THE GLOBAL ESCO NETWORK

The Global ESCO Market

2026

UN environment programme | copenhagen climate centre

EVO Efficiency Valuation Organization

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Based on IEA & Global ESCO Network Joint Survey

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The Global ESCO Market Report 2026 was prepared by the Markets Section of the UNEP Copenhagen Climate Centre (UNEP-CCC), in collaboration with the Global ESCO Network and the International Energy Agency (IEA). Clara Camarasa (UNEP-CCC) coordinated the report and was its lead author, with co-authors Søren Lütken, Trupti Yargattimath and Federico Canu (all UNEP-CCC). The work was carried out under the guidance of Gabriela Prata Dias (UNEP-CCC).

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List of Acronyms

AEEE	Alliance for an Energy Efficient Economy (India)
AGICI	Agici Finanza d'Impresa (Italy)
ANESE	Asociación de Empresas de Servicios Energéticos (Spain)
BEE	Bureau of Energy Efficiency (India)
BfEE	Bundesstelle für Energieeffizienz (Germany)
BOT	Build Operate Transfer
EED	EU Energy Efficiency Directive
EEDI	Electric Power and Energy Saving Development Institute
EEMO	Energy Efficiency Management Office (Mauritius)
EFSD+	European Fund for Sustainable Development Plus
EnPC	Energy Performance Contracting (EU usage)
EPBD	EU Energy Performance of Buildings Directive
EPC	Energy Performance Contract
ESCO	Energy Service Company
ESPC	Energy Savings Performance Contract
EU	European Union
EUR	Euro
EYODER	Energy Efficiency and Management Association (Türkiye)
GWh	Gigawatt-hours
HVAC	Heating, Ventilation, and Air Conditioning
IEA	International Energy Agency
IEEFP	International Energy Efficiency Financing Protocol
IFRS	International Financial Reporting Standards
IPMVP	International Performance Measurement and Verification Protocol
JRC	Joint Research Centre of the European Commission
KEEF	Kosovo Energy Efficiency Fund
KEMCO	Korea Energy Management Corporation
KfW	Kreditanstalt für Wiederaufbau (Germany)
kWh	Kilowatt-hours
LED	Light Emitting Diode

M&V	Measurement and Verification
MEPS	Minimum Energy Performance Standards
MUSH	Municipal, university, school and hospital (public sector market segment)
N/A	Not Available / Not Applicable
NAESCO	National Association of Energy Service Companies (United States)
NDC	Nationally Determined Contributions
PAT	Perform Achieve Trade
PLR	Prime Lending Rate
PPP	Public-Private Partnership
PRSF	Partial Risk Sharing Facility (India)
SEEI	State Energy Efficiency Index
SEforALL	Sustainable Energy for All
SIDBI	Small Industries Development Bank of India
TRY	Turkish Lira
UAE	United Arab Emirates
UNEP	United Nations Environment Programme
UNEP-CCC	United Nations Environment Programme Copenhagen Climate Centre
USA	United States of America
USD	United States Dollar
VSD / VFD	Variable Speed Drive / Variable Frequency Drive

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1. Executive Summary

The 2026 Global ESCO Market Survey confirms a sector that continues to grow in scale and geographic scope but remains structurally uneven. Investment is heavily concentrated: the United States, China, and Italy together account for around 93 percent of total reported investment in this edition. Seven new markets join the dataset for the first time, and the overall direction of travel, more countries, deeper engagement with performance contracting, and growing integration of ESCO models into national energy policy, is positive. The central value proposition remains unchanged: EPC allows clients to invest in efficiency without competing for capital in annual budgets. At the same time, the barriers that have constrained ESCO market development for decades, access to finance, regulatory complexity, skills shortages, and short contract horizons, remain firmly in place across the majority of surveyed markets.

Financing remains the binding constraint

Access to finance is the most consistently cited barrier across markets at every stage of development. Commercial banks remain reluctant to underwrite EPC structures in many markets due to limited familiarity with performance-based cash flows, collateral requirements that do not suit the ESCO model, and the absence of standardised contracts that would allow project portfolios to be aggregated and assessed efficiently. The absence of functional risk-sharing facilities across most surveyed markets is a significant gap, particularly given that payment risk is consistently ranked among the top financial barriers to ESCO market growth. Forfaiting, the sale of contractual receivables to a bank, offers an underutilised solution in many markets: by converting an ESCO-client payment relationship into a direct relationship between the bank and the public entity, it significantly reduces default risk and improves project bankability. This mechanism is already operational in the Czech Republic and Germany and warrants broader adoption.

Contract duration as a policy lever

Across the twelve countries with both data points, longer public sector contracts are associated with higher reported savings rates. The association is directional, rests on a small sample and is sensitive to individual observations, so it is reported as an observation to be tested in future editions rather than as an established result. It is consistent with the mechanism respondents describe short contracts screen out long-payback measures such as building envelope improvements and confine ESCO activity to fast-return interventions. Where procurement rules cap public contracts below ten years, this constraint is therefore likely to limit the scope of feasible projects. That said, regulators may need to look beyond contract duration to other enabling frameworks, such as facilitating low-cost financing for EPCs or standardising risk allocation models, to align contract structures with underlying project economics. The key is to treat permissible contract length as one important enabler of deeper retrofits, but not the only one.

Sectoral and geographic gaps

Residential buildings, motor systems, energy storage and waste heat recovery remain structurally underserved across most reporting markets. These are not niche opportunities: electric motor systems alone account for 53 percent of global electricity consumption (IEA 4E EMSA, data for 2023). The expansion of ESCO activity into these segments requires adapted contract structures and dedicated regulatory frameworks that most markets have not yet developed. Geographic concentration also remains a concern: meaningful ESCO market activity outside the USA, China, and Europe is still limited to a small number of emerging markets, and Africa in particular remains at an early stage of formalisation.

Policy as the enabling condition

The survey confirms that durable policy frameworks, not short-term incentives, are what separate growing markets from stagnant ones. Accounting clarity for EPC structures, aggregation mechanisms, risk-sharing facilities and clear public sector mandates are the least developed regulatory dimensions. The energy efficiency sector, which employed nearly 18 million people worldwide in 2024, also continues to face labour and skills shortages, a structural constraint that most market policies have not yet addressed (IEA, 2025). Germany's shift from moderate growth to moderate decline between editions, whatever its precise causes, is a reminder that even a well-established market depends on policy stability.

The instruments, precedents, and financing mechanisms needed to scale performance contracting already exist. Forfaiting, partial risk-sharing facilities like India's Partial Risk Sharing Facility (PRSF), project aggregation platforms, and standardised contracts have all demonstrated their effectiveness in mature and emerging markets alike. Blended finance instruments and public revolving funds like the Kosovo model offer replicable pathways for mobilising investment where commercial finance alone is insufficient. The concentration of global ESCO investment in three very distinct markets highlights both the scale of what is achievable with the right enabling conditions and the distance most markets still have to travel.

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2. Introduction & Rationale

Background

The global climate crisis necessitates urgent action to reduce greenhouse gas emissions, yet there remains a significant gap between current emission reduction trajectories and the targets set under the Paris Agreement. According to the UNEP Emissions Gap Report 2025, global emissions must fall by 55 percent from 2019 levels by 2035 to stay on a 1.5 °C pathway, while full implementation of current Nationally Determined Contributions (NDCs) would lead to warming of 2.3 to 2.5 °C this century, and current policies to 2.8 °C. Energy efficiency is a key opportunity for closing the gap, often cited in submitted NDC 3.0s and representing one of the most cost-efficient ways to lower energy consumption and associated carbon emissions, but actual deployment of efficient technologies is insufficient to meet the Paris Agreement targets.

According to the IEA, the rate of energy efficiency improvement needs to at least double to align with net-zero pathways: global energy intensity improved by around 1 percent in 2024 and an estimated 1.8 percent in 2025, against the COP28 commitment to reach 4 percent per year by 2030 (IEA, 2025). This requires not only stronger policy support but also greater mobilisation of private capital to fund large-scale energy efficiency projects, as public financing alone is insufficient given the scale of investment required.

In many markets, ESCOs play a vital role in bridging this financing gap by de-risking investments, and offering energy performance contracting (EPC) which, under shared savings and as-a-service models, allows clients to implement efficiency improvements without upfront capital expenditures. For public sector clients in particular, this removes the need to compete for capital in annual budget cycles, allowing efficiency investments to be repaid from the savings they generate rather than deferred for lack of budget. In doing so, ESCOs enable businesses, industries, and public institutions to reduce energy costs while achieving sustainability goals.

Why this ESCO Market Report Matters

Despite the recognised importance of ESCOs in advancing energy efficiency, comprehensive and up-to-date market data remains limited. Many existing reports focus on broad energy efficiency trends but lack a detailed analysis of ESCO market conditions across different countries. This report fills that gap by providing a granular, data-driven assessment of national and global ESCO markets. By compiling survey responses from ESCO market participants worldwide, this report presents quantitative and qualitative insights into investment flows, project typologies, financing models, and policy landscapes. The comparative analysis across the covered markets enables a deeper understanding of regional and national differences in market maturity, trends and applied practices, uncovering common challenges, success factors and best practices in ESCO market development.

Data Coverage

The 2026 survey includes data from 21 countries and jurisdictions, representing diverse market conditions across different regions. In addition, the United Arab Emirates reported no active project or investment data but instead provided regulatory and institutional intelligence and is treated accordingly throughout the report. The participating countries and jurisdictions are listed in Table 1.

Table 1. Participating countries and jurisdictions by region

Region	Participating countries and jurisdictions
Asia-Pacific	China, India, Japan, Malaysia, Philippines, South Korea, Taiwan, Province of China
Europe	Germany, Italy, Netherlands, Poland, Republic of Kosovo, Spain, Switzerland, United Kingdom
Middle East and Africa	Israel, Mali, South Africa, United Arab Emirates*
Americas	Chile, United States of America
Europe and Central Asia	Türkiye

** UAE has only provided regulatory intelligence*

For each participating country, Annex A identifies the national ESCO association where one exists, the respondent organisation, and whether the submission represents a full national association response or an individual ESCO or expert contribution. This distinction is relevant to the interpretation of data in Section 3, where individual-respondent markets are treated with appropriate caveats.

Compared to the 2025 edition, this cycle includes seven new markets: Italy, Switzerland, Israel, Kosovo, Chile, India, and the United Arab Emirates. Some markets covered in prior editions, including Belgium, Czech Republic, Hungary, Slovakia, Indonesia, Thailand and Uganda, did not have quantitative updated data available for this cycle. Their respective ESCO associations have nonetheless provided expert qualitative input on how they consider their markets have evolved since the previous edition, and these perspectives are referred to where relevant in the analysis, without entering the quantitative tables or aggregates. In addition, Country Snapshots (Uzbekistan, Kazakhstan, Kosovo, India, Mauritius and Ghana) provide country-level detail that complements the survey analysis.

Survey: Data Aggregation and Comparative Analysis Approach

The survey follows a structured data collection and aggregation process, ensuring national-level insights while maintaining confidentiality for sensitive information. Responses are gathered from national and regional ESCO associations, industry experts, and governmental agencies, providing a dataset that aims to reflect real market conditions.

For the purposes of cross-country comparison, ESCO markets are classified into three stages of maturity. Nascent markets are characterised by limited ESCO activity, few active projects, weak or absent regulatory frameworks, and minimal access to dedicated financing. Emerging markets exhibit a growing project pipeline and partial policy support, with early institutional structures in place, but remain constrained by issues of scale, standardisation, or financing access. Mature markets demonstrate sustained project volumes, established EPC regulations and measurement and verification practices, diversified financing sources, and a functioning ecosystem involving ESCOs, financiers, and public authorities.

Table 2. Characteristics of ESCO market level of maturity

Dimension	Nascent	Emerging	Mature
Market activity	Limited ESCO activity, few active projects	Growing number of projects in development and implementation	Sustained project volumes
Regulatory framework	Weak or absent	Partial policy support; early institutional structures in place	Established EPC regulations
Measurement and verification	Not systematised	Emerging practice, not standardised	Established M&V practice
Access to finance	Minimal access to dedicated financing	Constrained by scale, standardisation or financing access	Diversified financing sources

Evidence Base

The analysis draws mainly on primary survey data collected through the 2025/2026 survey of the global ESCO market, supplemented by authoritative grey literature and, where available, peer-reviewed scientific evidence. Key grey literature sources include the IEA Energy Efficiency 2025 report, the IEA Energy Efficiency Commentary (March 2026), the UNEP Copenhagen Climate Centre Regulatory Barriers for Energy Service Companies (3rd edition, 2024), the Joint Research Centre of the European Commission (JRC) Science for Policy report on Energy Performance Contracting in the EU 2020-2021 (Moles-Grueso, Bertoldi and Boza-Kiss, 2023), and the Global ESCO Network policy guidance publications.

