

# Economic Crisis, Rescue Packages in EU 27 and Renewable Energy -



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EREF

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## ■ I. The setting under the Climate Threat



## Climate Change

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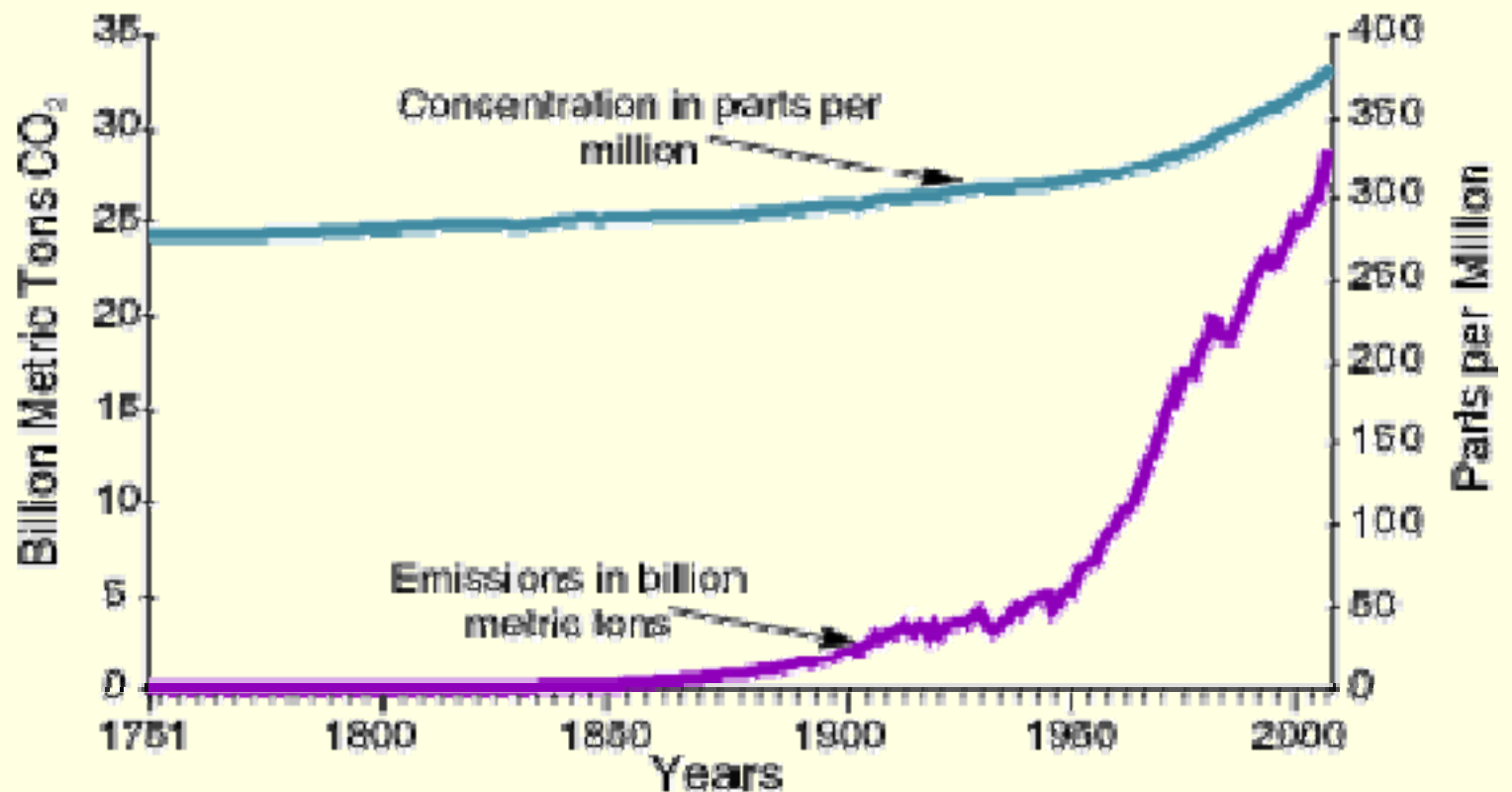
is the bill we pay for

- Ever increasing atmospheric CO<sub>2</sub> concentrations

Electricity generation is a major contributor

- Renewable energy with strict and intelligent efficiency is the key to tackle climate change timely
- No other energy technologies are ready to deliver by 2020 and in a sustainable way
- Renewable Energy as primary energy source to be deployed rapidly and globally
- No cherry picking and no “waiting for Godot” or “let others do the job”

## Global Dioxide Emissions and Carbon Dioxide Concentrations (1751-2004)



Source: Oak Ridge National Laboratory, Carbon Dioxide Information Analysis Center.

