

# Energy Technology Perspectives 2012

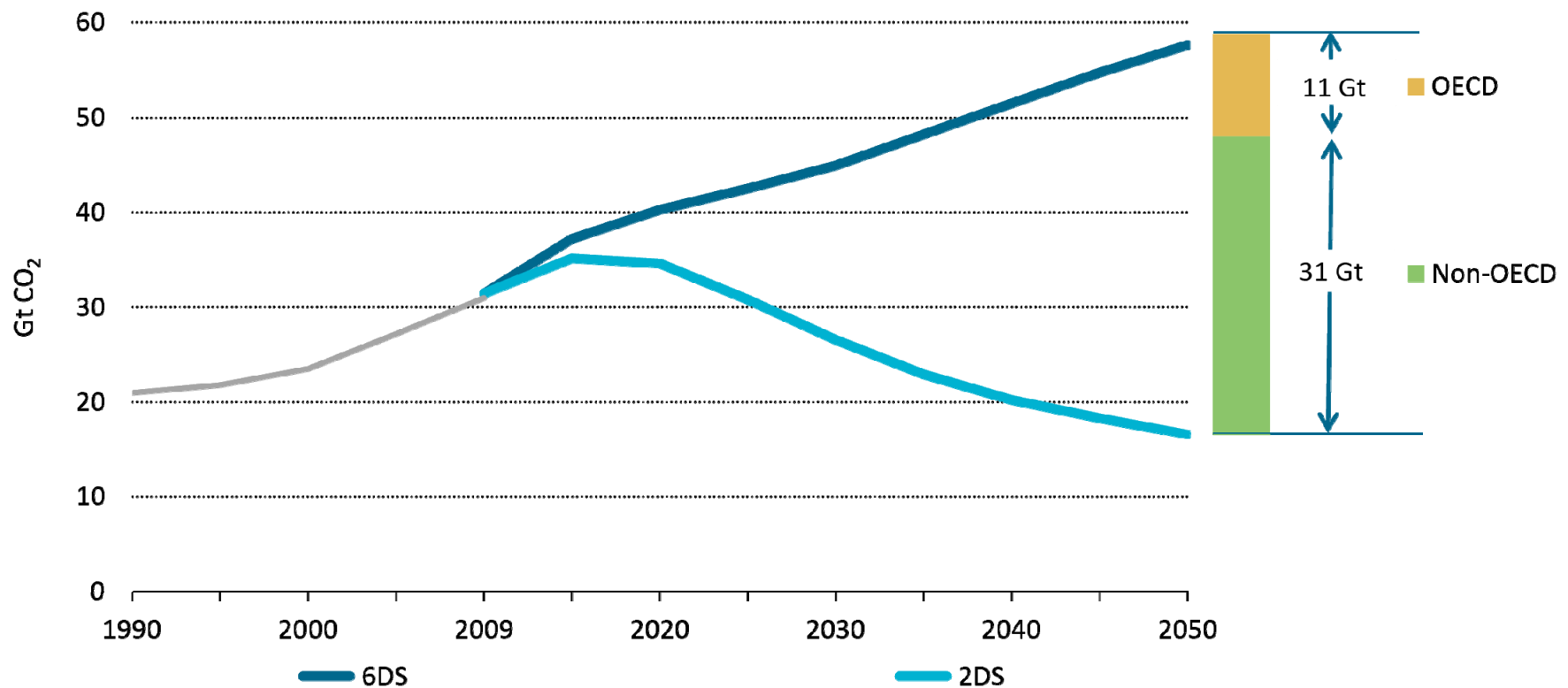
Pathways to a Clean Energy System

## **Closing the gap - the role of technology**

Dr. Markus Wråke  
International Energy Agency





# CO<sub>2</sub> emissions must cut in half by 2050


ETP  
2012





# Progress is falling short

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Sector	On track?	Technology
	Not on track	Cleaner coal power
		Nuclear power
		Renewable power
		CCS in power
	Not on track	CCS in industry
		Industry
	Not on track	Buildings
		Fuel economy
	Improvement, but more effort needed	Electric vehicles
		Biofuels for transport

