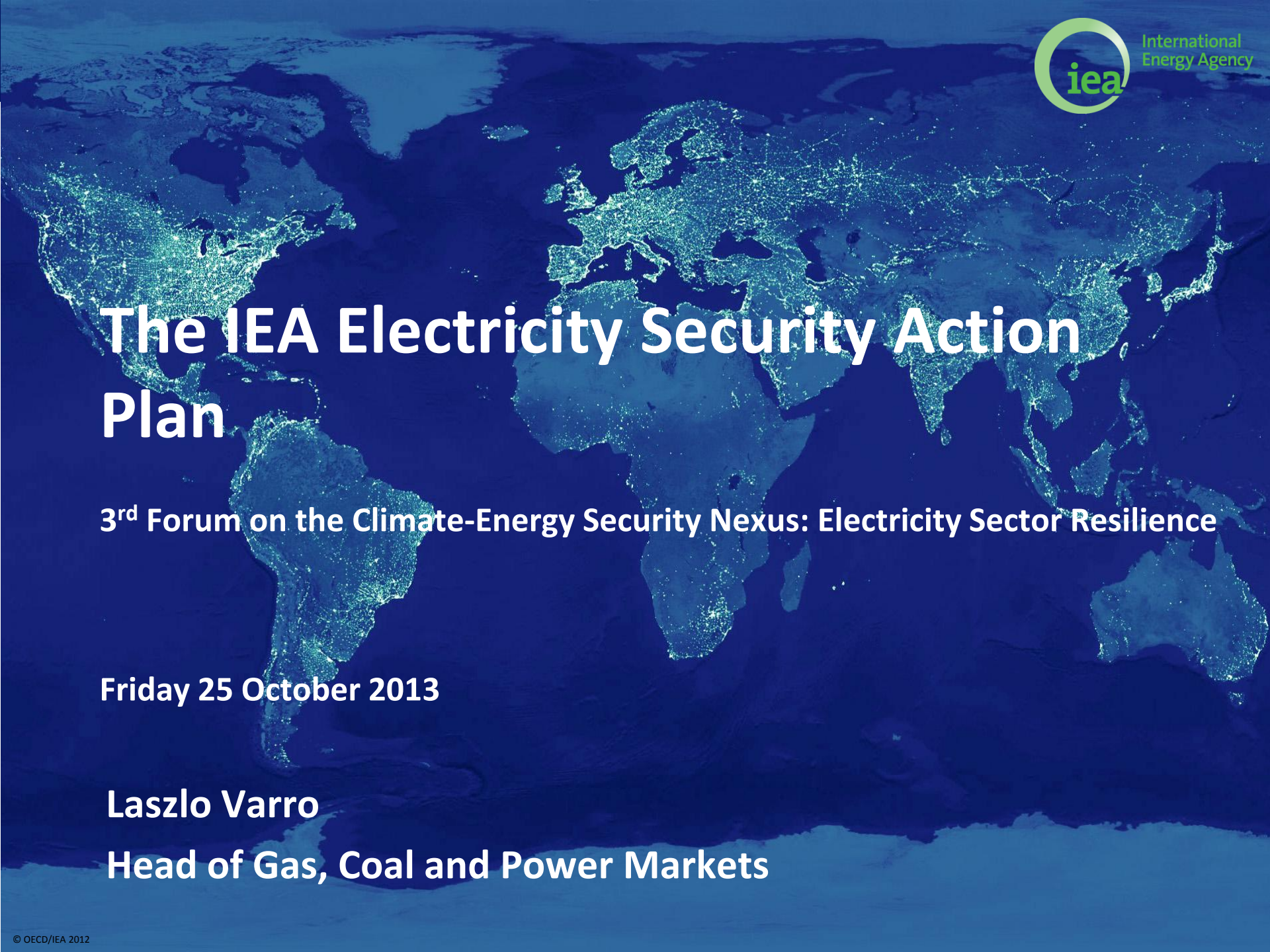


# The IEA Electricity Security Action Plan

## 3rd Forum on the Climate-Energy Security Nexus: Electricity