



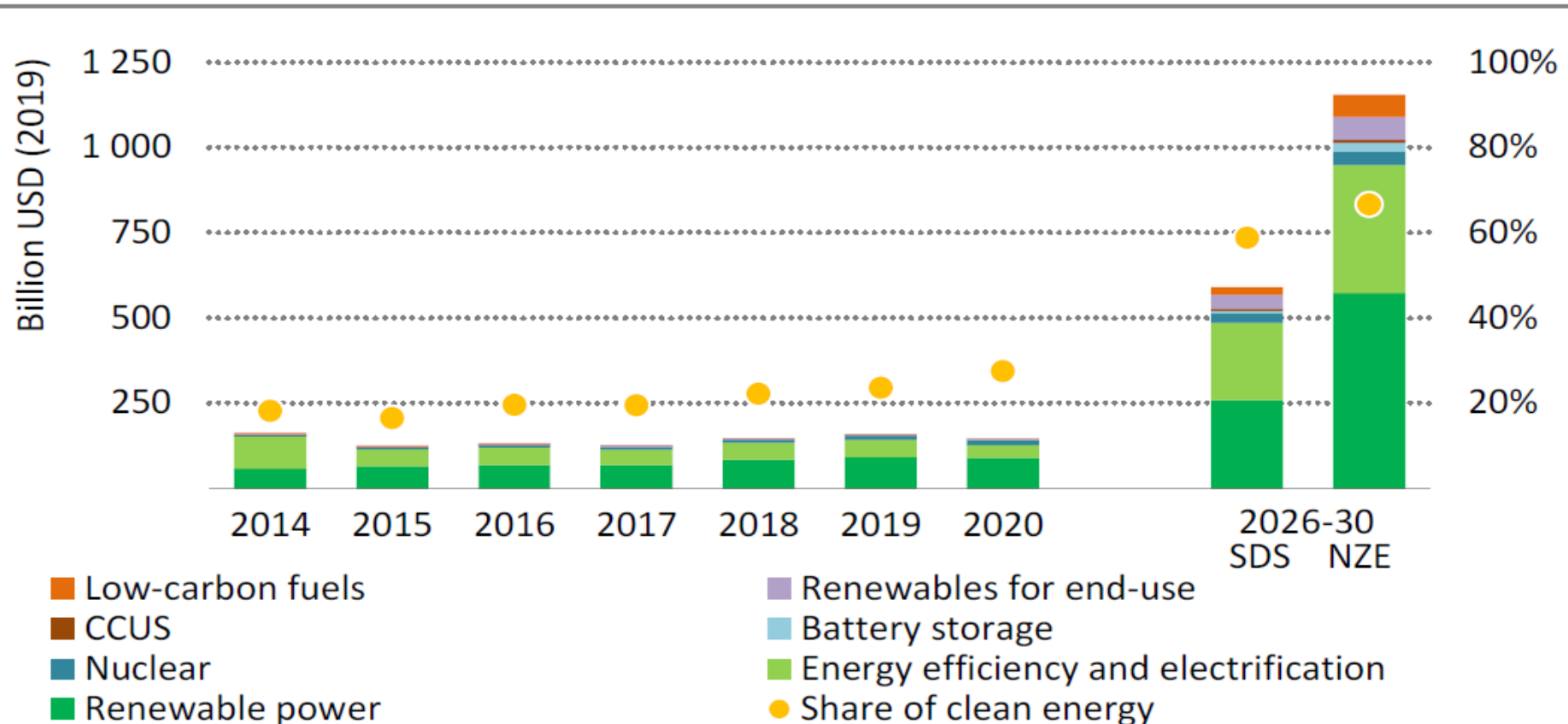
Energy efficiency financing and ESCO market trends in emerging economies