 On track

 Improvement, but more effort needed

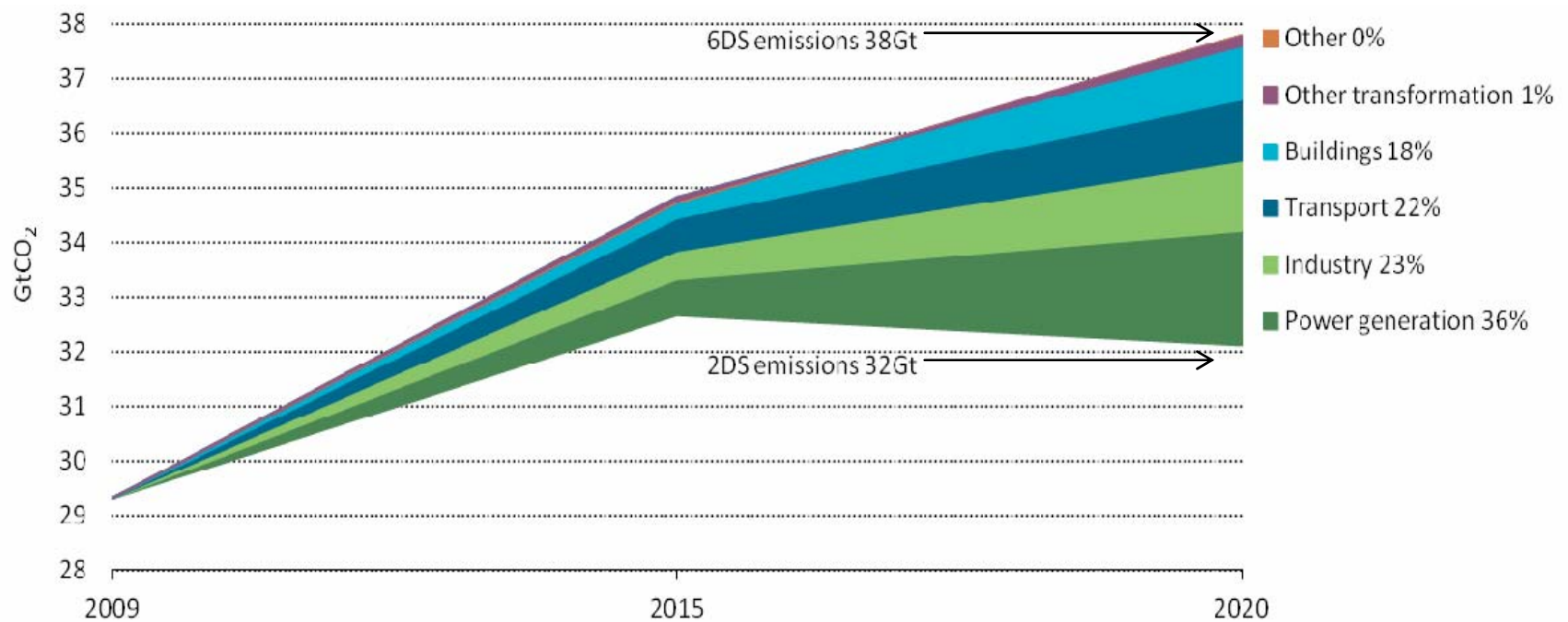
 Not on track

- *Progress in almost all technologies areas is not where it needs to be*
- *Significant action is required to get back on track*
- *Energy security, economic and environmental benefits will be far reaching...*

