



# Investing in energy transition beyond renewables

November 2019





# ENEA is a leading energy transition strategy consulting firm



Strategy & Investment



New markets & New Business models



Transaction support & Data science

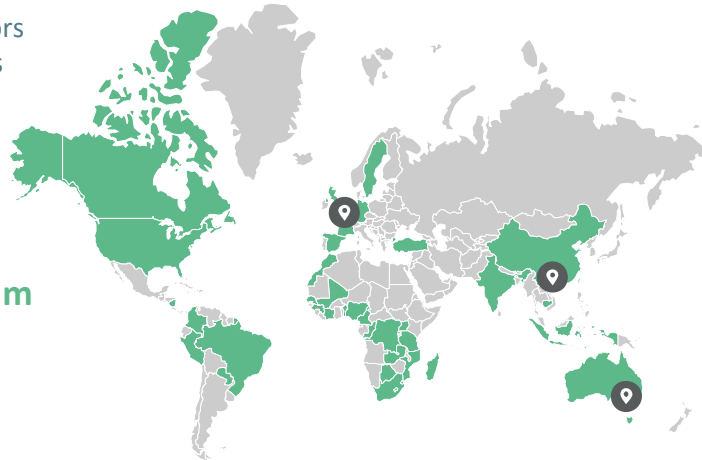


## Various customers

Energy companies  
Financial players & Investors  
Large industrial companies  
Technology firms  
Public institutions  
Start-ups



PARIS – HONG KONG – MELBOURNE



## Experience & Know-how

12 years dedicated to energy transition (since 2007)



## A diverse, multidisciplinary team

60+ experts  
Strategy, Industry,  
Finance, Technology,  
Government, Policy



## International coverage

3 offices  
25+ countries  
200+ clients  
1000+ projects



## A deep, global and systemic expertise on energy transition sectors and its links with green finance



Energy networks infrastructure



Low carbon mobility



Renewable & distributed power



Biogas & hydrogen



Waste & resources



Energy efficiency & industrial ecology



Biofuels & bioenergies



Storage, microgrids & smart networks



Energy access & off-grid systems



Green infra / PE opportunities



Impact strategy and management



Sustainable products (indices, bonds, ...)