Sector Resilience

**Friday 25 October 2013**

**Laszlo Varro**

**Head of Gas, Coal and Power Markets**

# Oil: The good old tradition of a geopolitical risk

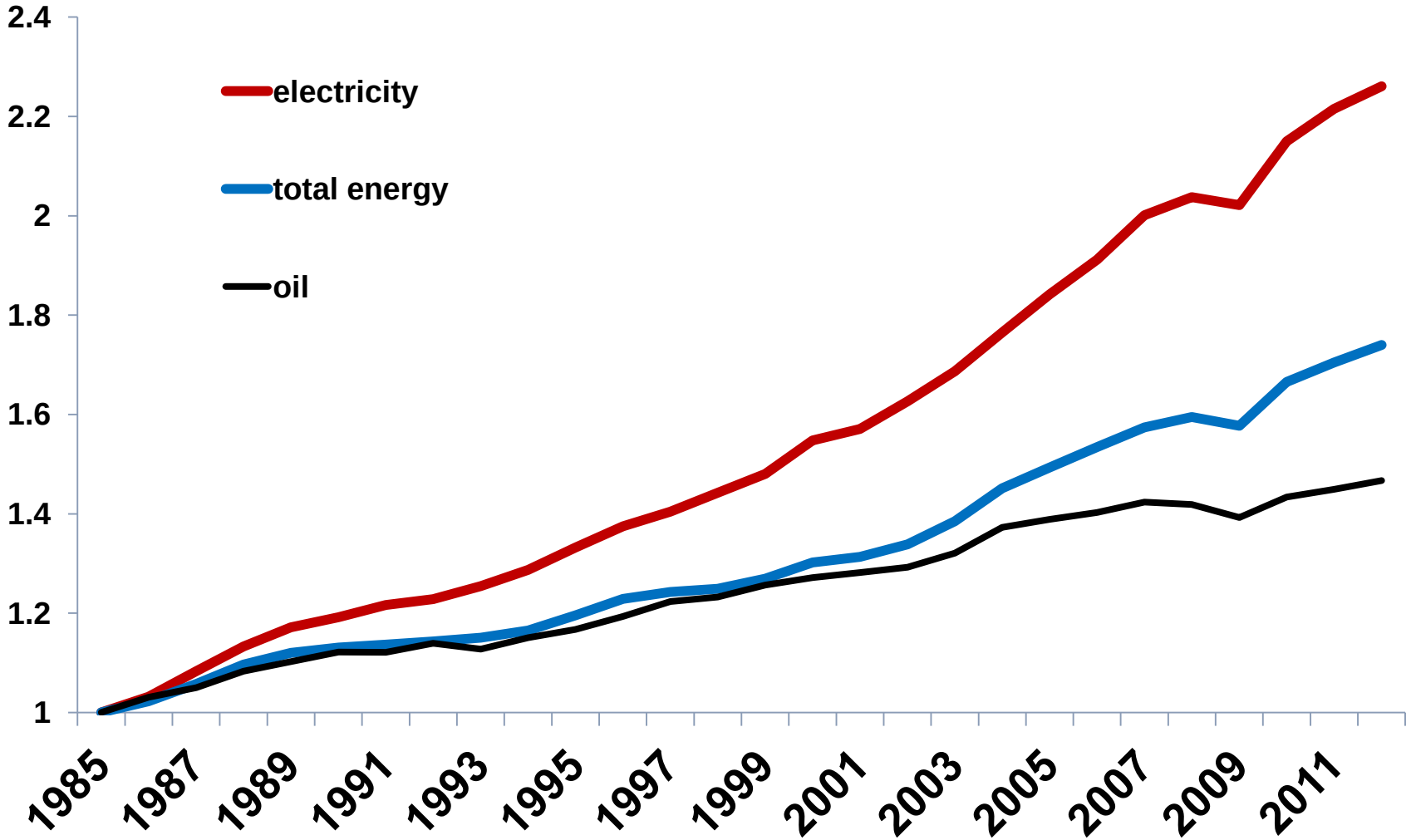
Libya, 2011

Russian empire, 1905

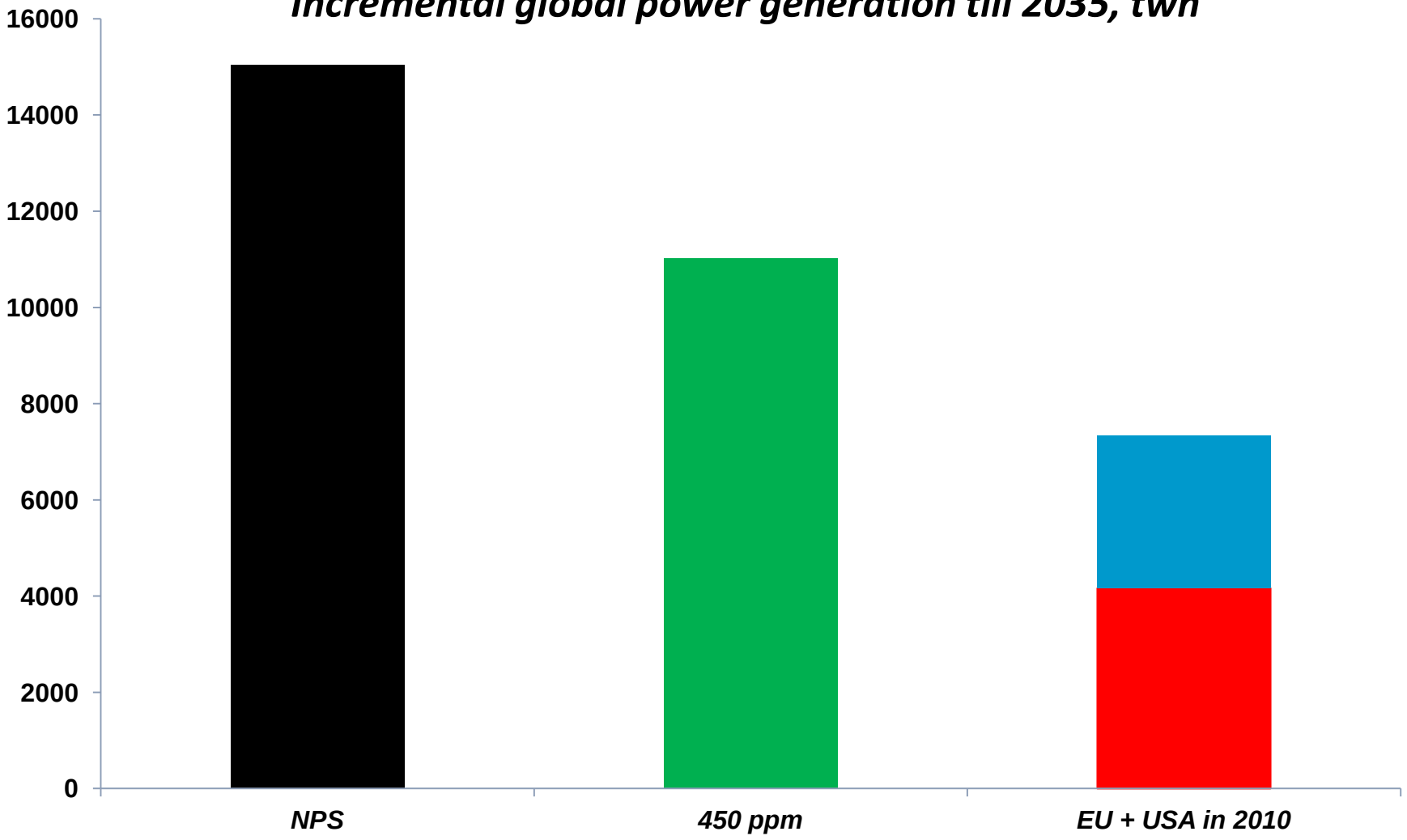
# “Keeping the lights on”