Peer-reviewed scientific literature on ESCO market development published since 2023 remains limited in geographic scope. Available papers are concentrated on European and Anglophone markets, including Trianni, Leak and Hasan (2025) on Australia in Energy Policy; Gonzalez-Torres, Bertoldi et al. (2025) on EU stakeholder perceptions of the

revised Energy Efficiency Directive in Energy Research and Social Science, Cieślak (2025) on guaranteed savings risk allocation in Poland and the EU in Energy Efficiency (Springer); and Maduta, D'Agostino, Bertoldi et al. (2023) on EPBD implementation in Energy and Buildings. No peer-reviewed papers on ESCO markets in sub-Saharan Africa, Latin America, or Asia-Pacific outside Australia published in this period were identified during the literature search conducted for this edition.

Some numbers, particularly regarding market size, must be interpreted with caution as respondents interpret and report this differently on either capital deployed and accumulated in active and new ESCO projects and the value of new contracts entered in the past year. For instance, Italy's figure represents sector revenue rather than capital investment and is not directly comparable to project-level investment figures from other markets. Efforts have been made to translate responses into comparable numbers. Specifically, China's 2026 figure reflects a revised reporting methodology covering a broader scope of association member activity than previous editions. This welcome development, however, means that earlier reporting is less indicative of market size than this year's numbers. The differences are noted in the country profiles in Section 3 and in the footnotes to Table 3. Readers should treat cross-country comparisons of absolute investment figures as indicative rather than precise and focus on directional trends and within-country year-on-year changes where available.

Photo Credit: Søren Lütken

3. Global ESCO Market Overview: 2026 Insights

3.1 Market Size & Growth Trends

The 2026 survey data reveal a global ESCO market in which reported investment is heavily concentrated among the largest and most mature jurisdictions in the sample. The United States, China, and Italy together account for around 93 percent of total reported investment across the participating markets. This concentration reflects the composition of the survey sample as much as the global distribution of ESCO activity: significant markets including France, Brazil, Canada and Saudi Arabia did not participate in this cycle, and Germany provided no investment figure, so they are not captured in the investment totals. Within the participating sample, expanding activity in emerging markets and notable shifts in several previously stable markets point to a sector that is broadening in geographic scope, even as scale remains unevenly distributed.

Table 3. Reported ESCO activity by country (2025 and 2026 editions)

Country	Active Projects 2025 survey	Active Projects 2026 survey	**New Projects 2026 survey**	Reported Value 2025 survey (USD)	Reported Value 2026 survey (USD)	Market Growth 2026 survey
Asia-Pacific						
China	N/A	N/A	N/A	USD 2.3 billion	USD 27.48 billion	Moderate growth
Indonesia*	2	—	—	USD 0.175 million	—	N/A
Japan	124	N/A	99	USD 340 million	USD 309 million	Moderate decline
Malaysia	206	N/A	N/A	—	—	N/A
Philippines	71	90	1 (new ESCO)	USD 106.5 million	USD 105.6 million	No change
South Korea	48	62	62	USD 116–288 million	USD 124.9 million	No change
Taiwan, Province of China	N/A	N/A	N/A	USD 201 million	USD 235 million	Moderate growth
Thailand*	~100	—	—	USD 187.5 million	—	N/A
Europe						
Belgium*	~100	—	—	USD 300 million	—	N/A
Czech Republic*	22	—	—	USD 80 million	—	Not surveyed
Germany*	~500	N/A	N/A	USD 675 million	—	Moderate decline (based on expert assessment)
Hungary *	N/A	—	—	—	—	N/A
Italy*	—	N/A	N/A	—	EUR 16.6 bn (~USD 18.3 bn)	Moderate growth
Netherlands	N/A	N/A	N/A	—	~USD 60 million	N/A
Poland	30	N/A	6	USD 85 million	USD 100 million	Moderate growth
Republic of Kosovo	—	Various	~50	—	USD 22 million	Moderate growth

Country	Active Projects 2025 survey	Active Projects 2026 survey	New Projects 2026 survey	Reported Value 2025 survey (USD)	Reported Value 2026 survey (USD)	Market Growth 2026 survey
Europe						
Spain*	3167	—	1833	USD 964.7 million	USD 602.5 million (new contracts)	Moderate decline
Switzerland	—	N/A	~12	—	—	N/A
United Kingdom	700	—	—	USD 2,428 million	USD 2,967 million	Moderate growth
Middle East and Africa						
Israel	—	50+	27	—	—	Moderate growth
Mali	N/A	2	5	—	USD 2.3 million	Moderate growth
South Africa	N/A	~500	~500	—	—	Moderate growth
UAE	—	20	0	—	—	N/A
Americas						
Chile	—	30	25	—	USD 1.75 million	Mixed (decline/ growth)
Mexico*	2	—	—	USD 0.25 million	—	N/A
United States	N/A	2,100	2,200	USD 10.66 billion	USD 12.8 billion	Moderate growth
Europe and Central Asia						
Türkiye	43	—	49	USD 47 million	USD 47.6 million	Stable

*Countries that participated in the 2024/2025 survey but did not submit data for the 2025/2026 cycle. 2025 survey figures are shown for reference.
Market size figures reflect different metrics across countries (new projects vs. active portfolio; revenue vs. capital deployed). China's 2026 figure reflects a revised reporting methodology. Italy's figure is the midpoint of estimated active investment (EUR 14.8 to 18.5 billion), derived from sector revenue of EUR 12.3 billion, and is not a capital investment figure comparable with other markets. Although Italy has participated in this year's survey, the latest data captured is only up to 2024. Data received for 2025 for the UK, supplied through a separate country report, is substantially higher than the USD 700 million reported in the 2025 edition. Spain's 2026 value is new contract value only.

Reported investment across the selected markets that provided a figure totals approximately USD 63 billion; the figures use different metrics and reference years and are not aggregated further (see Evidence Base).

China reports investment in new EPC projects of RMB 185.72 billion, approximately USD 27.48 billion, in 2025. The figure reflects a revised reporting methodology that captures a broader scope of ESCO association member activity than previous editions, and the association projects growth levels of 5 to 10 percent in 2026, consistent with previous editions. China's ESCO sector is driven by mandatory energy efficiency targets applied to the country's most energy-intensive enterprises through successive Five-Year Plans. The number of individual active projects remains difficult to quantify, as not all ESCO association members report centrally.

The United States leads global ESCO activity by number of projects, with 2,200 new projects launched in 2024 and total signed contracts of USD 12.8 billion. This reflects the maturity of the U.S. market, supported by well-established financial mechanisms and a strong institutional framework enabling large-scale, long-term energy performance contracting.

Italy's full participation in this edition reveals a market of substantial scale previously absent from global ESCO datasets. Sector revenues reached EUR 12.3 billion in 2024, up 24 percent from EUR 9.9 billion in 2023, with active investment estimated at EUR 14.8 to 18.5 billion including client co-financing. The sector employs over 30,000 people across more than 1,025 certified ESCOs, placing Italy firmly among the top three global ESCO markets by investment volume.

The **United Kingdom**'s ESCO market is larger than estimated in the previous edition of this report. The previous report estimated the UK ESCO market at USD 700 million, whereas the latest survey reports a market value of USD 2,428 million. In 2026, the UK reports a further 22% increase in market size, reaching USD 2.967 billion. This makes the UK the fourth largest ESCO market among those surveyed and highlights its growing importance in the global ESCO market.

Germany is one of Europe's most established ESCO markets, with a history of energy performance contracting stretching back to the 1990s and a market estimated at EUR 7 to 10 billion in the early 2020s based on Bundesstelle für Energieeffizienz data. The national association did not submit updated quantitative investment data for this edition, but reports a moderate decline, in contrast with moderate growth as reported in the 2025 edition. Possible contributing factors include policy uncertainty following the 2024 government transition, competition from grant-financed renovation (Moles-Grueso, Bertoldi and Boza-Kiss, 2023) and, as in other mature markets, the exhaustion of the most accessible retrofit opportunities. These remain hypotheses rather than respondent statements. Despite the current downturn, Germany retains a strong market infrastructure: a functional accreditation framework, an active forfaiting market, and a large base of technically capable ESCOs position it to recover as policy stability returns.

India joins the 2026 dataset through a response from a single ESCO operator, providing a partial but useful market intelligence data point, including average energy savings of 30 percent and an estimated moderate growth trajectory for the market as a whole. Generally, with an estimated 10 active ESCOs and 1,000 people employed in the sector, ESCO activity is small relative to India's economic scale. A notable feature of the Indian market is the reverse contract modality pattern compared to most other markets: shared savings contracts are reported as the dominant public sector model, while guaranteed savings dominate the private sector. This may reflect the influence of the Bureau of Energy Efficiency's (BEE) implementation guidelines, which have shaped procurement norms differently from typical public sector practice elsewhere. Most financing barriers are rated High Challenge, consistent with a market that retains strong growth potential but faces structural constraints in access to finance.

Japan launched 99 new projects in 2024 with new investment of USD 309 million and reports no change in market trajectory.

Spain reported a moderate decline in the total value of new contracts compared to the previous year, amounting to USD 602 million with 147 ESCOs, employing around 18,000 to 20,000 people, currently active in the market.

South Korea recorded 62 new projects, approximately USD 124.9 million in active investment and USD 36.8 million in new investment, also reporting no change in market trajectory. Japan and South Korea are stable but may require additional policy stimulus to achieve meaningful growth.

Among smaller markets, the **Philippines** reports 90 active projects and USD 105.6 million in cumulative investment since 2017, with USD 16.5 million in new investment in 2024.

Kosovo, participating in the survey for the first time, operates three distinct project types under a public revolving fund model with USD 22 million in active investment, reporting a savings rate of 45 percent against projected baselines. The figure is discussed in Section 3.2.

Türkiye reports 49 new projects worth USD 37.2 million and overall investment of USD 47.6 million in a market the association describes as stable, with high inflation reducing average project size and Turkish lira lending rates above 30 percent constraining local currency borrowing.

The **United Arab Emirates (UAE)** institutional framework is relatively advanced: an official ESCO definition, accreditation scheme, standard contracts, and an aggregation scheme are all reported as present, making it one of the better regulated markets in the Middle East and Africa region in formal terms. While not reporting quantitative data, the primary barriers cited are low or uncertain returns, low technical capacity among financial institutions, and the absence of green and dedicated energy efficiency finance products.

Across countries reporting investment data in both editions (and excluding China's revised figure), total reported investment in new ESCO projects grew from approximately USD 14.9 billion in 2025 to approximately USD 17.3 billion in 2026, an increase of around 16 percent, consistent with the broadly positive market growth reported by the majority of survey respondents.

Country Snapshot 1: Uzbekistan

Advancing Energy Efficiency Finance and the Emerging ESCO Market (2024-2025)

Uzbekistan has made significant progress in recent years in strengthening the enabling environment for energy efficiency investments and expanding the role of ESCOs. Rising energy demand, an ageing building stock, and the need to improve energy security and reduce pressure on the energy system have increased government interest in energy efficiency as a strategic resource. The country has strengthened institutional support for efficiency measures and begun exploring innovative financing mechanisms to mobilise both public and private capital (e.g., partial credit guarantee schemes or first loss facilities) aimed at reducing investment risks and improving access to finance for energy efficiency projects. At the same time, Uzbekistan is exploring the development of a Super ESCO model to accelerate project aggregation, standardise procurement and contracting procedures, build market confidence, and facilitate the participation of commercial banks and private ESCOs.

