

E.U. Gas Import Diversification: How Feasible is it?

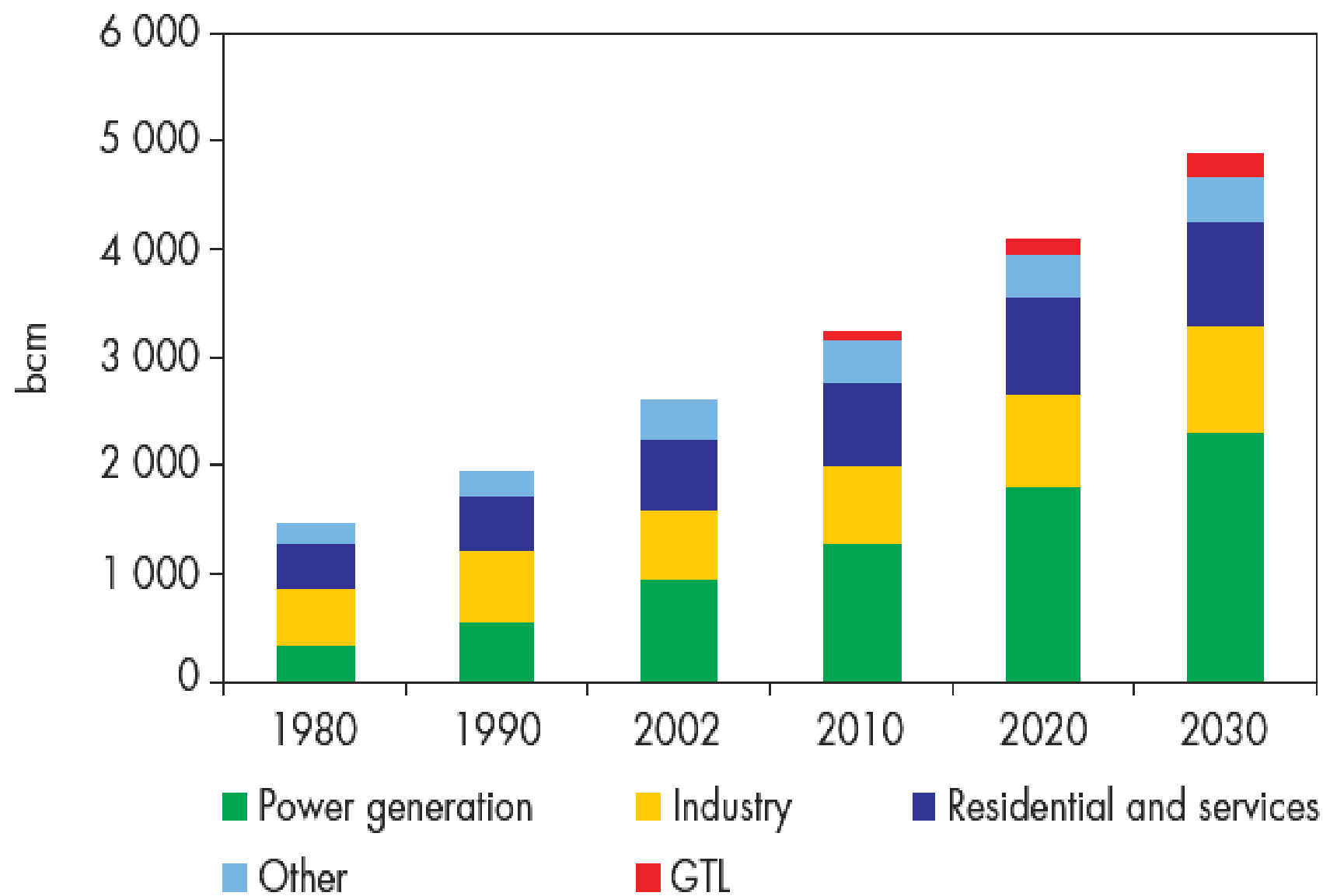
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Why is Natural Gas Critically Important for the E.U. Energy Mix?

- In the 1970s the rapid introduction of Natural Gas in the European TPES emanated from the need to lower European dependence on Mid-eastern/Persian Gulf Oil imports both quantitatively and qualitatively. Major emphasis given on replacement of oil from the Industrial and R&D sectors, goal achieved with the help of Soviet imports in the mid-1980s.
- Since early 1990s environmental considerations have come to the fore and the pattern of demand has steadily shifted from Industry and R&D to Electricity Generation. By 2002 Gen. accounted for 36% of total Gas demand. To reach 50% by 2030. World-wide 59% of incremental demand to 2030 to Generation.



