



Τα μελλοντικά ενεργειακά συστήματα

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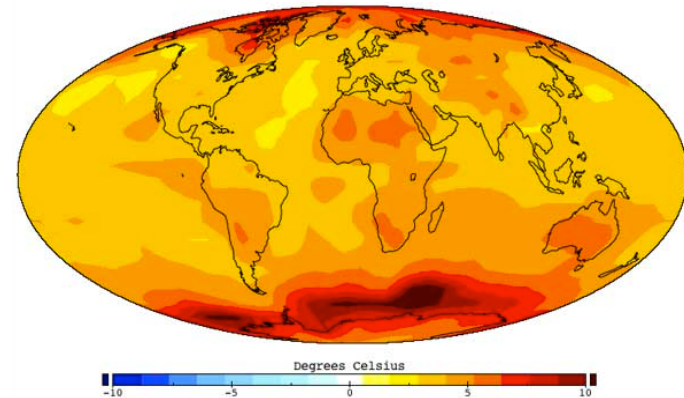


- **Long term strategies towards 2050**
- **Medium term strategies towards 2030**
- **Short term strategies towards 2020**

Long term strategies Towards 2050

Future energy systems

- **Climate change**

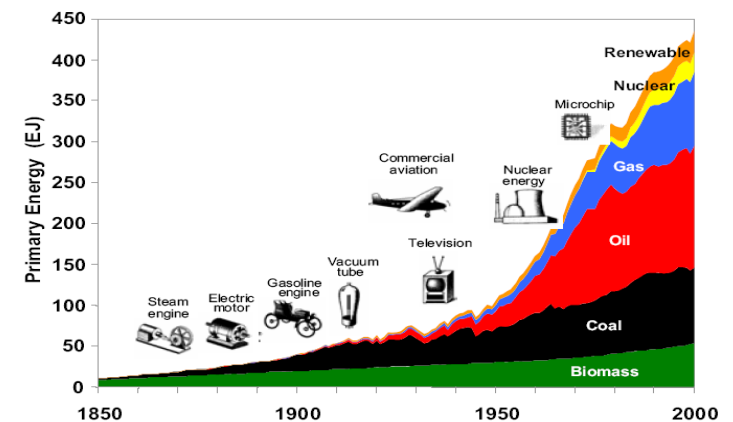


- **Third industrial revolution**

- **Future energy economics**

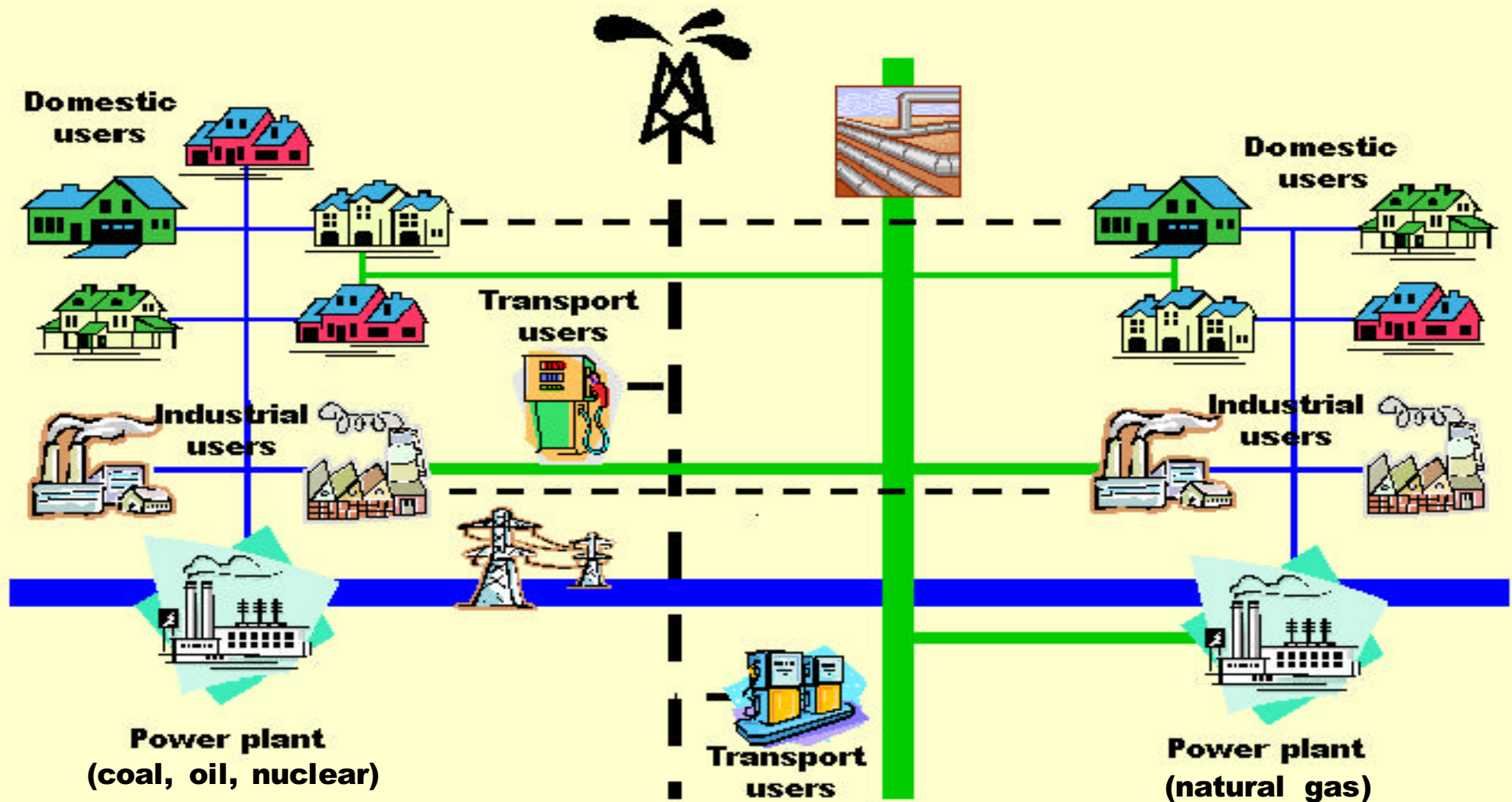
EU energy objectives

- greenhouse gas reduction
- sustainable production and consumption
- security of supply