# Electricity is the energy source of industry and modernization

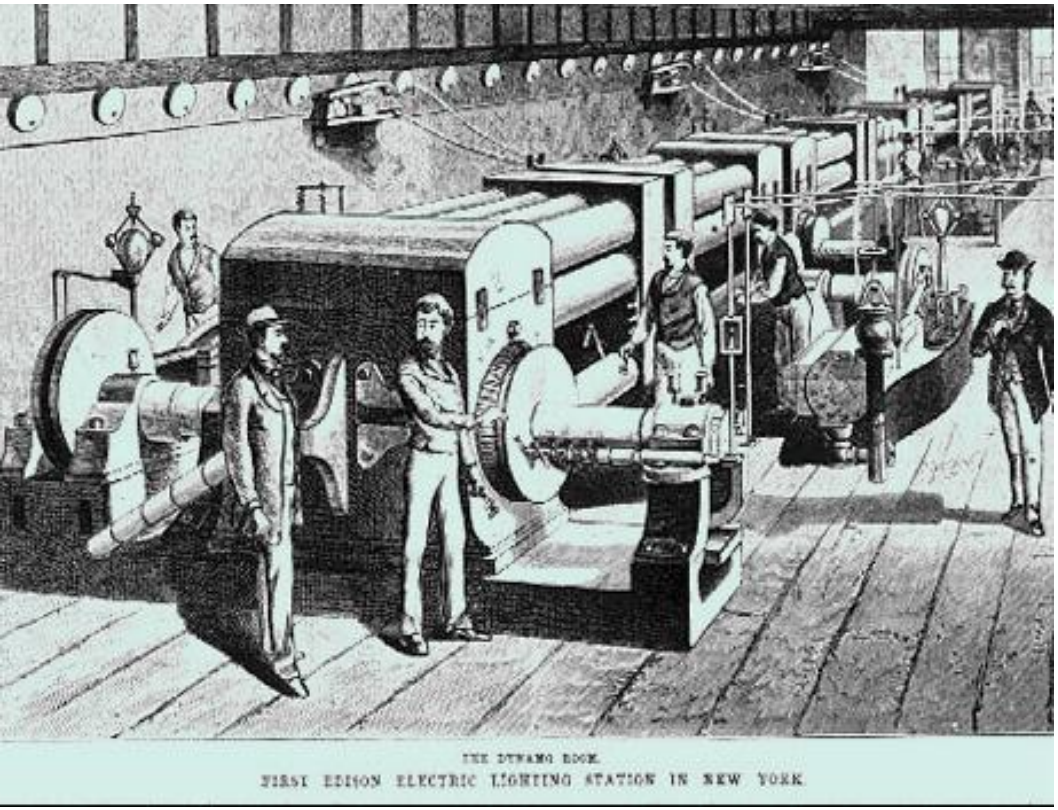
# Its importance increases every day



# So its recent growth is just a taste of things to come



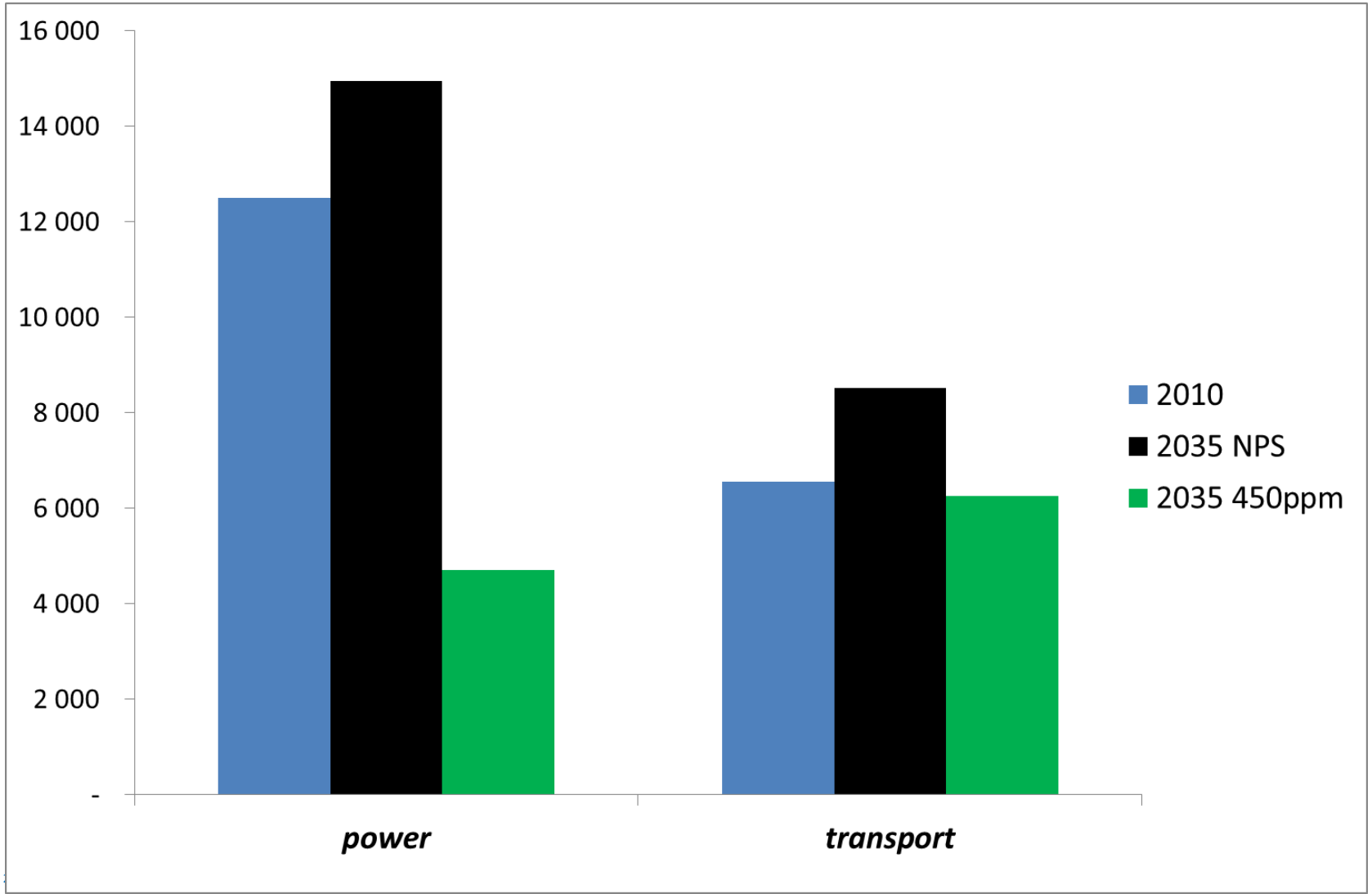
# 1890-1990: a remarkably stable technological and management paradigm



THE DYNAMO ROOM.
FIRST EDISON ELECTRIC LIGHTING STATION IN NEW YORK.