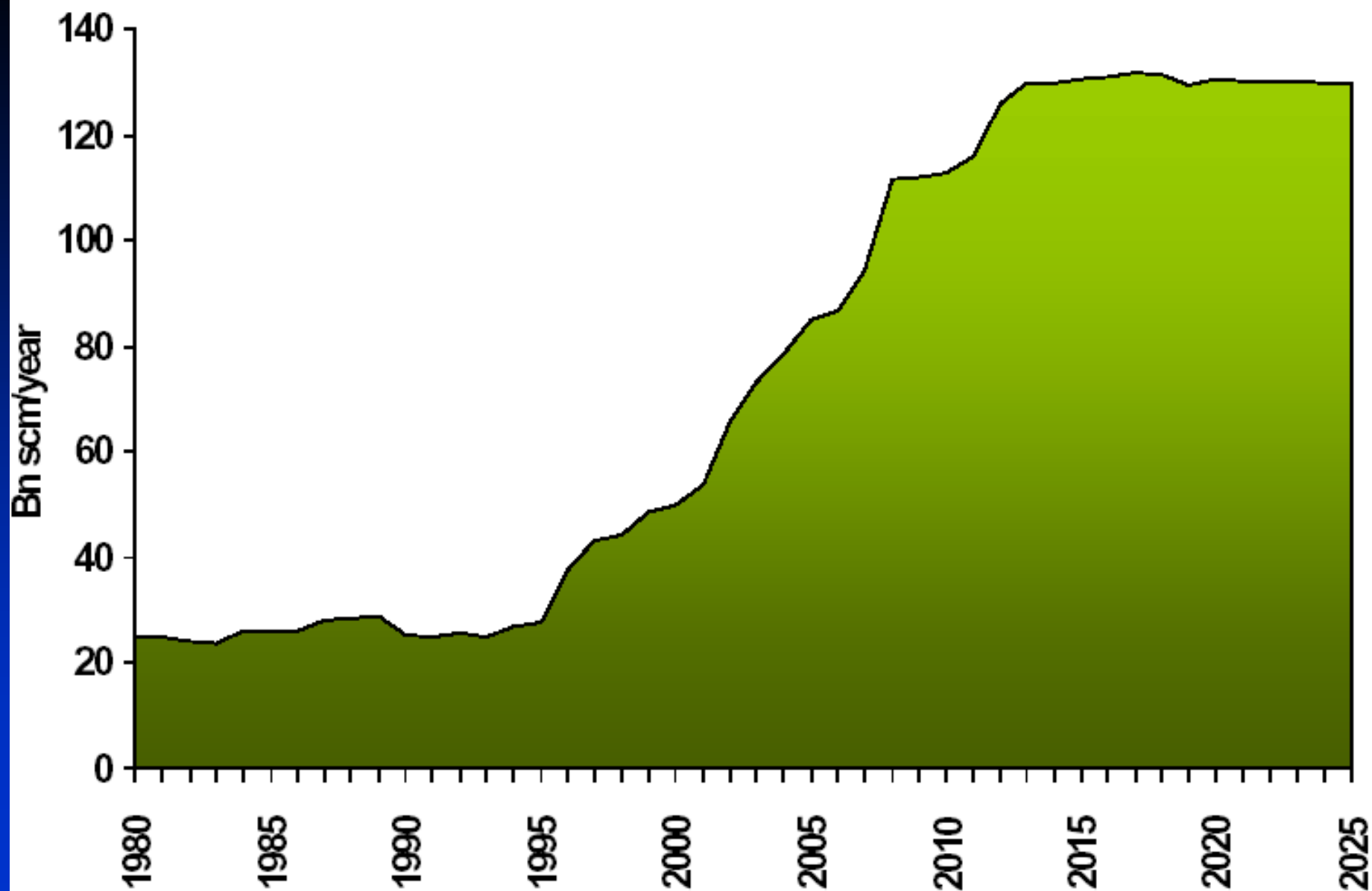
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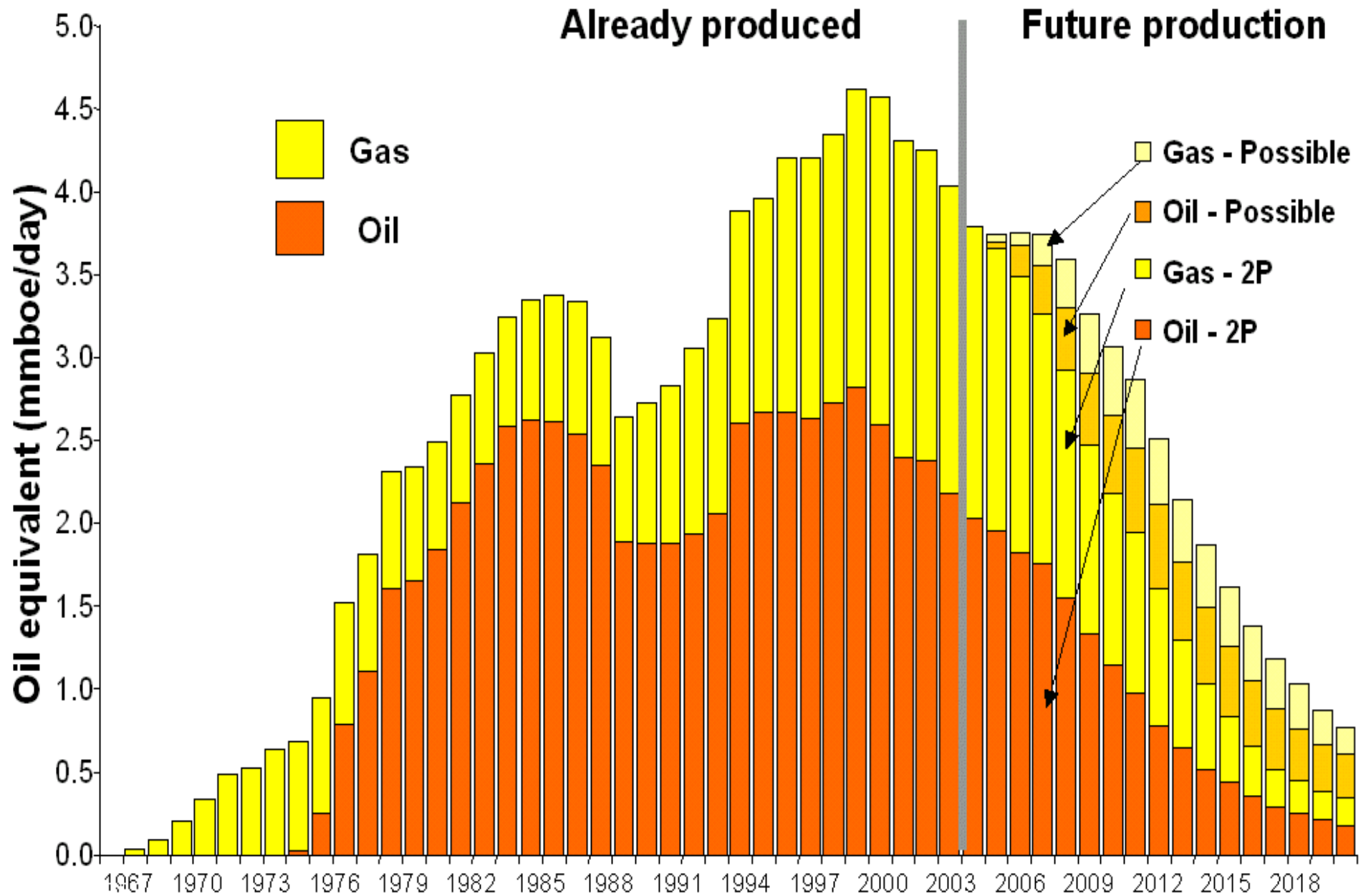
- Given its environmental and efficiency (CCGT) advantages over any other forms of electricity feedstock, Gas demand is acquiring “inelastic” characteristics. Gas is EU “choice of fuel” for achieving Kyoto-related targets, even though the March 2007 Council decision has put more emphasis on RES.
- Gas efficiency characteristics is also evident by the rapid decrease in LNG (De)Liquefaction costs vis-à-vis land-pipelines of more 4.000km (underwater pipes of more than 2.000m) by 30% over the last since 1997 and is projected to fall even more by 2010 (\$700/ton in mid-1990s to \$500/ton today to \$420 by 2010).
Incremental demand increase 82% over 25y.