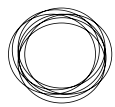


Energy transition is not renewable power generation

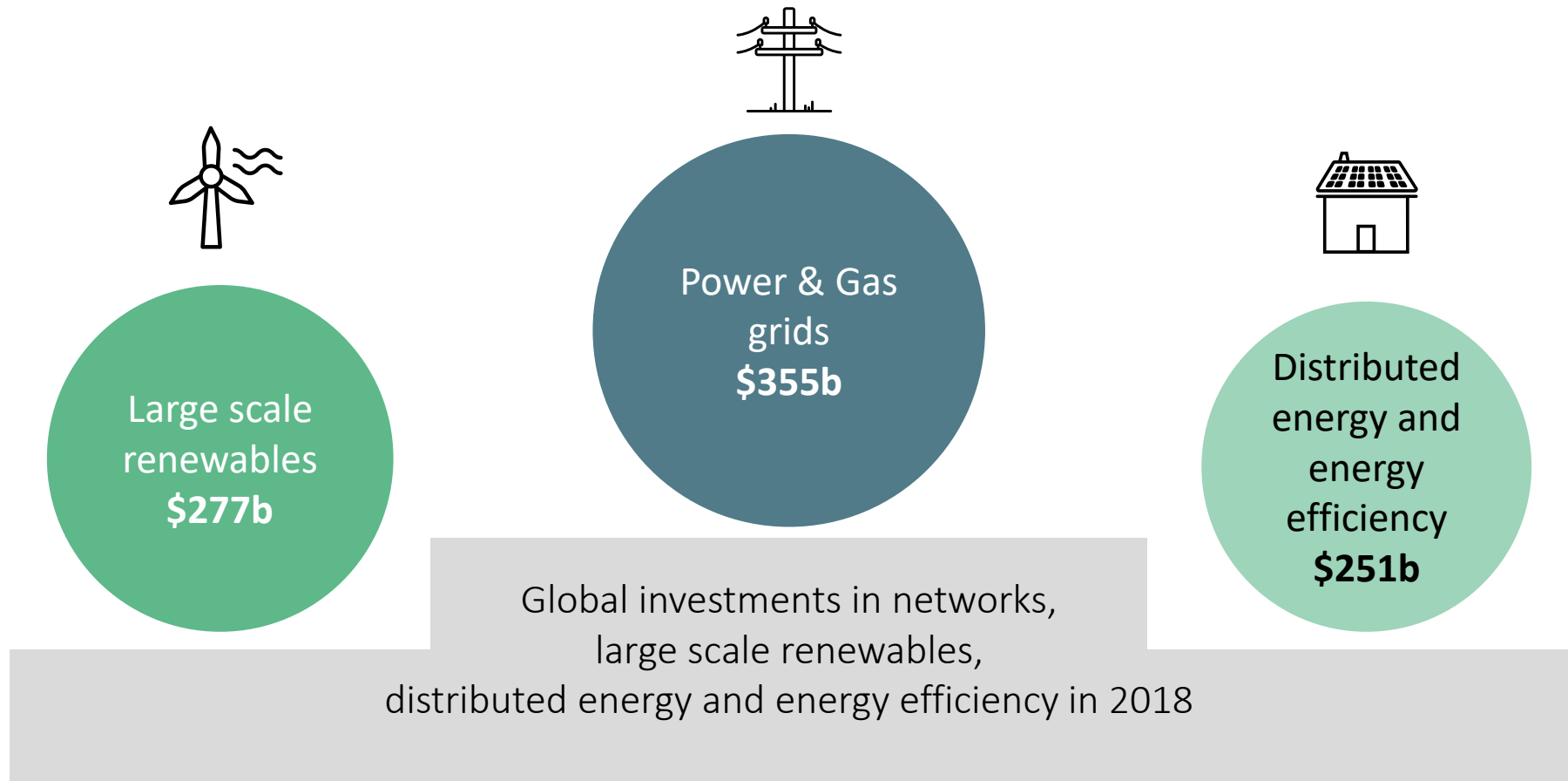
~~Renewable~~

~~Power~~

~~Generation~~

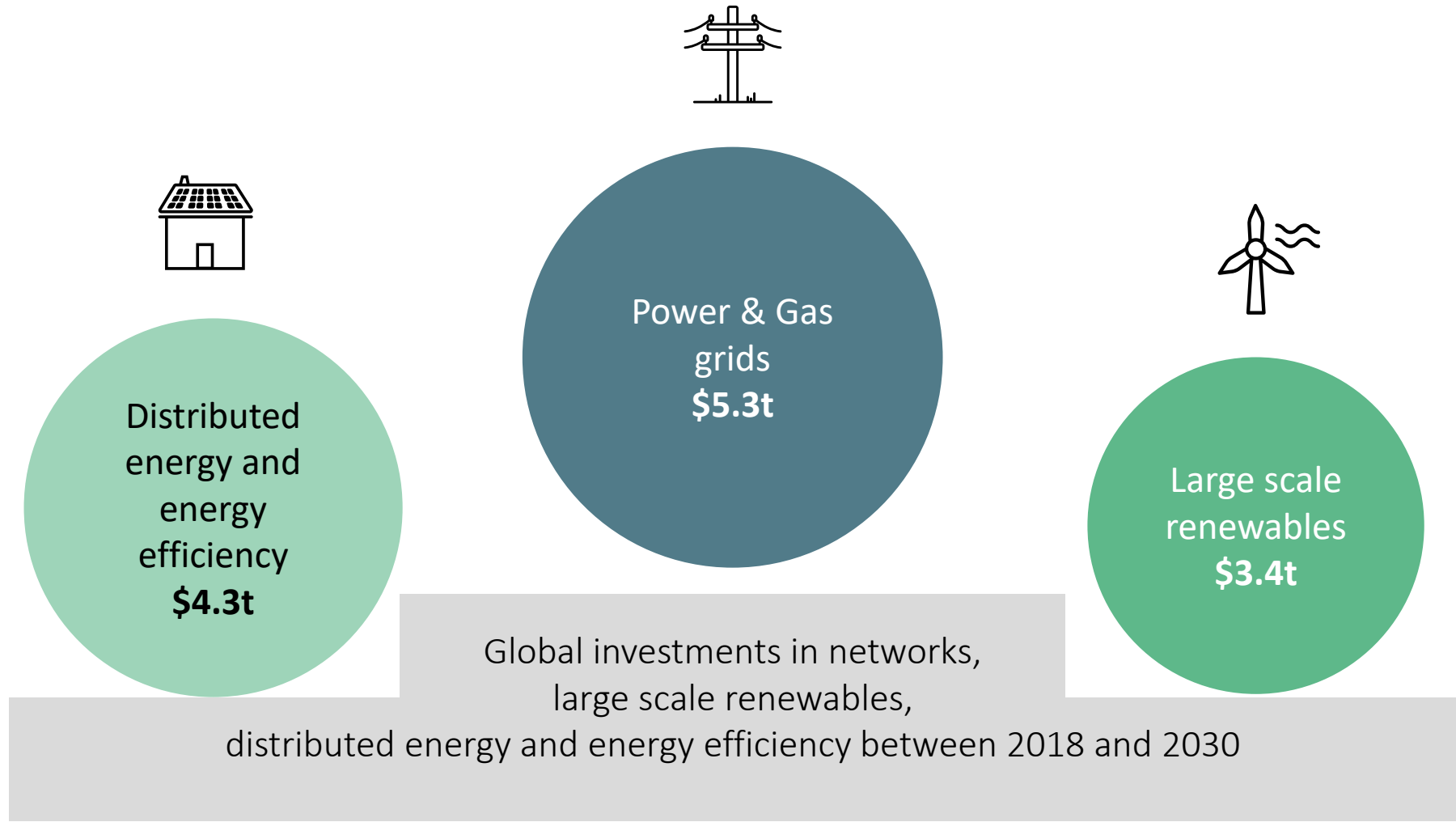


# Large scale renewables represent less than a third of the investments towards energy transition in 2018





# And just slightly more than a quarter of the forecasted investments towards energy transition to 2030





# Distributed energy and energy efficiency spans multiple sectors and asset classes, offering infrastructure investment opportunities



