



# *Energy market and policy in Europe: the way to Copenhagen*

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# EU Energy Policies : Future Action Plan and long-term view



- **Very substantial change in Europe's energy system over the coming years, with public authorities, regulators, infrastructure operators, private sector all actively involved.**
- **Specific national solutions are often insufficient; solidarity between Member States is a basic feature of EU membership.**
- **Share and spread risk, and to make the best use of the combined weight of the EU in world affairs can be more effective than several national actions. Europe wants to diminish its vulnerability to energy supply shocks.**
- **With producer countries outside Europe - Russia, Caspian countries - EU need to develop a new generation of “energy interdependence”.**
- **The EU’s agenda for 2020 has set out the essential first steps in the transition to a high-efficiency, low-carbon energy system.**
- **The EU needs to develop a vision for 2050. The fundamental technological shifts involved in decarbonising the EU electricity supply, ending oil dependence in transport, low energy and positive power buildings, a smart interconnected electricity network will happen with a coordinated agenda for R&D, regulation, investment and infrastructure development.**

# Strategic Energy Review and the EU internal energy market

- **An “Energy Security and Solidarity Action Plan” (European Commission, 13 November 2008):**
  - **Infrastructure needs, diversification of supplies**
  - **External Energy Relations**
  - **Oil and Gas stocks**
  - **Energy Efficiency**
  - **EU’s indigenous energy resources**
- **Measures approved by European Parliament in April 2009**
  - **Unbundling of networks (separating supply from transmission)**
  - **Cooperation of network operators**
  - **Independent National Energy Regulators and EU Agency for the Cooperation of Energy Regulators (ACER)**
  - **Improved market transparency and consumer rights**
- **The next package will give a push for further development of the internal market; investments urgently needed in production capacity and networks**

- **European Commission has launched a call for proposals covering key energy infrastructure projects: energy interconnections, offshore wind energy and carbon capture and storage**
  
- **In total nearly €4 billion worth of financial aid will be available to support new energy-related investments.**
  - a) **gas and electricity infrastructure projects (€2.365 billion)**
  - b) **offshore wind energy projects (€565 million)**
  - c) **CCS projects (€1.050 billion )**
  
- **Gas crisis showed the vulnerability of Europe with respect to its gas supply**

# EU Climate package – Background



- European Union’s “Climate action and renewable energy package” strategic objective is **to limit the global average temperature increase to not more than 2°C above pre-industrial levels.**
- European Energy and Climate Policy’s objectives:
  - Security of supply
  - Concerns about Europe’s increased dependence on few external suppliers
  - Ensuring the competitiveness of European economies and the availability of affordable energy
  - Promoting environmental sustainability and combating climate change
- Europe will be part of the solution mainly in terms of clean technology development. UE wants to lead the global process showing the way and demonstrating real and concrete efforts.

## EU Climate package – what is it?

([http://ec.europa.eu/climateaction/eu\\_action/index\\_en.htm](http://ec.europa.eu/climateaction/eu_action/index_en.htm) )



- At least a 20% reduction of greenhouse gas emissions in EU by 2020 compared to 1990
- 20% share of renewable energies in overall EU energy consumption by 2020
- Saving 20% of the EU's energy consumption compared to projections for 2020, as estimated by the Commission
- 10% minimum target to be achieved by all Member States for the share of biofuels in overall EU transport petrol and diesel consumption by 2020, to be introduced in a cost-efficient way.

# The EU Package

- **Regulation 443/2009 of the European Parliament and of the Council of 23 April 09 setting emission performance standards for new passenger cars as part of the Community's integrated approach to reduce CO2 emissions from light-duty vehicles**
- **Directive 2009/28/EC of the EP and of the Council of 23 April 09 on the promotion of the use of energy from renewable sources**
- **Directive 2009/29/EC of the EP and of the Council of 23 April 09 amending Dir 2003/87/EC so as to improve and extend the greenhouse gas emission allowance trading scheme of the Community**
- **Directive 2009/30/EC of the EP and of the Council of 23 April 09 amending Dir 98/70/EC as regards the specification of petrol, diesel and gas-oil and introducing a mechanism to monitor and reduce greenhouse gas emissions**
- **Directive 2009/31/EC of the EP and of the Council of 23 April 09 on the geological storage of carbon dioxide**
- **Decision 406/2009/EC of the EP and of the Council of 23 April 20 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020**

