

ENERGY EFFICIENCY AS INFRASTRUCTURE INVESTMENT PRIORITY

SPECIAL ATTENTION TO FUEL POVERTY



E3G

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ENERGY EFFICIENCY AS INFRASTRUCTURE

INVESTMENT PRIORITY

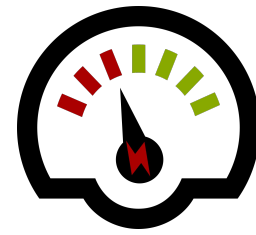


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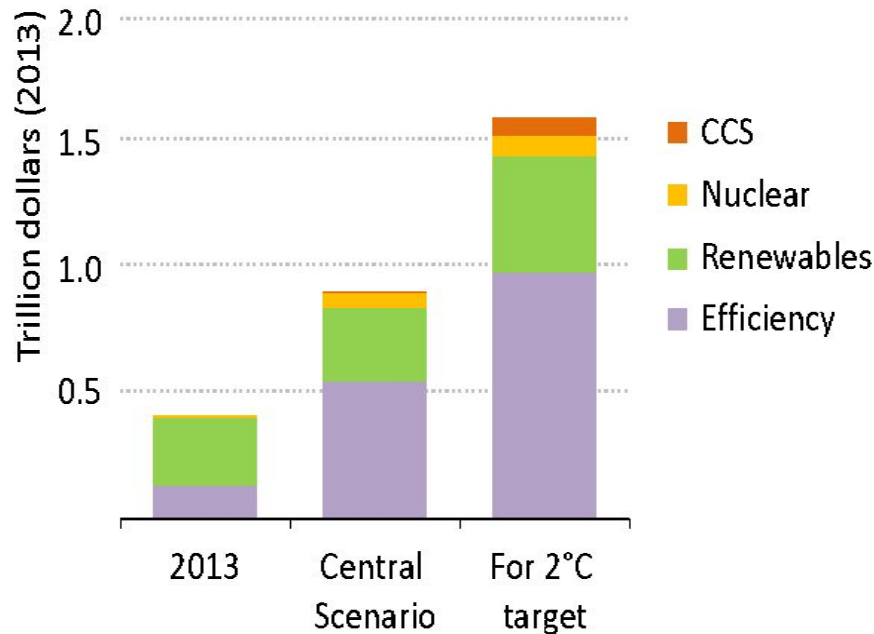
The **energy efficiency gap** doesn't exist because of the lack of effort or will, it exists because we have approached it from the wrong direction.



\$90 TRILLION IN THE NEXT 25 YEARS



Average annual low-carbon investment, 2014-2040

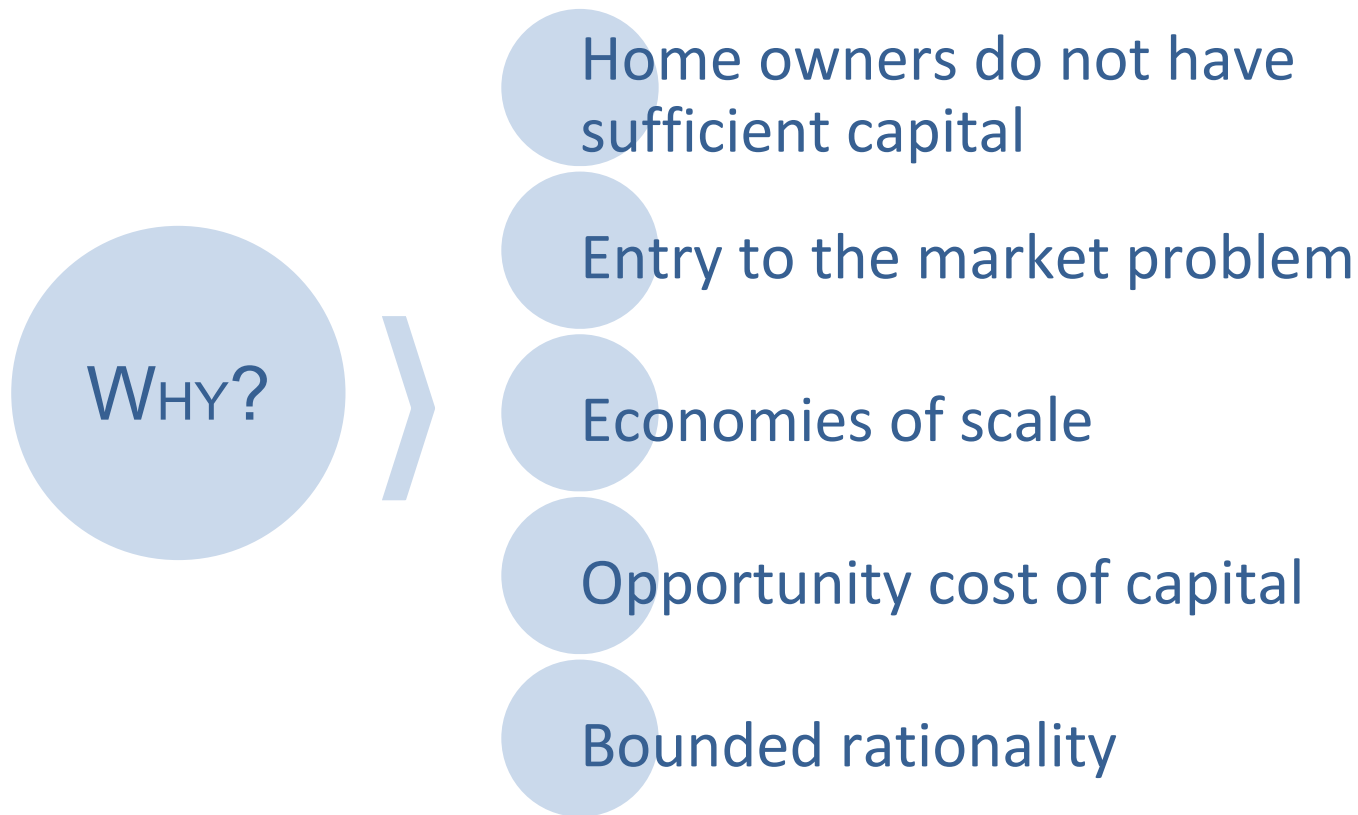
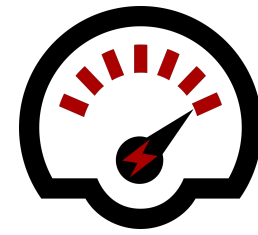


