

31 January 2020

# Multiple Benefits of Energy Efficiency and Renewables

Concerted Action EED, EPBD, RED Workshop, Barcelona

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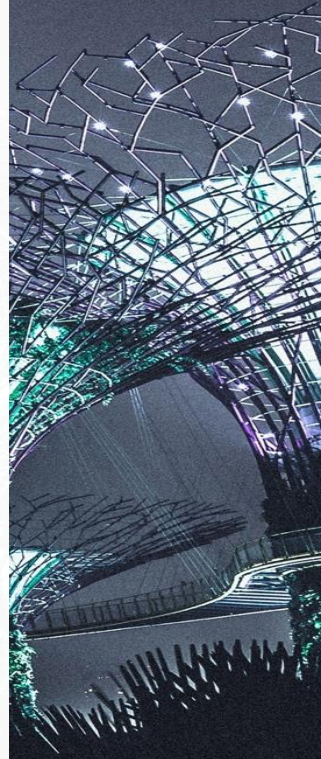
Samuel Thomas  
Senior Advisor  
The Regulatory Assistance Project (RAP)®

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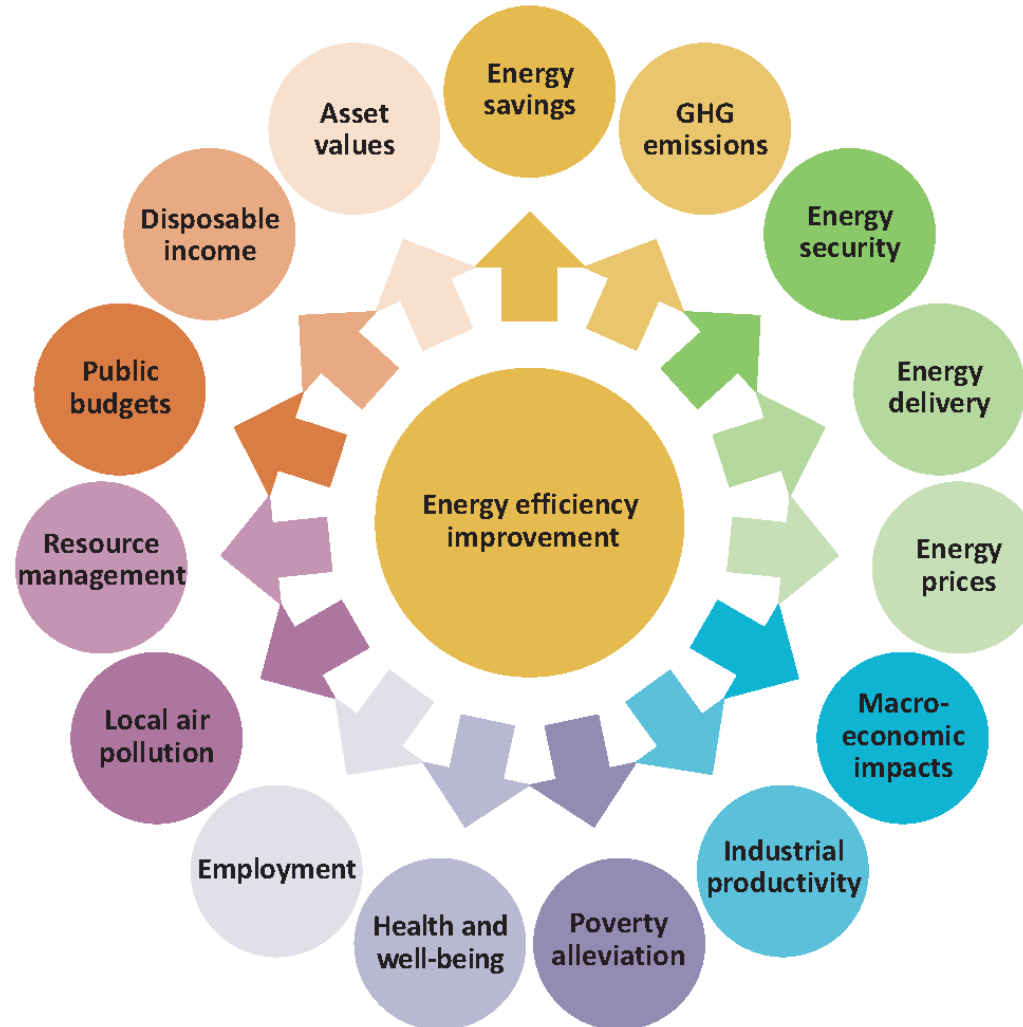
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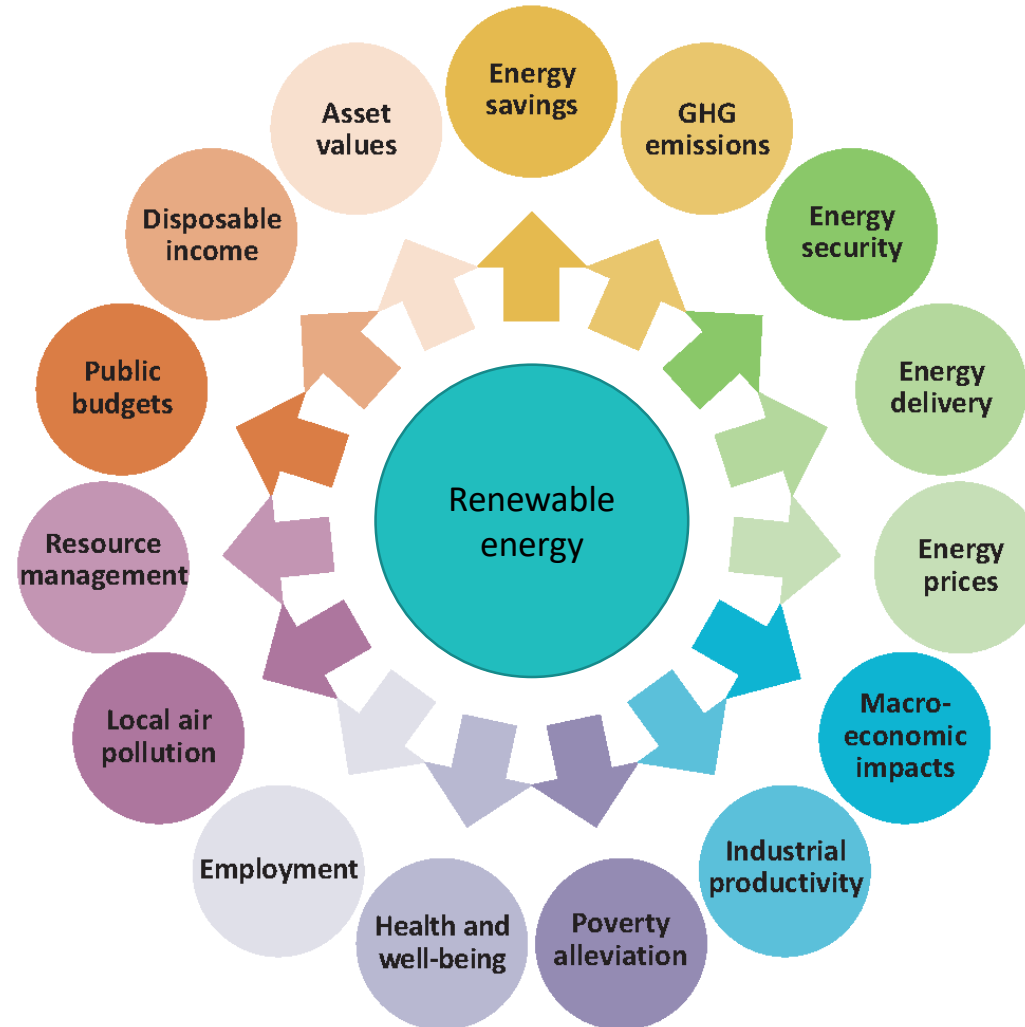