Hugo Salamanca, Policy Analyst, Energy Efficiency Division, IEA

Scaling up Super ESCOs and ESCOs in Africa 14th September 2021

A surge in clean energy investment is needed to change courses

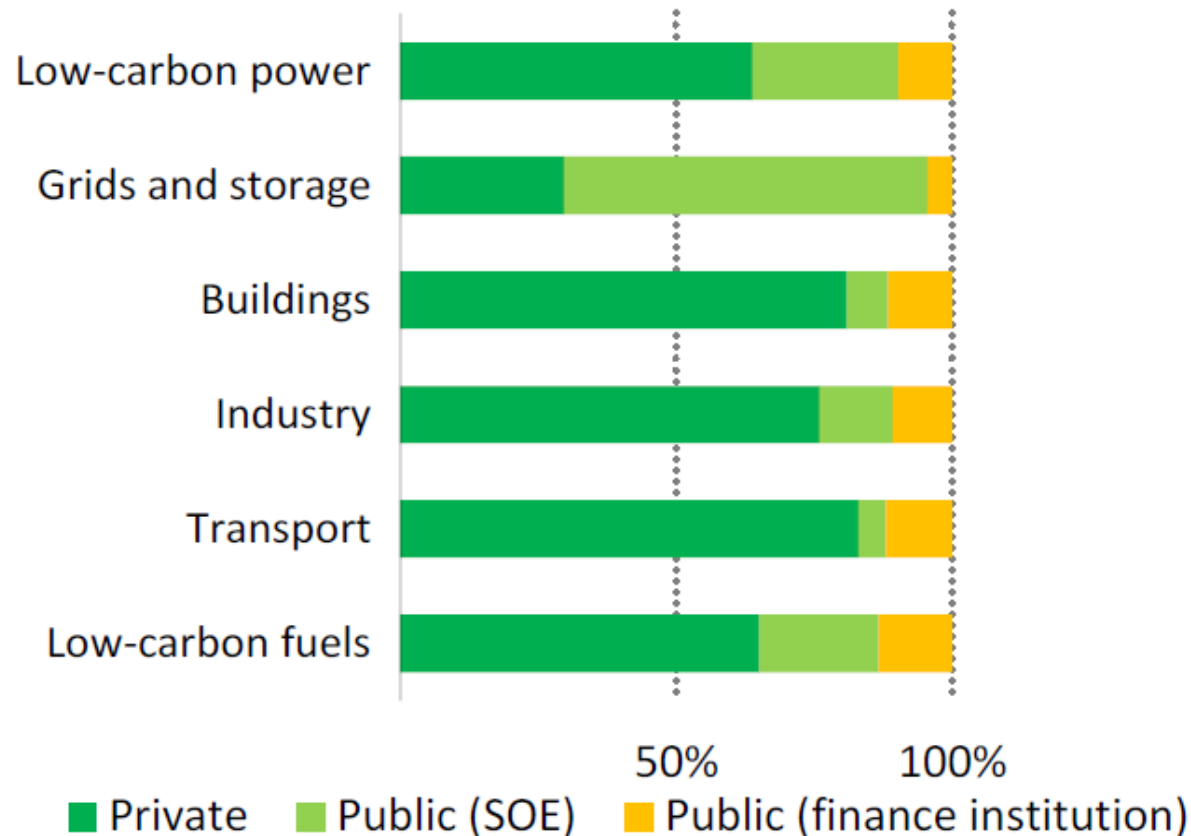
Clean energy investment in Emerging and Developing Economies (EMDEs) compared with projections in the SDS and NZE