Rooftop solar



Energy efficiency



EV batteries



Distributed storage



District Heating and cooling



EMS



Waste to energy



Hydrogen



Clean Shipping

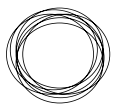


Biogas



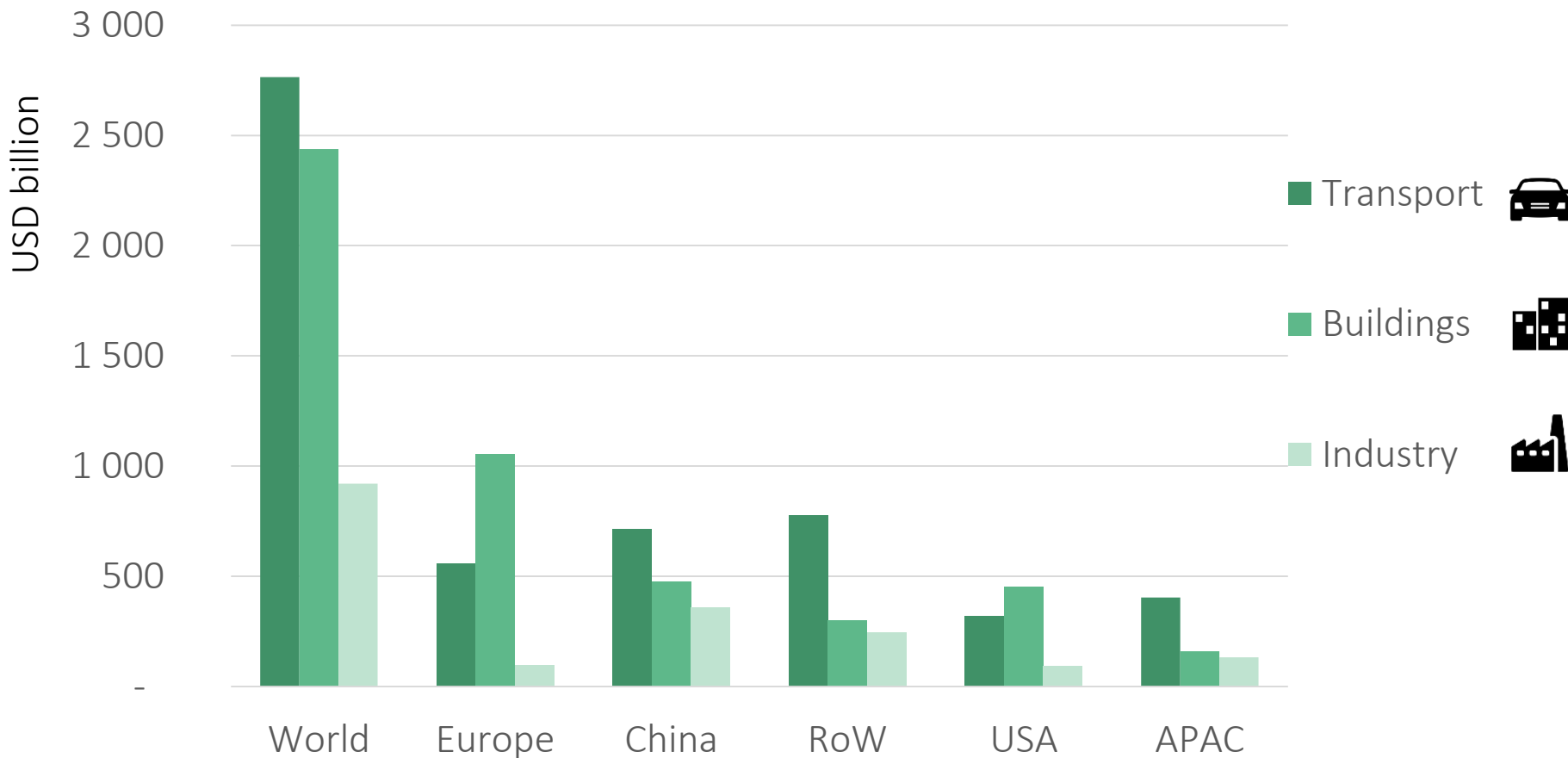
Smart Metering

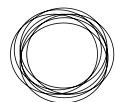
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# Energy efficiency is one of the largest energy transition investment opportunities

## Global incremental Investments in Energy Efficiency between 2018 and 2030





# How to create an infra investment case from energy efficiency?

## Infrastructure investors typical investment criteria matrix

<b>Fundamental drivers</b>	Essential service	<input checked="" type="checkbox"/>	<b>Barriers to entry</b>	Market position	<input checked="" type="checkbox"/>
	Underlying market strength	<input checked="" type="checkbox"/>		Contracts duration	<input checked="" type="checkbox"/>
	Low cyclicalty	<input checked="" type="checkbox"/>		Regulatory framework	<input checked="" type="checkbox"/>
<b>Cash flow visibility</b>	High margins and cash conversion	<input checked="" type="checkbox"/>	<b>Growth potential</b>	Organic growth	<input checked="" type="checkbox"/>
	Stable cost base	<input checked="" type="checkbox"/>		Exposure to growth markets	<input type="checkbox"/>
	Inflation-hedge	<input checked="" type="checkbox"/>		External growth opportunities	<input type="checkbox"/>





