

MED-EMIP

Euro - Mediterranean Energy Market Integration Project

**“A vision for 2050 is welcome, but
were do we like to be in 2020” !**

2nd **DII** Desert Energy Conference Cairo 2011

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**“The contents of this publication are the sole responsibility of
the author and can in no way be taken to reflect the views of the
European Union”.**



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Euro - Mediterranean

Energy Market Integration Project

Support for the enhanced integration and
the improved security of the
Euro-Mediterranean energy market

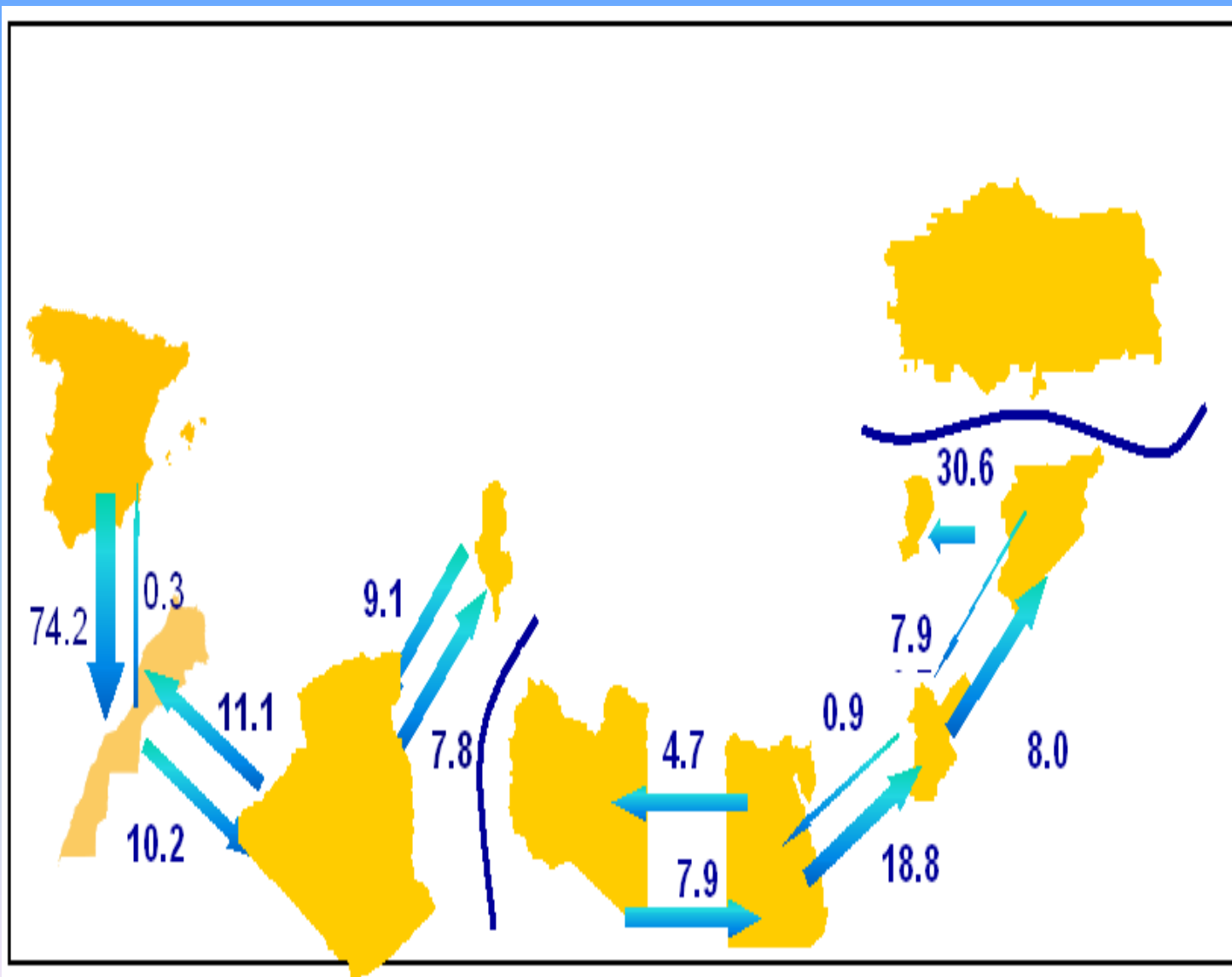
The three power integration barriers we all know by now