Dr. Doerte Fouquet, EREF-INFORSE, April 28 2009

# Stern Report 2006

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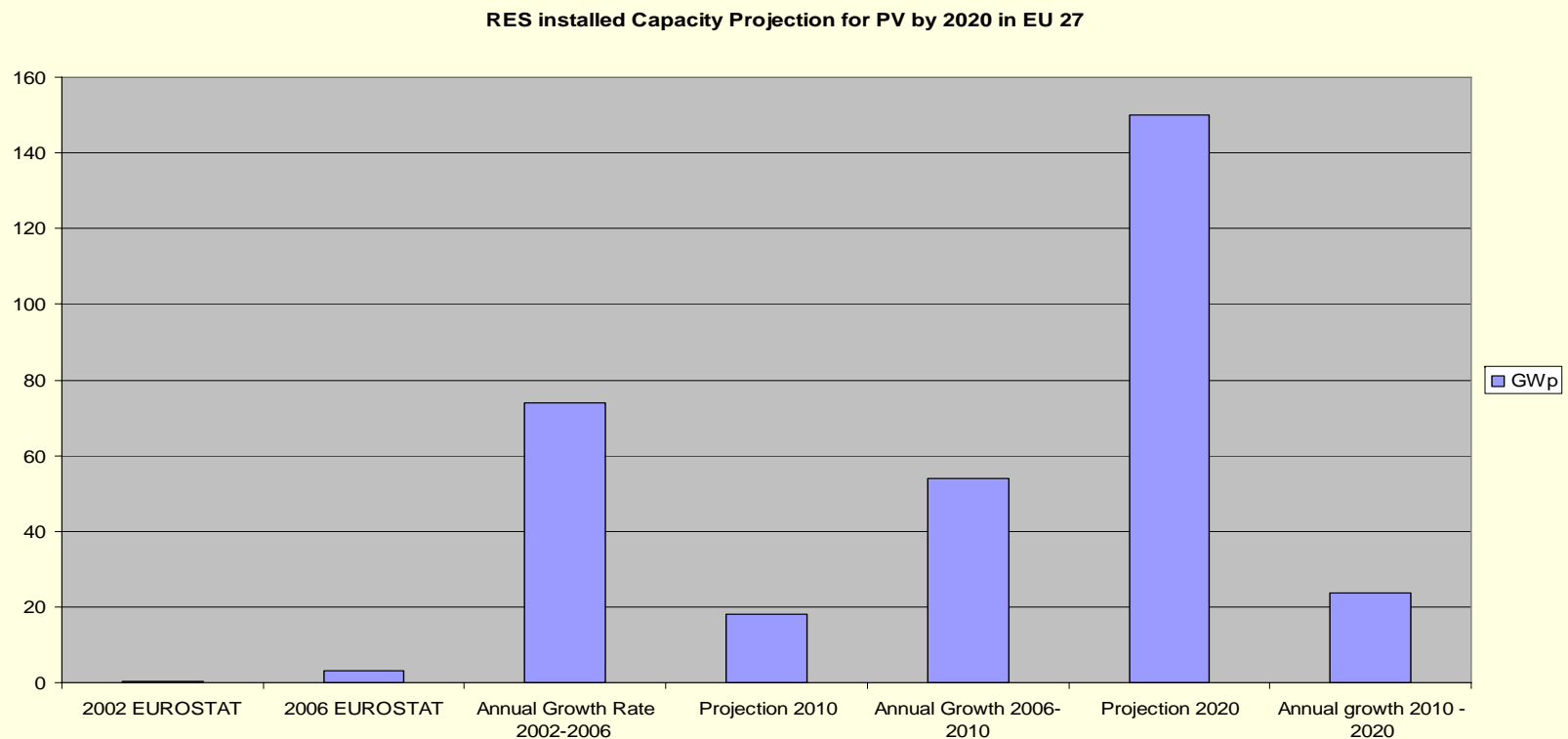
- Stabilising below 450ppm CO<sub>2</sub>e (in order to remain below 2° Celsius Temperature increase) would require emissions to peak by 2010 (at the latest – following recent scientific research) with 6-10% p.a. decline thereafter.
- If emissions peak in 2020, world can stabilise below 550ppm CO<sub>2</sub>e if we achieve annual declines of 1 – 2.5% afterwards.
- A 10 year delay may double the annual rate of decline required.
- Stern recently in Copenhagen during scientific conference in March '09 was less optimistic and calls for a lower temperature increase goal than -2°Celsius
- Stern Review on the Economics of Climate Change, [www.sternreview.org.uk](http://www.sternreview.org.uk)