# Energy efficiency has multiple benefits



Source: IEA (2014)

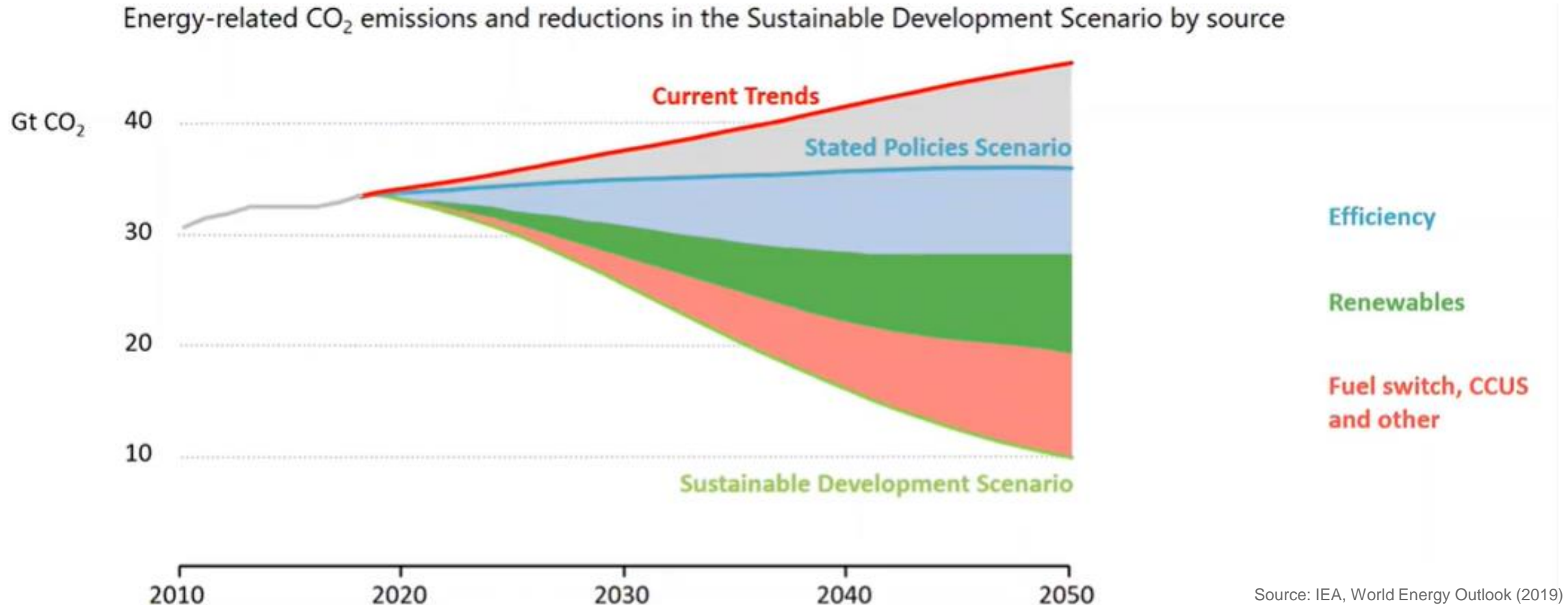
# Renewable energy has multiple benefits