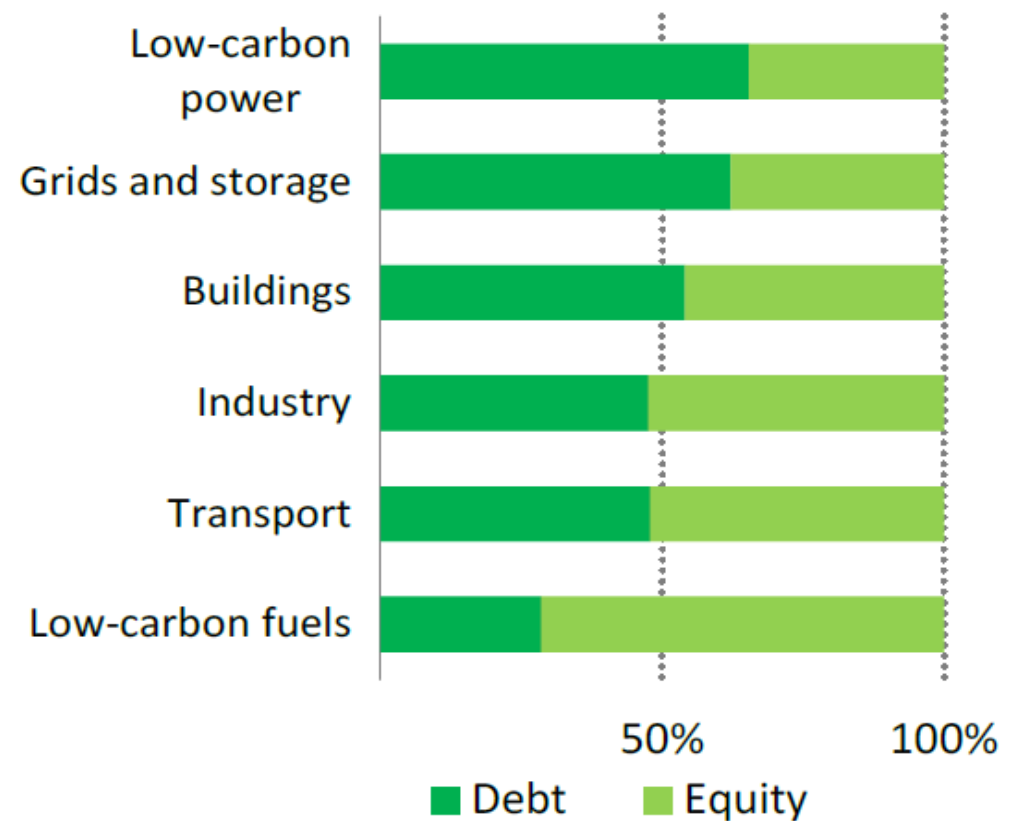
Clean energy investment needs to expand by more than 7 times to reach net-zero emissions by 2050. Rapid increase in clean power and energy efficiency & end use investments is key.

A dramatic mobilisation of private capital is needed for transitions

Investment by type of provider in climate-driven scenarios (2026-30)