An additional stimulus for the development of the ESCO market is the introduction of minimum energy efficiency requirements for the construction, reconstruction, and major renovation of public buildings. The new requirements mandate the inclusion of an energy efficiency section in project documentation and promote the deployment of technologies such as solar photovoltaic systems, solar thermal collectors, heat pumps, intelligent energy management systems, and advanced thermal insulation materials. By embedding energy efficiency considerations into public sector investment decisions, these measures are expected to generate sustained demand for energy-efficient technologies and services while creating new opportunities for ESCOs and other market actors. Combined with ongoing efforts to strengthen technical capacity and develop a pipeline of bankable projects, Uzbekistan's evolving approach offers a promising pathway for unlocking investment and scaling energy efficiency across the building sector, potentially offering a model for other emerging economies seeking to establish sustainable ESCO markets, mobilise commercial finance, and accelerate the implementation of energy efficiency measures at scale.

3.2 Energy Savings Achieved in ESCO Projects

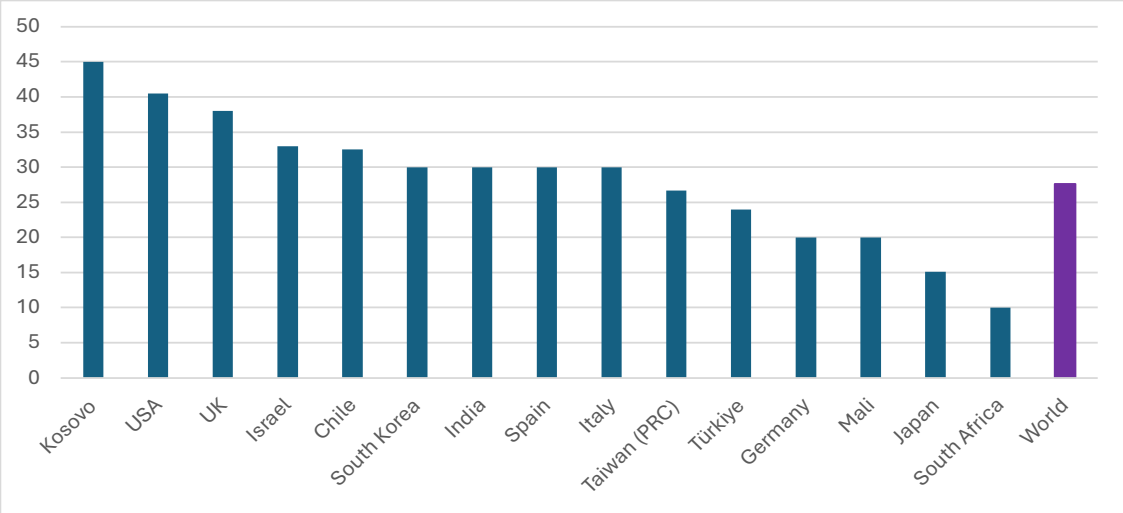
Figure 1 illustrates average energy savings as a percentage of baseline consumption for new ESCO projects across reporting countries. At the lower end, South Africa and Japan report savings of 10 to 15 percent, suggesting either early-stage implementation, limited project scope, or challenges in achieving deeper energy efficiency performance outcomes. Germany, Türkiye and Mali report savings in the 20 to 25 percent range, consistent with a mix of single-technology and integrated solutions. Chile's two respondents report 20 and 45 percent respectively.

India, Spain, Italy, Taiwan, Province of China and South Korea report savings in the 27 to 30 percent range, reflecting consistent implementation of proven technologies. Israel stands out at 33 percent and the United States at 40.5 percent, both reflecting long-standing expertise in comprehensive, multi-measure retrofit approaches with long term contracts. Kosovo's reported 45 percent rate is based on projected rather than metered outcomes across 17 public buildings, 21 multi-apartment buildings and approximately 2,300 private houses and thus must be treated as indicative rather than actual outcome. It sits within the 40 to 50 percent band which JRC associates with publicly supported deep renovation.

3.3 Market Dynamics: Growth and Decline

From a global perspective, the ESCO market continues to show net positive growth, though survey responses reveal a more nuanced picture across markets. No market reports strong growth in this edition. Moderate growth is reported across the largest group of responding countries, including China, the USA, Italy, Taiwan, Province of China, Poland, the Philippines, Israel, Kosovo, South Africa, Mali and India. Türkiye describes its market as stable, with high inflation reducing average project size, and Spain reports a moderate decline in the value of new contracts. This breadth of moderate growth suggests the ESCO model is gaining wider acceptance globally, not only in the most established markets.

Japan and South Korea report no change in market trajectory, indicating stable but potentially plateauing markets that may benefit from renewed policy intervention or product innovation to stimulate further expansion.



Note: Kosovo's 45 percent is a projected rather than metered outcome. Italy, South Korea and Chile are shown at the midpoint of the ranges reported. The United Kingdom figure is based on a qualitative assessment rather than this year's survey. The Philippines, Poland, Malaysia, the Netherlands and Switzerland did not report savings data.

Figure 1. Average energy savings for ESCO projects in selected countries (%), 2026

Germany is the most significant market to report a decline, shifting from moderate growth in the previous survey to moderate decline. Possible contributing factors include political uncertainty around energy transition policy following the 2024 government transition, the competitive displacement of EPC by direct grant subsidies available through post-pandemic recovery programmes, and delays in public procurement that have slowed new Energy Performance Contracting signings, though none of these can be confirmed from the survey data.

The entry of India, Italy, Switzerland, Israel, Kosovo, Chile and the United Arab Emirates into this edition enriches the dataset and establishes baselines for future editions. Their inclusion also shifts the global centre of gravity slightly, with Italy in particular adding a major established market that had not previously been captured.

Contract Duration, Project Type, and Energy Savings Depth

An analysis of the 2025/2026 survey data across the twelve countries with both contract duration and energy savings data shows a positive association between contract length and savings depth, consistent with the hypothesis that longer contracts enable more comprehensive retrofits and deeper energy efficiency outcomes. Contract duration is also correlated with broader market maturity, financing access, and project scope, meaning the relationship observed here is multidimensional rather than a simple bilateral causal link between duration and savings.

The trendline across the dataset shows a slope of approximately 0.8 percentage points of savings per additional year of contract duration, with a moderate correlation ($r = 0.42$). At this sample size the relationship is directional rather than conclusive, and it is sensitive to individual data points, in particular the United States savings rate. Countries with public sector contract durations of 15 years or more report the highest savings rates, commensurate with integrated, multi-technology retrofit approaches, suggesting that contract duration and project scope reinforce one another.

At the shorter end, Türkiye and Japan illustrate how constrained contract periods limit the scope for comprehensive interventions. Short payback requirements effectively screen out technologies with longer investment horizons (e.g., thermal envelope improvements, district energy) concentrating ESCO activity in faster-payback measures that deliver narrower savings. Differences in baseline energy efficiency and improvement opportunities between markets, coupled with long-standing energy efficiency policy frameworks will naturally also have an impact on the energy savings potential of ESCO projects, but this correlation has yet to be analysed.

Taiwan, Province of China is the notable outlier: despite shortest public sector contracts in the dataset (4.3 years) and an almost exclusively single-technology approach, it achieves 26.7 percent average savings. At the same time, LED lighting upgrades dominate, which deliver high percentage savings per unit of investment regardless of contract length compared to broad-based retrofit programmes. Taiwan, Province of China, thus demonstrates that single-technology interventions can achieve strong savings rates in absolute terms.

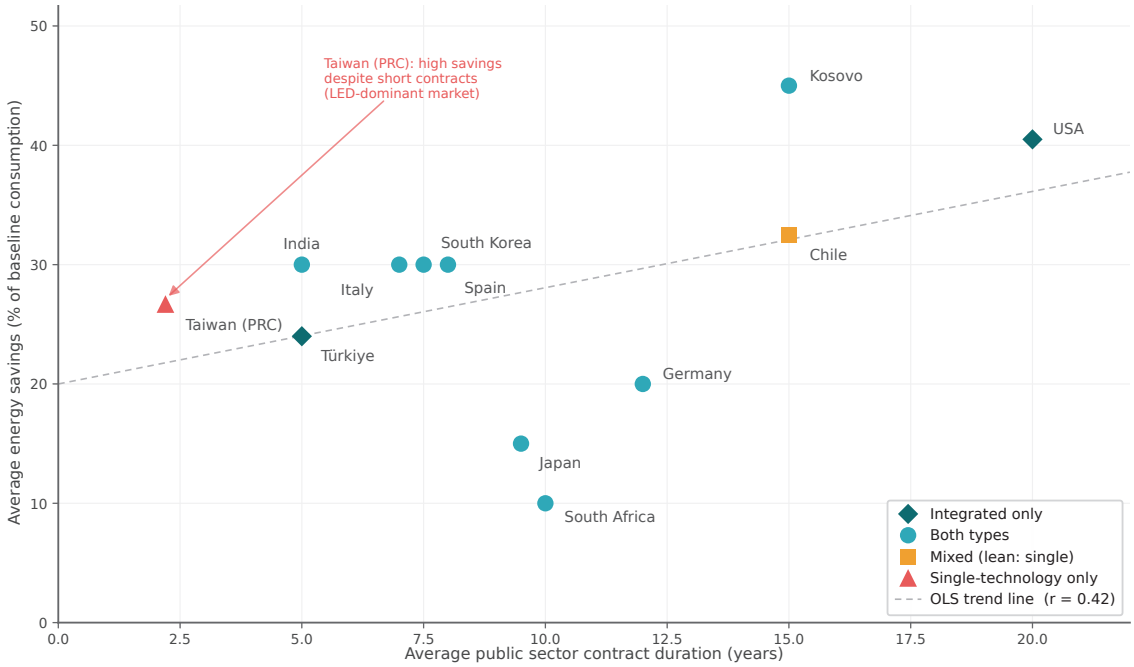


Figure 2. Contract duration vs. energy savings by project type

Country Snapshot 2: Kazakhstan

Strengthening the Foundations for ESCO Market Development

Kazakhstan has taken important steps in recent years to strengthen its institutional framework for energy efficiency and lay the groundwork for future ESCO market development. As one of the largest energy consumers in Central Asia, the country continues to face significant opportunities to improve energy efficiency across public buildings, industry, and municipal infrastructure.

A notable development in 2026 has been the increasing engagement of the national energy efficiency authority, JSC Electric Power and Energy Saving Development Institute (EEDI), the government-designated operator for energy conservation and energy efficiency policies. EEDI is expected to be transformed into the National Energy Conservation Center, with an expanded mandate and strengthened authority to support the implementation of national energy efficiency policies and programmes.

The country has also intensified discussions with international partners, including development finance institutions, and bilateral cooperation agencies as well as UNEP Copenhagen Climate Centre and the Global ESCO Network, to explore mechanisms for accelerating ESCO market development and mobilising investment in energy efficiency projects. Areas under consideration include policy and regulatory reforms, institutional capacity building, financing mechanisms, and the development of market-support frameworks for Energy Performance Contracting.

While the ESCO market remains at an early stage, Kazakhstan's efforts demonstrate increasing commitment to creating the enabling conditions required for performance-based energy efficiency investments. The combination of institutional strengthening, international cooperation, and growing policy attention provides a promising foundation for future ESCO market growth and the scaling of energy efficiency investments across the country.

Photo Credit: Søren Lütken

4. ESCO Market Segmentation & Project Typologies

4.1 Types of ESCO Projects

The survey asked respondents to characterise whether the ESCO market in their country is characterized mainly by integrated system renovations using multiple technologies and types of interventions or by single-technology replacements, or if both approaches are prevalent. **Figure 3** presents the positioning of each country along this spectrum.

The data reveals distinctly different implementation practices across countries. The United States, Mali, Poland and Türkiye report that virtually all projects are implemented as integrated system renovations, while Malaysia and Taiwan, Province of China report an almost exclusive focus on single-technology interventions. In other countries both practices are used. Integrated approaches are widely regarded as one of the key value propositions of ESCO engagement.

There is no single obvious explanation for the differences in implementation approach across markets. Regulatory frameworks, public programmes' design, the ability to implement multi-measure and long-term public procurement, project financing structures, ESCO supply interests and client sophistication all likely play a role. It is worth noting that single-technology approaches are not inherently less valuable and may build awareness and trust in the ESCO model in markets that are still developing. Here, simpler projects can serve as entry points that build confidence and generate a track record for more complex future work.