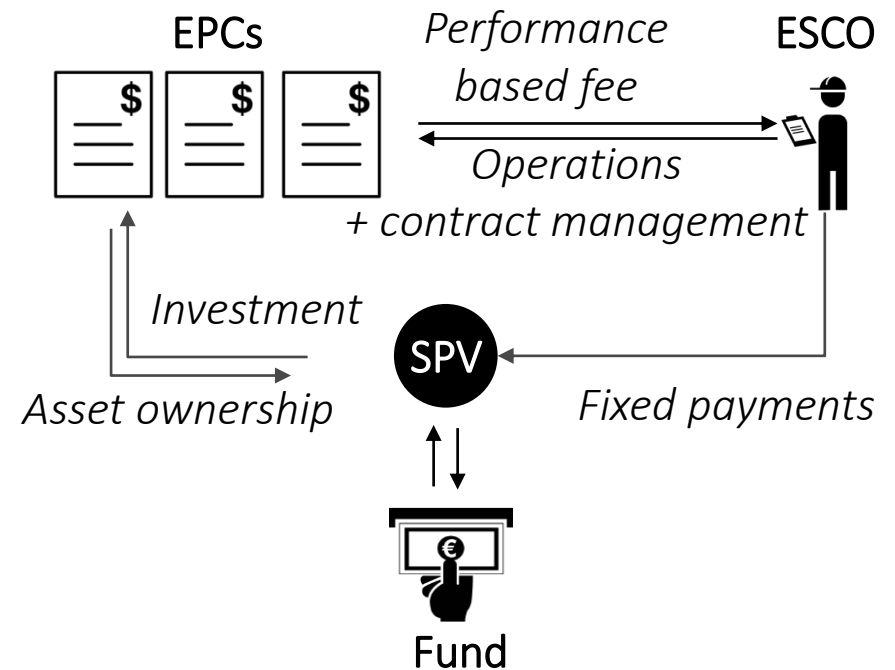
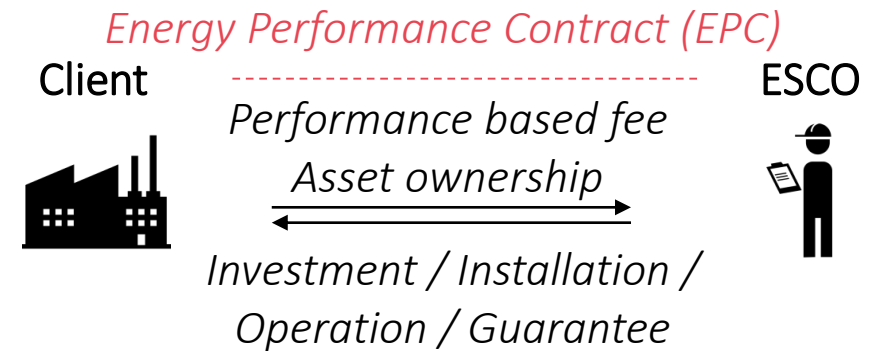
# ESCO + AssetCo models allow to aggregate high margin and steady cash flow contracts

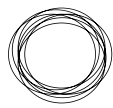
## Benefits of ESCO model

- ▶ No upfront cost for client
- ▶ Off balance sheet solution
- ▶ Performance and safety guarantee

## Benefits of AssetCo to ESCOs and funds

- ▶ Faster capital recycling for ESCO
- ▶ More standardization and efficacy
- ▶ Cash flow aggregation for fund





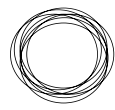
# Some key steps to investing in and profiting from portfolios of performance contracts

## Creating a portfolio of energy efficiency contracts

- ▶ Build technical and economic understanding of underlying market segments
- ▶ Select market segments based on fund investment objectives
- ▶ Identify players with performant track record and scale up potential
- ▶ Work together with these players to standardize performance contracts