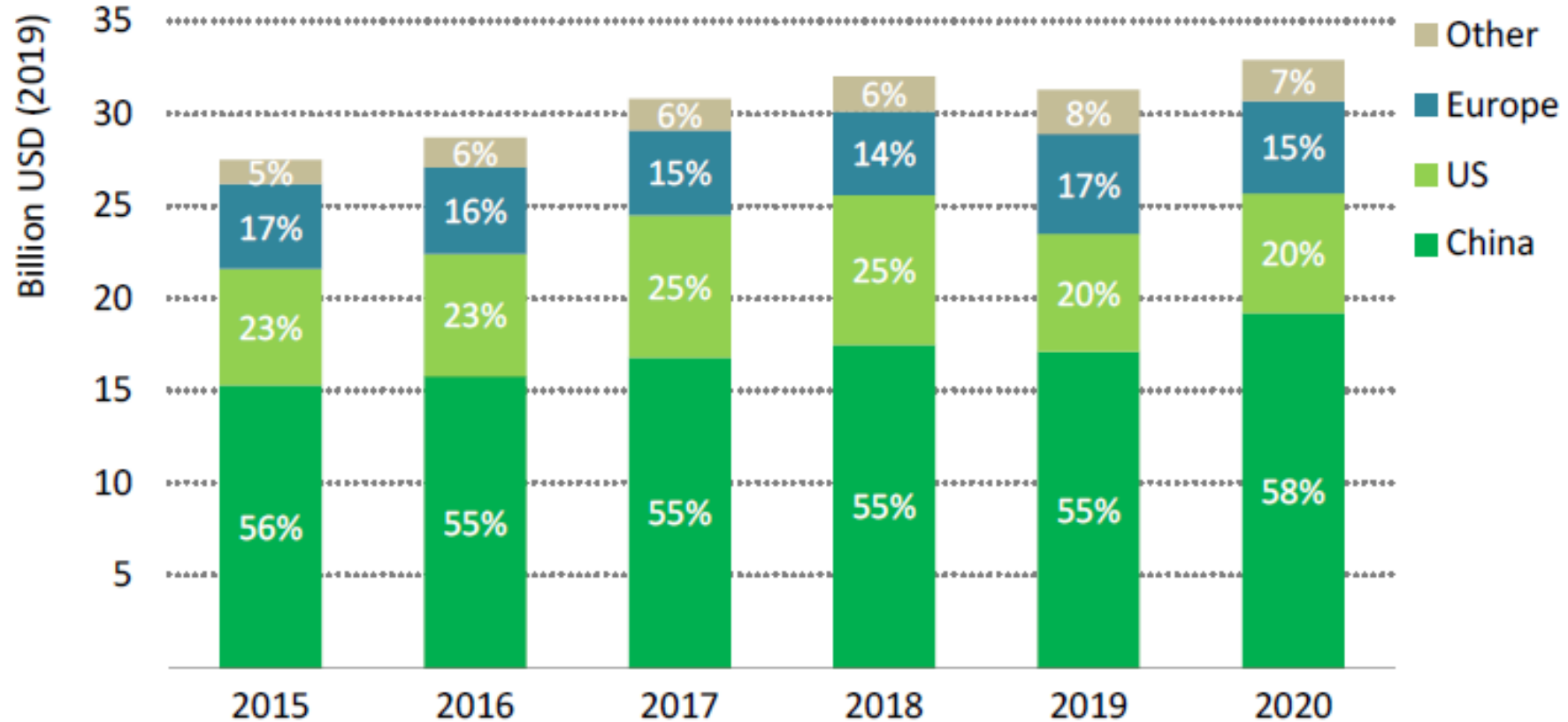


Investment by type of instrument in climate-driven scenarios (2026-30)



While public sources are critical to catalyse investment, over 70% of clean energy investment are financed by private capital in climate-driven scenario, as clean energy projects increasingly rely on availability of higher shares of debt