# Main instruments to achieve those targets

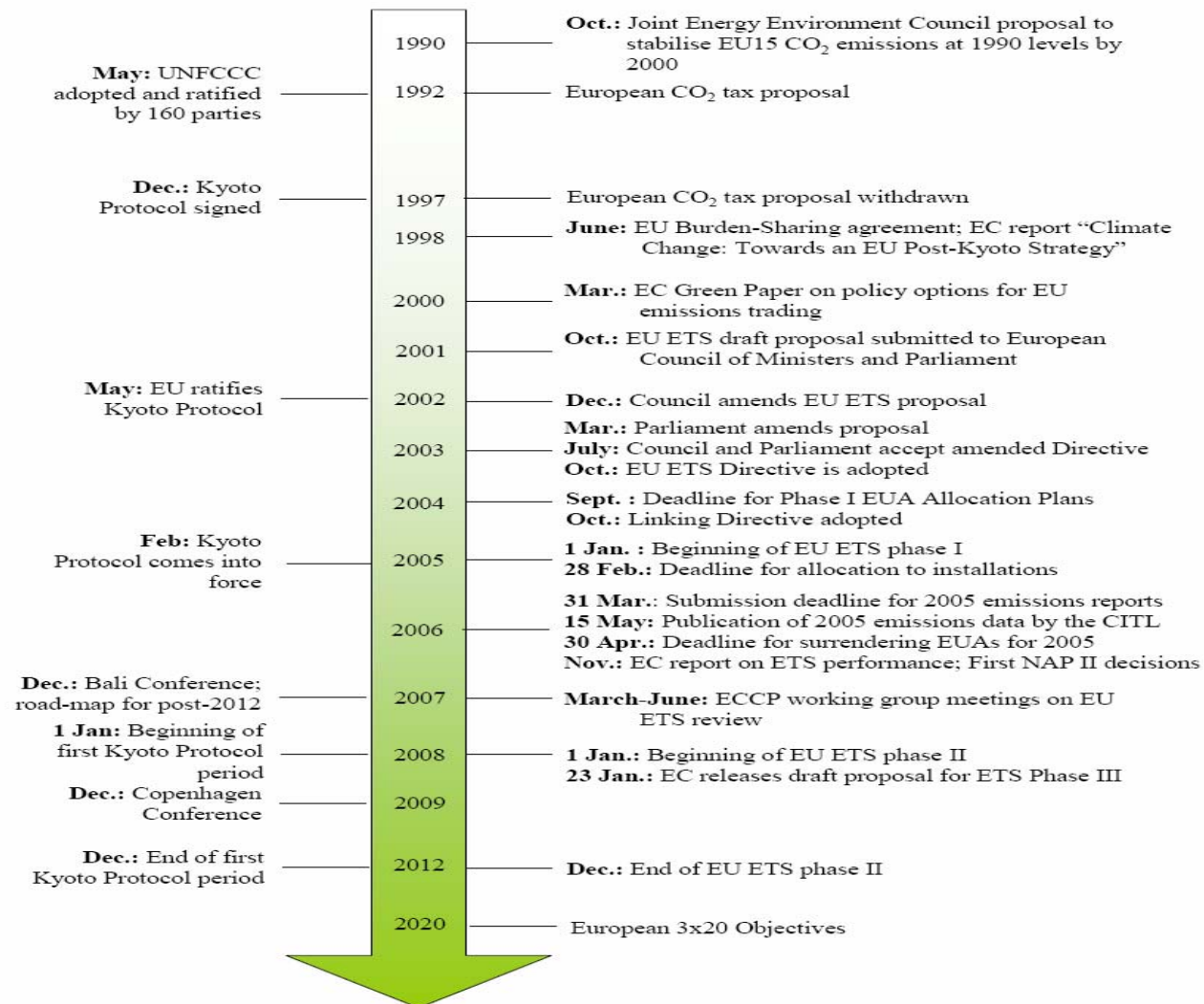
- **European Emission Trading Scheme (EU ETS) post - 2012 (Directive 2009/29/EC)**
  - Community-Wide cap and long-term target visibility
  - Extension of the scope of the EU ETS
  - Harmonized allocation methods
  - Funding projects mitigating GHG emissions
  - Strengthening of monitoring, reporting and verification procedures
  - Linking to other ETS systems
- **Binding emission targets for non ETS sectors (Decision 406/2009/EC)**
- **Binding targets for the renewable energy development (Directive 2009/28/EC)**
- **Support of the development of the Carbon Capture and Storage Technology (Directive 2009/31/EC)**