The flipside of this positive effect may be that when an ESCO implements a single low-hanging-fruit measure, such as LED lighting, at a given facility, it reduces both the financial attractiveness and the physical opportunity for subsequent ESCO interventions at the same site. The most profitable savings have been captured, leaving longer payback periods for the remaining measures with clients less inclined to re-engage. By contrast, a multi-measure EPC bundled at the outset combines faster-payback and slower-payback technologies within a single contract, allowing the returns from efficient lighting or controls to cross-subsidise deeper investments in HVAC, building envelope, or heat recovery. The aggregate payback of a bundled project is typically shorter than the arithmetic average of its components would suggest, because shared transaction costs, a single audit,

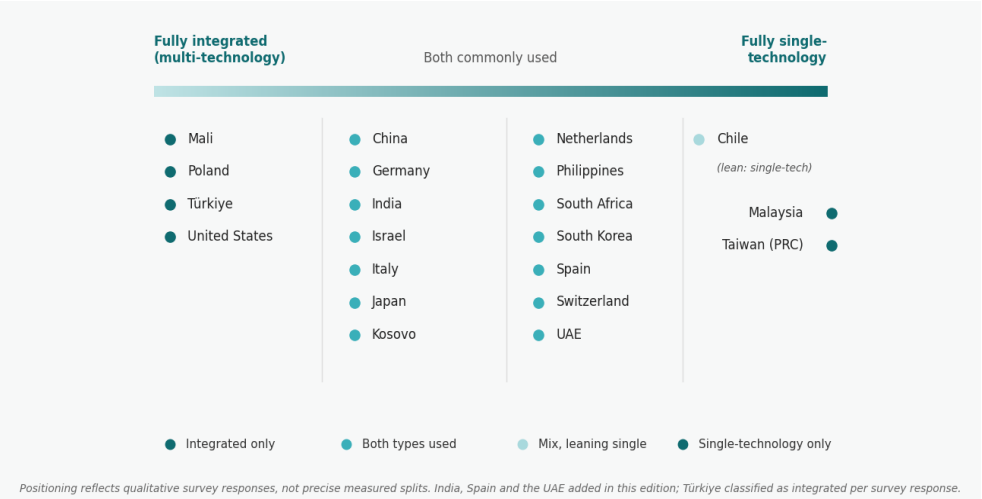


Figure 3. Energy efficiency projects by single technology vs. integrated approach

a single financing arrangement, and a single performance monitoring structure are spread across a larger investment base. In markets where single-technology approaches dominate, this bundling dividend is foregone. This dynamic reinforces the case for procurement frameworks and financing instruments that actively encourage integrated project scope from the outset rather than allowing single-measure entry points to hamper deeper future engagement.

Sub-Sector Distribution of ESCO Projects

Figure 4 shows the distribution of active ESCO projects across the three main sector groups reported in the survey, aggregated across the 21 responding markets. Buildings account for the majority of reported activity, followed by industry. Transport remains marginal across all reporting markets. Within the buildings segment, **Figure 5** shows that public buildings are the largest sub-sector, reflecting the important role of government-led procurement of ESCO-services, though only marginally ahead of commercial buildings once all responding markets are included.

Table 4 provides the country-level breakdown underpinning these aggregate figures, using a banded scale from Very Low to High.

Public Buildings

Public buildings continue to dominate ESCO activity in some of the largest markets, including the United States and Germany, where the majority of projects target public sector clients. Government-led energy efficiency policies, initiatives, and public procurement remain the most reliable enabler of ESCO market development, particularly where private sector demand is limited. Across the full sample, however, the sectoral distribution is more balanced than these headline markets suggest: when averaged equally across all responding countries, public and commercial buildings account for similar shares of building-sector activity (37 and 36 percent), and industry for 28 percent of total activity (Figures 4 and 5).

Industry

Industrial sector activity is significant in China, India, South Africa, Japan, South Korea, Israel, and Chile, indicating that energy-intensive industries in these markets are increasingly

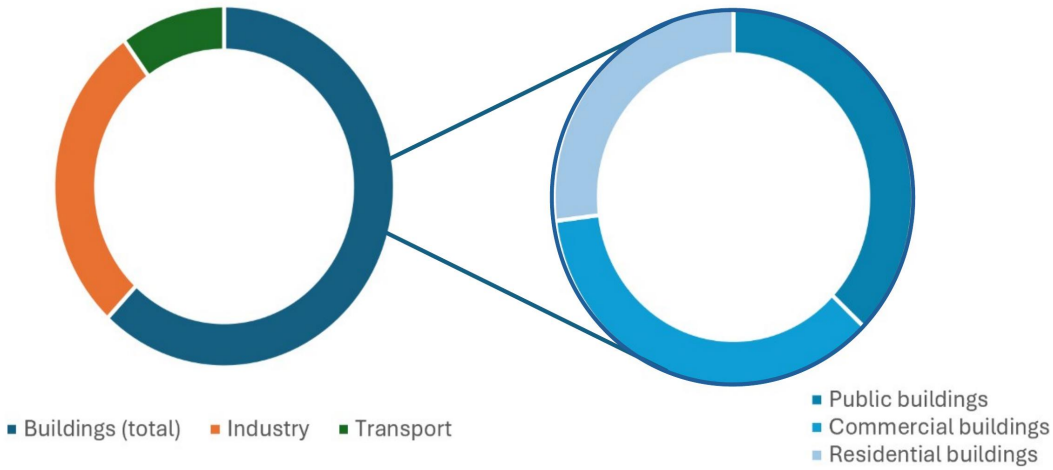


Figure 4. Distribution of ESCO projects per sector

Figure 5. Distribution of ESCO projects within the building sector 2025/2026

Table 4. Distribution of Active ESCO Projects by Sub-Sector

Country	Public buildings	Commercial	Residential	Industry	Transport
Asia-Pacific					
China	L	VL	VL	M	VL
India	VL	M	VL	M	VL
Japan	L	L	VL	M	VL
Malaysia	VL	M	VL	L	VL
Philippines	VL	M	VL	L	VL
South Korea	L	VL	VL	M	VL
Taiwan, Province of China	L	L	VL	L	VL
Europe					
Germany	H	L	VL	L	VL
Italy	L	M	M	L	VL
Netherlands	VL	VL	VL	VL	VL
Poland	L	VL	VL	VL	VL
Republic of Kosovo	H	VL	L	VL	VL
Spain	VL	L	L	L	VL
Switzerland	L	L	M	L	VL
Middle East and Africa					
Israel	VL	L	VL	M	VL
Mali	H	VL	VL	VL	VL
South Africa	L	L	L	M	M
UAE	VL	L	M	VL	VL
Americas					
Chile	VL	M	VL	H	VL
United States	H	VL	VL	VL	VL
Europe and Central Asia					
Türkiye	VL	L	VL	H	VL

H = High activity · M = Moderate activity · L = Low activity · VL = Very low or no activity. Ratings reflect respondents' qualitative assessment of the relative prominence of each sector in their market's ESCO project portfolio.

leveraging ESCO models to reduce operational costs and comply with regulatory requirements. China's industrial ESCO market in particular benefits from a strong regulatory framework that mandates energy audits and efficiency improvements for large industrial consumers. In India, the Perform, Achieve and Trade (PAT) scheme was rolled out to lower energy use in heavy industries with energy reduction goals set for large plants.

Commercial buildings

The commercial buildings sector sees notable activity in Malaysia, the Philippines, and Italy, where ESCO projects targeting commercial facilities account for a significant share of total activity. Commercial clients typically favour single-technology approaches such as LED lighting and HVAC upgrades, reflecting both the simpler decision-making structures common in commercial settings and a preference for shorter contract durations and faster payback periods than in the public sector. In this edition's sample, private sector contracts average around 7.5 years, compared with around 9 years in the public sector (**Table 7**). This shorter horizon constrains retrofit scope directly: measures with longer payback periods, such as building envelope improvements or system-wide energy management installations, are effectively screened out, concentrating commercial ESCO activity in rapid-return interventions regardless of their relatively lower energy savings potential.

Residential buildings
Residential buildings remain the least active sector across nearly all reporting markets. Split incentives, the small scale of individual units, and the complexity of reaching consensus in multi-owner residential buildings continue to limit ESCO penetration. This is a persistent gap that no market has yet solved at scale, though some innovative models using aggregation are being piloted.

4.2 Technology Applications in ESCO Projects

Building Energy Efficiency Technologies
Among building technologies, lighting has the highest prevalence and the most consistent deployment across markets. Its maturity, relatively low cost, short payback period, and straightforward implementation make it the entry point of choice for ESCOs in many markets. HVAC technologies show high adoption as well, though with slightly more variation across countries, reflecting differences in climate conditions, building age, and ESCO technical capacity.

Heat pumps show growing adoption in several European markets, including Germany, Switzerland, Israel, and Italy, consistent with the broader policy efforts to improve building efficiency and electrification of heating. Building envelope improvements, such as insulation and window replacements, are also increasingly recognised as critical components of deep energy retrofits. While these measures are not traditionally associated with ESCO activity to the same extent as HVAC, lighting, or controls due to their longer payback periods, and more complex performance attribution, they remain important opportunities for energy savings and emissions reductions. In several markets, ESCOs are beginning to integrate these measures into comprehensive retrofit packages, particularly where policy incentives and financing mechanisms help improve project viability.

Smart building controls are emerging as a significant area of ESCO activity in markets with more sophisticated institutional clients, including the United States, Germany, Italy, Spain and South Korea. As building automation systems become cheaper and more interoperable, this technology category is expected to grow in importance across all market types.

Industrial and Supply-Side Technologies
Compared to building-focused interventions, industrial and supply-side technologies are reported less frequently across surveyed countries, though they remain significant in several key markets. Electric motor systems were responsible for 53 percent of global electricity consumption in 2023, accounting for 72 percent of industrial electricity use alone. Yet despite this scale, motor efficiency improvements attract only low to moderate ESCO activity across responding markets. A key reason can be attributed to the measurement and verification challenge: motor loads are highly variable and closely tied to production output, making it difficult to establish a reliable baseline and isolate efficiency gains from changes in operational patterns.

Country Snapshot 3: Kosovo

Kosovo Energy Efficiency Fund

Kosovo offers a distinctive example of concentrated sectoral focus. As a small, early-stage market, Kosovo's ESCO activity is directed almost entirely at public buildings and residential properties, largely driven by the Kosovo Energy Efficiency Fund (KEEF) operating a public revolving loan scheme, blending finance from the European Union, the World Bank, and the Government of the Republic of Kosovo. This model has achieved meaningful penetration in a short time and demonstrates the potential of public financing vehicles in markets where private capital access is limited.

Through financing and the provision of technical expertise KEEF has enabled energy efficiency measures with the use of Energy Service Agreements in which repayments are linked to achieved energy savings. KEEF has financed more than 85 municipal facilities, such as schools, family health centres, sports and cultural halls for a total value EUR 13.6 million, achieving more than 26 GWh of yearly energy savings, and corresponding 5,000 tonnes of CO2 emission reductions per year. The implementation of energy efficiency measures such as insulation of the whole building envelope, installation of LED lighting and improvement and replacement of heating systems illustrates how KEEF enables deep renovations with a focus on multiple technologies and types of interventions.

