



The Global ESCO Market: Trends, Challenges, and Opportunities

Dr Clara Camarasa. May 2025. Webinar.

Introduction & Context

2030 climate goals demand urgent action

*43% emission cuts needed by decade's end
(IPCC)*

Energy efficiency = fastest, cheapest solution

40% of needed reductions (IEA)

ESCOs unlock action without upfront cost

Projects paid from savings via EPCs

*Every minute we delay on efficiency, we
lock in emissions for decades. Yet billions
in savings go unrealized each year.*



Global ESCO Market Report



copenhagen
climate centre

Download **The Global ESCO
Market** 2025 report



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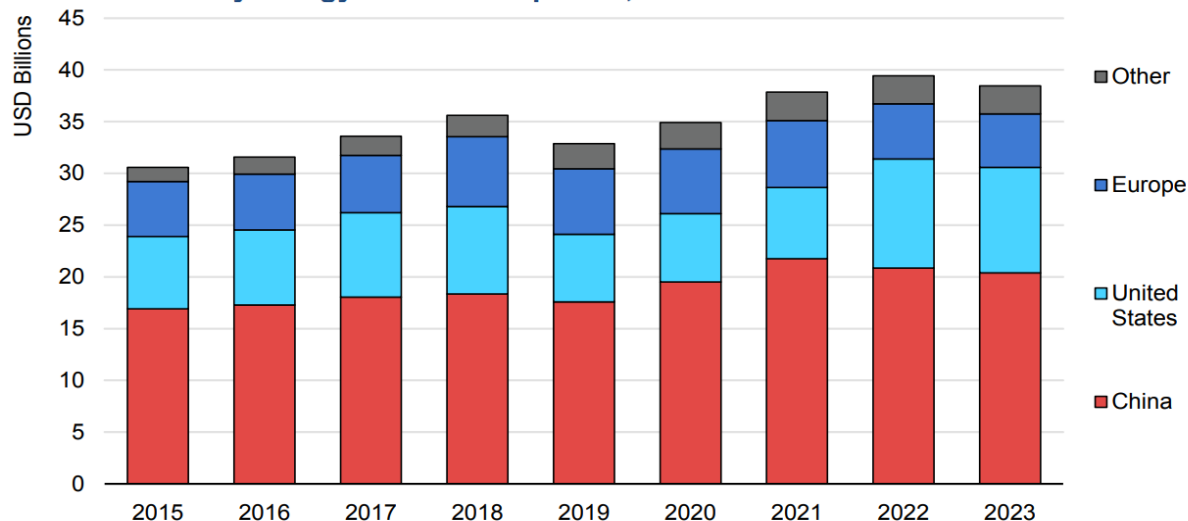


Survey developed in
collaboration with:



Global Market Snapshot

Total investment by energy service companies, 2015-2023



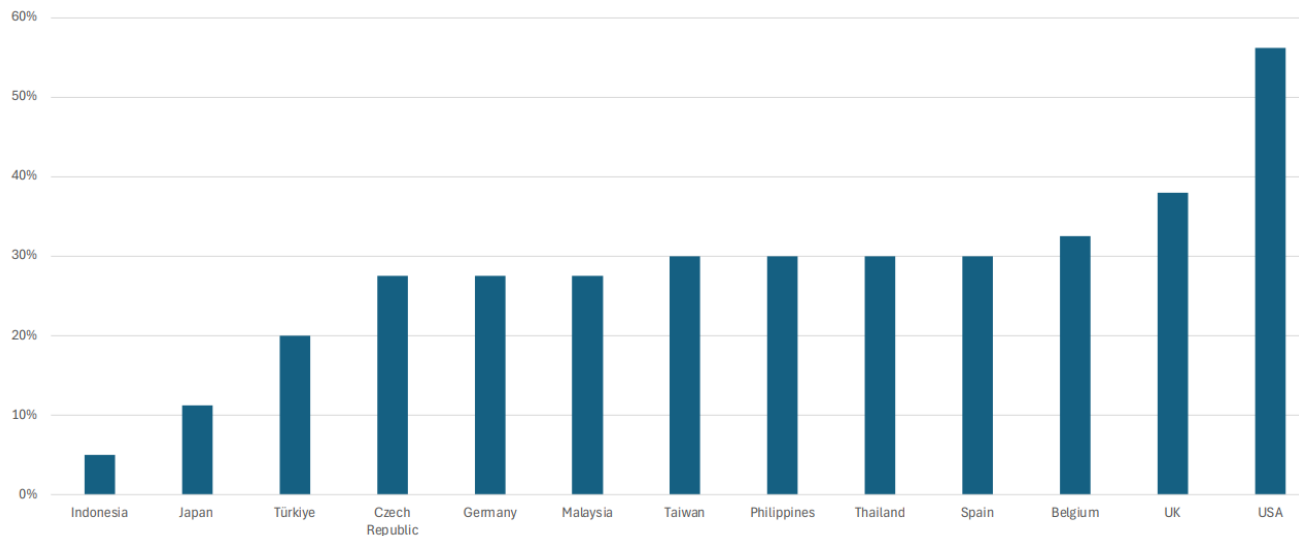
IEA. CC BY 4.0.