# The EU ETS works: a long story

([http://ec.europa.eu/environment/climat/emission/index\\_en.htm](http://ec.europa.eu/environment/climat/emission/index_en.htm))

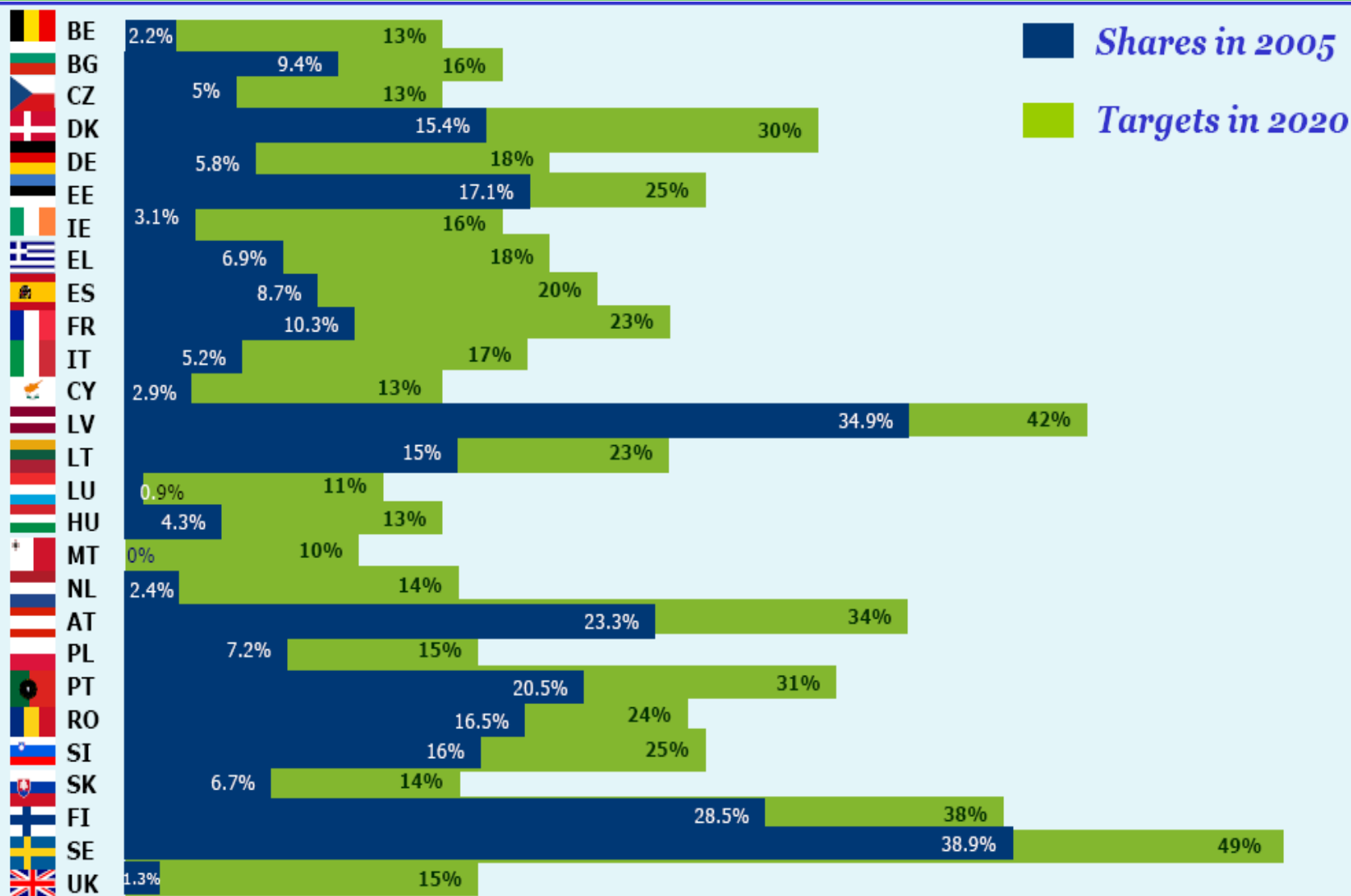
## International events

## European events



Source: Mission Climat of Caisse des Dépôts, 2008.