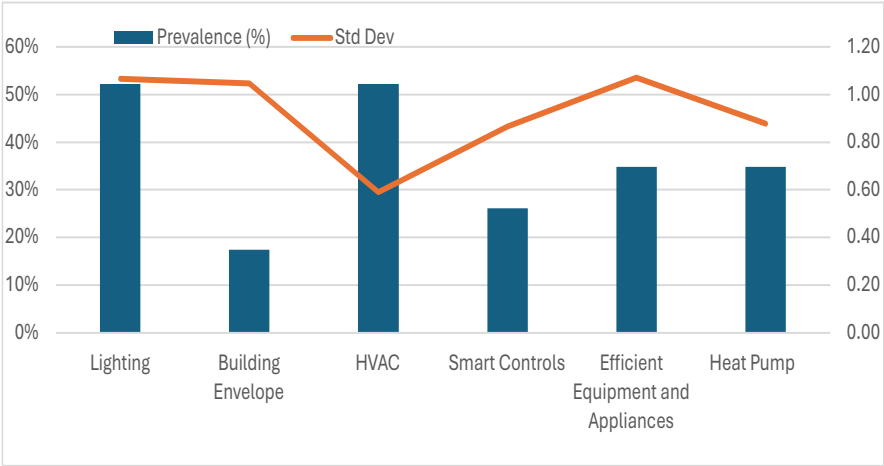


Figure 6. Prevalence of building energy efficiency technologies across surveyed ESCO markets

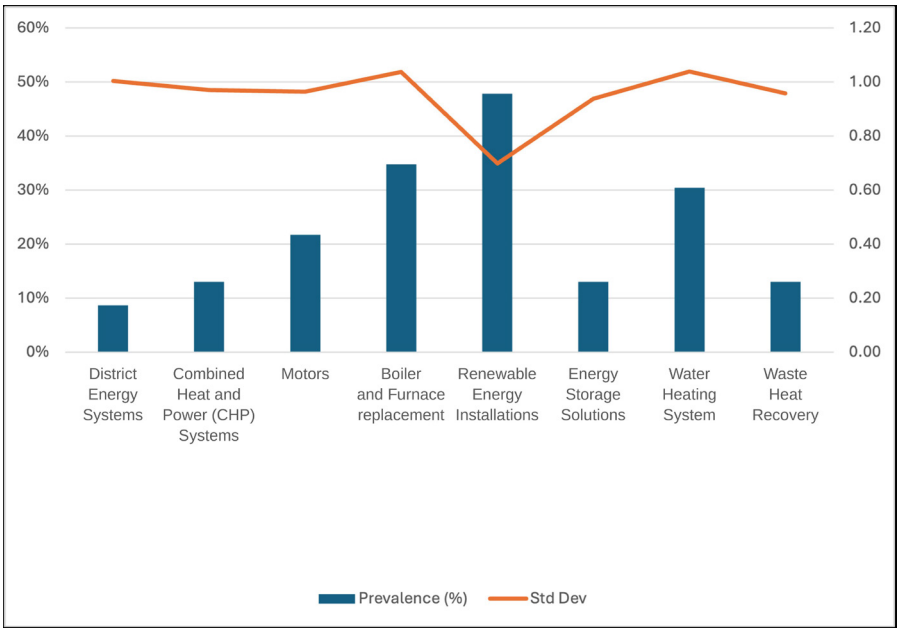
Under standard M&V protocols, this variability creates contractual uncertainty that may deter both ESCOs and lenders from committing to performance guarantees on motor projects.

A structural barrier specific to the industrial segment deserves particular attention. Unlike public sector clients, industrial clients typically require very short payback horizons and operate under production conditions that entail significant variability in energy baselines. This variability complicates the setting of contractually reliable performance guarantees under EPC models, since energy consumption in manufacturing, cement, textiles, and food processing is closely tied to production volumes and process conditions that can shift independently of efficiency improvements. IPMVP provides mechanisms for managing this through routine and non-routine adjustments, which are designed to separate the effect of operational changes from efficiency gains, but applying these correctly requires expert-level M&V capability that is not yet widely available in less mature markets. Adapting to this operational variability requires primarily expert-led M&V capacity, specifically the ability to establish credible baselines and apply routine and non-routine adjustments correctly, rather than standardised contract templates alone. Without reliable baseline determination by qualified M&V experts, no contract structure can fully resolve the performance guarantee uncertainty that currently deters ESCO engagement in energy-intensive industry.

China reports the broadest range of industrial technology applications, including motors, district energy systems combined heat and power, waste heat recovery, and energy storage. This reflects the sophistication of China's industrial ESCO sector and the strong regulatory incentives for large industrial consumers to improve efficiency.

Renewable energy installations are reported as a significant component of ESCO activity in South Africa, India, UAE, Israel, the Philippines, and Mali. In these markets, solar PV is often bundled with energy efficiency measures in integrated contracts, reflecting not only favourable solar resource conditions but also a focus on balancing generation costs with the value of energy savings.

Waste heat recovery and district energy systems are also under-deployed in most markets, though for reasons that differ from other technology gaps. These are primarily supply-side interventions: they improve how energy is generated, distributed, or recovered at a system level rather than reducing end-use consumption at a specific facility. As such, they do not lend themselves naturally to a standard EPC structure, where savings are measured against a client baseline and the ESCO guarantees a consumption reduction. They are better suited to as-a-service models, where the client purchases a service output such as heat or cooling at a contracted price rather than a verified energy saving, and the ESCO or concessionaire operates the system on a long-term basis. District energy systems add a further structural complexity: they require coordination among multiple stakeholders, supportive regulatory frameworks, and public oversight, and often exhibit characteristics of natural



The bars show the share of surveyed ESCO markets reporting the deployment of each technology category. The line indicates the cross-country variation (standard deviation) in deployment, with higher values representing greater differences in adoption rates across countries.

Figure 7. Adoption of industrial and supply-side energy efficiency technologies across surveyed ESCO markets

monopolies that make concession-based arrangements or public-private partnerships more appropriate than conventional ESCO contracting. The relative absence of these technologies from ESCO portfolios therefore reflects a structural fit issue as much as a financing or capacity constraint.

Energy storage remains the least adopted technology across all responding markets, with consistently low deployment and little variation across countries. This reflects the still-high costs of storage systems relative to the savings achievable within typical ESCO contract periods, as well as the absence of clear regulatory or contractual frameworks for integrating storage into Energy Performance Contracting-based business models in some markets.

5. Contracting modalities in the Public & Private Sectors

ESCOs employ a variety of contractual models to deliver energy efficiency services. They can broadly be divided into two models, client-financed and ESCO-financed models. Client-financed EPC contracts are normally referred to as guaranteed savings, where the client finances the energy efficiency improvement, while the ESCO designs, implements, and operates the system and is remunerated based on achieved energy savings, with client compensation if guaranteed savings are not achieved. ESCO-financed models can take various forms, most commonly shared savings EPC, where the ESCO finances the installations, and energy savings are shared between the ESCO and client to an agreed percentage. Under as-a-service models, the ESCO finances the installation and delivers defined energy services, such as lighting, cooling, steam etc. at a predefined value e.g. per unit. The central difference between the two is who provides the capital which mainly affects the risk allocation between ESCO and client, and ownership structure of the installation.

Table 5. Energy Performance Contracts Typologies

	Client-Financed	ESCO-Financed
Model	EPC - Guaranteed Savings	EPC - Shared Savings, As-a-service, Build Operate Transfer Leasing
Primary Deliverable	Capital project + guaranteed minimum savings, verified by M&V.	Ongoing service + performance outcomes, verified by M&V Savings generation and optimisation over time for both ESCO and client.
Asset Ownership	Client owns equipment from day one.	ESCO retains ownership during contract. Can be transferred after contract. The asset does not sit on the client's balance sheet.
Operational control and	Client may retain operational control. ESCO assumes performance risk (guarantees with penalties and bonuses).	ESCO controls operations and maintenance, bears full investments and operational risk.
Financing	Client finances the project through own capital or loans. Credit risk linked to client balance sheet and cash flows.	ESCO arranges financing linked to project cash flows / savings. Non or limited recourse to the client.
Payment Structure	Upfront or financed capital cost independent of realised savings	Agreed percentage share of energy savings between ESCO and Client. Customer pays a recurring fee based on actual performance (e.g., cost per unit of lighting, per kW, or a subscription). Ongoing service fees (OPEX).
Contract Duration	5-12 years (savings guarantee)	8-15 years (service agreement)
Accounting Treatment	Typically on-balance sheet for clients	Can be off-balance sheet if structured properly

The findings of the 2026 survey are consistent with the previous edition, showing diversity in approach between the public and private sectors as well as across sectors and countries. Public sector entities with financial capacity will generally prefer the guaranteed savings approach: ESCOs rarely compete on financing costs with public clients, who can typically borrow at lower rates and therefore find it cheaper to finance the project themselves rather than pay the ESCO's cost of capital embedded in a shared savings structure. An important exception arises where the jurisdiction or project structure allows off-balance-sheet treatment: for many public clients this is a significant benefit in its own right, and the financing need not come from the ESCO, but can be provided through structures such as a jointly owned special purpose vehicle. Private sector clients, on the other hand, will often choose to outsource financing to the ESCO, reserving their own capital for core business purposes.

In the public sector, guaranteed savings contracts are the predominant approach. Guaranteed savings remains the most common model overall with ten of the 21 responding markets, and one of the two Chilean respondents, reporting it as the most common public sector model, consistent with procurement norms within government institutions and with the preference for arrangements that more closely resemble traditional public procurement approaches.

In the private sector, shared savings EPCs are the most commonly reported model. Shared savings arrangements appeal to private-sector clients because they allow financial risks and investment in the assets to be transferred to the ESCO, enabling the client to achieve energy savings without own capital expenditure or placing further pressure on its bal-

ance sheet. As-a-service models are also notably present in the private sector, reported by four respondents: Poland, Germany, the United States and Chile. These more flexible, often finance-driven arrangements are much less common in the public sector, likely due to procurement constraints or procedural limitations on open-ended service contracts. Guaranteed savings is the dominant public sector modality in ten of the 21 markets and shared savings in seven; in the private sector the pattern reverses, with shared savings dominant in ten markets (**Table 6**).

An important clarification on the regulatory treatment of performance risk under guaranteed savings contracts emerges from recent research on Poland and the EU framework (Cieślak, 2025). The EU Energy Efficiency Directive requires that EPC projects generate energy savings but does not specify which party must bear the financial risk of underperformance. In practice, this risk is typically borne by the ESCO under a guaranteed savings model and shared between the ESCO and the client under a shared savings model. Moreover, public sector procurement frameworks in countries such as Poland routinely transfer performance risk to the ESCO as a condition of contract award. This risk transfer dynamic has implications for project bankability: lenders willing to finance a project where savings risk remains with a creditworthy public entity may be

Table 6. Contracting modality and primary financing source by country

Country	Public sector modality	Private sector modality	Primary financing source
Asia-Pacific			
China	Shared savings	Shared savings	Commercial banks
India	Shared savings	Guaranteed savings	Combination of equity and debt
Japan	Shared savings	Shared savings	Commercial banks (PLR 1.5%)
Malaysia	Guaranteed savings	Shared savings	Equity / own funds
Philippines	Guaranteed savings	Shared savings	Commercial banks
South Korea	Shared savings	Shared savings	Government loans (KEMCO, 1.75%)
Taiwan, Province of China	Guaranteed savings	Other	Equity / own funds
Europe			
Germany	Guaranteed savings	As-a-service	Commercial banks (2%)
Italy	Guaranteed savings	Shared savings	Public / donor financing + Equity
Netherlands	Other	Other	Not reported
Poland	Guaranteed savings	As-a-service	Equity / own funds + EU public funds
Republic of Kosovo	Guaranteed savings	Guaranteed savings	Entirely public (revolving fund)
Spain	Guaranteed savings	Other	Equity / own funds + Client funds
Switzerland	Other	Guaranteed savings	Not reported
Middle East and Africa			
UAE	Guaranteed savings	Shared savings	Equity / own funds
Israel	Shared savings	Shared savings	Commercial banks
Mali	Other / donor-driven	Guaranteed savings	Public / donor financing
South Africa	As-a-service	Shared savings	Mix: equity, client, technology funds
Americas			
Chile	As-a-service / Guaranteed savings	As-a-service / Guaranteed savings	Not reported
United States	Guaranteed savings	As-a-service	Commercial banks
Europe and Central Asia			
Türkiye	Shared savings	Shared savings	Commercial banks + client funds

Source: IEA & Global ESCO Network Joint ESCO Market Survey 2025/2026 (Q18, Q24). Financing source reflects the most frequently used category reported per country, not exclusive use. KEMCO = Korea Energy Management Corporation. PLR = prime lending rate.

unwilling to finance the same project where risk transfer makes the ESCO the guarantor. Policymakers designing EPC frameworks should therefore consider explicitly the intended allocation of performance risk and its interaction with local financing conditions, rather than defaulting to full risk transfer without assessing whether domestic ESCOs are sufficiently capitalised to absorb it. Regulatory intent and market practice can diverge on this point: the fact that a directive does not require the ESCO to bear all performance risk does not mean the market will automatically arrive at a balanced risk-sharing arrangement. Policymakers should assess the capabilities and capitalization of their domestic ESCO sector when considering whether a full-risk-transfer procurement model is viable, or whether a more collaborative risk-sharing approach is needed to align with market realities.

Business Environment: Contract Duration, Payback, and Financing

Table 7 provides an overview of common contract durations, payback periods, and interest rates across reporting markets. Survey responses indicate considerable variation in ESCO project durations, particularly within public sector contracts. The United States reports an average public sector contract duration of 20 years, the longest in this edition, reflecting a high degree of market maturity and a willingness to undertake deep renovations. Poland, Israel and one of the two Chilean respondents also report long public sector contracts of around 15 years.