World Energy Outlook, 2014

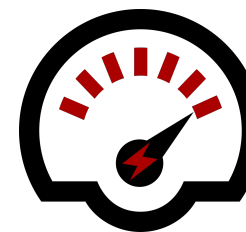
In order to keep global temperature increase below 2°C and avoid dangerous climate change, more than half of the global investment needed should be going into energy efficiency projects (IEA, 2014).

8-fold increase
needed globally

WHY IS PUBLIC SUPPORT NEEDED IF EE PAYS BACK?



BOUNDED RATIONALITY AND THE LIMIT OF PRIVATE INTEREST



Is EE A
PRIVATE
MATTER?

30 years long perspective

Locked in capital

Short term priorities

Complex issue to understand

Or rather should
be state
responsibility?

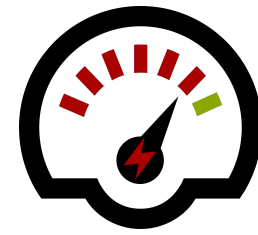
EFFICIENCY IS INFRASTRUCTURE



For three reasons:

1. DEFINITION
2. FUNCTION
3. LOGIC

DEFINITION: ENERGY EFFICIENCY INVESTMENTS ARE INFRASTRUCTURE



This is the textbook
definition of
infrastructure



Long term capital investment

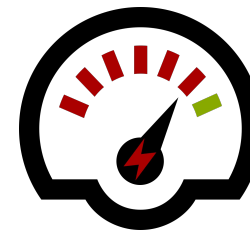
High up-front cost

Locked in physical structures

Fulfils basic social needs

Frees up resources for other
use in the economy

FUNCTIONAL: LOW CARBON CAPITAL NEEDS IN EU



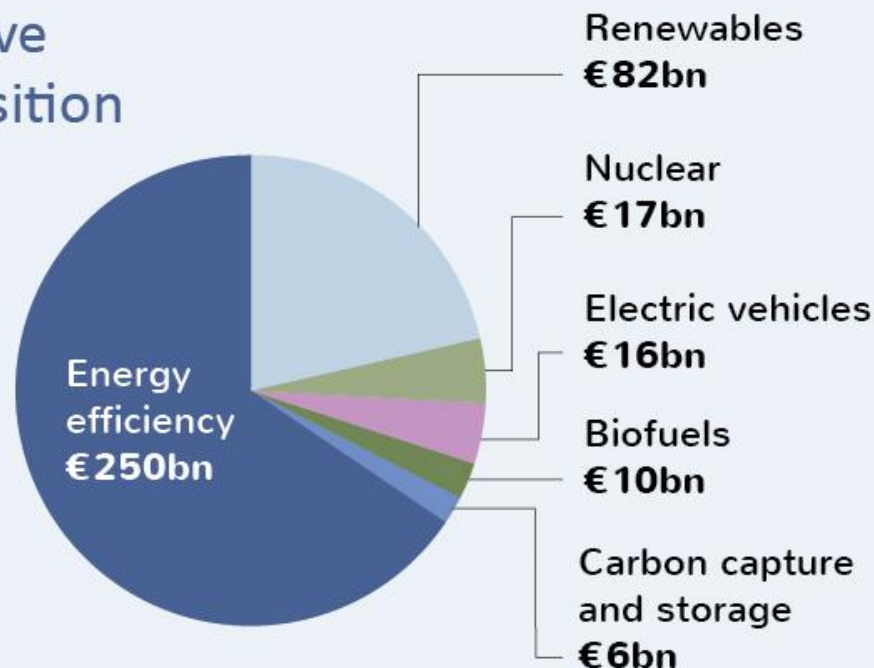
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Energy efficiency is key to delivering a cost-effective and secure energy transition