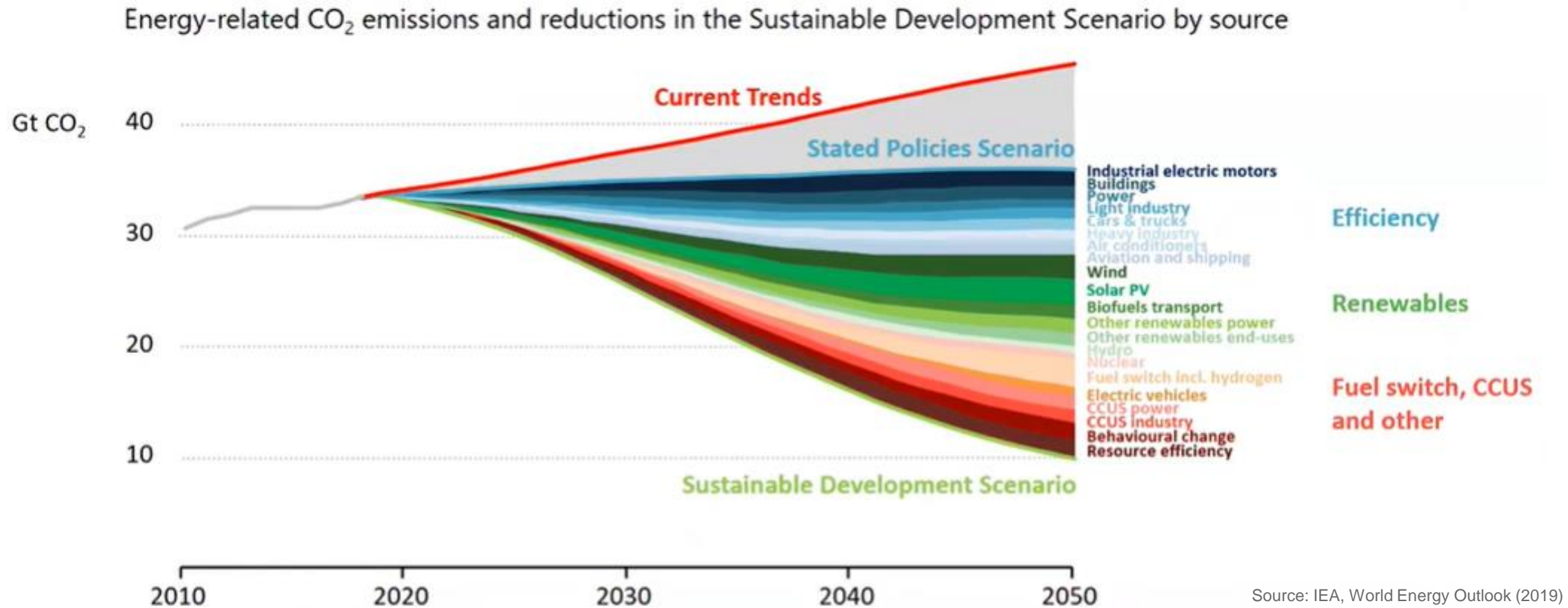
Source: Adapted from IEA (2014)