Future energy systems

EU energy system today*

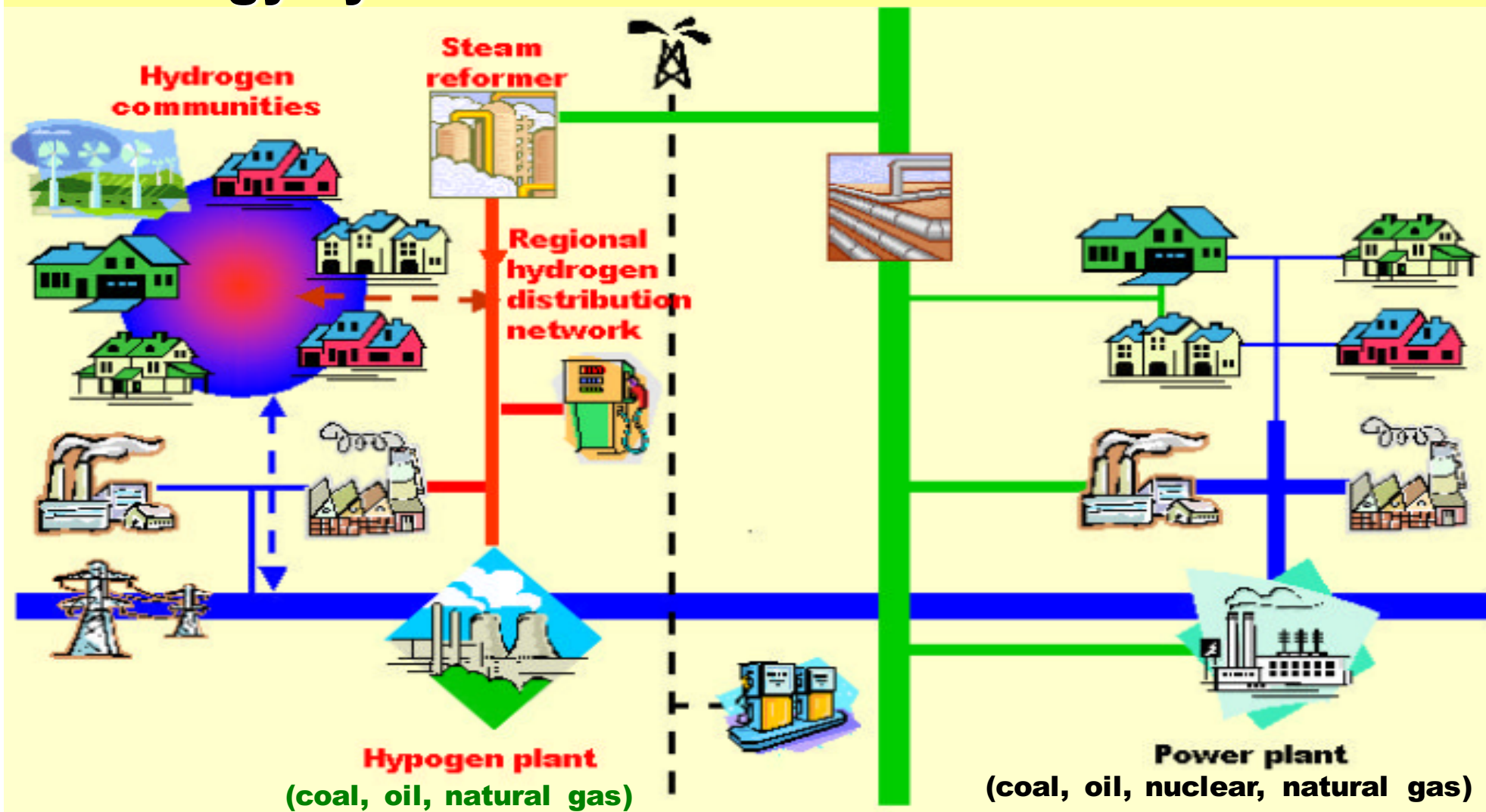


* Poullikkas A., 2009, *Introduction to Power Generation Technologies*, ISBN: 978-1-60876-472-3

