

# Presentation of

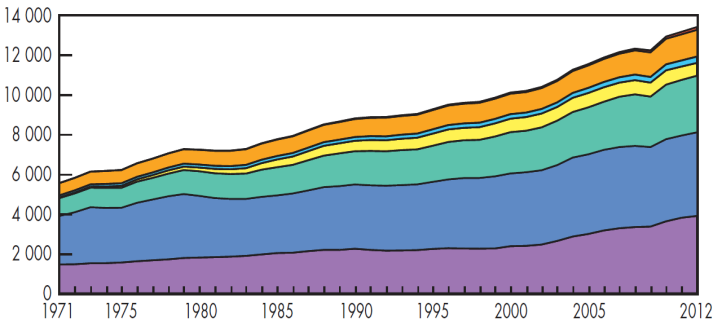
## CER Carbon Emission Reduction strategy

„It is better to face reality than to be overtaken by it.“



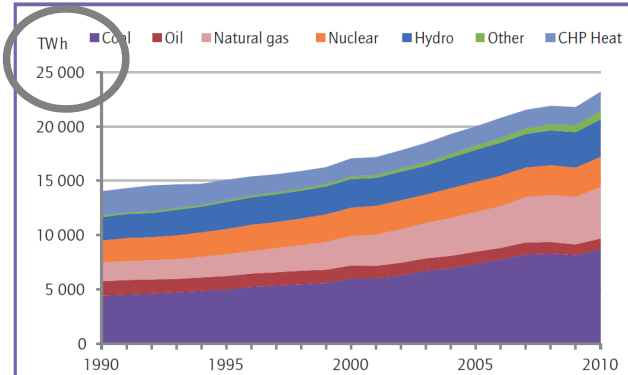
# The reality! The world energy mix (official data from IEA)

World\* total primary energy supply from 1971 to 2012 by fuel (Mtoe)



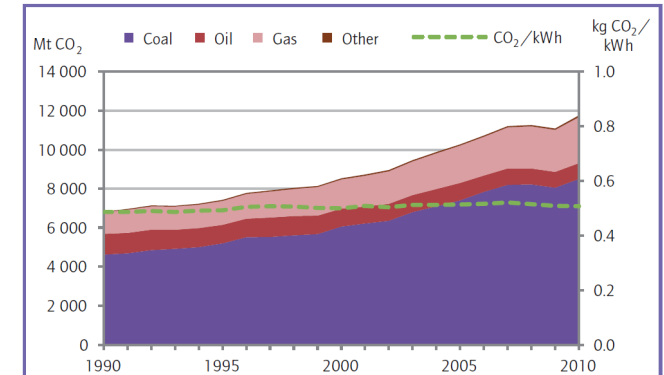
- Coal\*\*
- Oil
- Natural gas
- Nuclear
- Hydro
- Biofuels and waste
- Other\*\*\*

Generation mix of electricity and heat from CHP



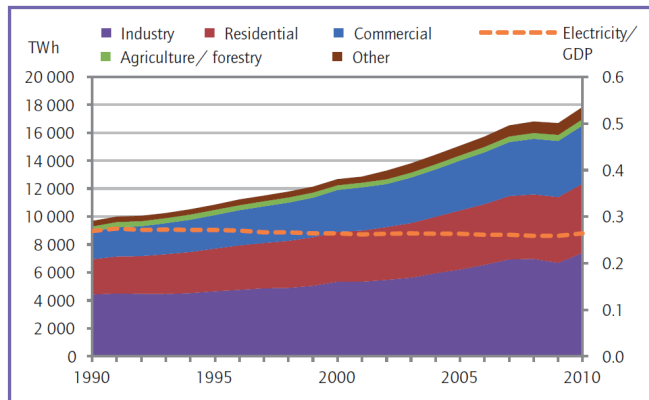
- Notes: coal includes peat. Other includes geothermal, solar, wind, biofuels and waste, etc.
- Largest source of electricity (2010) 40.6% (Coal)
  - Fastest growth over the last decade 204.9% (Other)