# Renewables and efficiency are the main decarbonisation weapons



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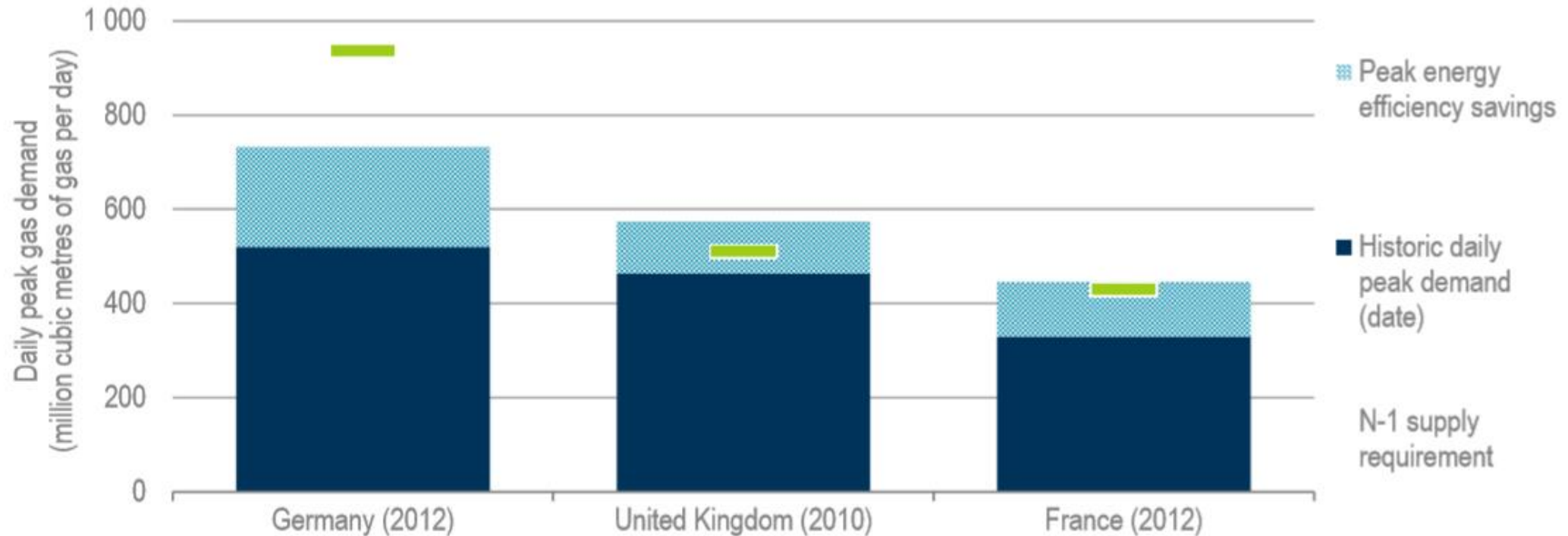
# Welcome to Pristina!



Source: The Seattle Times

# Energy security benefits

Historical peak daily gas demand and energy efficiency savings in selected European markets

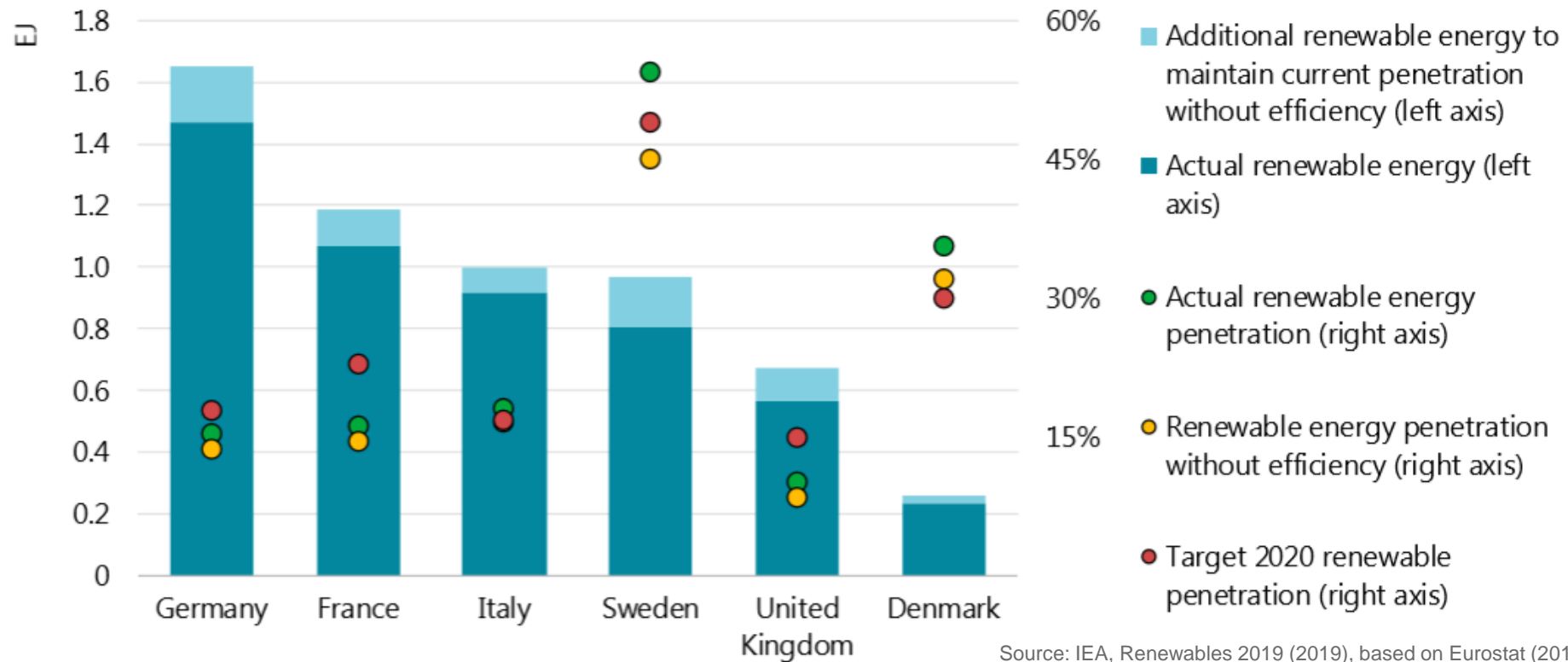


Note: Energy savings from efficiency improvements since 2000.