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Future energy systems

EU energy system in 2020-30*

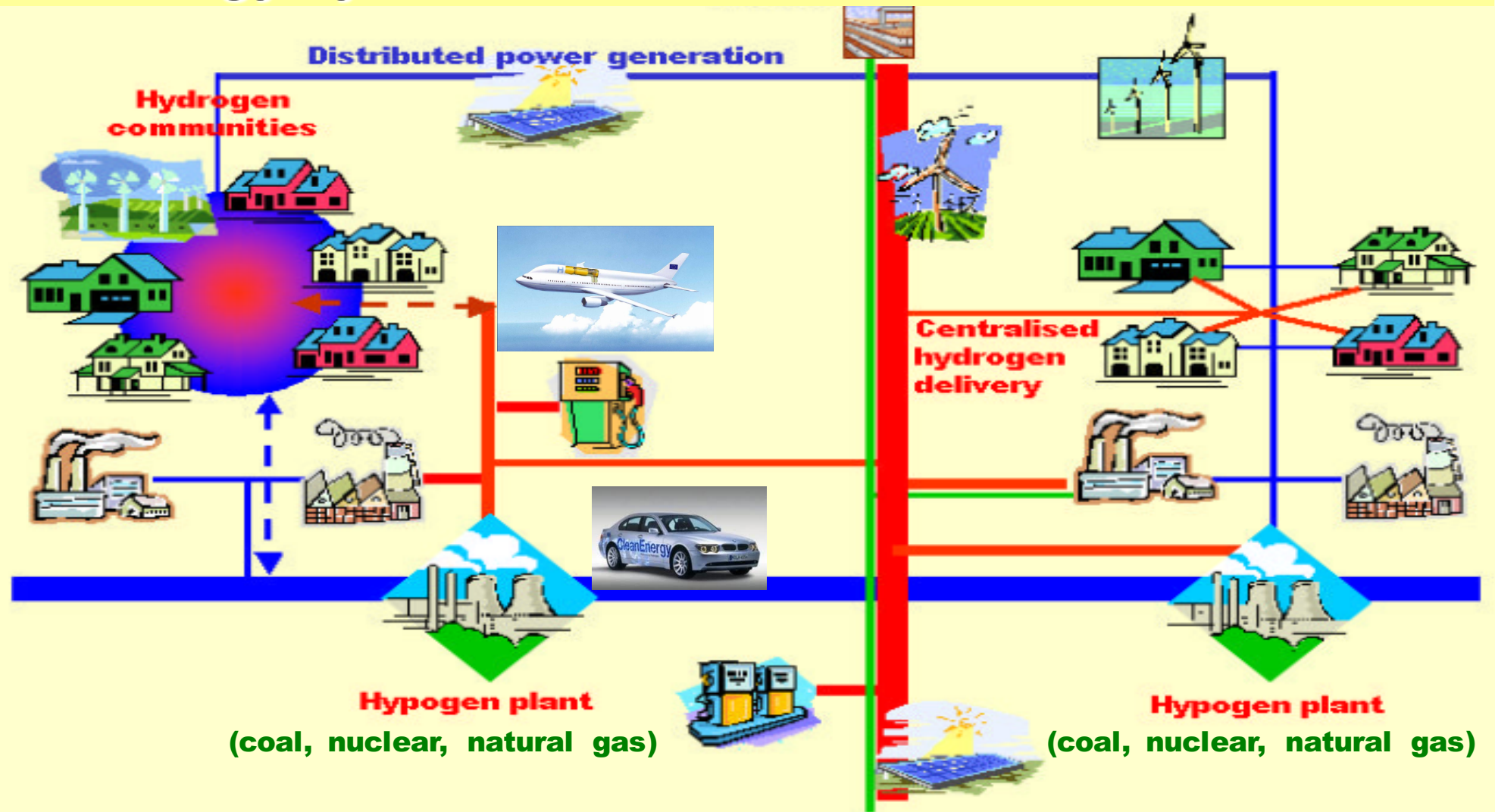