CO<sub>2</sub> emissions by fuel in electricity generation



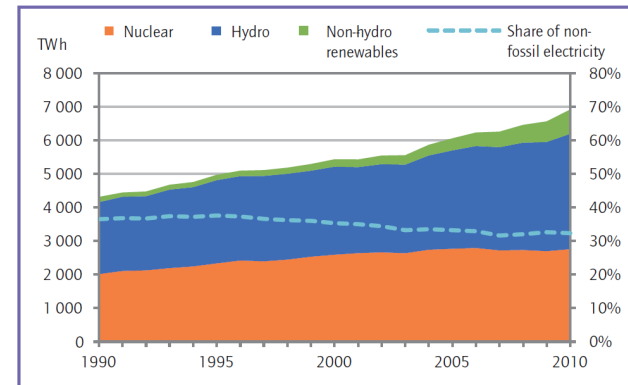
- Notes: emissions from electricity only and CHP plants. Coal includes peat. Other includes non-renewable waste.
- Largest source of emissions (2010) 72.3% (Coal)
  - Fastest growth over the last decade 57.7% (Gas)

Electricity use by sector and per unit of GDP



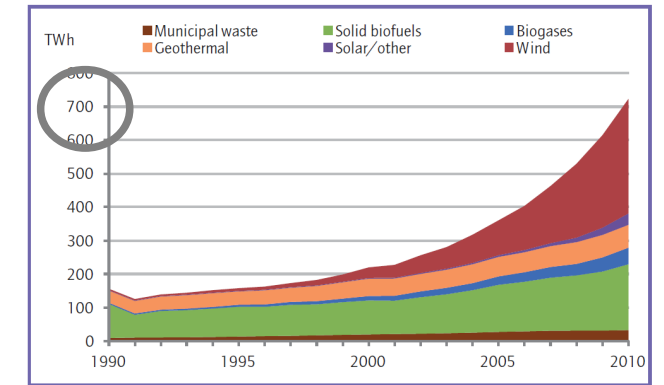
- Note: electricity/GDP measured in kWh per 2005 USD PPP.
- Largest sector of consumption (2010) 41.5% (Industry)
  - Fastest growth over the last decade 97.5% (Other)

Electricity generation by non-fossil fuels



- Note: non-hydro renewables includes geothermal, solar, wind, biofuels and renewable municipal waste.
- Share of non-fossil sources in total electricity (2010) 32.3%
  - Largest source (2010) 49.7% (Hydro)

Electricity from renewables (excluding hydro)



- Notes: biogases includes small quantities of liquid biofuels. Municipal waste only includes the renewable portion of waste.
- Largest source excluding hydro (2010) 47.3% (Wind)
  - Largest growth over the last decade 310.4 TWh (Wind)



# Carbon Emission Reduction Focus!

World regions: 7

Relevant countries: 38  
(total analyzed countries 225)

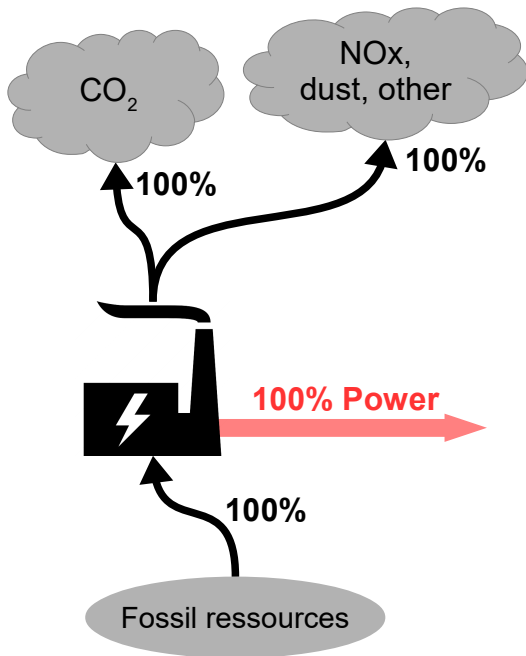
Average market access cover: 86%



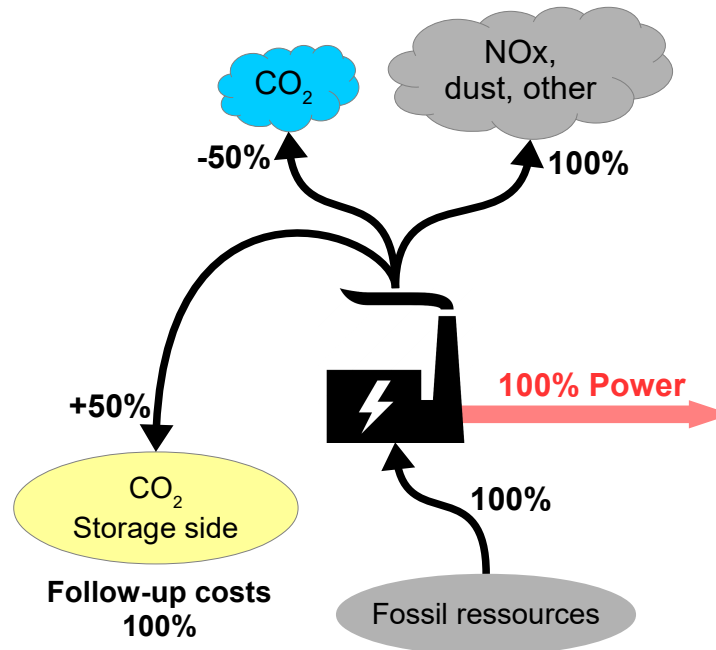
# What is our technology!