# EU-27 efforts in Renewables (Directive 2009/28/EC)



# Directive on the promotion of the use of Energy from Renewable Sources

- Member States to adopt “National renewable energy action plan”
- Measures of cooperation between different Member States and with third countries are allowed for compliance
  - **Possibility to export to Europe green electricity (Art. 9)**
  - Preparation of agreements between North and South countries
  - Standardization of agreements between States
  - Framework agreement on guarantees
  - Work with IFIs and MIGA (and other national agencies) to provide a framework for investors and lenders in terms of risk mitigation and guarantees

- Main sessions:
  - *Energy Strategies to Respond to Global Climate Change*
  - *Energy Investments for Security and Sustainable Development*
  - *Programme of Action to address Energy Poverty: Focus on Africa.*
- Positive discussion on definition of rules and principles for a new world energy leadership, to intensify the dialogue between energy producing, transit and energy consuming countries
- Side event: the *Energy Business Forum* debated on energy investments to cope with the present financial and economic crisis and on long-term strategies and investments particularly in the field of low-carbon energy technologies.
- Strong input on need for energy tech revolution from the Secretary of Energy of the USA, Mr. Chu

# G8 Energy Outcomes

- **Strong concern for oil price volatility and need to identify solution for long-term stability. The world need \$60-70 oil to sustain investment in both conventional production and research into alternatives**
- **Recommendations to boost the investments in renewable energies while supporting co-operation and private-public partnership**
- **Evidence that a growing number of countries consider nuclear power to diversify the energy mix, to increase power generation security and to reduce greenhouse gas emissions**
- **The G8 Energy Ministers + the Energy Ministers of Brazil, China, India, Mexico, South Africa, Algeria, Australia, Egypt, Indonesia, Korea, Libya, Nigeria, Rwanda, Saudi Arabia and Turkey agreed about energy investments and access for Africa.**
- **Launch of the International Partnership for Energy Efficiency co-operation (IPEEC), hosted at the International Energy Agency, that will facilitate the promotion and wide diffusion of EE worldwide by providing a high-level frame for discussion, consultation and exchange of information.**

## *Mediterranean Solar Plan: a development strategy for renewable energy in the Mediterranean Region*



- Background - Completion of a Mediterranean energy ring, linking Europe with the Southern Mediterranean through electricity interconnections to improve energy security and to help develop the vast solar and wind energy potential
- In the framework of the Union for the Mediterranean, the French Government launched this initiative with a target of 20 GW of new installed capacity (CSP, wind and PV) by 2020
- Identification of “bankable“ projects

### **Med Solar Plan could serve as a springboard for projects to facilitate their presentation to investors and financial institutions**

- MSP could provide a list of projects to the various lenders and investors involved in the financing of renewable energy

# Immediate action: 2009 - 2010

## Testing of 20-30 projects will allow:

- definition of policy framework (regulation, licensing, tariffs, agreements, harmonization ...)
- definition of financing tools
- technical feasibility of electricity export to EU

## Regional approach is recommended to boost energy market integration

To be mentioned: MEDREG (*Mediterranean Gas and Energy Regulators Assembly*), created in 2006 is a non-profit Association gathering energy regulators from Med region. The main objective of MEDREG is to promote a stable, harmonized regulatory framework in the EU-Mediterranean energy market, providing the maximum benefits to energy consumers in both regions.