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Future energy systems

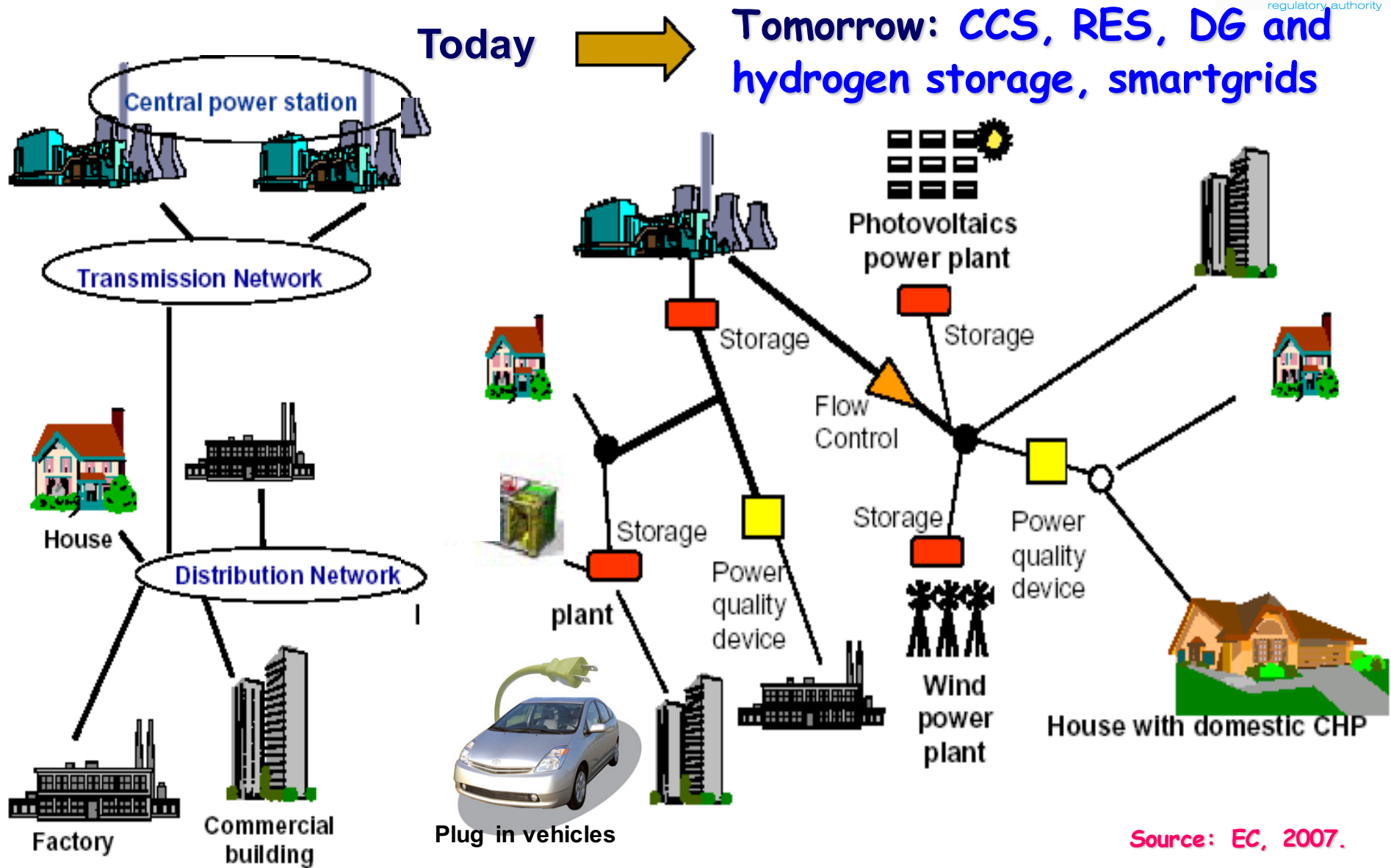
EU energy system in 2040-50*



* Poullikkas A., 2009, *Introduction