## Differences between CCS and CER

Coal power plant  
„State of the art“ principle

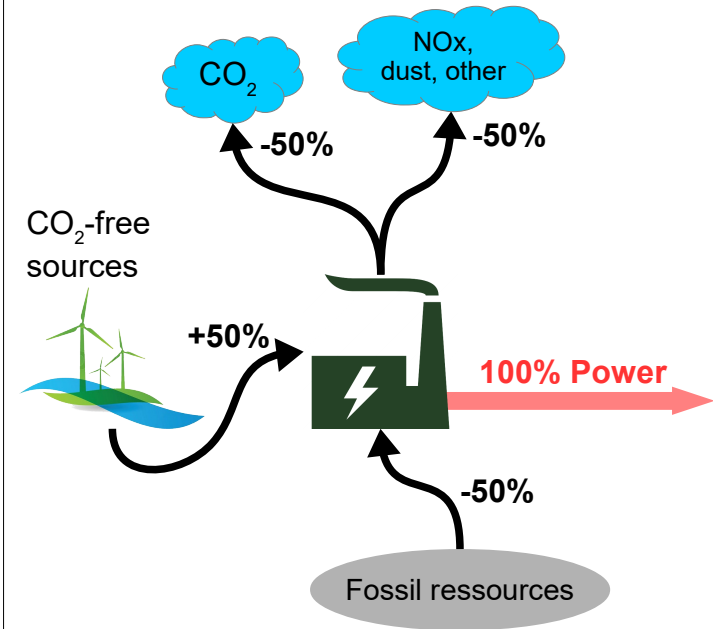


CCS principle



CCS = Carbon Capture and Storage

MESY's CER principle

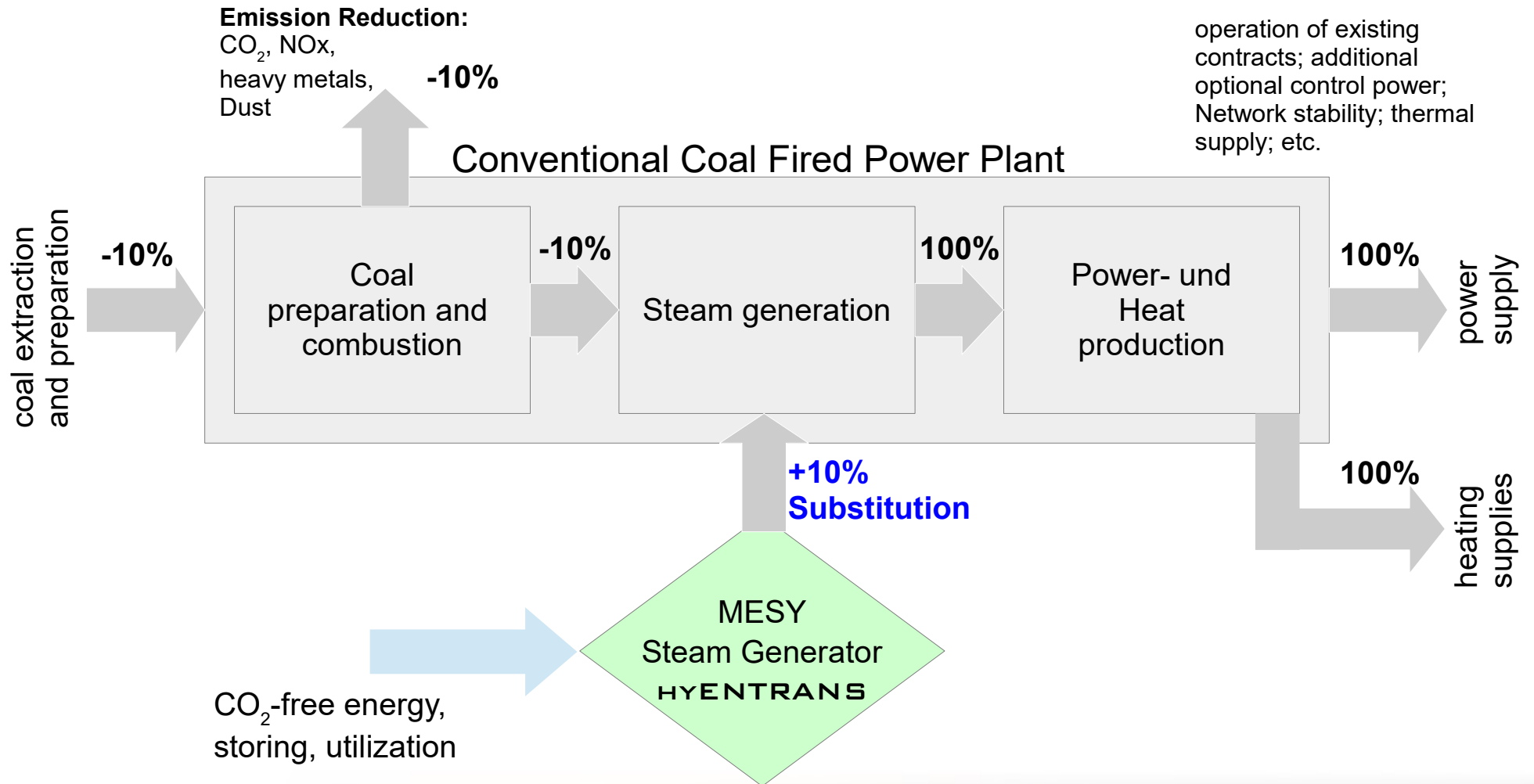


CER = Carbon Emission Reduction



# How it works!

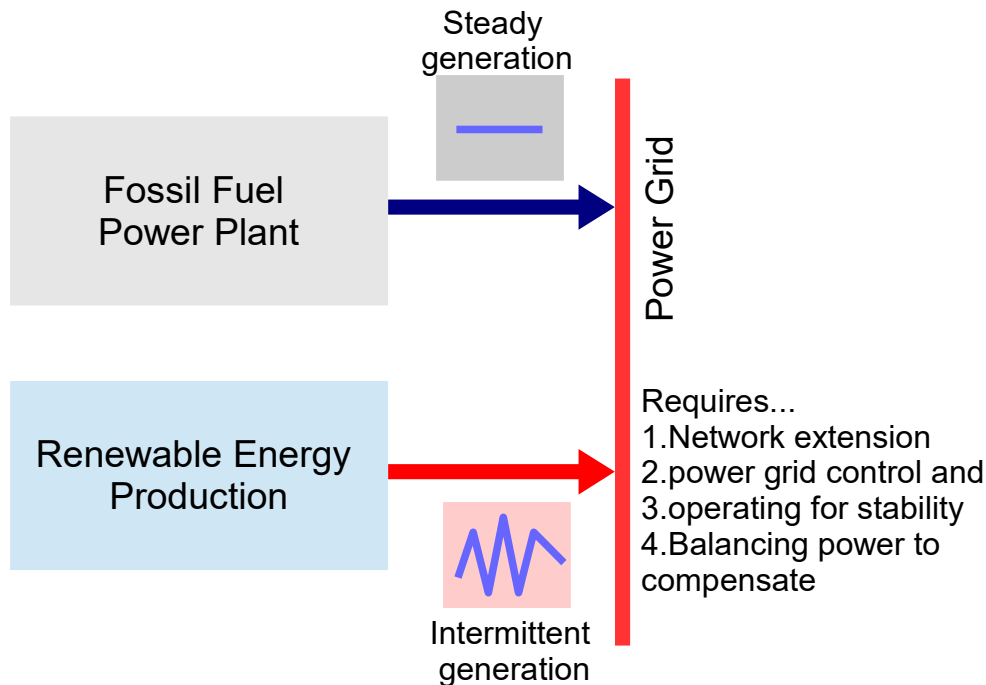
## CER Strategy overview



# What are the consequences!

## New strategy for cost savings of billions in the Energy Market

**Very expensive and complex.**  
Requires Billions of Investments to stabilize Power Grids



**Very cheap and simple.**  
No Investments to expand and stabilize power grids for intermittent generation