## Generating growth from a portfolio of energy efficiency contracts

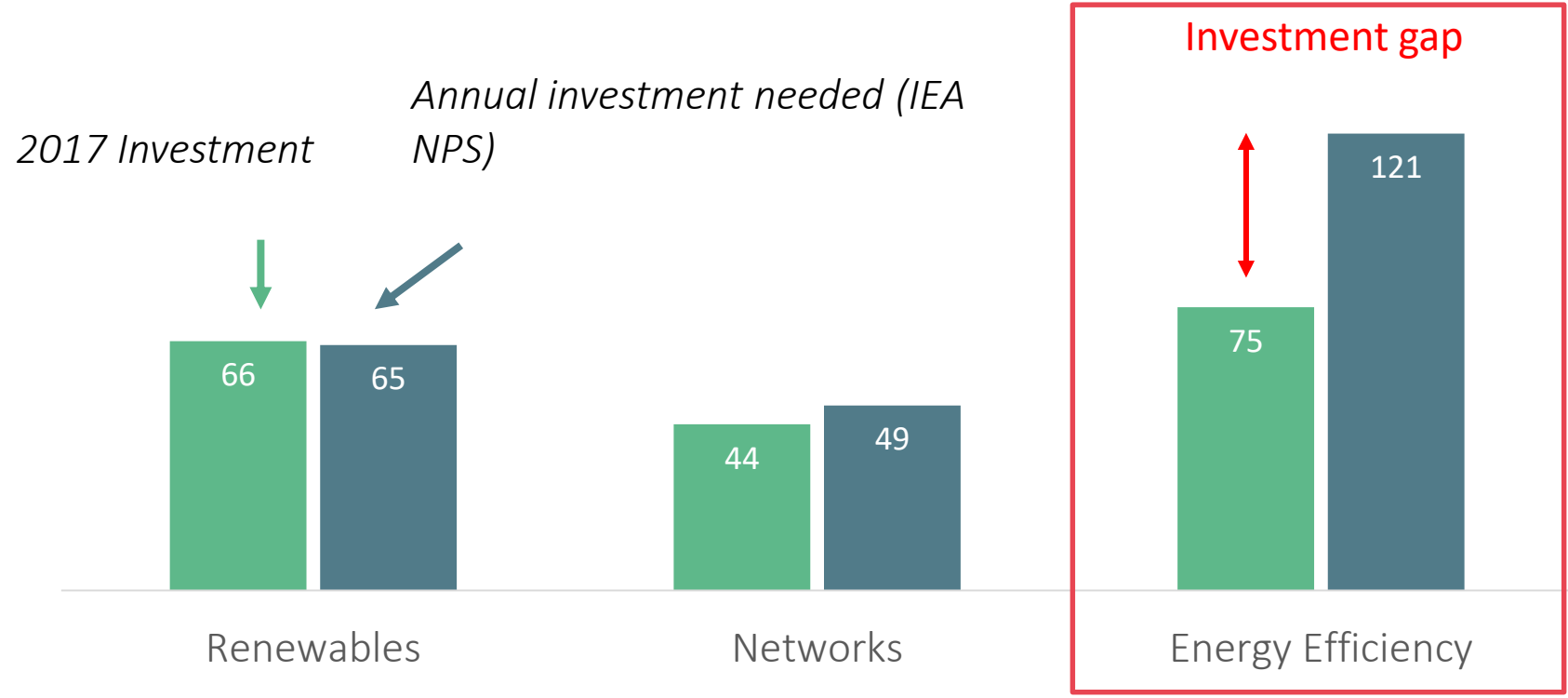
- ▶ New equipment / work
- ▶ Digital energy management systems
- ▶ Leasing contracts at equipment renewal
- ▶ Strong incentive for partnership between ESCO and fund for business scale up



# Infrastructure investment in energy efficiency bridges a structural financing gap and generates real impact

Energy efficiency is underinvested as compared to renewables and energy networks

Annual investment needs to 2025 vs. 2017 investments in Europe (€bn)