Most countries cluster around 7 to 12 years for public sector contracts, including Italy, China, Malaysia, South Africa, Japan, South Korea, Spain and the Philippines. These durations may be sufficient for simpler retrofits but are often too short to support comprehensive renovations involving thermal envelope improvements or long-payback technologies. The average public sector contract duration is relatively short in Türkiye (5 years), India (5 years), and Taiwan, Province of China (4.3 years). In Taiwan, Province of China this is consistent with the dominance of single-technology interventions, whereas Türkiye reports predominantly integrated projects.

The difference between contract duration and payback period provides a rough indicator of the ESCO's gross margin. On average across responding markets, public sector contracts show a gap of approximately 2 to 3 years between payback and total duration, representing a margin of roughly 20 to 30 percent on typical 10-year contracts. Private sector

Table 7. Contract Durations, Payback Periods, and Interest Rates in ESCO Projects

Country	Public Duration (yr)	Private Duration (yr)	Public Payback (yr)	Private Payback (yr)	ESCO Rate (%)	PLR (%)
China	8	7	7	7	4	3.6
Germany	12	15	12	15	2	4.0
Poland	15	N/A	11.5	N/A	7.5	7.7
Italy	7	6	9	5	4	4.5
USA	20	10	12	6	5	8.0
Taiwan, Province of China	4.3	4.3	2.2	2.2	2.75	2.5
Malaysia	6	5	4	3	6.5	5.4
South Africa	10	12	5	5	12.5	11.0
Japan	9.5	11.1	10	7	N/A	1.5
South Korea	8	4	6	4	1.75	5.2
Philippines	7	10	3	4	11	7.7
Chile	15	3	6	1.5	N/A	8.5
Türkiye	5	3	3.5	2	30 TRY* / 8 EUR	30+
India	5	8	3	3	14	~14.65*
UAE	7	10	5.5	7.5	N/A	~5.5**
Spain	8	7	6	6	N/A	~2.2

*PLR = Prime Lending Rate (national benchmark, 2024–2025). Sources: CEIC Data and central bank statistics. TRY = Turkish lira. *India uses the MCLR/EBLR as its primary lending benchmark. **UAE figure is based on CBUAE base rate + commercial spread. Chile's values combine two respondents with very different profiles (15- and 3-years public contract duration).*

Photo Credit: Canva Generated

6. ESCO Financing and its Challenges

Financing is a cornerstone of the ESCO business model, and often its greatest constraint. Unlike traditional service providers, ESCOs typically rely on performance-based payment mechanisms, making access to finance and risk-sharing arrangements essential to their operations.

Financing Sources

Survey data reveals significant diversity in both the sources of finance and the financial instruments used to support ESCO projects. These choices vary across countries depending on the most applied contracting modality, domestic economic and financing conditions, market maturity, access to capital, institutional support, and policy environments.

Commercial financial institutions remain the most frequently cited source of ESCO funding, particularly in the United States, China, Germany, Japan, Israel, Malaysia, South Africa and Türkiye. The source of financing is also closely linked to contracting modality: in markets where ESCO financed models dominate, the ESCO bears the full upfront investment risk and depends on bank financing to fund its own outlays. In China, Israel, and the Philippines – all markets where shared savings arrangements are prevalent – commercial banks are consistently reported as frequently used financing partners, consistent with this logic.

However, two important deviations from this pattern merit attention. First, South Korea reports shared savings as the dominant modality in both the public and private sectors, yet commercial banks are not the primary financing source. ESCOs rely instead on government-subsidised loans through KEMCO at rates well below the national prime lending rate, and on equity and own funds. This may indicate that commercial banks apply conventional collateral-based credit criteria that are poorly suited to performance contracting structures, requiring government to substitute with directed lending – a dynamic consistent with South Korea's broader ESCO development history. Second, in Malaysia and Taiwan, Province of China, guaranteed savings contracts are common but ESCOs also rely predominantly on equity and own funds, suggesting either that project sizes are too small to justify bank loan structures or that lender familiarity with EPC models remains limited.

Although guaranteed savings contracts are the dominant model in the public sector, access to commercial finance remains a significant challenge. Survey results indicate that financial institutions often lack the technical capacity to assess EPC business models, particularly when evaluating future cash flows from energy savings rather than conventional collateral. These findings suggest that strengthening financial-sector capacity and developing financing structures tailored to EPC projects will be essential to unlock commercial financing at scale.

Financial Instruments

Among financial instruments, equity and debt are the most widely used, reported as frequently used by 12 and 9 respondents respectively, followed by grants and guarantees (5 each). Equity and own funds are reported as frequently used in Poland, China, Taiwan, Province of China, South Africa, Israel, India, the UAE and Spain, suggesting that self-financing remains a significant channel even in markets with active bank lending. Spain also reports frequent use of client funds. Grants are reported as frequently used in Poland, Italy, Japan and South Korea, and moderately in the United States, Taiwan, Province of China, the Philippines and Türkiye, typically to stimulate activity in already active sectors. However, the JRC identifies two contracting modalities that compete directly with EPC: simpler energy service contracts carrying weaker guarantees, and conventional contracts of works supported by EU grants. The latter is documented by JRC in nine EU member states – Croatia, Cyprus, Bulgaria, Poland, Romania, the Czech Republic, France, Germany, and Spain – where the availability of grant-based renovation subsidies reduces the relative attractiveness of performance contracting.

This dynamic has been documented specifically in the context of EU Recovery and Resilience Facility disbursements, where grant availability has been found to undermine EPC market development (Moles-Grueso, Bertoldi and Boza-Kiss, 2023). In Spain, the survey respondent reports that ESCOs rarely use grants and rely instead on debt and guarantees, consistent with the JRC finding that grants in Spain tend to support conventional works contracts rather than ESCO projects.

India records the second-highest overall financial barrier score across the sample after China. Notably, low or uncertain returns is the one dimension rated Low Challenge, indicating that Indian ESCO practitioners are confident in project economics but face structural constraints on both sides of the financing relationship simultaneously: payment risk on the client side and low technical capacity among financial institutions are both rated High Challenge, pointing to a trust deficit that affects lender and borrower alike. This is notable given the dedicated energy efficiency credit lines backed by guarantees available through the Partial Risk Sharing Facility, suggesting the constraint may lie in project bankability as much as in capital availability. Addressing both dimensions in parallel, through risk-sharing instruments on the client side and dedicated capacity-building for financial institutions, is the sequencing logic already embedded in India's Partial Risk Sharing Facility and Bureau of Energy Efficiency programmes.

Leasing arrangements are used selectively, reported as frequently used in Japan, the United States and Türkiye and moderately in Italy, China, South Africa, Chile and the UAE. Their simplicity and predictability make them attractive in both less mature and well-established markets, particularly for equipment-intensive single-technology projects.

Guarantees, in the sense of third-party insurance products or financial instruments that cover performance risk, continue to see low uptake, primarily due to the limited availability of such schemes. This is distinct from the performance guarantees that ESCOs themselves provide as part of EPC contracts. Only the United States, China, South Korea, Italy and one Chilean respondent report frequent use of credit or performance guarantees in ESCO transactions; Spain, Taiwan, Province of China, South Africa and the UAE report moderate use. However, interest in expanding access to guarantees is growing, particularly in emerging markets

Forfaiting, the sale of future ESCO receivables to third-party financial institutions, remains a niche instrument used primarily in the Czech Republic, Germany and Slovakia, and is reported at moderate frequency by Germany and Italy in this edition. Despite its complexity, forfaiting has shown promise in improving the bankability of ESCO contracts in markets with sufficiently standardised contracts, allowing ESCOs to monetize future cash flows and improve their financial standing, allowing accelerated project pipeline expansion.

An emerging avenue that most ESCO markets have not yet explored is alignment with international climate finance frameworks and sustainability reporting standards. The Green Climate Fund and comparable multilateral instruments increasingly support energy efficiency investments in developing and emerging economies, yet ESCO project pipelines in most of the countries surveyed are not structured in ways that make them eligible. Similarly, the growing importance of environmental, social, and governance reporting among institutional investors, and the proliferation of green taxonomy frameworks in the EU and elsewhere, creates an opportunity for ESCO portfolios to be positioned as taxonomy-aligned assets, unlocking access to a growing pool of ESG-mandated capital. Realising this potential would require investment in project documentation, impact reporting standards, and engagement with national green bank or taxonomy authority counterparts, activities that are within scope for technical assistance programmes such as EFSD+ in candidate countries.

Nominal interest rates on ESCO loans generally track national prime lending rates (PLRs), suggesting that ESCOs in most markets are not systematically disadvantaged by banks on pricing alone. Since inflation varies significantly across countries, nominal interest rates are not directly comparable across markets; instead, the relationship between ESCO lending rates and domestic prime lending rates provides a more meaningful indication of financing conditions. Notable exceptions include Türkiye, where nominal ESCO lending rates exceed 30%, reflecting both high inflation and financing constraints for local-currency borrowing, and the Philippines, where rates of around 11% reflect a higher perceived risk premium relative to the PLR. Both markets rely heavily on development finance and client financing to bridge this gap. South Korea reports an ESCO lending rate of 1.75%, well below its PLR of 5.2%, reflecting the availability of concessional financing mechanisms for registered ESCOs.

While headline rates suggest ESCOs are not disadvantaged in most markets, the survey's financing barriers data point to a more structural form of disadvantage. Low technical capacity among financial institutions to assess ESCO business models, including the difficulty of underwriting against projected future cash flow from energy savings rather than conventional collateral, is rated a high challenge by 10 of 23 respondents and a high or moderate challenge by 18, which together with policy uncertainty makes it the most widely cited barrier in the dataset. This suggests that even where loans are available and reasonably priced, the underlying credit assessment process often fails to reflect how ESCO projects actually generate value, pushing many markets toward collateral-based lending criteria that are poorly suited to the EPC model.

Financial Challenges for ESCOs

ESCO markets face varying degrees of financial challenges, shaped by policy environments, level of investor confidence, and access to capital. Survey responses identify a consistent set of barriers across most markets, with some important regional differences.

The barriers most frequently rated a high or moderate challenge are: 1. uncertainty regarding policy and incentives, 2. low technical capacity of financial institutions to evaluate ESCO business models, 3. lack of trust in the ESCO industry among lenders, and 4. the complexity of project valuation. These findings are consistent with those from previous editions and underscore the need for sustained capacity-building efforts targeting the financial sector. Some of these barriers are interlinked. For instance, barriers 2 and 3 are the rationale for the International Energy Efficiency Financing Protocol (IEEFP) training and certification programme.

China, India, Italy and Poland report the highest overall incidence of significant financing barriers across multiple dimensions where access to appropriate financing instruments remains constrained despite, in some cases, significant market size. The barriers vary significantly among countries. In China, the main challenges are related to the market rather than to government policies or regulations. These include the complexity of valuing projects, the risk that clients may not pay, limited trust in the ESCO industry, and a lack of technical expertise within financial institutions. Policy and regulatory uncertainty, by contrast, is considered only a moderate challenge. Italy and Poland show a broader distribution of barriers including both policy uncertainty and capital access. By contrast, the United States and Israel report relatively lower overall barrier incidence, reflecting more mature institutional relationships between ESCOs and financial institutions.

Evidence from primary research in Australia, based on 54 structured interviews with ESCO operators and end users, confirms that lack of trust in ESCO business models, complex contractual structures, and limited client information on costs and benefits are the most frequently cited barriers to market development (Trianni, Leak and Hasan, 2025), a finding consistent with survey responses from across this report's sample. The study identifies three priority interventions for addressing these barriers: establishing a formal ESCO accreditation system to enhance market credibility, developing dedicated financing facilities to improve project bankability, and prioritising capacity-building programmes for both ESCOs and potential clients. Notably, all three of these interventions correspond directly to policy gaps identified in the 2025/2026 survey data: accreditation schemes are absent or inadequate in nine of the markets surveyed, and dedicated financing facilities are reported as unavailable in the majority of participating countries.