IEA analysis, calculations and estimates based on IEA-UNEP annual global ESCO market surveys (2023) in collaboration with the [Global ESCO Network](#). Source: IEA (2024), Energy Efficiency 2024

Global investment by energy service companies (ESCOs) has grown overall from 2015 to 2023, with China consistently leading the market, followed by the United States and Europe.

Energy & Emissions Impact

Energy savings as percentage of baseline consumption (new ESCO projects)



Integrated, multi-measure ESCO projects—like those in the U.S. and UK—achieve significantly higher energy savings, highlighting the impact of mature markets and supportive policy frameworks.

Trends in National ESCO markets

Large Established Markets:

- **China:** 2,460 projects, 875 new, \$70B market.
- **Germany:** 500 projects, \$7B market size, long-standing ESCO infrastructure.
- **UK:** 700 projects, 100 new, \$700M market size.

Mid-sized Markets:

- **Taiwan (PRC):** Matches China in number of projects (2,460), but smaller market size (\$430M), suggesting a different scale or scope.
- **South Korea:** 48 projects, 25 new, strong pipeline and \$288M market.
- **Belgium:** 100 projects, \$300M market, with steady but not dominant presence.

Smaller Upcoming Markets:

- **Thailand:** 100 projects, 85 new — extremely high proportion of recent activity; \$187.5M market.
- **Philippines:** 71 projects, 17 new, \$111M — strong signals of growth.
- **Türkiye:** 43 projects, 52 new — more new projects than existing ones; strong indicator of recent market acceleration despite a relatively modest market size (\$47M).

	No. of Projects	No. of New Projects	Market size USD
México	2	0	250000
Poland	30	1	85 million
Taiwan (PRC)	2460	875	430 million
Japan		123	NA
UK	700	100	700 million
South Korea	48	25	288 million
South Africa	>500		NA
China			70000 million
Indonesia	2	3	175000
Belgium	100	10	300 million
Hungary			NA
Philippines	71	17	111 million
Germany	500	10	7000 million
Slovakia	50	10	NA
Mali	0	0	NA
USA		1877	
Czech Republic	22	17	80 million
Türkiye	43	52	47 million
Thailand	100	85	187.5 million
Malaysia	206		

ESCO Market Segmentation

Project Types: Integrated vs. Single-Tech

- **Integrated projects linked to higher savings, especially in public buildings.**
- **Integrated retrofits** dominate in Czech Republic, Belgium, Poland, UK, and Indonesia (industry only)
- **Single-tech approaches** prevail in South Korea, Taiwan (PRC), Japan, Philippines, and Malaysia

Sector Focus

- Industrial ESCO activity strong in China, Japan, Türkiye, South Africa, Uganda
- **Commercial sector** moderately engaged; more active in Uganda and the Philippines
- **Residential and transport sectors** = minimal ESCO activity due to financing, scale, and structural barriers

Technology Deployment

- **Common:** Lighting, HVAC, smart controls, efficient appliances
- **Emerging:** Heat pumps, storage, waste heat recovery, CHP – show high variability and limited deployment
- **Industry focus:** Motors (most common), renewables (mainly solar), and water heating systems

ESCO projects contract durations, payback period and interest rates

- **Private sector ESCO contracts are consistently shorter** and have **faster payback periods** than public sector contracts across most countries.
- **Higher private sector activity** is typically seen in countries with **shorter contracts and lower interest rates**, indicating greater market maturity and investor confidence.
- **High interest rates**, such as in **Mexico and South Africa**, present a **barrier to scaling private sector ESCO investment**.