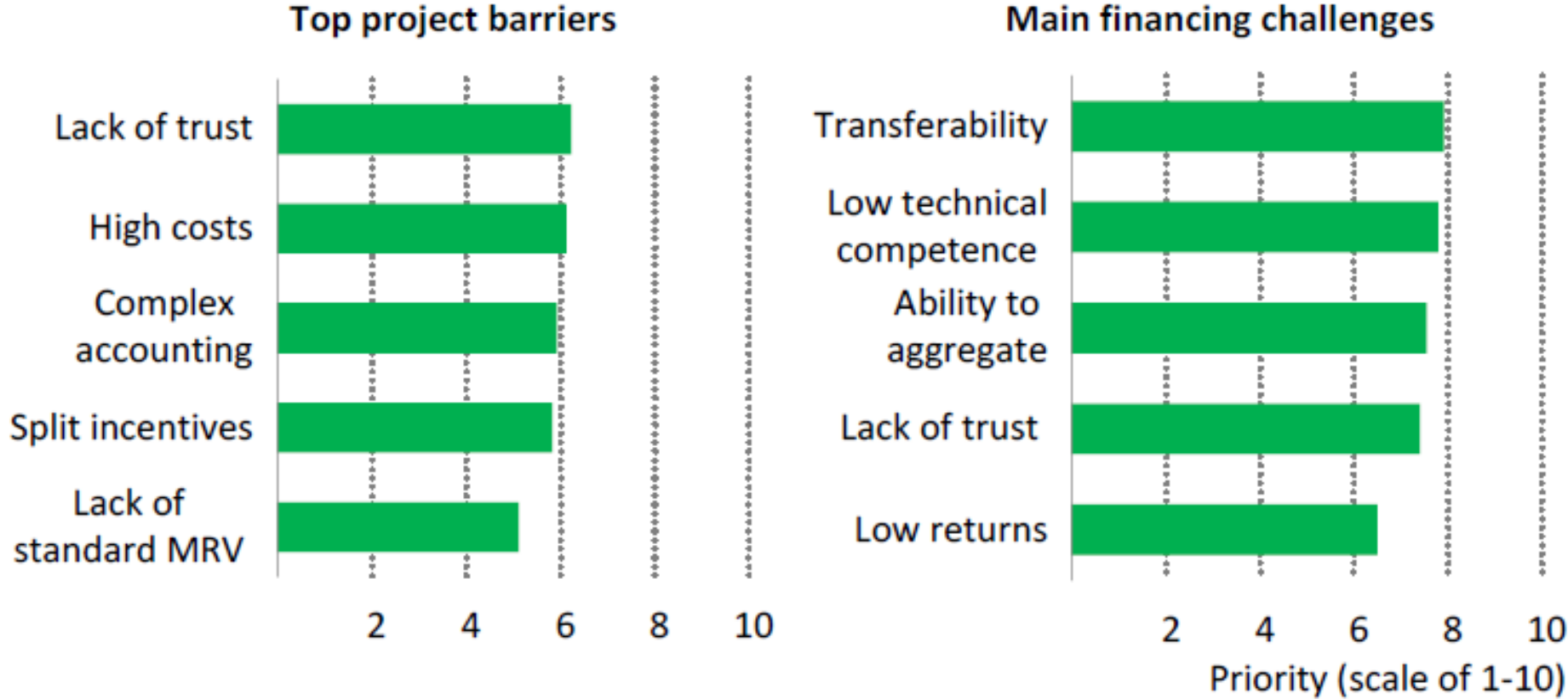
Global ESCO market growth 2015-2020



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**ESCO market has been growing steadily since 2015.
But the full potential of the industry remains hindered by multiple barriers with the Covid-19 adding restraints**