# The objectives of Modern Energy Policies

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- The ultimate goal: avoid the cost of climate change impacts: 5-20% of global GDP (Stern)
- Rapid Deployment of renewables globally
- Large scale innovation in the energy sector
- First mover advantage, aiming for technological leadership in low carbon technology
- Significant energy efficiency improvements
- Energy security: reduction of oil and gas import (EU : €50 billion per year (at \$61 per barrel of oil)
- Reduced air pollution giving significant health benefits
- Reduced need for air pollution control measures: €11 billion per year in 2020 in EU
- Worldwide energy gap in 2020 calls for min. ~5TW of Renewables (IPCC)

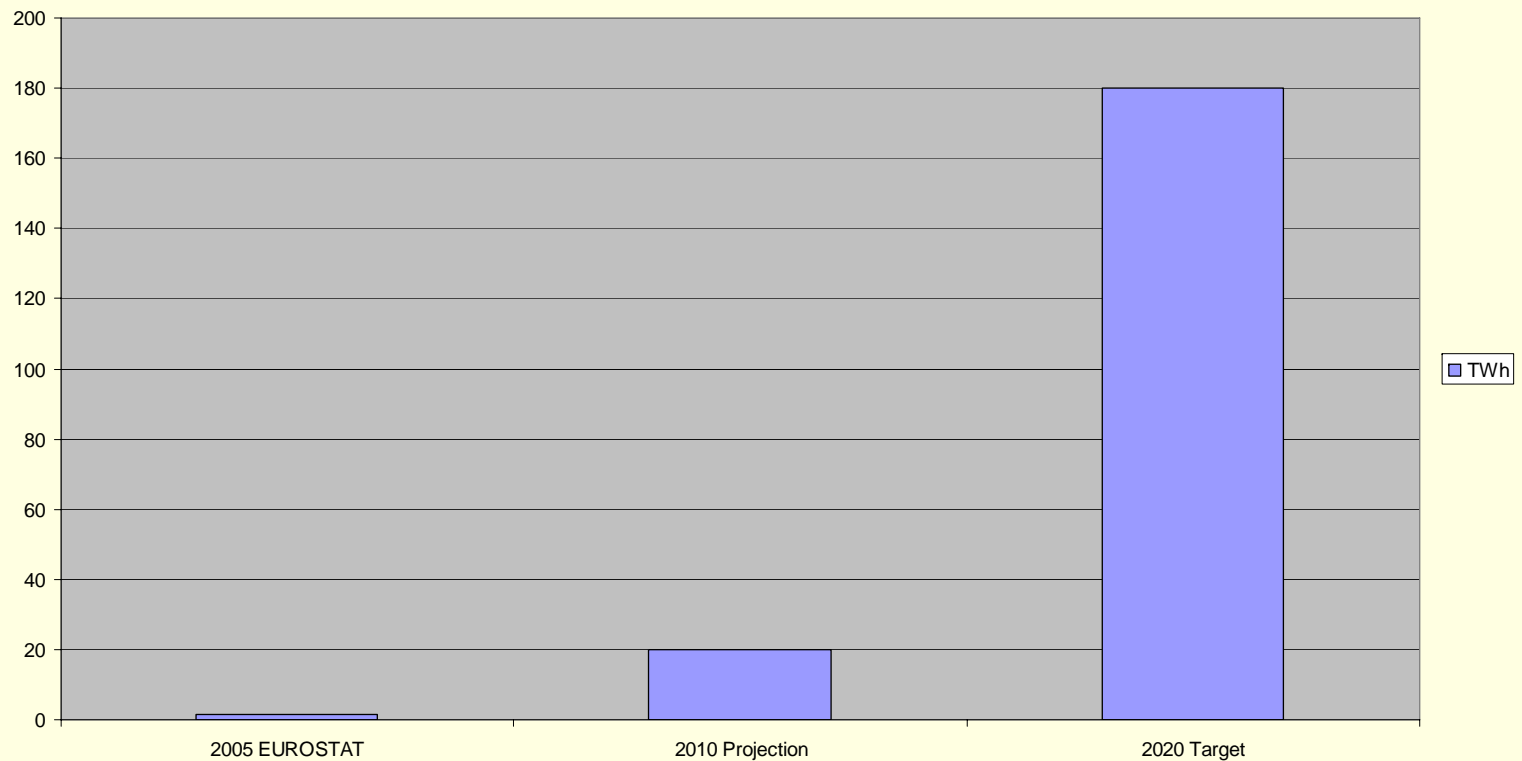
# Example: RES Installed Capacity Projection for PV by 2020 in EU27