# Closing the gap is possible...

# ETP 2012

## Global CO<sub>2</sub> emissions under ETP 2012 scenarios

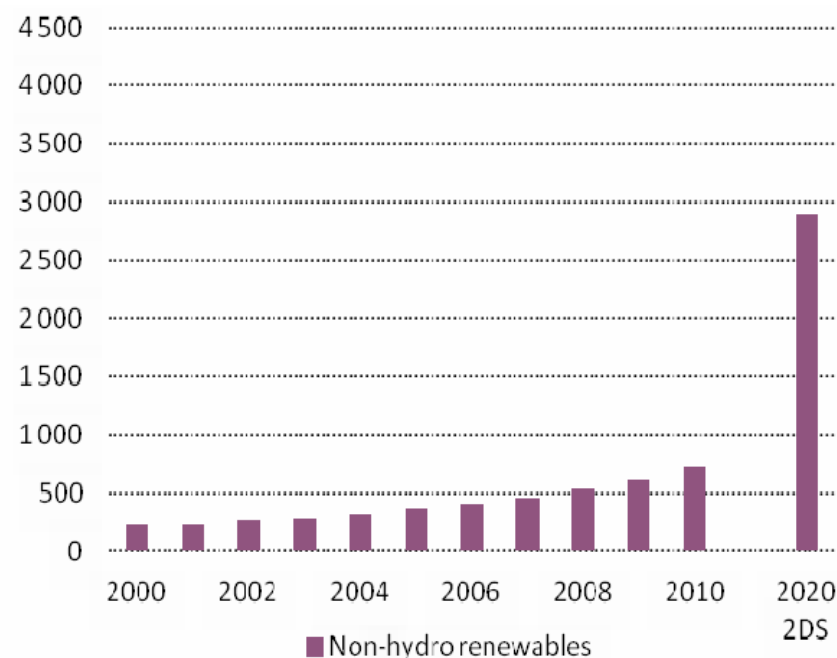
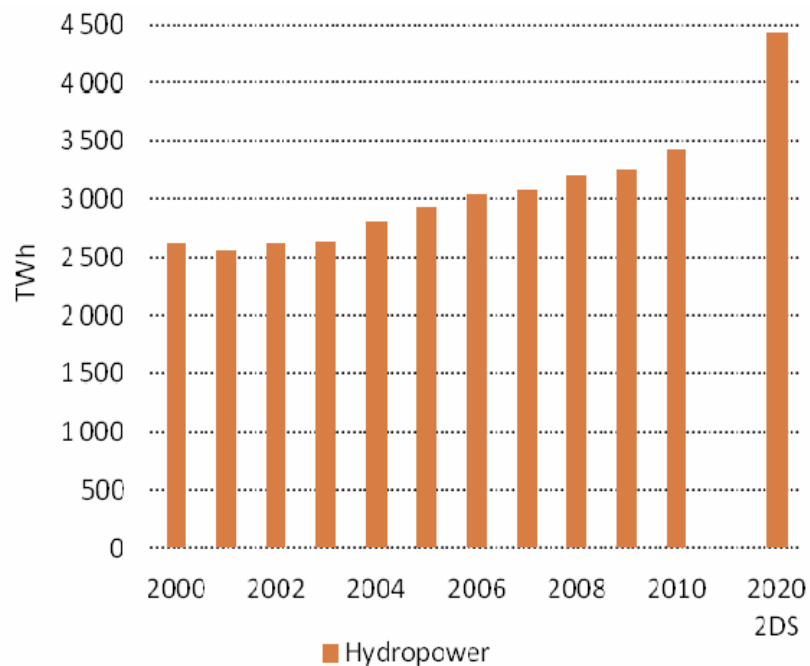


Source: preliminary results from *ETP 2012*

# Renewables are taking off

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## Renewable power generation