	Common contract duration in years		Common payback time in years		PLR ¹	Common interest rate	
	Public sector	Private sector	Public sector	Private sector		Public sector	Private sector
Poland	15	-	11.5	-	7.7	7.5	9
South Africa	10	10	5	2.5	11	11	11
Taiwan (PRC)	3	3	4.5	4.5	3	2	2.75
China	7.5	15	5	8	3.6	4	4
Malaysia	6.5	5	3.5	3.5	5.4	6.5	6.5
USA	20	5	20	-	8	4.7	-
Indonesia	10	5	3	3	8.5	7	5
Belgium	12.5	4	15	4	5	3.5	4.5
Japan	9	9.4	10	7	-	-	-
UK	8	5	10	5	4	0	-
South Korea	6	4	6	4	5.2	1.75	6.5
Uganda	5	2	5	2	10	25	28
Hungary	10	7	-	5.5	17	-	5
Philippines	10	12.5	5	5	7.7	10.5	10.5
Czech Republic	11	5	8.5	4.5	8.5	4.5	5.25
Germany	12.5	7.5	12.5	5	6	2	5
Slovakia	11.5	7.5	9	6	-	-	-
The Netherlands	10	5	-	-	-	-	-
México	4	5	3	3	11.8	18.5	18.5
Türkiye	5	3	3.5	2	-	8	8
Thailand	5	7	4	4	6.9	6.5	6.5
Average	10	6.7	7.6	4.5	-	6.4	7.3

¹ Prime lending rate (PLR) source: <https://www.ceicdata.com/en/indicator>

Financing Landscape & Emerging Solutions for ESCOs

- Financing Remains the Bottleneck: **Access to finance is the #1 barrier globally.**
- **Access to capital** varies by market maturity, policies, and institutional support.
- **Debt and project finance** are the most used instruments; **grants** are common in mature markets.
- **Equity, leasing, guarantees, and forfeiting** are underused but growing in select countries.
- **Innovative models** (e.g., India's Partial Risk Sharing Facility, PRSF) **are working**, but they are not yet the norm.
- Market conditions matter—**strategies must be adapted to local contexts.**

Policy & Regulatory Drivers

Importance of target-setting and related policies for ESCO market growth



Strategic Opportunities—Where to Focus Next

Expand to Underserved Sectors

- Public buildings dominate ESCO activity
- Industry & commercial sectors = untapped potential
- Barriers: complexity, financing gaps, custom solutions

Promote Integrated Solutions Over Single Technologies

- Comprehensive upgrades = deeper savings & better ROI
- Stronger alignment with climate & energy goals
- Improves overall project bankability

Use Policy to Unlock Finance

- De-risk investment with guarantees, mandates, blended public funds
- Attract private capital in emerging & risk-averse markets
- Policy clarity builds market confidence.

Conclusions & Key Takeaways

ESCOs = Critical Agents of Decarbonization and Resilience

- Central to energy efficiency and climate goals.
- But their effectiveness depends on the broader ecosystem—policy, finance, and technology deployment.

Global Disparity = Global Opportunity

- Activity concentrated in US, China, Taiwan, Europe.
- Emerging markets face barriers but hold high potential.

Financing: A Persistent Bottleneck

- Top barrier: access to finance, risk of non-payment.
- Few financial instruments used; promising models need scale.
- Shorter private-sector contracts limit scope.

Variation in Project Scope and Impact

- Integrated solutions = higher savings, deeper impact.
- Savings: 35–50%+ in mature markets

Sectoral Opportunities Remain Underexploited

- Public buildings dominate; industry, commercial, and supply lag.
- Flexibility, storage, and supply-side efficiency are underused.

Policy Drives Market Maturity

- Strong policies = growth; weak policies = stagnation.
- Need clear targets, stable incentives, and regulatory support.

Call for Action—Turning Insight into Impact

- **To governments:** Make energy efficiency a national priority. Put enabling policies and clear market signals in place.
- **To financial institutions:** Partner with ESCOs. Help scale performance-based finance and promote risk-sharing facilities.
- **To ESCOs and their associations:** Continue innovating, sharing knowledge, and building trust with clients and partners.
- **And to all of us here:** Let's raise our ambition. Talk about measurable progress in every market, including multiple benefits.

... to you in the audience



Download and share the full report and support future data collection—get in touch!



Efficiency first. Everywhere. For everyone.

Thank you.