to Power Generation Technologies*, ISBN: 978-1-60876-472-3

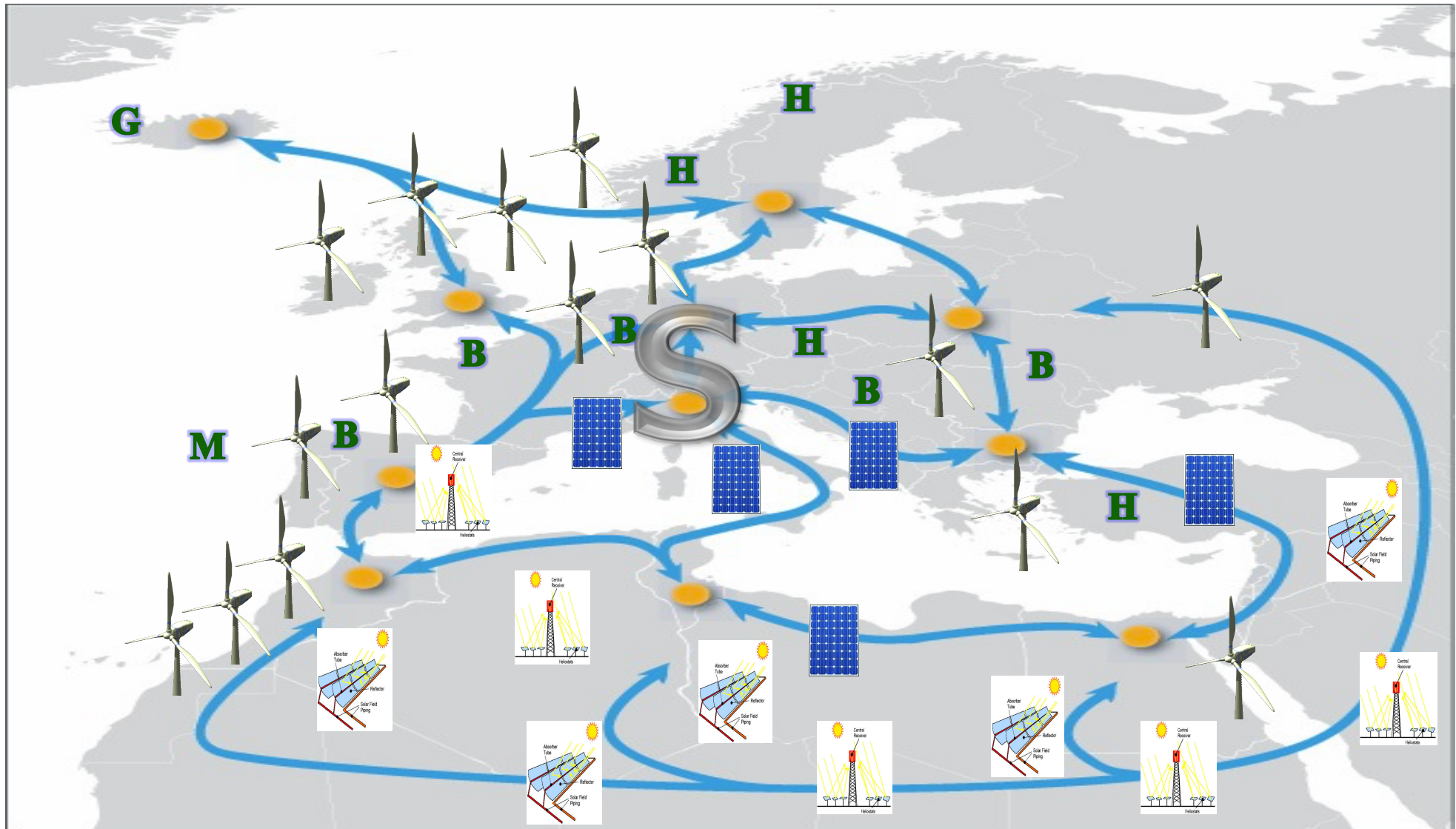
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Future PS