**42%**

Average annual  
growth in Solar  
PV

**75%**

Cost reductions in  
Solar PV in just three  
years in some  
countries

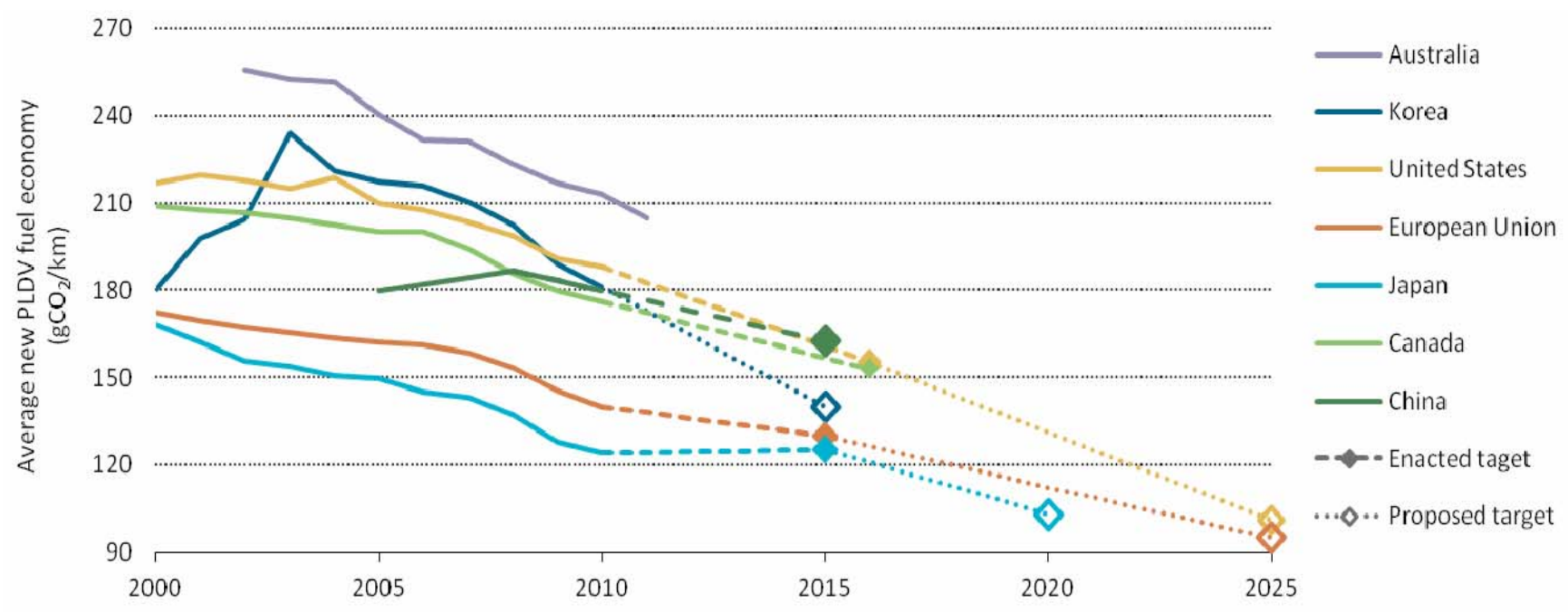
**27%**

Average annual  
growth in wind

# Fuel economy is improving

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## Vehicle fuel economy, enacted and proposed standards