Tighter domestic credit conditions and broader macroeconomic pressures, including inflation, are a distinct category of financing challenge. In Türkiye, where the association describes the market as stable, the gap between domestic borrowing costs and the economics of energy efficiency investments can create challenges for project financing. In particular, Turkish lira-denominated interest rates have remained significantly higher than the expected returns from many energy efficiency projects, affecting the attractiveness of domestic currency financing. As a result, some market actors have increasingly explored access to lower-cost foreign currency financing, particularly in euros, although this may introduce additional exchange-rate risks that need to be carefully managed within project and contractual structures. A recent policy development may partially mitigate these financing constraints. The Ministry of Energy and Natural Resources has expanded the scope of the Energy Efficiency Improvement Project support scheme to include eligible projects implemented by ESCOs under energy performance contracts. Under this mechanism, qualifying energy efficiency projects can receive grant support of up to 30% of the investment cost, subject to the applicable annual cap. This development is expected to improve project bankability, strengthen the energy performance contracting model,

and support positive momentum in Türkiye's ESCO market, particularly where grant support can help close the gap between project cash flows and financing costs.

Payment risk on the client side takes a different form depending on the sector. In the private sector, client default after project completion is a genuine credit risk that standard commercial loan products are not well designed to absorb: the multifaceted relationships among an ESCO, a client, and a financing institution across a multi-year performance period require complex administrative processes causing significant operational and legal costs, and conventional lending structures do not easily accommodate the specific risk profile of EPC receivables (EPC critical review, 2025). In the public sector, by contrast, outright credit default is rare in most markets: public entities are generally more creditworthy counterparties than private clients, and in most surveyed countries an ESCO contract with a public body carries relatively low default risk. South Africa is a notable exception, where fiscal constraints and governance challenges introduce genuine payment uncertainty. The more common public sector concern is not credit default but

Country Snapshot 4: India

Emerging Trends in India's ESCO Market

India's Energy Service Company (ESCO) market continues to evolve through a combination of policy support, financial innovation, and institutional capacity building. Although the country's energy efficiency opportunity is estimated at more than USD 20 billion, the share implemented through performance-based contracting remains small with substantial scope for future market expansion. Recent years have seen increased efforts to improve access to finance for energy-efficiency investments. The Bureau of Energy Efficiency (BEE) has expanded its financing facilitation initiatives, creating a pipeline of more than 215 energy efficiency projects with an estimated investment potential exceeding USD 315 million and strengthening engagement with financial institutions. Another notable development has been the initiation of Energy Savings Performance Contract (ESPC) pilots within large public-sector enterprises with support from BEE. These projects incorporate independent third-party Measurement and Verification (M&V) protocols, providing practical experience with performance-based procurement models and generating lessons for wider replication across public infrastructure and industrial facilities.

Policy signals have also strengthened. The Government of India, in its annual budget, has highlighted the role of ESCOs in accelerating energy-efficiency investments, including by promoting commercial building retrofits under performance-contracting frameworks. In parallel, the ongoing implementation of the Energy Conservation Act amendments and the transition towards the Carbon Credit Trading Scheme are expected to create additional incentives for investment in energy-saving measures. Market-enabling initiatives have expanded beyond financing. The State Energy Efficiency Index (SEEI), developed by BEE in partnership with Alliance for an Energy Efficient Economy (AEEE) and first rolled out on August 1, 2018, incorporates indicators related to ESCO-driven implementation and enabling frameworks at the sub-national level. Such initiatives increase the visibility of energy efficiency outcomes and encourage states to strengthen institutional mechanisms to support performance-based energy efficiency projects.

Taken together, these developments suggest a gradual transition of the Indian ESCO market towards a more structured ecosystem characterised by stronger financing support, improved project verification practices, increasing public-sector participation, and greater policy recognition of energy efficiency as a strategic component of sustainable development and energy transition pathways. Despite positive market developments, several structural challenges continue to limit ESCO market expansion in India. Demand for performance-based contracting remains concentrated in a few sectors, while adoption among government institutions and industrial facilities is still in its early stages. Establishing greater confidence in savings verification through independent M&V mechanisms, improving the bankability of project pipelines, and developing aggregation models for MSMEs remain key priorities. In addition, translating emerging policy instruments, such as the Carbon Credit Trading Scheme, into tangible revenue opportunities for ESCO projects will be important for attracting larger volumes of private capital and accelerating market growth.

budget reallocation, political transitions, and administrative restrictions on multi-year financial commitments that can delay or interrupt payment streams without formal default. As a result, some ESCOs require payment guarantees or other forms of contractual security as a condition of contract signature.

A mechanism that directly addresses both risks is forfaiting: the ESCO sells its contractual receivables to a bank at a discount, converting a long-term uncertain payment stream into immediate liquidity. Where the underlying contract is with a public sector entity, this structure is particularly effective – the payment obligation transfers from an ESCO-client relationship into a direct relationship between the bank and the public entity, which is both more enforceable and considerably less susceptible to the administrative and political disruptions that are the primary source of public sector payment risk. A forfaiting structure hosted through a systemically important bank should in most contexts effectively deter public sector clients from defaulting, given the reputational and institutional consequences of defaulting on a bank rather than on an ESCO. This mechanism is already operational in the Czech Republic and Germany, where it features in a significant share of ESCO transactions, but remains underused in most other surveyed markets.

The transaction cost dimension of financing barriers is worth making explicit and connects directly to the forfaiting logic above. Individual ESCO projects, particularly those targeting small or medium-sized facilities, often cannot justify the legal, financial structuring and due diligence costs that commercial lenders require for each transaction.

Project aggregation platforms, which pool multiple standardised EPC contracts into a single investment-ready portfolio, can reduce these per-project transaction costs significantly and make the aggregate pipeline attractive to institutional investors who would not engage with individual projects. Once aggregated, that portfolio is also a natural candidate for a forfaiting structure: a bank purchasing a pool of public sector EPC receivables faces a diversified public sector payment stream rather than individual project exposure, improving both the risk profile and the pricing. This is precisely the mechanism that has enabled ESCO securitisation in more mature markets such as the United States, and that UNEP CCC's work in Mauritius is replicating in smaller and earlier-stage markets.

Scaling this model requires both standardised contracts – so that individual projects can be bundled without bespoke legal work on each – and a critical mass of completed projects with verifiable performance records, creating the precedent that investors require before committing capital at portfolio scale. This explains why standardised contracts and pre-agreed risk allocation frameworks are not merely a convenience but a prerequisite for reducing per-project costs to levels at which small and medium-scale ESCO projects become financeable.

Photo Credit: Søren Lütken

7. Policy & Regulatory Environment

The success and scalability of ESCO markets depend not only on access to financing but also on a strong enabling policy and regulatory framework. While financial mechanisms remain critical, government policies, market regulations, and institutional support structures often determine whether ESCO markets thrive or stagnate. The 2026 survey introduced a revised set of questions adopted from earlier editions of the Regulatory Barriers analysis (UNEP-CCC, Global ESCO Network, 2024) designed to assess the presence and adequacy of specific regulatory enablers across eleven dimensions, providing a more granular picture of policy readiness than previous editions.

Regulatory Framework Presence and Adequacy

Table 8 presents the presence and adequacy of key regulatory enablers across reporting countries for ten of the eleven dimensions surveyed (public sector mandate clarity is omitted for space and discussed in the text), using three levels: Yes (Y, framework in place and fit for purpose), Partial (P, framework exists but is not fit for purpose or incomplete), and No (N, framework absent).

Government-led energy efficiency programmes are the most widely available enabling instrument, reported as present in nearly all markets with available data, though the quality and reach of these programmes varies considerably. Public sector mandate clarity, the eleventh dimension surveyed, is reported as fit for purpose in Spain, Taiwan, Province of China, and Kosovo and by one of the two Italian respondents, and as partially in place in China, the Netherlands, Mali and Chile; most other respondents report that the current delineation of mandates does not yet facilitate ESCO projects or resolve split incentives. Long-term contracts in the public sector are also widely available, with most markets reporting that public entities can legally enter multi-year Energy Performance Contracting commitments. However, the ability to structure these contracts efficiently and competitively remains a challenge in several markets.

Official definitions of ESCOs are present in the majority of reporting markets, providing a basic level of regulatory recognition. Accreditation schemes are more widespread than is sometimes assumed: Japan, India, the UAE, South Korea, Italy, Kosovo, Israel, South Africa, the Philippines and the United States all report accreditation systems assessed as fit for purpose. Germany, the Netherlands, Poland, Spain, Taiwan, Province of China, and China do not, representing a notable gap given their market size and maturity.

Standard contracts for ESCO procurement are available and fit for purpose in South Korea, Taiwan, Province of China, the Netherlands, Poland, Spain, Israel, India, the UAE and the United States. They are absent or inadequate in China, Japan, Malaysia, and several other markets, increasing transaction costs and limiting the replicability of project structures. Kosovo reports standard contracts as partially available, consistent with its emerging institutional framework.

Aggregation mechanisms, including one-stop shops and Super ESCO programmes designed to bundle small-scale demand, are reported by only a handful of countries. Kosovo, the Philippines and the UAE report fully functional aggregation programmes. China, Malaysia, South Korea, Taiwan, Province of China, India and Chile report partial arrangements. In most markets, aggregation remains an aspirational concept rather than an operational tool, limiting ESCO access to the residential, SME, and municipal sub-sectors where project size alone is insufficient to justify full ESCO engagement.

Mandatory energy audits, which can create a pipeline of projects by identifying efficiency opportunities across the building stock and industry, are present and fit for purpose in Malaysia, South Korea, Germany, Italy, Poland, Spain, India, the Philippines and Israel. Mali and Chile report partial mandatory audit requirements. The European Union's Energy Efficiency Directive has driven mandatory audit requirements across EU member states, though implemen-

Table 8. Presence and adequacy of enabling policy frameworks for ESCO markets

Country	ESCO Defn.	Accredit.	Std. Contracts	Aggregator	Mand. Audit	Metering Req.	Long-term Contracts	Gov.	Finance Facility
Asia-Pacific									
China	Y	N	P	P	N	Y	P	Y	Y
India	Y	Y	Y	P	Y	Y	Y	Y	P
Japan	Y	Y	P	N	N	N	N	Y	N
Malaysia	Y	P	N	P	Y	Y	N	Y	N
Philippines	Y	Y	P	Y	Y	P	Y	P	P
South Korea	Y	Y	Y	P	Y	P	N	Y	P
Taiwan, Province of China	Y	N	Y	N	N	P	P	Y	Y
Europe									
Germany	Y	N	P	N	Y	Y	Y	Y	N
Italy	Y	Y	P	N	Y	P	Y	Y	P
Netherlands	P	N	Y	N	N	P	P	N	N
Poland	Y	N	Y	N	Y	Y	Y	Y	P
Republic of Kosovo	Y	Y	P	Y	N	N	N	N	Y
Spain	Y	N	Y	N	Y	Y	Y	Y	Y
Middle East and Africa									
UAE	Y	Y	Y	N	Y	Y	N	Y	P
Israel	P	N	N	N	P	P	P	P	N
Mali	Y	Y	Y	Y	N	N	Y	Y	N
South Africa	Y	Y	P	N	N	N	N	Y	N
Americas									
Chile	P	N	N	N	P	P	P	Y	N
United States	Y	Y	Y	N	N	N	N	Y	N

Y = Yes, framework in place and fit for purpose
P = Partial, framework exists but incomplete or not fit for purpose.
N = No framework

Survey respondents in the EU markets covered by this edition consistently identify procurement complexity and the absence of standardised measurement and verification requirements as constraints on scaling EPC beyond pilot-stage activity. A recent assessment of the revised EU Energy Efficiency Directive (2023/1791) by Gonzalez-Torres, Bertoldi et al. (2025) offers a broader stakeholder perspective on whether the regulatory framework is equipped to close this gap. Drawing on 52 responses from a study population of 75 European stakeholders, the authors find that 61 percent are satisfied that the revised Directive will deliver energy savings, but only 46 percent consider it adequate for delivering carbon reductions. Respondents further identify monitoring and mutual learning as the single factor most likely to contribute to achieving the Directive's objectives, cited by 52 percent. The authors caution against revising the Directive again in the near term, arguing that renewed legislative activity would divert attention from implementation.

The study's own sample limitations should be noted: only 23 of the 52 respondents completed all questions, and the respondent base is weighted toward advocacy and industry organisations rather than implementing authorities. Read alongside the survey data, the finding that stakeholders prioritise monitoring and mutual learning over further regulatory ambition is consistent with this report's broader conclusion that the binding constraint in EU markets is implementation capacity rather than policy intent.