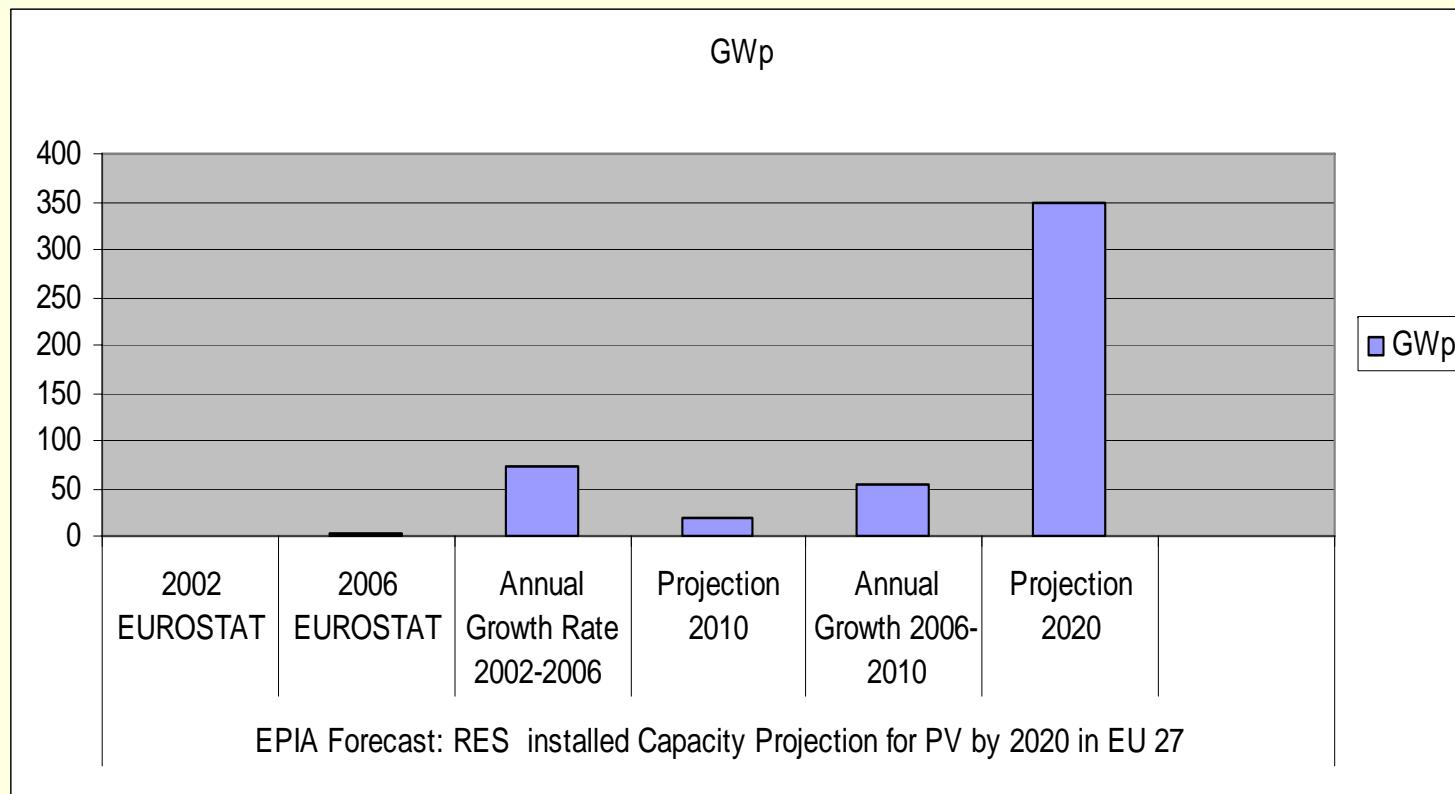
Source: Doerte Fouquet, own calculations, based on EREC "Renewable Energy Technology Roadmap" 2009

# Projection: contribution of PV to Electricity Consumption in EU 27

Projection: Contribution of PV to Electricity Consumption in EU 27



# EPIA Forecast for 2020



## II. Reality for Renewables support under the Economic Crisis

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■ And now?