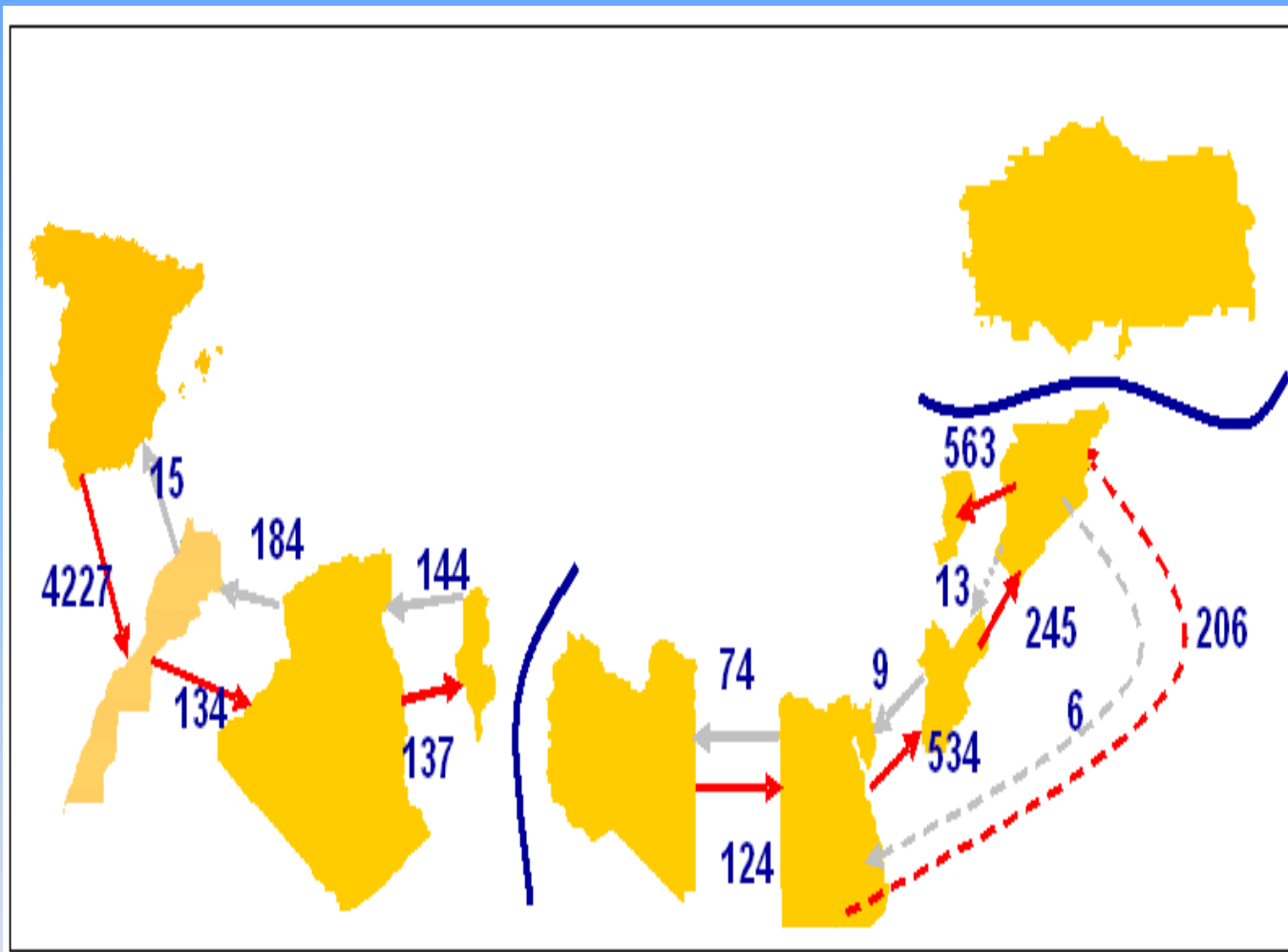
What we don't know

- Who is presently **in charge** of removing the barriers ?
- What progress has been made, if any, in the last 5 years
- Is there any **commercial** interest to remove them ?

Trading and average load factor, %



Trade GWh / year (less 1% of total), 2009



Excludes the electricity received by Morocco from Spain.
 Basis is 382,967 GWh generated in 2010



This project is funded by the European Union

Primary Observation

There is either little commercial interest or no financial attractiveness to trade larger amounts of electricity

OR

There is not enough generation capacity available for trading in times of need.