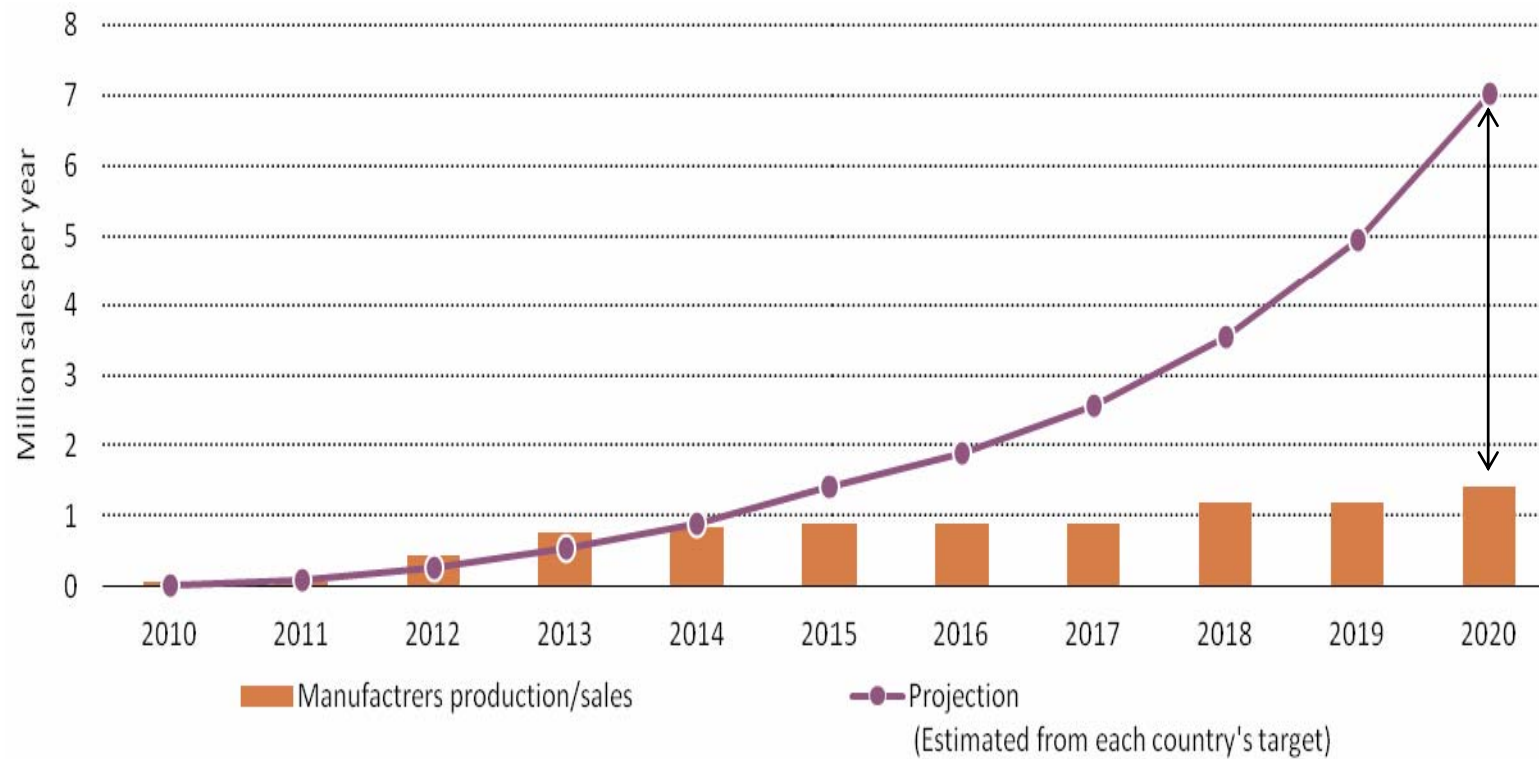


*The number one opportunity over the next decade in the transport sector, but few countries have standards in place.*

# Translating ambitions into reality

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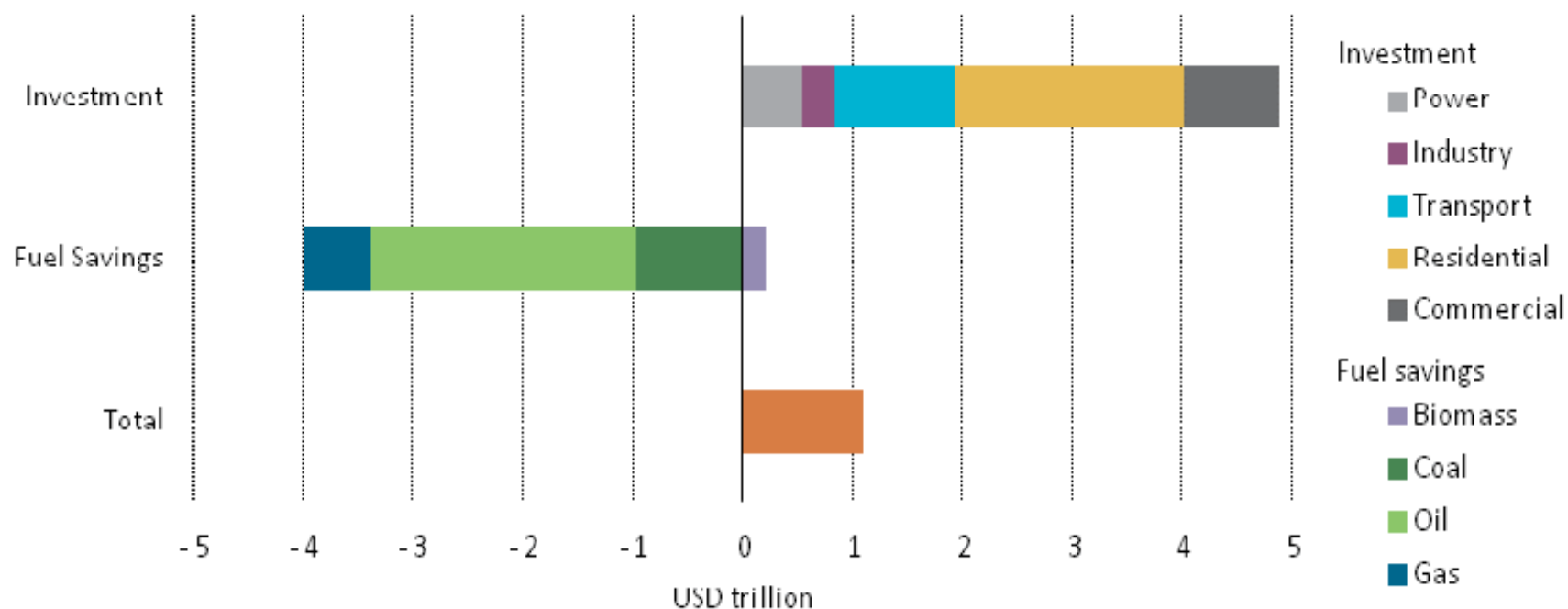
## Government and manufacturer Electric Vehicle targets



# Investment is not the same as cost

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## Additional investments and fuel savings in the 2DS



*In the near-term, USD 5 trillion of additional investment is required, but USD 4 trillion in fuel savings is achieved.*



# Seize the opportunity

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- 1) Level the playing field for clean energy technologies
- 2) Unlock the potential of energy efficiency
- 3) Accelerate efforts in energy innovation

*Help move clean energy from fringe, to main stream markets...*

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