# A Pile of Broken Glass from Lack of Steering and Control

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- At the end of 2008:
  - Wall Street is technically socialised by US government's more than 800 billion dollar financial industry bailout
  - EU 27 forced to commit more than 1.8 trillion Euros (2.45 trillion dollars) to banks and the money markets taking direct full or partial ownership - Germany alone included 400 billion Euros in loan guarantees and 80 billion Euros in fresh capital - and these figures are all already outdated and look modest

# Stubborn Refusal by Finance sector to be controlled and Governments who failed to govern

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- Markets need reining in (Peter S. Goodman)
- But: Dominance of inefficient control over the finance sector - as it is still constantly overlooked for parts of the incumbent energy sector – following the Holy Grail of markets as a place where “*everyone is at liberty to pursue self-interest*” (from Adam Smith to Milton Friedman and Alan Greenspan)
- Both failed - greedy bankers and blind politicians

# New Rules – laissez faire revisited or flexibility tools?

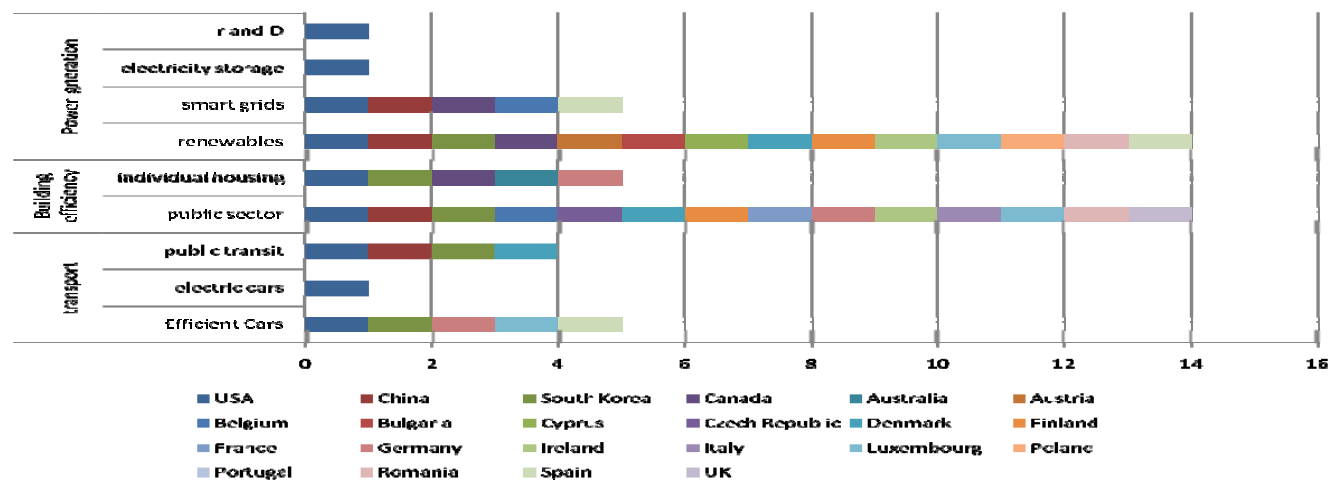
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- On the 26th of November 2008 the European Commission suggested that EU countries should spend billions of euro to kick-start their economies, saying it would tolerate higher budget deficits under strict conditions and for a limited period of time (<http://www.euractiv.com/en/euro/commission-tables-200-euro-recovery-plan/article-177547>).

# Credit Crunch and Renewables

- Green Energy Finance, April 2009:
  - Globally, more than 60 % less new projects in renewable energy in 2009 than one year ago

## Green Packages



Source: Antony Froggatt, Chatham House

# Green collar and Green bonds – is the message heard in Europe?

- A need for

- comprehensive array of new checks and balances on the financial sector
- range of new economic instruments ranging from new green bonds to business incentives and taxes.

- A need for an environmental stimulus package sustainably softening the worst impact of the recession, creating countless jobs in the environmental and renewable energy sector and laying the foundations for a green recovery.

- But: what are government doing that is new and additional to stimulate the economy by spending on the environment?

The answer : majority still missing a huge opportunity –to boost the economy, ensure energy security and to act on climate change by diverting and by directing new and additional resources into the environmental transformation of the economy.

- **UK example:** new and additional green spending - small compared with other recent spending commitments, at just 0.6% of the UK's £20bn recovery plan. This means just 0.0083% of UK GDP, yet in the wake of the banking crisis nearly 20% of UK GDP has been provided to support the financial sector.

Those new measures are likely to save just meagre 0.128 million tonnes of carbon dioxide (MtCO<sub>2</sub>) per year from the atmosphere.