Source: EC, 2007.

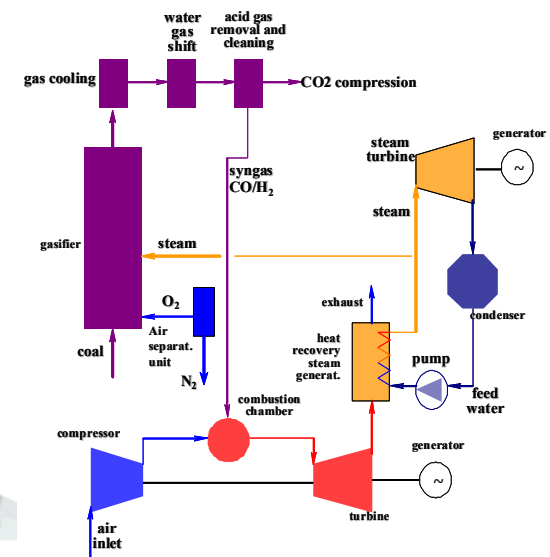
The Super Smart Grid after 2050 (may allow for 100% RES)



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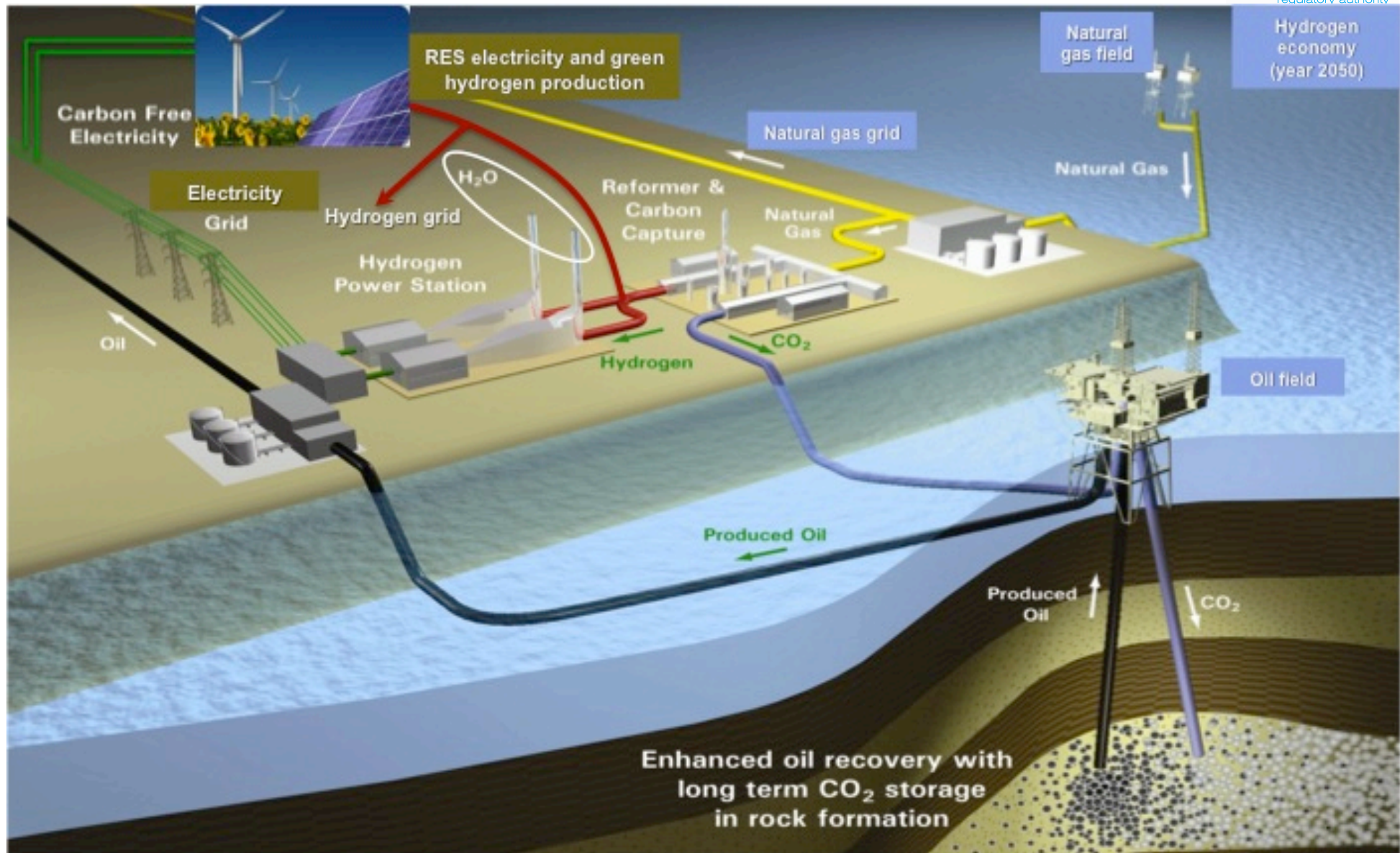
Main ingredients of future sustainable electric systems