Persistent barriers and challenges to ESCO projects and financing

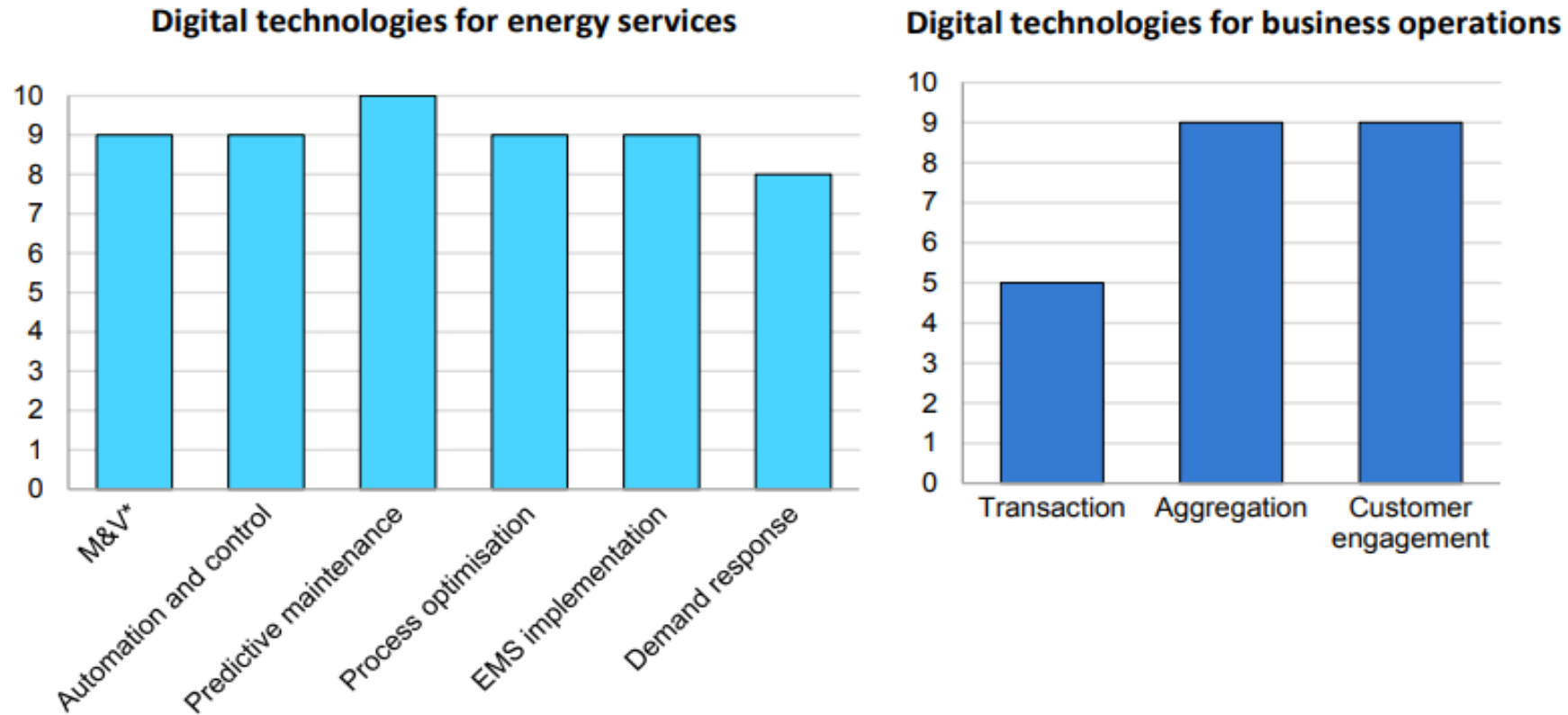


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Boosting ESCO investment requires improving consumer trust in the industry as well as technical challenges related to ownership and contract arrangements.

Digitalisation for the next generation of ESCOs

Applications of digital technologies for projects and business management, 2019



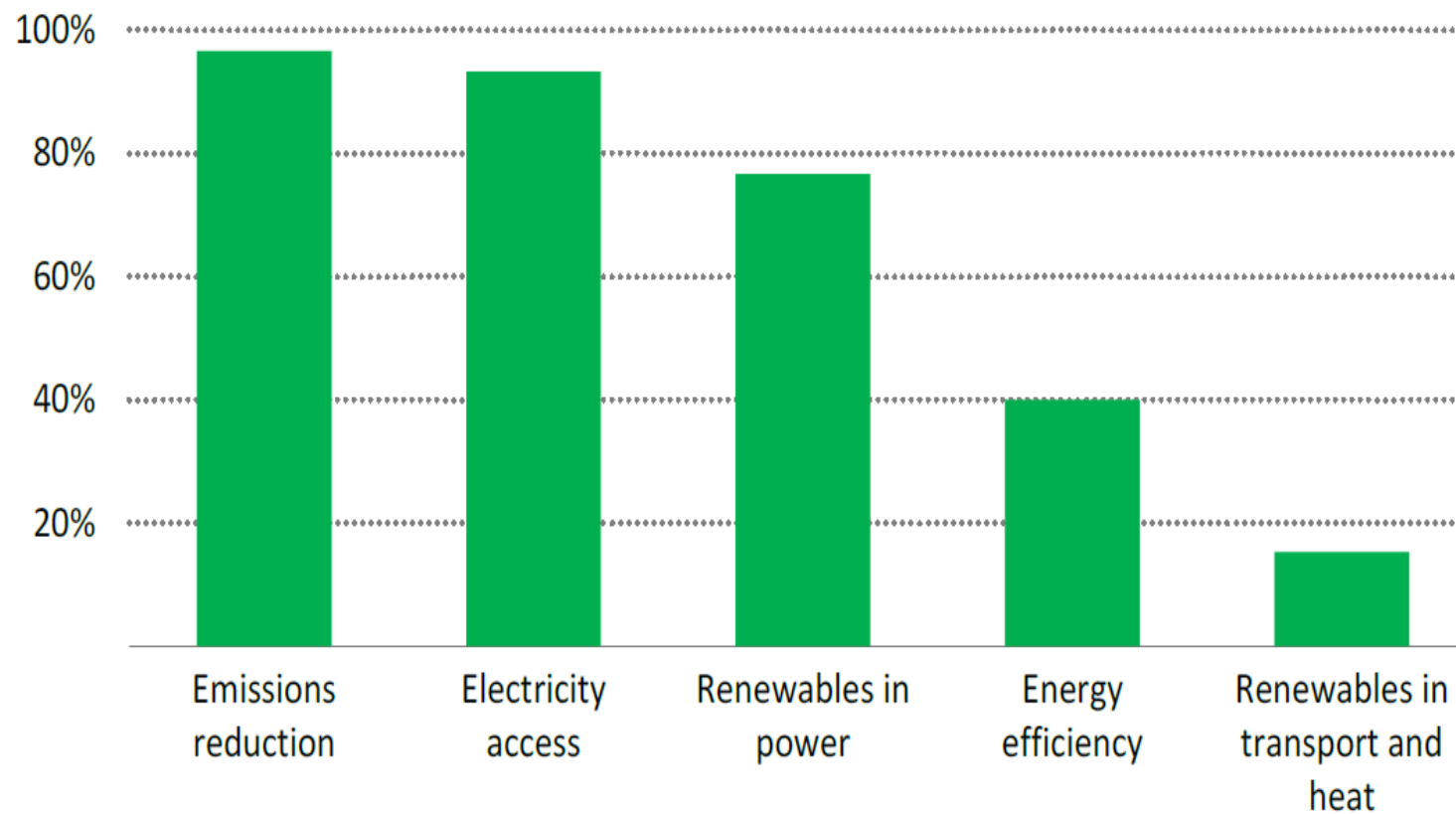
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* M&V = monitoring and verification.