**Large amount of financial resources available!**

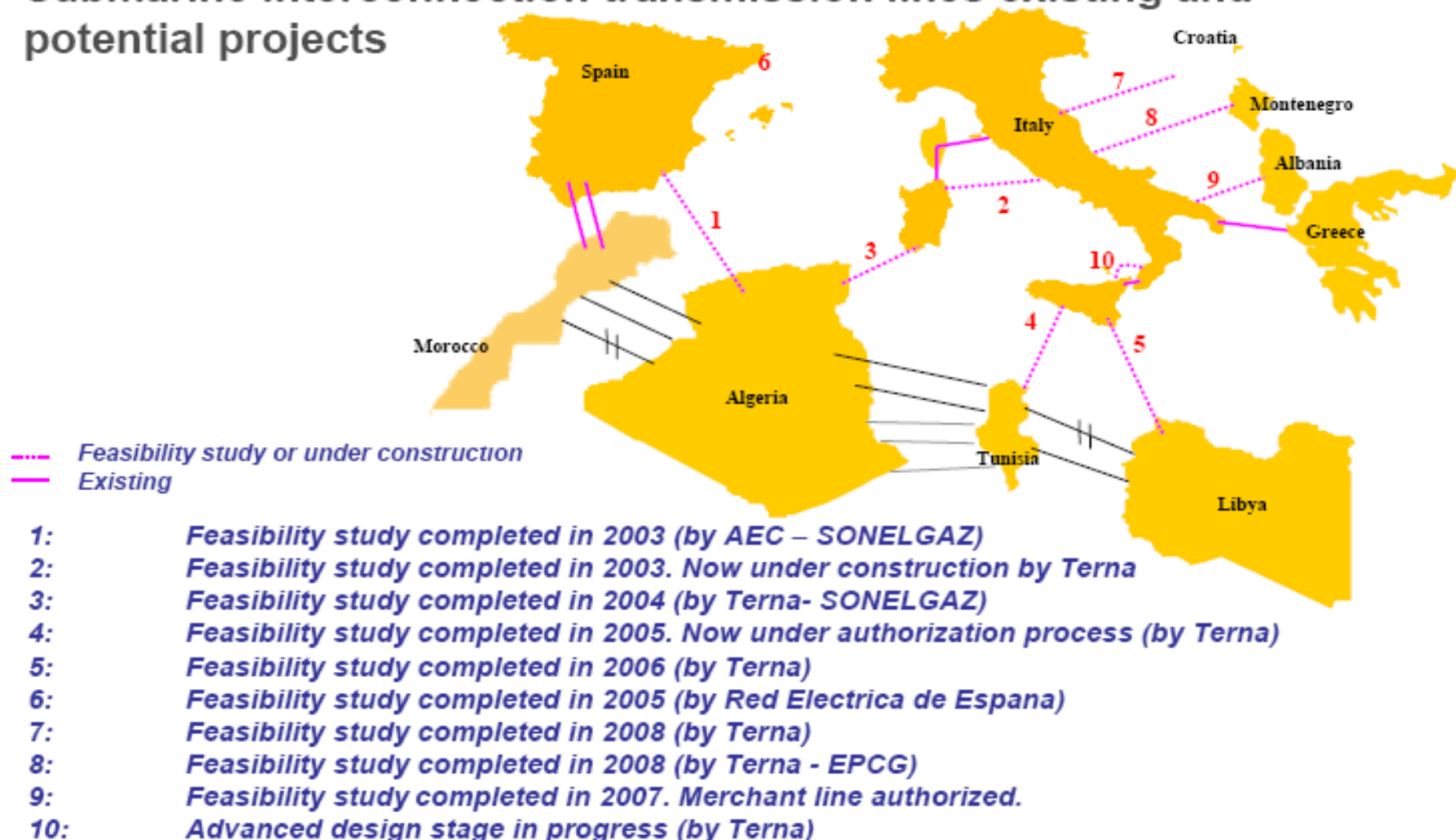
# Why develop interconnections for electricity in the Med Basin



- EU countries have low energy resources and high energy demand
- The opening of new corridors for electricity import can contribute to increase the security of the network, to mitigate the electricity price increase by favoring the cooperation with non-EU countries
- Within this scope Italian Transmission System Operator (Terna) has carried-out analysis on possible submarine interconnection lines in cooperation with various non-EU TSO of the Mediterranean Area.

# Italian TSO ongoing activity

## Italy: The electricity hub in the Mediterranean area Submarine interconnection transmission lines existing and potential projects





**Thank you**

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