# Electricity is the key battlefield

***CO2 emissions in the main sectors***



# What was the last time you heard good news about nuclear or CCS?

- A meaningful carbon price
- A policy/social acceptance
- A financing framework keeping WACC down
- Management of tail risks

# Renewables are on track

***But they lead to new system operation challenges***

# Competition and electricity security: the Master Yoda principle

*"Do. Or don't do. There is no try."*

***It is not competition, but half hearted, half finished market opening with bad regulation that causes blackouts.***

# Electricity security: building blocks

## Fuel Security

- Ensure continued fuel supply of gas, coal and uranium

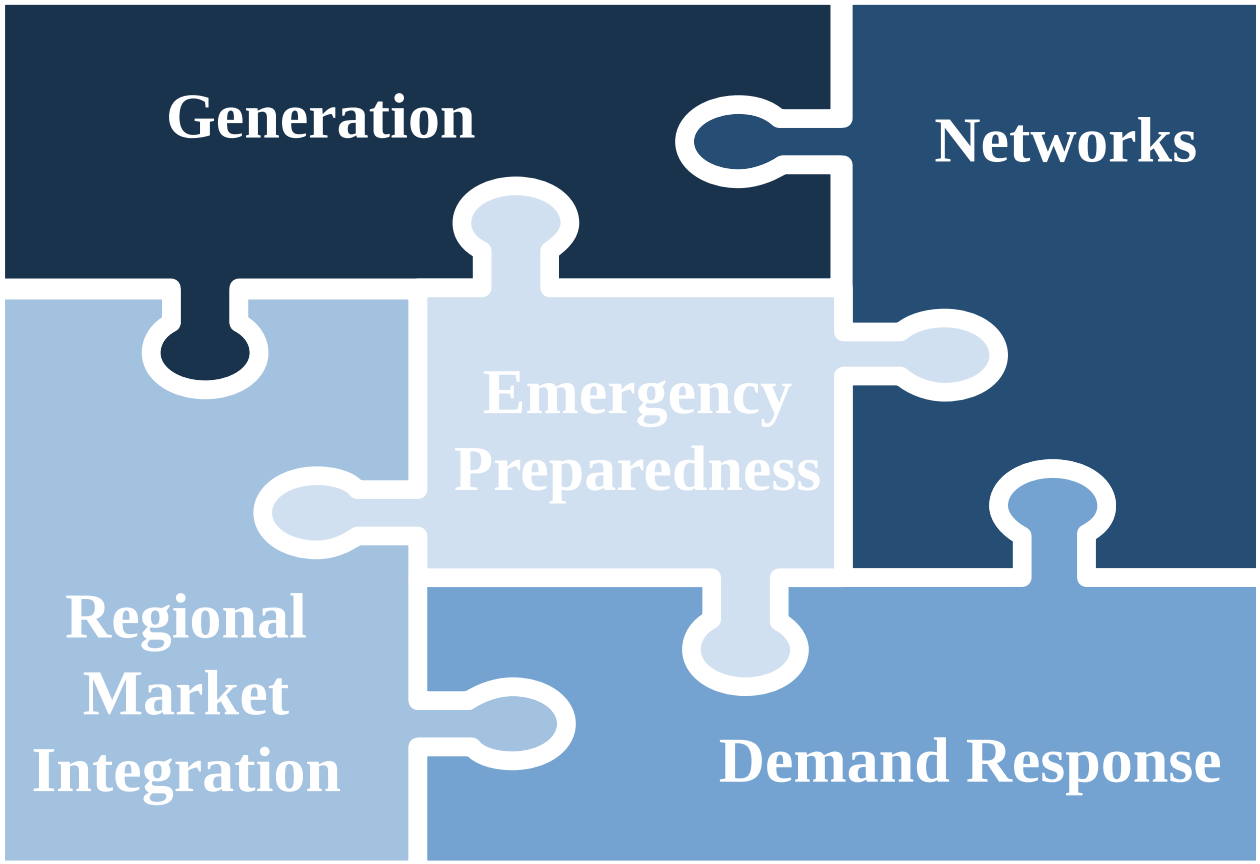
## Adequacy

- Generation capacity
- Network infrastructure

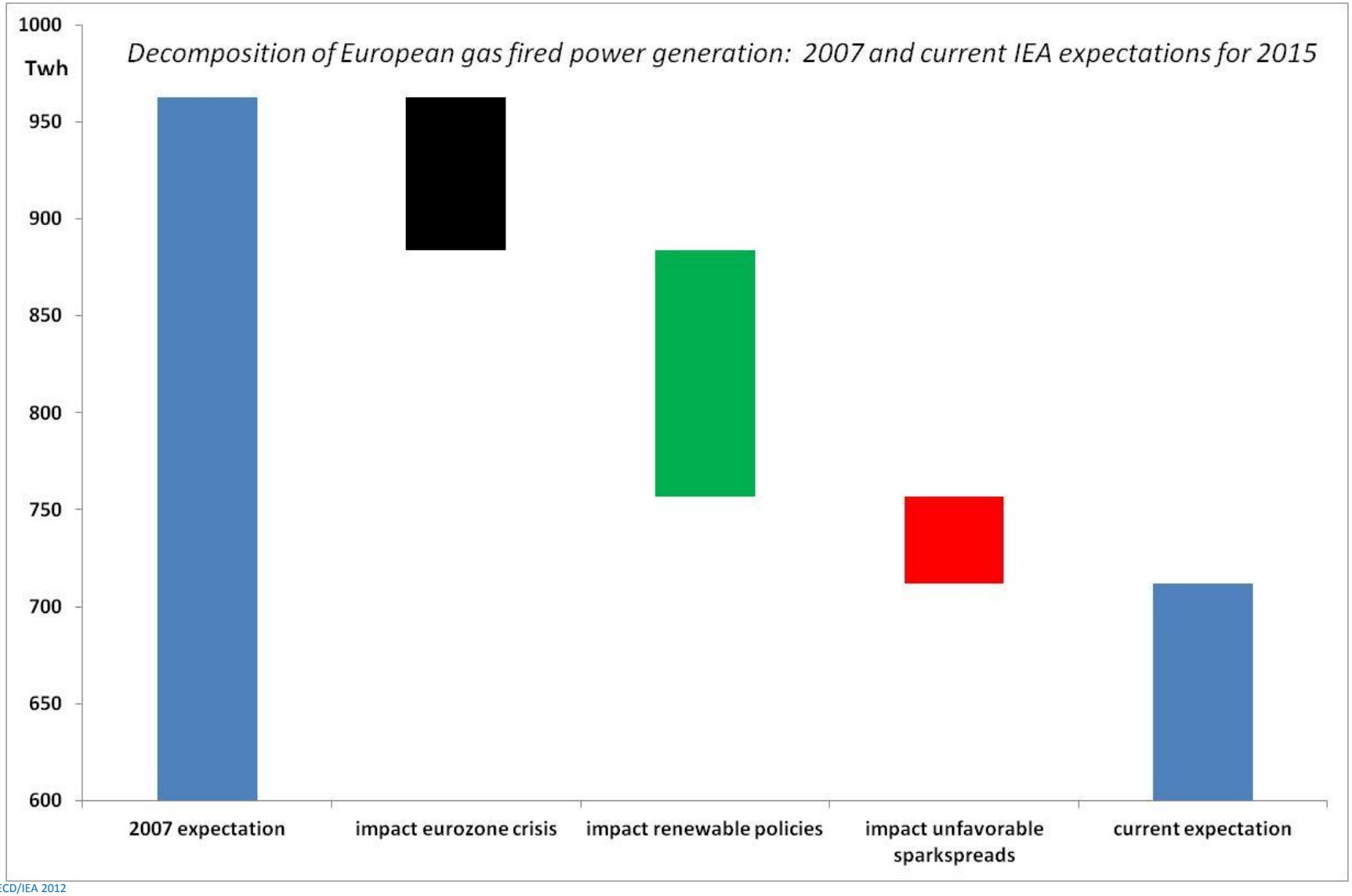
## System Security

- Network operations
- Emergency protocols

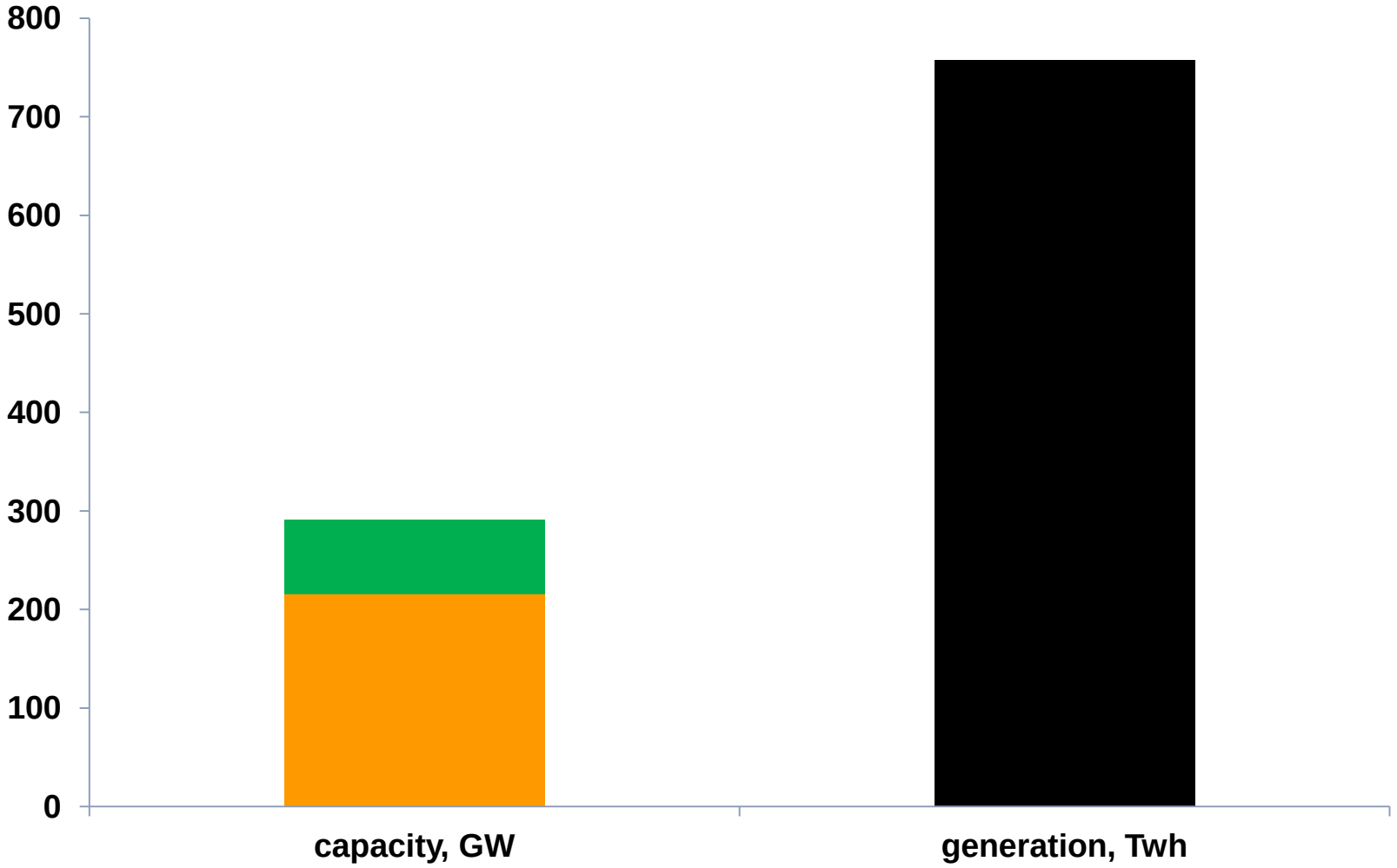
# Electricity Security Action Plan (ESAP): a two-years work programme



