Potentials of energy efficiency

Nils Borg, eceee and Borg & Co
Eufores Interparliamentary Meeting, 22 October 2022
Permanent weekend?
Permanent weekend?
Efficiency gets us there
Energy efficiency makes it possible to manage a future with 100% renewables
Crisis prevention:
Energy security
Health
Climate
Energy prices (& volatility)
“We have done what we can”
"We have done what we can"

We can always use less energy, always!
“We have done what we can”

We can always use less energy, always!

“Nothing cost effective remains”
“We have done what we can”
We can always use less energy, always!
“Nothing cost effective remains”
New potentials are created all the time
“We have done what we can”

We can always use less energy, always!

“Nothing cost effective remains”

New potentials are created all the time

“It is too expensive”
“We have done what we can”
We can always use less energy, always!
“Nothing cost effective remains”
New potentials are created all the time
“IT is too expensive”
Depends on values and perspective
Is it cost effective to save the world?
Efficiency lowers emissions, could do more

Source: IEA
Global efficiency improvements slowing down

Annual rate of global energy intensity improvements, %/year.
Source: IEA
Factors influencing residential buildings energy use 2015–18. Source IEA.
IEA: CO$_2$ emissions, main mitigation measures

Efficiency makes it possible to go from Stated policies to goals in Net Zero Scenario. Source IEA.
And what about the EU?

-4,5% target (2030)
New increased proposal -9%?
Current EU target

865 Mtoe

825 Mtoe -4.5 % Final energy use

Source: Fraunhofer ISI/Stefan Scheuer
Increased EU target

865 Mtoe

825 Mtoe -4.5%

787 Mtoe -9%

Final energy use

Source: Fraunhofer ISI/Stefan Scheuer
Economic potential

865 Mtoe

2020 2030

825 Mtoe -4.5%
787 Mtoe -9%
718 Mtoe -17%
Final energy use

Source: Fraunhofer ISI/Stefan Scheuer
Technical potential

865 Mtoe

825 Mtoe -4.5%
787 Mtoe -9%
718 Mtoe -17%
667 Mtoe -23%
Final energy use

Source: Fraunhofer ISI/Stefan Scheuer
Increased EU target

865 Mtoe

Source: Fraunhofer ISI/Stefan Scheuer
Economic potential

865 Mtoe

-4.5%  = Belgium
-9%    = Poland
-17%   
-23%

Source: Fraunhofer ISI/Stefan Scheuer
Technical potential

865 Mtoe

-4.5 % = Belgium
-9 % = Poland
-17 % = The Netherlands
-23 %

Source: Fraunhofer ISI/Stefan Scheuer
Conservation vs efficiency
Discount rates vs energy prices
Contact

Nils Borg
nils@borgco.se

www.mbenefits.eu