Source: IEA, Energy Efficiency 2017 (2017)

# Energy efficiency helps meet renewables targets

Renewable energy generation and penetration with and without efficiency gains since 2000, for selected EU member states in 2017

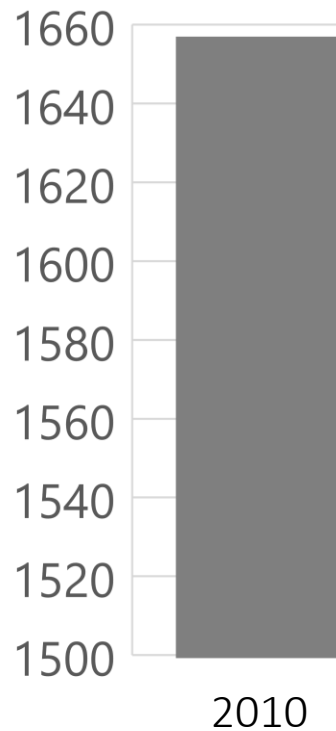




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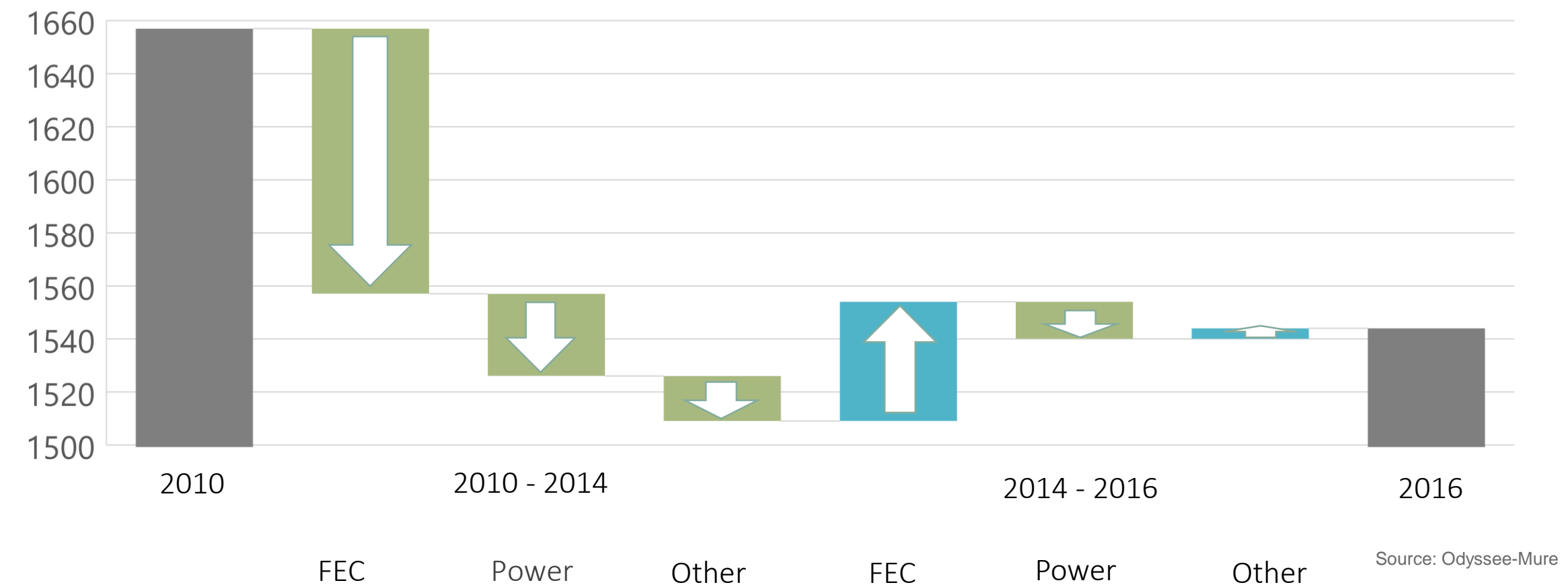
# Renewables help meet efficiency targets

**Factors affecting EU 28 primary energy consumption (Mtoe)**



# Renewable energy is energy efficient

Factors affecting EU 28 primary energy consumption (Mtoe)