“Just over £100m of genuine new spending was allocated, making up a fraction – less than 13% – of the annual bonus package given to staff at the failed Royal Bank of Scotland (RBS), estimated at £775m. £100m represents just 0.0083% of UK GDP. “  
(David Lowry, UK)

# Autobahn- Policy still the top priority

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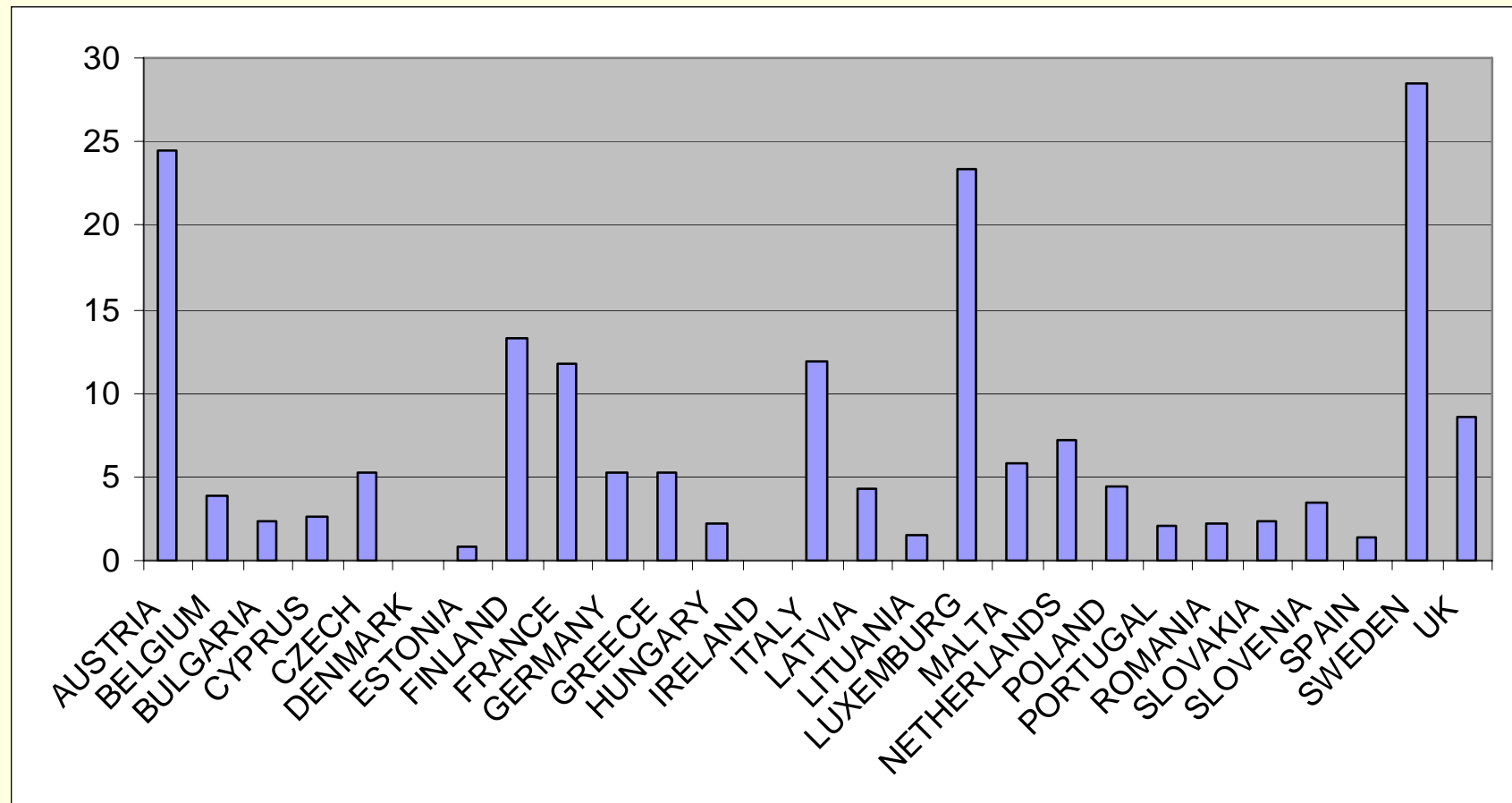
- Despite some positive opening towards renewable industry as one key factor for recovery in many European countries especially also in the old Member States the classic infrastructure projects remain at the forefront.
- Italy seems to give up on any increased renewable and efficiency policy or the potential of these industries to deliver, for the time being.
- The new Member States from Central and Eastern Europe show the least courageous and a divided picture with
- Slovenia, Slovakia, Latvia, Lithuania, Hungary providing no opening towards renewable industry stimulus and
- Czech Republic at least mentioning energy efficiency, Poland and Romania opening towards more Renewable stimulus and Bulgaria, Estonia and Romania tabling support to concrete Renewable Energy projects
  - Source: Dr. Doerte Fouquet, Heleen Witdouck Economic crisis, Rescue Packages in EU 27 and Renewable Energy, 2009 ([www.eref-europe.org](http://www.eref-europe.org))