# Who killed EU gas fired power generation?

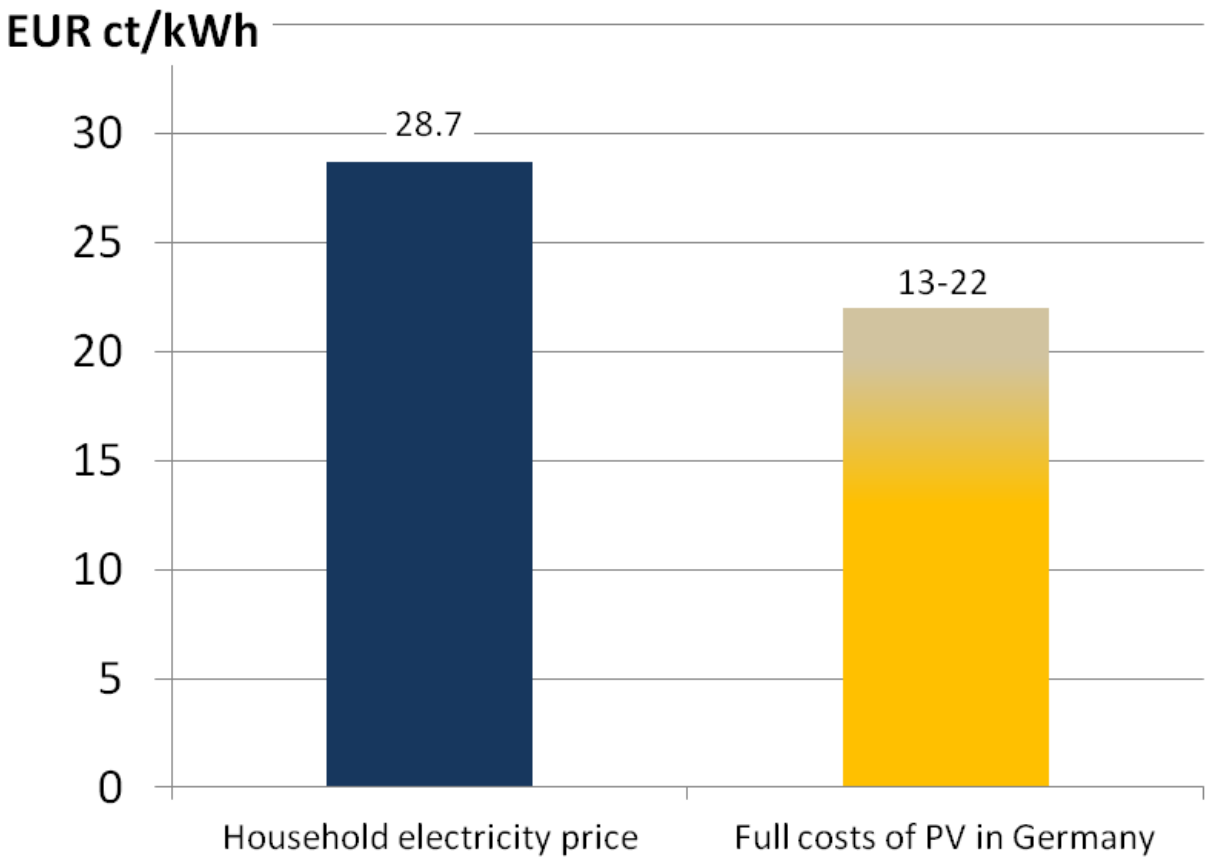


# Gas is used for system balancing: less power from more capacity



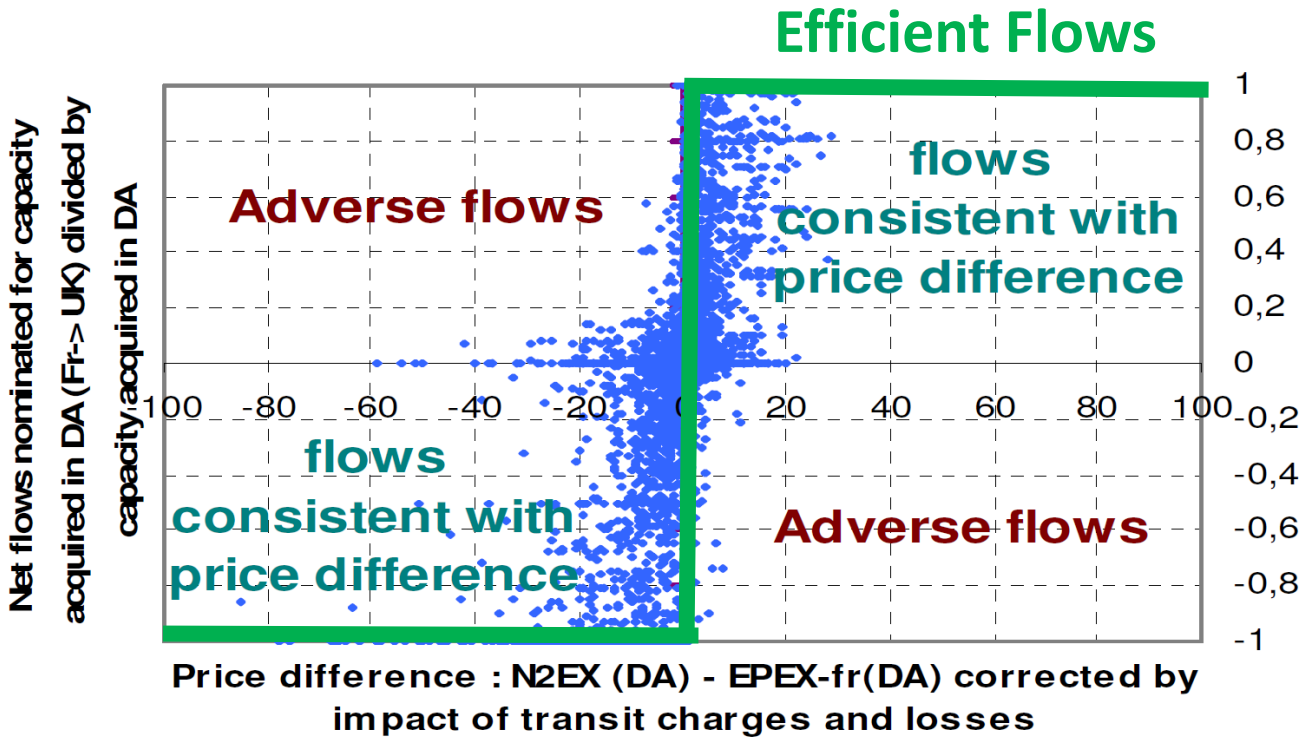
# The network will remain a scarce resource

# “Grid parity” Who pays for whom?



# Efficient use of network infrastructure

## Adverse Flows on IFA (Jan.-June 2010)




Source: Booz, 2012

# Demand response: overcoming my laziness

http://www.iea.org/topics/electricity/