There is increased business case for digitalising ESCO services in China.

Importance of clear clean energy targets and frameworks

Share of Emerging and Developing Economies (EMDE) focus countries with sustainable energy targets



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Targets in most EMDE focus countries cover emissions reductions, electricity access, and renewable power less so for renewables in end-use sectors and efficiency.

IEA ESCO survey and country analysis work



Annual ESCO survey

IEA ESCO Market Survey- January 2021

The International Energy Agency (IEA) tracks policy updates and changing market characteristics of the global Energy Service Company (ESCO) market. To improve the quality and depth of our analysis, the IEA conducts an annual survey of key regional and national ESCO associations and other stakeholders.

This survey aims to collect market data from 2019 and 2020 calendar years in your region including its current size, financing mechanisms, policy drivers, prospects and more. The information collected through this survey is published on dedicated [ESCO pages on the IEA website](#). Your views are an essential contribution to our analysis and they will be used to inform several IEA reports in 2021 (e.g. Energy Efficiency Market Report, World Energy Investment, Special Report on Financing Clean Energy Transitions in Emerging Market and Developing Economies, and the World Energy Outlook)

If quantitative data are not available for any of the questions, please provide an estimate based on previous years or other information briefly explaining how the estimate is derived. We are happy to organise calls with stakeholders to understand the market better.



Country ESCO analysis



South Africa

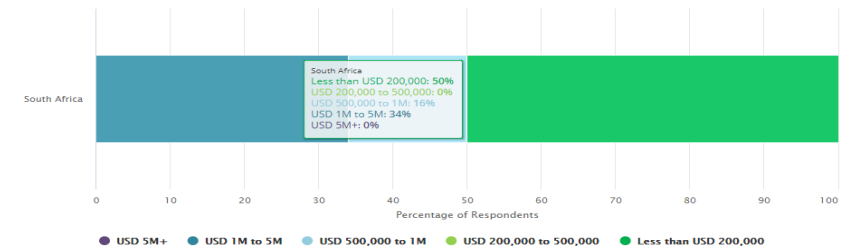
ESCO Market Characteristics

- ESCOs in South Africa rely on Eskom Standard Offer Program.
 - Standard offer programs, industry and buildings focus, are created when a utility or government agency purchases energy savings or demand reductions from ESCOs or energy consumers using a predetermined and pre-published rate based on verified savings. Payments are based on the verified value of electricity savings (in kWh or kW) to the power system through the implementation of energy saving products, technologies, and/or equipment in facilities.
 - 206 projects, industry and building focus, with peak savings of about 105 MW and energy savings of 727 GWh were completed between 2006-13 (Eskom 2014).
- ESCO accreditation is also conducted by Eskom.
- ESCOs are divided into two tiers. Tier 1 (Full ESCO); provide energy services and financing. Tier 2 (Developing ESCO); provide auditing, technology installers, consulting and engineering services.

Average Contract Duration

- 1-2 years: 99%
- 2-4 years: 1%

Average Capital Cost of ESCO Projects in South Africa



Data collection and tracking is key to ESCO market analysis

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