Smaller Step Recommendation -1

Institutionalize and merge transmission and power plant map updating and visualization of ENTSO-E map and AUE maps. (Unfinished work of MED-EMIP)



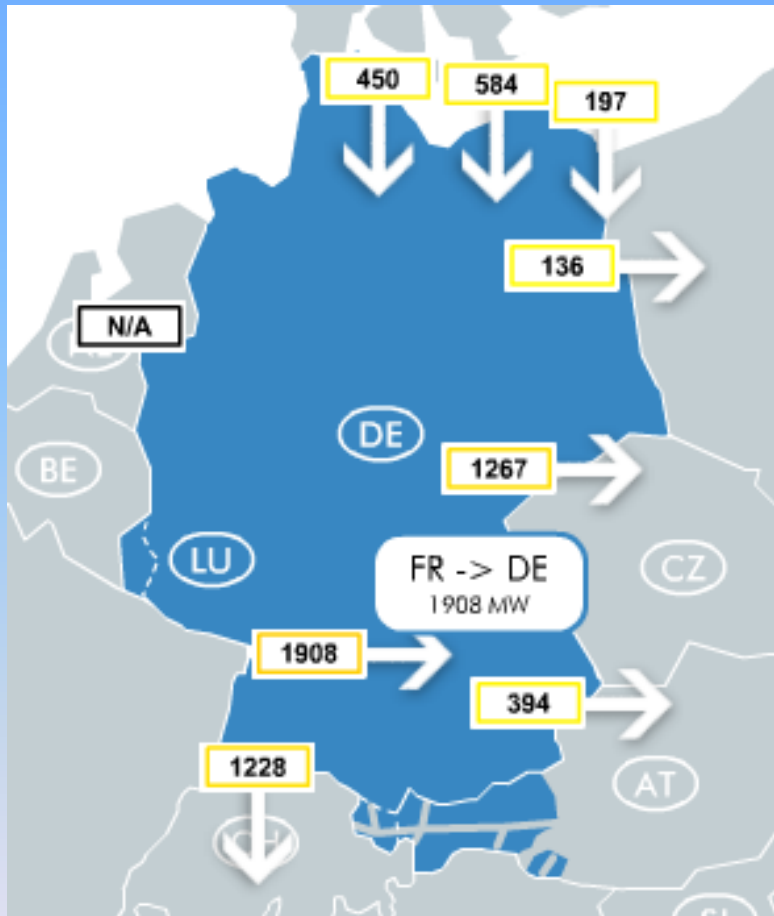
Morocco and Spain



Syria and Lebanon



Smaller Step Recommendation - 2



Institutionalization of online visualization of cross border physical flow in MW.

Example shows flow by selecting the day and hour which may be too detailed.

<http://www.entsoe.net/data.aspx?IdMenu=1>



Web Page Information Sample, AUE

COUNTRY	Total	Others	Industrial	Commercial	Residential
JORDAN	12,843	2,182	3,258	2,184	5,220
UAE	84,404	17,659	7,591	28,246	30,908
BAHRAIN	12,142	49	1,408	4,720	5,966
TUNISIA	12,862	884	7,490	897	3,591
ALGERIA	35,803	1,581	15,032	7,432	11,758
SAUDI ARABIA	212,263	35,757	38,569	29,310	108,627
SUDAN	6,026	1,066	978	888	3,094
SYRIA	33,654	3,446	11,318	3,497	15,393
IRAQ	31,951	6,913	6,283	2,193	16,562
OMAN**	-				
PALESTINE	4,443	683	370	450	2,940
QATAR	-	-	-	-	-
KUWAIT	50,136	16,545	6,016	3,510	24,065
LEBANON**	-	-	-	-	-
LIBYA	22,028	9,483	3,428	2,694	6,423
EGYPT	118,903	22,882	38,916	9,674	47,431
MOROCCO	13,323	1,943	6,034	1,562	3,783
YEMEN	5,036	566	54	1,063	3,353
G.TOTAL	655,817	121,638	146,745	98,320	289,113

GWh Consumption 2010



Larger STEP: Prepare for harmonization of cross border trading practice rules and regulations

Major argument against it: There is not much trade anyway in the region. Why bother ?


Major argument for it: It will in any case take years to reach an agreement that may be needed as soon as the MEDRING is closed or export into the EU is started. Therefore let us start now to discuss harmonization of cross border rules and regulations.



Final remark

By now we also know that production of 1 kWh of solar electricity in this region costs about only 50% of what it would cost in the ever changing geographical center of the EU.

This   suns region exports into  sun regions

How competitive any export of this electricity is into the one  EU states depends on the transmission costs as well as technical losses over thousands of kilometer

We need more precise cost estimates for real export scenarios that go beyond the numerous order of magnitude speculative figures of 1- 3 c/kWh. *Who could do that within 3 months !*



Relevant Web Pages for additional Information

http://ec.europa.eu/energy/international/euromed_en.htm

<https://www.entsoe.net/data.aspx?IdMenu=1>

<https://www.entsoe.eu/resources/>

<http://www.auptde.org/NewSite/>

<http://www.medemip.eu/WebPages/Common/Default.aspx>





88% of the mass of an iceberg is hidden under water.

The same applies about the collectively published know how of the power sector in the region





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THANK YOU

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