- Large scale integration of renewable energy sources
- Distributed generation
- Carbon capture and storage
- Smartgrids
- Electric vehicles
- Storage devices
- Hydrogen



Development of new sustainable technologies and infrastructure

Towards hydrogen economy in 2050



Medium term strategies Towards 2030

Towards Energy Union

« *I want to reform and reorganise
Europe's energy policy
in a new European Energy Union.* »

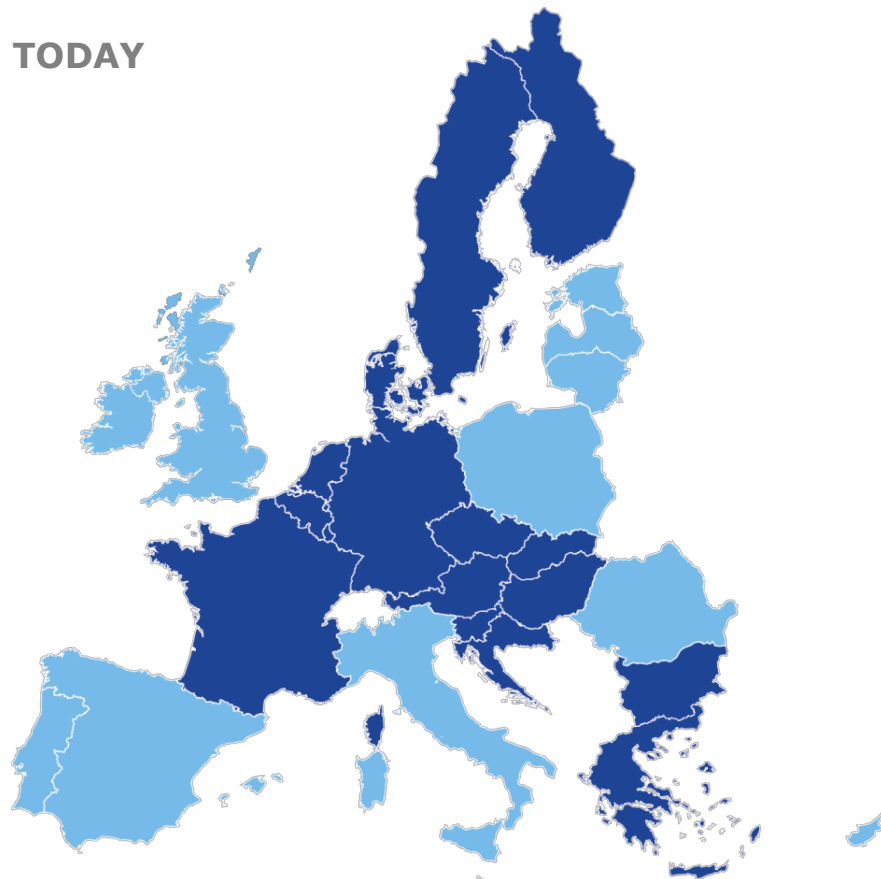
Jean-Claude Juncker

Energy Union

- **a binding EU target of at least 40% less greenhouse gas emissions by 2030, compared to 1990**
- **a binding target of at least 27% of renewable energy use at EU level**
- **an energy efficiency increase of at least 27%**
- **the completion of the internal energy market by reaching an electricity interconnection target of 15%**
- **increase energy security (natural gas South Corridor)**