# EU Cohesion Policy investment for 2007 -2013 and its Renewable Share

Country	Renewable energy	Total sum	%
AUSTRIA	24.237.408	99.002.800	<b>24,48154</b>
BELGIUM	11.851.495	302.862.920	<b>3,913155</b>
BULGARIA	66.491.830	2.822.429.736	<b>2,355837</b>
CYPRUS	5.950.000	227.439.324	<b>2,616082</b>
CZECH	567.934.283	10.724.513.902	<b>5,295665</b>
DENMARK	x	38.234.907	
ESTONIA	10.200.299	1.226.412.897	<b>0,831718</b>
FINLAND	20.682.247	156.149.164	<b>13,24519</b>
FRANCE	365.435.057	3.111.467.575	<b>11,74478</b>
GERMANY	226.110.262	4.278.044.920	<b>5,285364</b>
GREECE	292.840.000	5.504.902.683	<b>5,319622</b>
HUNGARY	202.892.004	9.409.516.660	<b>2,156243</b>
IRELAND	x	153.800.000	
ITALY	1.049.129.004	8.875.388.850	<b>11,82065</b>
LATVIA	67.180.000	1.579.529.067	<b>4,253166</b>
LITHUANIA	36.763.789	2.423.064.502	<b>1,517244</b>
LUXEMBURG	1.767.056	7.573.099	<b>23,33333</b>
MALTA	18.400.000	318.270.000	<b>5,781255</b>
NETHERLANDS	21.215.400	296.626.500	<b>7,152227</b>
POLAND	775.795.217	17.776.783.973	<b>4,364092</b>
PORTUGAL	104.650.199	5.158.120.282	<b>2,028844</b>
ROMANIA	191.542.611	8.633.971.528	<b>2,218476</b>
SLOVAKIA	90.252.216	3.834.535.930	<b>2,353667</b>
SLOVENIA	54.186.553	1.575.300.518	<b>3,43976</b>
SPAIN	164.357.038	11.996.931.598	<b>1,369992</b>
SWEDEN	52.342.949	183.449.513	<b>28,53262</b>
UK	136.776.913	1.598.767.042	<b>8,55515</b>

EU cross-border cooperation 223.347.167 2.723.100.026 8,201945

# Cohesion Policy investment in RES II



# EU Economic Recovery Plan

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- **11-12 December 2008: The European Council approved a European Economic Recovery Plan, equivalent to about 1,5 % of the GDP of the European Union (a figure amounting to around EUR 200 billion).**
- The European Council urges banks and financial institutions to make full use of the facilities granted to them to maintain and support lending to the economy and pass on key interest rate reductions to borrowers.
- Particularly guarantee mechanisms, are actually applied so as to help lower the cost of financing for financial institutions, for the benefit of enterprises and households

## Some highlights from rescue package which are of potential usefulness for RES

- Increase in intervention by the European Investment Bank of EUR 30 billion in 2009/2010, especially for small and medium-sized enterprises, **for renewable energy** and the creation of the 2020 **European Fund for Energy, Climate Change and Infrastructure** ("Marguerite Fund") in partnership with national institutional investors;
- Simplification of procedures and faster implementation of programmes financed by the Cohesion Fund, Structural Funds and the European Agricultural Fund for Rural Development with a view to strengthening investment in infrastructure and in energy efficiency;
- Mobilisation to promote employment in particular by the European Globalisation Adjustment Fund, Reduced VAT rates in certain sectors
- Temporary exemption of two years **beyond** the de minimis threshold for State aid in respect of an amount of up to EUR 500 000 of aid and the adaptation of the framework, as required to increase support for enterprises, especially SMEs, and full implementation of the action plan for a Small Business Act adopted by the Council on 1 December 2008;
- 2009 and 2010 accelerated procedures in the public procurement directives, justified by the exceptional nature of the current economic situation, in order to reduce from 87 to 30 days the length of the tendering process for the most commonly-used procedures for major public projects;

# EU Recovery Plan – Some injection for Renewable energy

- **€5 billion new investment in energy and Internet broadband infrastructure in 2009-2010, in support of the EU recovery plan - meaning**
- **For energy projects:**
- **a proposal for a Regulation to grant Community support to strategic energy projects:**
- **A total of €3.5 billion for investment in carbon capture and storage (financial envelope: €1,250 million),**
- **offshore wind projects (ca €500 million), concrete list of projects (the vast majority owned by E.ON, Vattenfall and Dong)**
- **and gas and electricity interconnection projects (€1,750 million; from that €705 million for Electricity interconnection).**
  