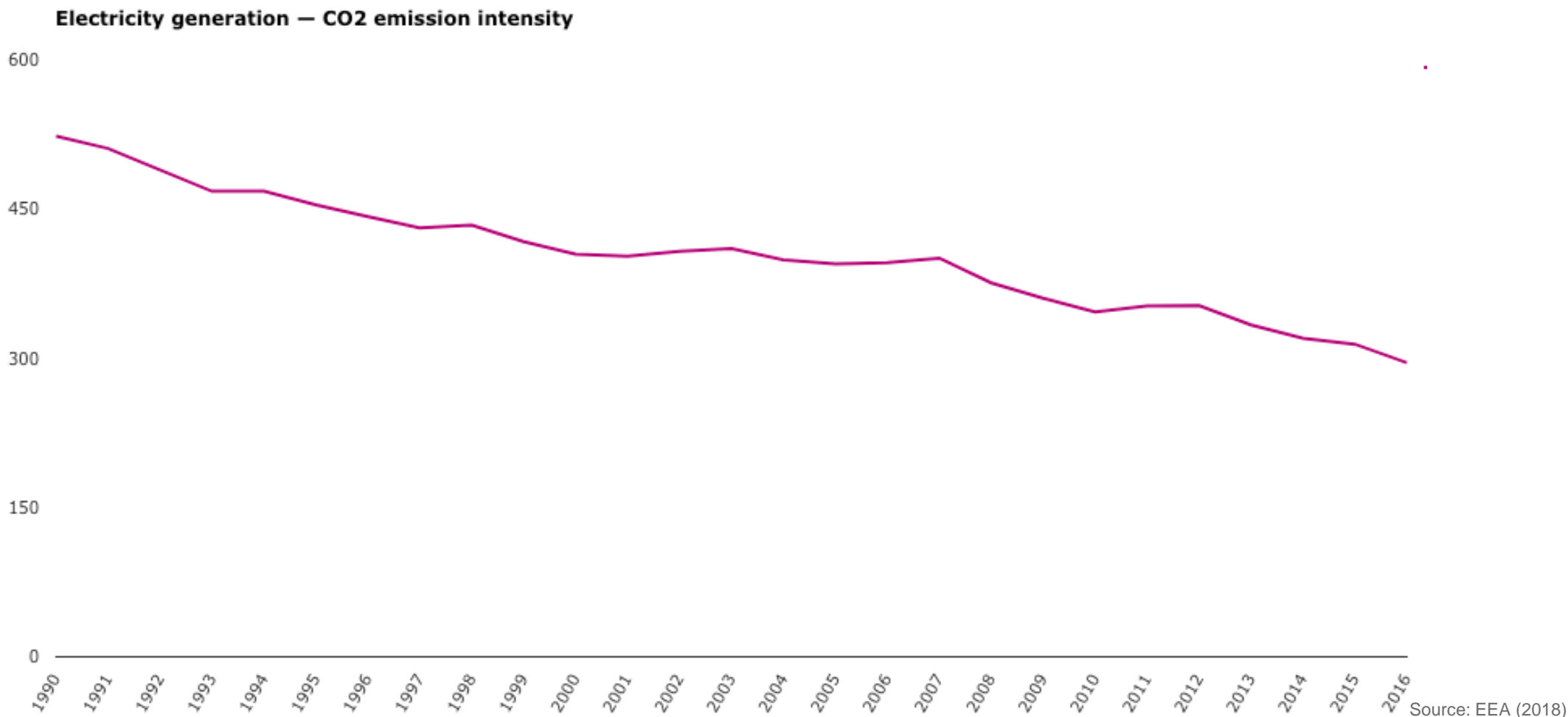


Source: Odyssee-Mure

# Energy efficiency needs renewables

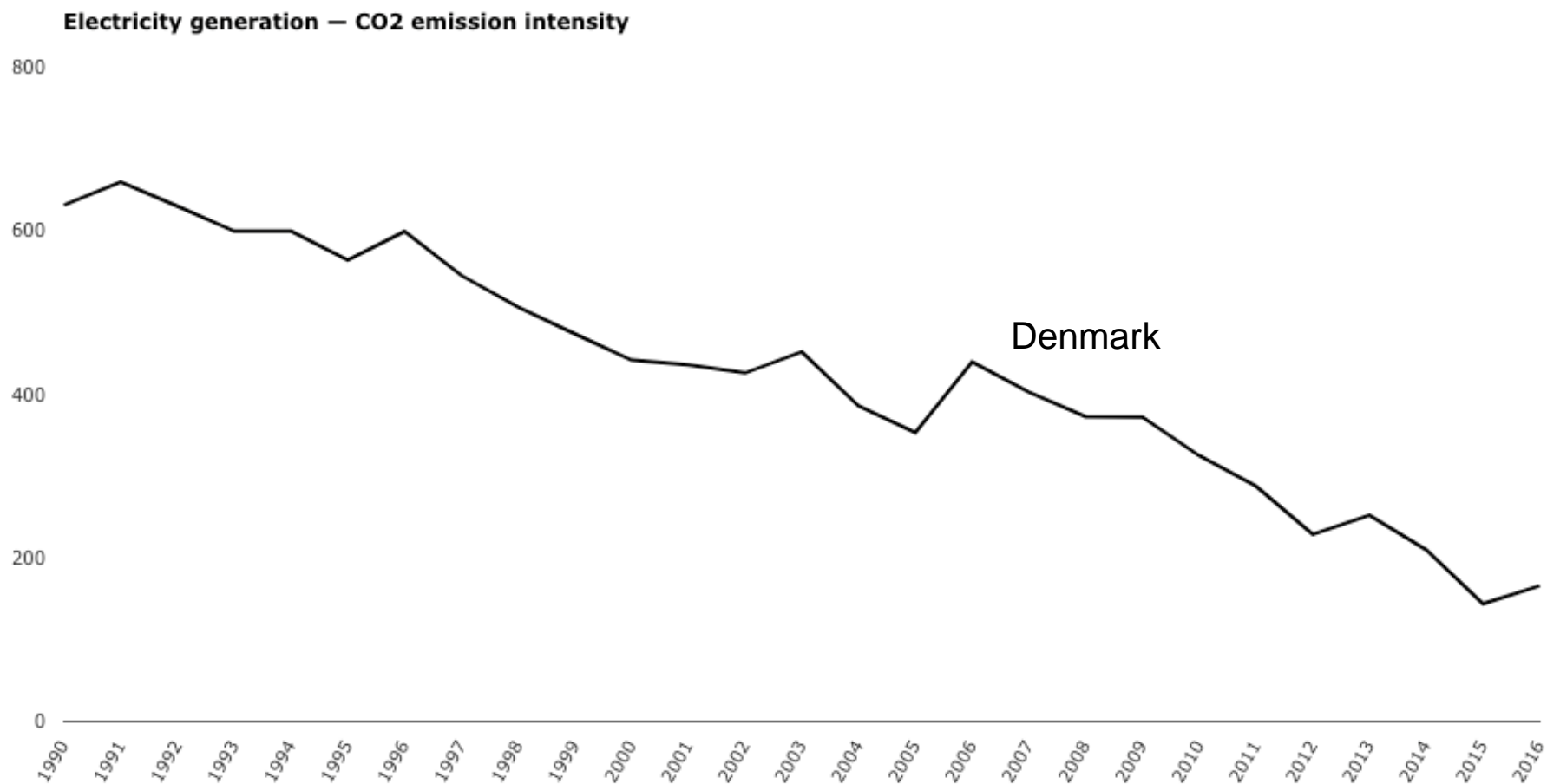


# The grid is getting cleaner (EU28 average)





# And in some countries is now cleaner than gas



Source: EEA (2018)

# Renewables need energy efficiency

15:55 heating Save

< scheduling

schedule 1

Increases or decreases in the accommodation temperature can be scheduled here for up to three time periods per day. If a room sensor is installed and activated the desired room temperature is...

