scope includes Hard FM services, Security, Porterage and Valet Parking services, Cleaning, Waste Management, Pest Control, Landscaping and Laundry services









Sectors References





Abu Dhabi Airport

Hard FM services including MEP; civil and building fabric maintenance services; fire and life safety systems; specialized airport systems including power, complex utilities systems, security systems, etc.



2017 - present



Technical services



Data Centre sector





Al Qassimi Hospital

Full comprehensive MEP maintenance inclusive of duct cleaning, specialist systems, medical equipment maintenance for the hospital common areas and the Emergency Accident Centre.



2017 - presen



Technical services



Healthcare sector





Higher Colleges of Technology

Hard facility management services including operations and maintenance of electrical systems, HVAC and ventilation systems, fire and life systems, elevators, gate barriers, sliding/automatic doors, etc.



2016 - present



Technical services



Education sector



Sectors References





Al Raha, Shams and Saadiyat

O&M services for the completed infrastructure works for project locations at Al Raha Beach Development, Saadiyat Island Development, and Shams Development.









Barka II

HVAC maintenance including but not limited to chillers, AHU systems, package unit AC systems, split AC units, ventilation/exhaust fans and AFU units





| MERAAS Citywalk Phase II Residential

MEP maintenance, Civil maintenance, cleaning, waste management, specialist systems maintenance services, 24/7 helpdesk and contact centre provision, managing agent services for client procured subcontractors and service providers.







Sector References - Assets

- Shamal Az-Zour Al-Oula K.S.C First Independent Water and Power Project (IWPP) in Kuwait
- Private Entities Shareholders:
 - ENGIE/Sumitomo/Al Sagar (40%)
- Public Entities Shareholders:
 - Kuwait Investment Authority KIA (5%)
 - Public Institution for Social Security PIFSS (5%)
 - KAPP/IPO (50%)



- Operation and Maintenance Company: AZN O&M Company W.L.L
 - ENGIE (50%)
 - Sumitomo (50%)





Recognising quality construction projects in the GCC



- AZN1 Plant capacity: 1539 MW 107 MIGD
 - ~10% Kuwait Power Capacity
 - ~20% Kuwait Water production



Awards & Accreditations

























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