- **Very difficult choice and setting, especially in view of polluter pays principle, market balance, recovery quality short term**

# Current situation on the Rescue Package

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- Vote March 31st in the ITRE Committee. 565 million € on off-shore wind were approved, the chair of the meeting refused voting on an additional project category for “smart energy cities”. The idea of green bonds did not find its way into voting either.
- Where financial assistance cannot be directed to listed projects due to their lacking progress and investment maturity in 2009 and 2010, the Commission should, not later than 1 September 2009, submit a new proposal on the eligibility and selection criteria for energy projects, particularly in the field of energy efficiency and renewable energy (e.g. smart energy cities), in order to redirect the unspent sums to these projects.
- The majority of the Offshore Wind projects pre-selected are owned by Vattenfall, E.ON and Dong. The following table underlines the inadequacy for such a decision in the light of Rescue urgency and in view of the difficult situation to get financing for IPPs on the market:

# The Difference – A risk of crony capitalism?

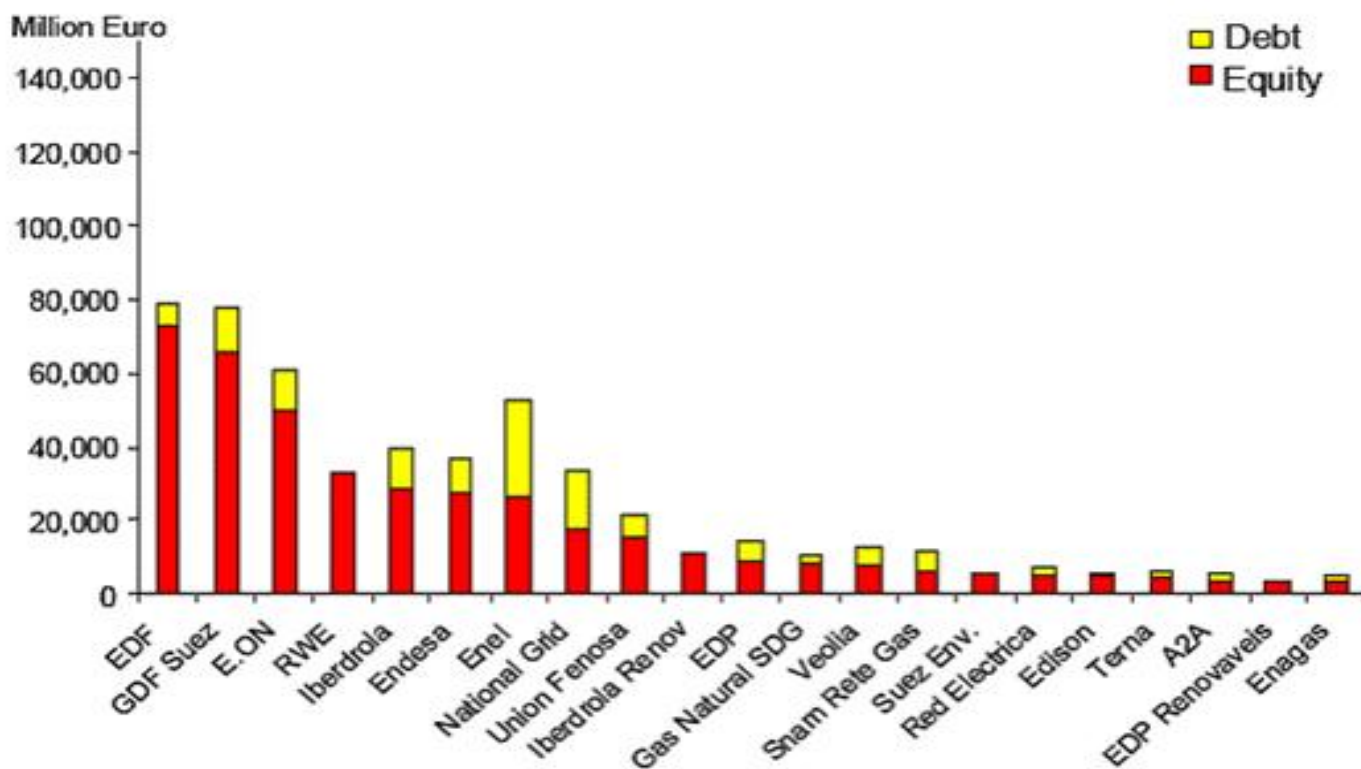


Figure 4. Finance structure of some major European Utilities.

Source: Karsten Neuhoﬀ, Implementing the EU Renewables Directive EPRG Working Paper 0908, Cambridge Working Paper in Economics 0913, March 2009, (Electricity Policy Research Group)

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