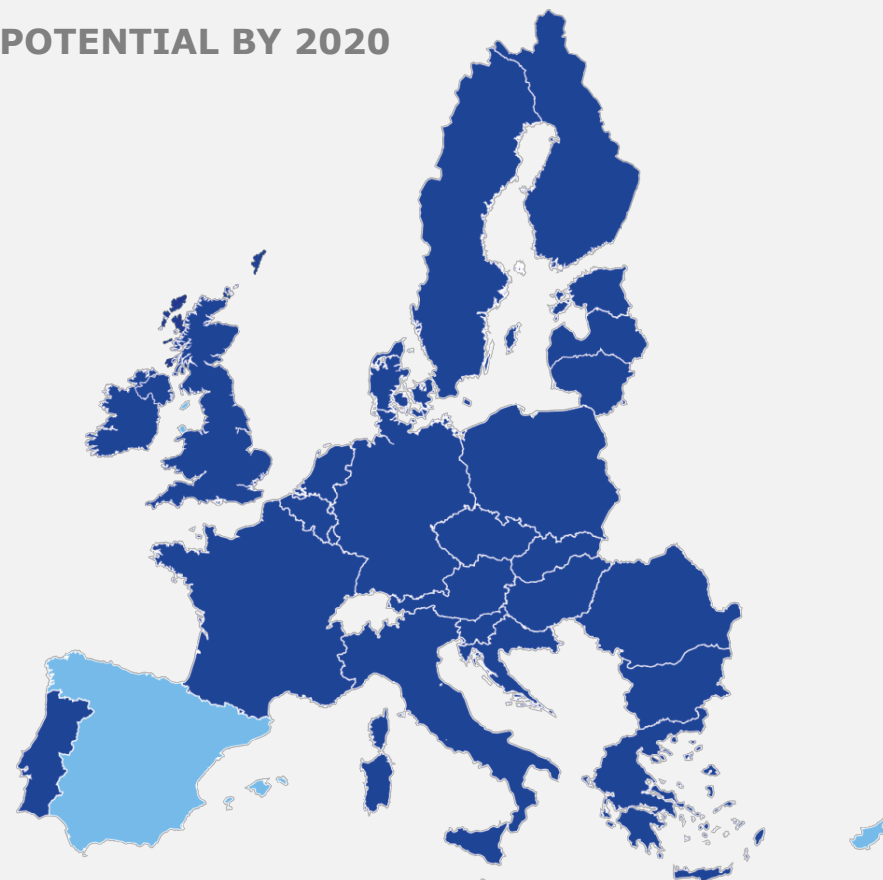
Connecting electricity markets

TODAY



- Countries meeting the 10% **interconnection** target
- Countries not meeting the 10% **interconnection** target

POTENTIAL BY 2020



Efforts need to be stepped up for those below the 10% target by 2020, mainly Spain and Cyprus, and in view of achieving the 15% target by 2030.

Importance for Cyprus



- **Great importance for Cyprus**
 - **Special attention is made to the more remote and isolated energy systems such as Cyprus**
 - **EU financing for electric interconnections with the rest of the internal energy market**
 - **implement critical projects of common interest in the gas sector, such as:**
 - **the Southern Gas Corridor**
 - **the promotion of a new gas hub in Southern Europe**
- **Action Plan**

CERA strategy

Towards 2020

Βραχυπρόθεσμες ενέργειες ΡΑΕΚ



- Εκσυγχρονισμός κανονισμών αδειοδότησης ηλεκτρισμού και φυσικού αερίου
- Δημιουργία πλαισίου αγοράς φυσικού αερίου
- Υλοποίηση του νέου μοντέλου αγοράς ηλεκτρισμού
- Ολοκλήρωση των διαδικασιών για τις νέες διατιμήσεις ηλεκτρισμού
- Ολοκλήρωση του λειτουργικού και λογιστικού διαχωρισμού της ΔΗΚ
- **Εκπλήρωση στόχων ΑΠΕ για το 2020**

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