In contrast, mandatory audit requirements for large industrial consumers have been a notable enabler of ESCO project pipelines in several non-EU markets, including China, Japan, and South Korea. Gonzalez-Torres, Bertoldi et al. (2025) conclude that in the EU context, regulatory ambition has outpaced implemenattion capacity, with technical assistance and standardisation remaining the critical missing links between policy targets and market delivery. Manda-

tory audits, while creating a pipeline of identified efficiency opportunities, do not automatically translate into ESCO contracting without additional policy support or market enablers, as the EU case illustrates.

Financing facilities to alleviate payment and performance risks are reported as fully functional in only four markets: China, Taiwan, Province of China, Kosovo and Spain. South Korea, Poland, Italy, Israel, the Philippines and India report partial arrangements. The absence of functional risk-sharing facilities in the remaining markets is a significant gap, particularly given that payment risk is consistently ranked among the top financial barriers to ESCO market growth.

Accounting, fiscal, and tax clarity for ESCO business models is among the weakest dimensions in the dataset. The United States and Spain are the only markets to report this framework as fully fit for purpose. Germany, Italy, South Korea, Israel, India, the UAE and several others report partial clarity. Many respondents indicate that accounting and tax treatment of off-balance-sheet energy service contracts remains ambiguous or insufficiently supportive of the ESCO model, deterring both ESCOs and clients from entering long-term performance contracts. Clear rules alone are not sufficient, however: in the EU, Eurostat guidance already defines when public sector EPCs can be recorded off-balance-sheet, yet several member states retain underdeveloped ESCO markets, suggesting that awareness and application of these rules, alongside other barriers, matter as much as the rules themselves.

Country Snapshot 5: Mauritius

Building an EPC Market Through Policy Reform and Risk Mitigation

Mauritius presents a compelling case for energy efficiency investment, as over 90% of energy supply depends on imported fossil fuels, grid capacity is approaching its limits, and electricity demand is rising. The country's NDC 3.0 targets a 10% improvement in energy consumption by 2035, relying heavily on Energy Performance Contracting (EPC). Mandatory energy audits administered by the Energy Efficiency Management Office (EEMO) since 2017 have documented a financially viable investment potential of approximately EUR 63 million, concentrated in hotels, commercial buildings, and malls.

Four ESCOs are active in the market, two of them operating on a shared savings basis. Flagship projects include a centralised chiller retrofit at a major mall, achieving over 20% energy reduction, and an energy management system deployment decreasing overall energy consumption by 10%. Furthermore, a substantial pipeline has been identified through the audit program. The whole program has received significant government support, with EEMO coordinating regulatory development and hosting an ESCO registry and grading system; procurement rules have been devised to accommodate EPC; finally, a standard contract adapted to Mauritian law has been put in place. Amendments to the Energy Efficiency Act and related regulations are expected in 2026.

The principal barriers to ESCO expansion are financing access and market scale. ESCOs currently cannot offer assets installed at client facilities as bank collateral, which limits their access to loans to expand their operations. The island's small population and energy consumer base mean activity is below the critical mass required for conventional guarantee products to be financially viable. To address this, a dedicated De-risking Facility for Energy Performance Contracting has been developed by UNEP Copenhagen Climate Centre with EEMO and Capital Asset Management Ltd, using Mitigation Action Facility seed funding. The facility intends to establish a partial credit mechanism capitalised at EUR 14 million, which will ensure the sustainability of the mechanism.

Key Policy Drivers

Survey respondents across markets identified mandatory targets, regulatory thresholds, and enforcement mechanisms as the most critical enablers of ESCO market growth. Voluntary or sustainability-motivated approaches are widely seen as insufficient on their own. As one Türkiye respondent stated: "The time for voluntary approaches is over. There needs to be direct and obligatory provisions for applying energy efficiency measures within a set timeframe. Companies that fail to do so must face penalties".

Energy price signals remain a powerful demand driver. Countries with higher energy prices, such as Italy and Israel, tend to see stronger ESCO engagement among commercial and industrial clients motivated by cost savings. Conversely, markets with subsidised or low energy prices face a structural challenge in making ESCO project economics viable at typical contract durations.

Government energy efficiency programmes are effective enablers, particularly when they include financial incentives such as grants or concessional loans alongside regulatory requirements. However, as noted in the financing instruments section, the increasing availability of grant funding in some EU markets, particularly through post-pandemic recovery programmes, has in several cases begun to compete with rather than complement energy performance contracting, as direct subsidies can reduce the comparative attractiveness of the ESCO model (Moles-Grueso, Bertoldi and Boza-Kiss, 2023). The combination of mandatory targets and financial support appears to be the most effective policy mix for driving ESCO market development.

Respondents also highlighted the importance of EPC insurance systems, the systematic communication and application of M&V protocols as a contractual condition, and arbitration mechanisms as secondary but meaningful enablers. While M&V requirements are commonly specified in individual ESCO contracts, their consistent application across projects was seen as an important factor in building market confidence, even if not necessarily mandated by a binding national regulation. These instruments reduce the perceived risk of contracting for both ESCOs and their clients, improving the willingness of financial institutions to fund projects.

A further dimension of policy enablement, largely absent from current frameworks across surveyed markets, is the formal embedding of ESCO models within national climate change plans, Nationally Determined Contributions (NDCs) and long-term energy efficiency strategies. As of 2025, over 50 countries had already set updated energy efficiency targets in their NDCs ahead of COP30, confirming that this integration is a growing international norm rather than a prospective recommendation (IEA, 2025). Where ESCOs are not explicitly referenced in NDC commitments or national energy efficiency action plans, they risk being overlooked in the allocation of climate finance and in the design of public procurement mandates. Governments seeking to scale their ESCO sectors should consider incorporating performance-based energy service contracting as a named delivery mechanism in their NDC revisions, alongside clear targets for public building retrofits and industrial energy savings. This alignment would potentially improve access to international climate finance instruments, since project eligibility for concessional capital is increasingly tied to NDC consistency.

The structural demand case for ESCO services in Europe is reinforced by the findings of Maduta, D'Agostino, Bertoldi et al. (2023), which assess the implementation of the Energy Performance of Buildings Directive across EU member states. Their analysis shows that the EU building stock has the potential to achieve a 94 percent reduction in direct greenhouse gas emissions by 2050, but that current renovation rates are insufficient to realise this potential, and that the average energy performance of Nearly-Zero Energy Buildings lags behind EU benchmarks in all climatic zones. The revised EU Energy Efficiency Directive (2023/1791), which entered into force in October 2023 and sets a binding 11.7 percent reduction target by 2030 with a 1.9 percent annual reduction obligation on the public sector, formally requires member states to promote EPC and remove regulatory barriers to its uptake. The EU Energy Performance of Buildings Directive (2024/1275), in force since May 2024, creates a substantial pipeline of building renovation activity by requiring the retrofit of the 16 percent worst-performing non-residential buildings by 2030. These two directives together represent a significant and sustained regulatory driver for energy efficiency investment in Europe over the coming decade.

Country Snapshot 6: Ghana

Reviving an ESCO Market Through Policy Reform and Public-Private Collaboration

Ghana's ESCO market is undergoing a deliberate revival after earlier attempts stalled under the weight of high financing costs, an underdeveloped legal and regulatory environment, and limited access to capital. With economic growth averaging approximately five percent since 2010, conditions are gradually improving, and a coalition of national institutions and international partners is now working to create the enabling environment needed for sustainable ESCO market development.

The Ghana ESCO Project, led by the Energy Foundation and the Energy Commission with support from UNEP Copenhagen Climate Centre, SEforALL, GIZ, AfDB, and UNIDO, represents the most coordinated effort to date. A comprehensive market assessment has identified the key bottlenecks and produced recommendations across four dimensions: policy and regulation, legal frameworks, capacity building and awareness creation, and procurement and financing.

On the policy side, Ghana has made measurable progress. The national energy efficiency policy has been reviewed, 21 Minimum Energy Performance Standards (2022) for home appliances and industrial equipment have been enacted, a new Industrial Energy Efficiency Policy has been adopted, and NDC commitments target a 20 percent reduction in emissions by 2030. Financial sector reforms are gradually improving access to green financing, and the government has mandated two major public sector project pipelines to seed the reviving market. Institutional capacity is also being strengthened: three energy audit training centres have been established, and regulations for energy auditors, Energy Performance Contracting, post-implementation arrangements, and ESCO registration and certification are under development.

A key challenge is the high domestic financing costs and limited access to capital, requiring guarantee mechanisms and climate finance to de-risk ESCO investment. The preferred financing model under development combines a dedicated revolving fund with third-party risk cover and payment guarantees to offset the risk premium currently applied by domestic financial institutions. Climate finance mobilisation and dedicated credit lines through existing development initiatives are central to making this model operational.

Photo Credit: Canva Generated

8. Conclusions & Outlook

The 2026 edition shows a sector that is growing but not converging. More countries are reporting, ESCO models increasingly appear in national energy policy, and seven markets enter the dataset for the first time. Yet investment remains concentrated in three markets with very different structures: the United States, built on long-term public sector contracting; China, driven by mandatory targets for energy-intensive enterprises; and Italy, supported by white certificates and fiscal incentives. There is no single route to a large ESCO market, but each of these routes relies on a stable, binding policy framework that has created predictable demand over many years.

Three conclusions follow from the survey.
First, finance is not scarce, but finance that fits the ESCO model is. Most markets have active lenders, yet few have the instruments that make performance contracts bankable: risk-sharing facilities, standardised contracts that allow projects to be aggregated, and lenders able to assess cash flows from energy savings rather than collateral. Where these exist, as in the United States, Germany or Kosovo's public revolving fund, capital follows. Where they do not, ESCOs fall back on their own equity, which limits market growth to the size of their balance sheets.

Second, policy determines the depth of the market, not only its size. Short contract terms, short payback requirements and grant programmes that fund conventional works all push ESCOs towards fast-return measures such as lighting, and away from building envelopes, heat pumps, motor systems and industrial processes, where most of the remaining efficiency potential lies. The tentative link between contract length and savings depth observed in this edition is consistent with this, and is worth testing in future editions.

Third, a complete framework is necessary but not sufficient. Several markets with well-developed rules report flat or declining activity, while others with partial frameworks are growing. Implementation, enforcement and the consistency of public procurement matter as much as the presence of the rules themselves.

Outlook
The near-term outlook is cautiously positive. In Europe, the revised Energy Efficiency Directive and the recast Energy Performance of Buildings Directive now require member states to promote EPC and remove barriers to its uptake, and create a renovation pipeline for the public sector. In emerging markets, the experiences of Kosovo, Mauritius, Uzbekistan and Ghana show that dedicated funds, de-risking facilities and public sector pipelines can build a market from a low base within a few years. The growing number of countries setting energy efficiency targets in their NDCs creates a further opening, provided ESCOs are named as a delivery mechanism rather than left implicit.

Across regions, respondents point in the same direction: voluntary approaches have not delivered efficiency improvements at the pace required, and binding obligations with clear timeframes are needed. The instruments and precedents to scale performance contracting already exist. What is lacking in most markets is the political commitment to make their use obligatory.

Future editions will build on this baseline. Priorities include more consistent reporting of investment and savings, metered rather than projected savings data, and broader coverage of Africa, Latin America and Southeast Asia, so that the next edition can track whether the commitments made today translate into market activity.

Annex A: List of Survey Respondents

The following organisations and entities contributed data to the 2026 Global ESCO Market Survey. Where no national ESCO association exists, the respondent is an individual ESCO operator, public entity or expert, and the data should be read as partial market intelligence rather than a national aggregate. One further survey response could not be attributed to a country and is excluded.

Country	Submission type
China	Association
Chile	Individual (2 respondents)
Germany	Association
India	Individual ESCO
Israel	Individual ESCO
Italy	Association + study
Japan	Association
Kosovo	Public entity
Malaysia	Association
Mali	Expert
Netherlands	Government
Philippines	Government/Association
Poland	Academic expert
South Korea	Association
South Africa	Association
Spain	Association
Switzerland	Association
Taiwan, Province of China	Association
Türkiye	Association
United Kingdom	Association
United Arab Emirates	Individual ESCO
United States	Association

Annex B: References

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THE GLOBAL ESCO NETWORK

UN environment programme | copenhagen climate centre

EVO | Efficiency Valuation Organization