activated active

climate system climate system 1

**mon**

Start time 16:00 Stop time 19:00

temperature -10

**tues**

Start time 16:00 Stop time 19:00

temperature -10

**wed**

Start time 16:00 Stop time 19:00

temperature -10

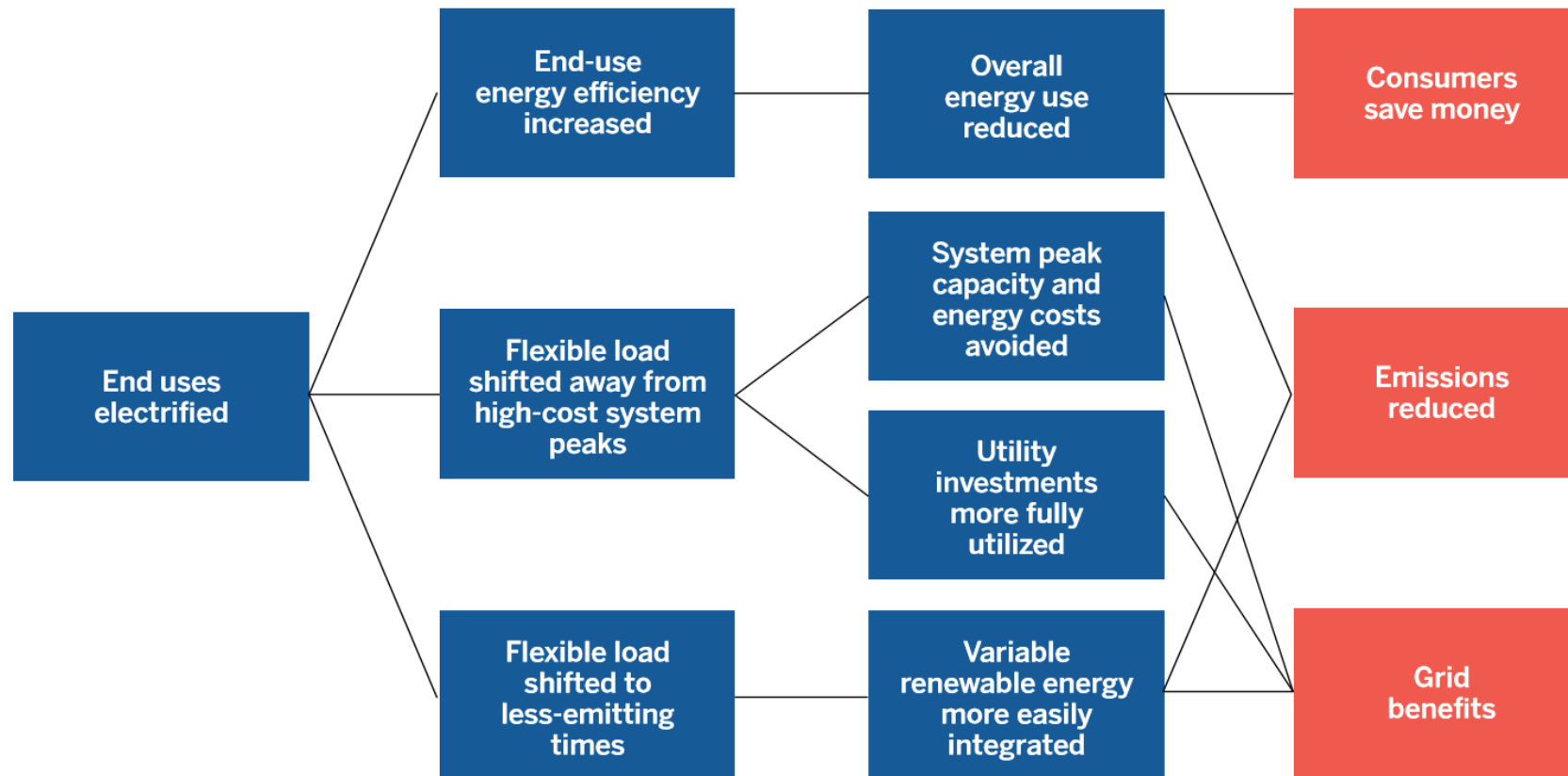
**thur**

Overview Service Info Manage History



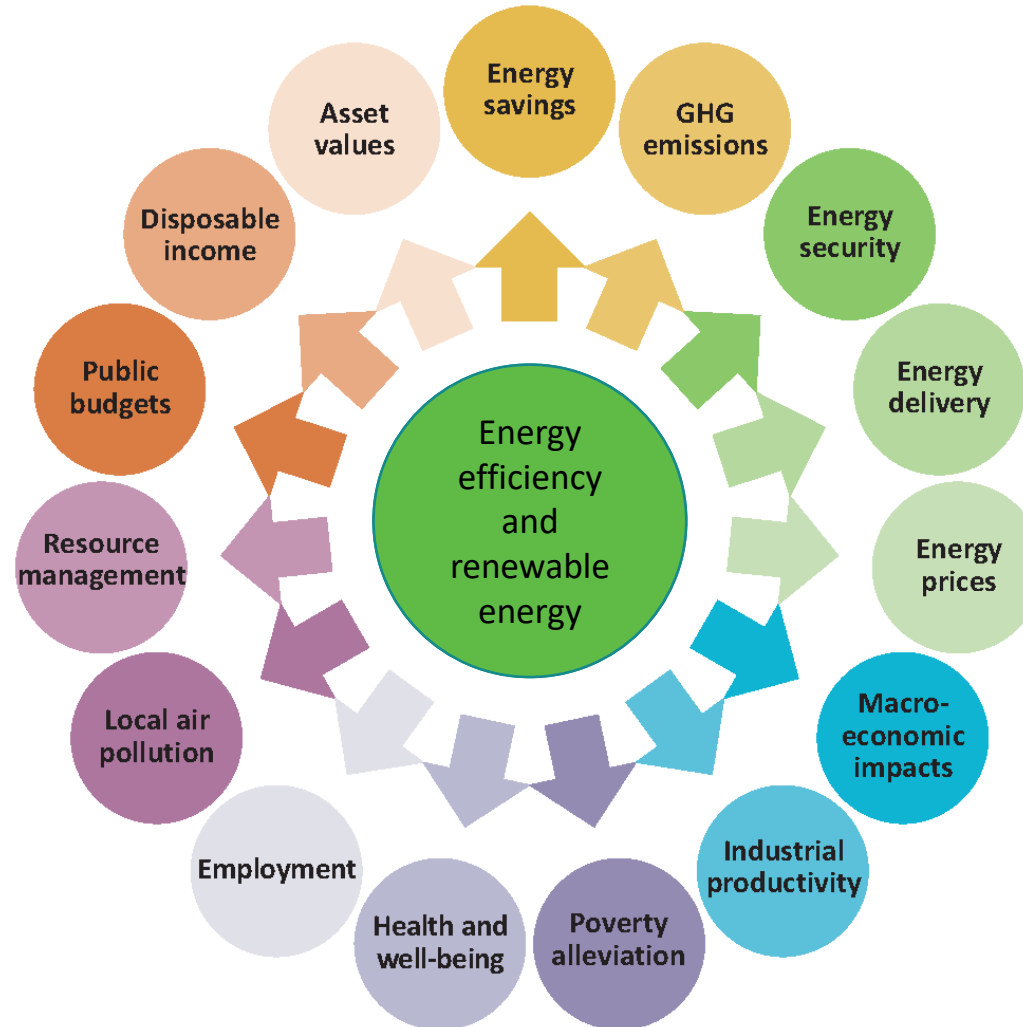
Source: Rosenow (2019)

# Relationship of electrification to potential benefits



Source: RAP (2018)

# Energy efficiency and renewable energy have multiple benefits



Source: Adapted from IEA (2014)



# About RAP

The Regulatory Assistance Project (RAP)<sup>®</sup> is an independent, non-partisan, non-governmental organization dedicated to accelerating the transition to a clean, reliable, and efficient energy future.

Learn more about our work at [raponline.org](https://raponline.org)



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