Average annual EU low-carbon technology investment needed to meet a 2°C target



Source: IEA World Energy Investment Outlook

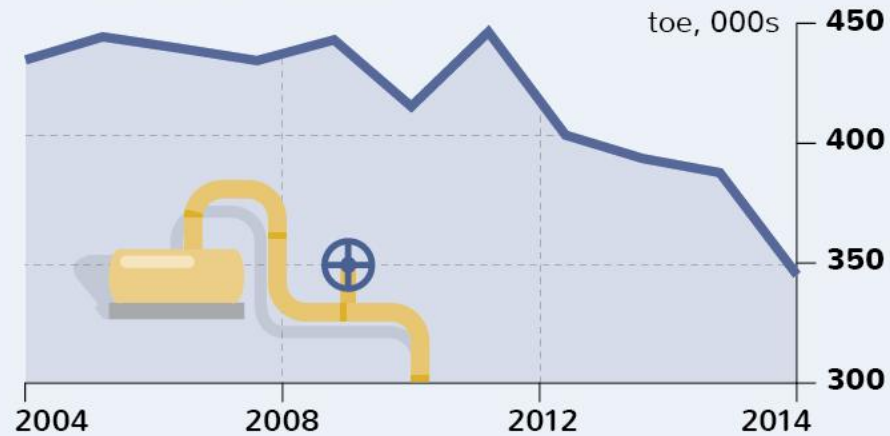


Declining Gas Demand



Unlike new pipelines, efficiency is a low-risk investment as EU gas demand falls

Final EU gas consumption

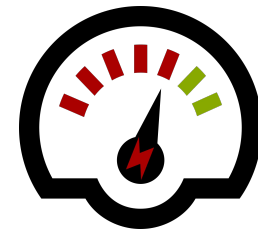


Source: Eurostat

Avoidance of future
stranded asset

Strengthens networks
and resilience

WHY IS **EE** CURRENTLY NOT PART OF THE INFRASTRUCTURE DEBATE?



POLITICAL
ATTITUDE
TOWARDS ENERGY
EFFICIENCY IN
G20 COUNTRIES



Everybody agrees it's important BUT

No strategic support and consideration around it

Infrastructure is a big issue, but...

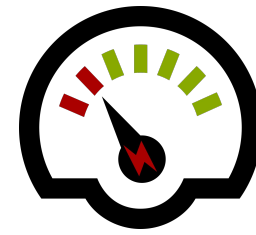
Energy efficiency is not part of this debate

EE is complicated and would take too long to deliver

Or worried it would not deliver

...so it doesn't get enough political support

VALUE OF EE INVESTMENT COMPARED TO OTHER INFRASTRUCTURE PROJECTS



Energy efficiency produces comparable economic return to other infrastructure

UK Infrastructure Investments: expected return on investment

		BCR*		
Building energy efficiency	€11.3bn	1.5	2.0	(assuming 50% of measures are privately funded)
HS2 (Phase 1)	€9.7bn	1.4	1.7	(including wider economic benefits)
Crossrail	€9.3bn	2.0	3.1	(including wider economic benefits)
Smart meter roll out	€8.4bn	1.6		

Source: Frontier Economics. *BCR: Ratio of societal benefits to government costs. Not including wider economic benefits unless otherwise stated



Economic appraisal – level playing field

EUROSTAT accounting rules: debt versus asset

Better internal energy market

State Aid Treatment

BUDGETARY IMPLICATIONS: OpEx TO CapEx



Operational expenditure

Competing with socially sensitive state expenditure

Short-termist discussion

Add-on type programs

Victim of austerity policies

Capital investments

Competing with hardcore infra projects where it performs well

Long term vision

Continuous, predictable support schemes

Visible benefits: job creation, competitiveness, energy security, foreign balance

IMPLICATIONS ON FUEL POVERTY?



What if Energy Efficiency is considered part of the building infrastructure?

- Higher support will be given to EE investment?
- Higher quality social housing?
- ...???

ENERGY EFFICIENCY IS INFRASTRUCTURE



Thank you for your
attention!



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Our latest briefing

<https://www.e3g.org/library/energy-efficiency-as-infrastructure-leaping-the-investment-gap>