# Innovative infrastructure investors are pioneering new energy assets opportunities



## Distributed storage

### **Macquarie**

60 MW/340 MWH total  
Equity + debt  
50% acquired by SUSI  
*California*



## Hydrogen

### **Meridiam**

140 MWh hybrid PV +  
hydrogen  
60% equity stake  
*French Guiana*



## Energy efficiency

### **SUSI Partners**

€500m target  
2 equity funds  
*Europe*



## EV charging

### **Zouk Capital**

£400m / 3,000 chargers  
50:50 PPP fund  
*United Kingdom*



## Electric buses

### **Generate Capital**

\$200m JV with BYD  
Financial Leasing  
*China*



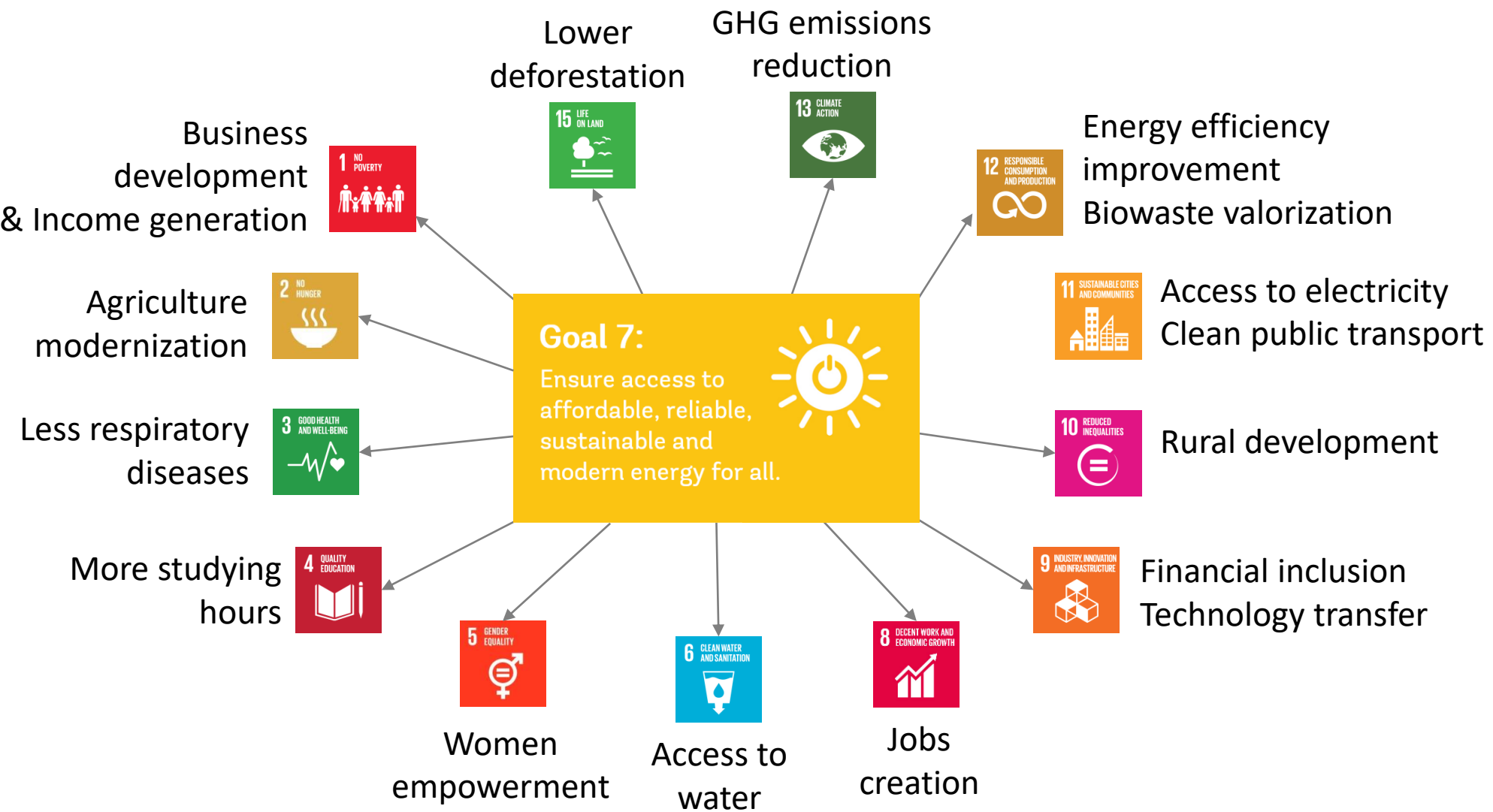
## Smart meters

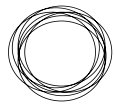
### **KKR Infra**

Acquisition of smart  
meter financing firm  
Calvin Capital  
*UK*



# New energy assets offer a wealth of opportunities for those willing to explore them and will generate true impact in line with the SDG





Thank you!



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