Increased Importance Unfortunately Translates to Increased N.I.D.

- When the European strategic shift to gas stated as a consequence of the 1979-1981 Iranian Oil Crisis, most of demand requirements were covered by E.U. of intra-E.U. gas resources. Even up to the middle of this decade the three major Eurozone Consumers (GERM, ITAL, FRAN that amount to 45% of E.U.-27 demand) covered respectively 55%, 49%, 61% by domestic production and/or intra-E.U. imports by Norway, Holland and the U.K. Russia accounts in 2006 for 29% of EU-27 demand, 34% of Big3-Eurozone demand and more importantly 60,4% of E.U.-10 (save CYP, MALT) demand. This perfidious balance is about to change...

Estimated gas exports





Updated to end 2003

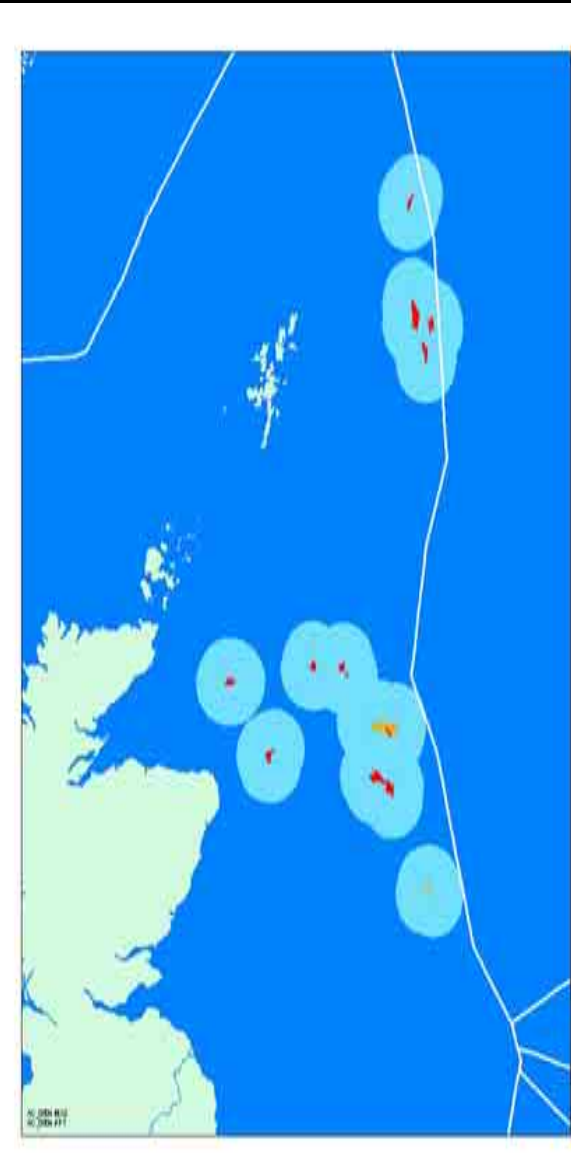


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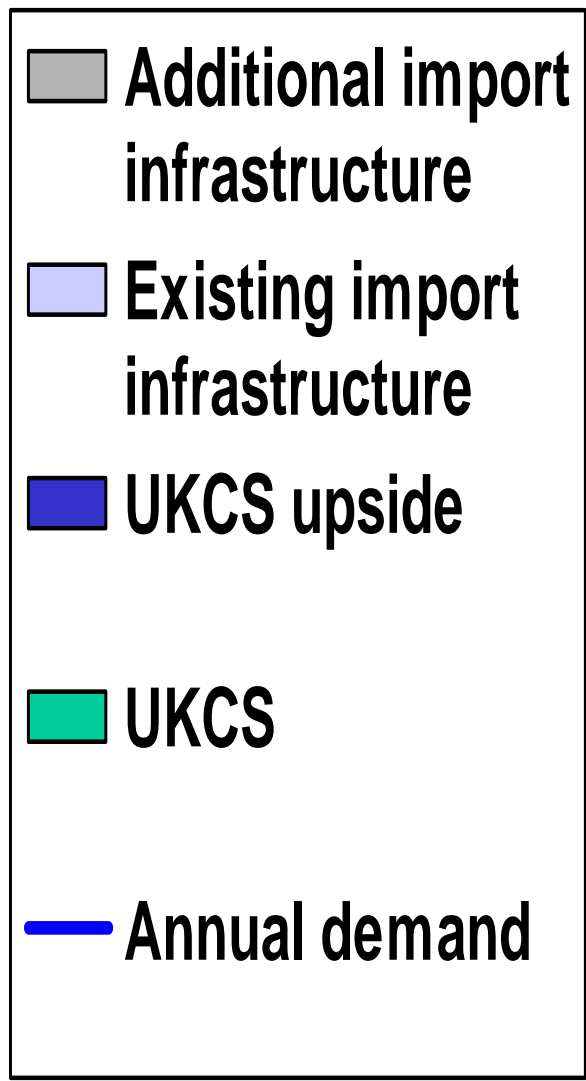
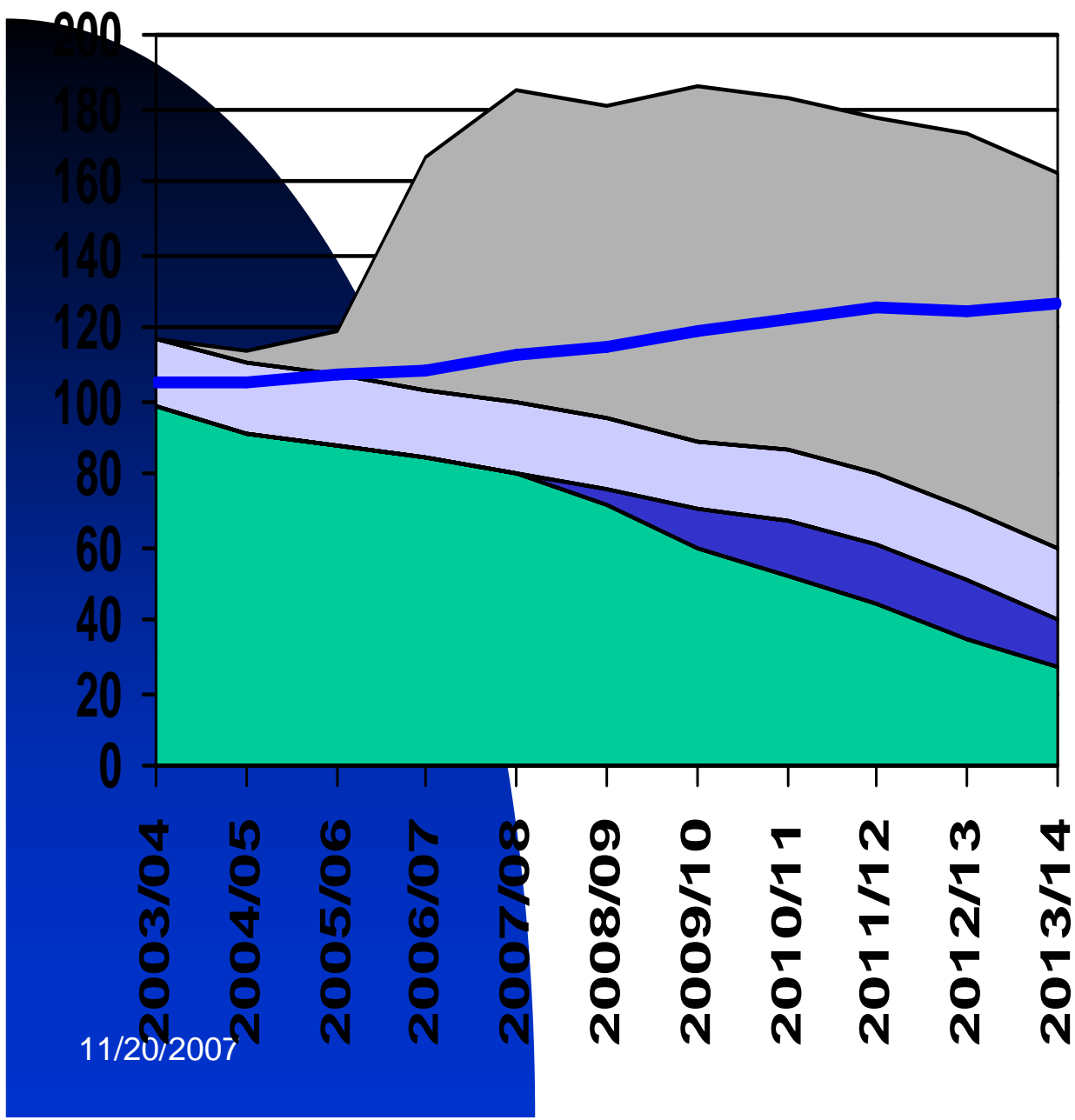
2004



2010

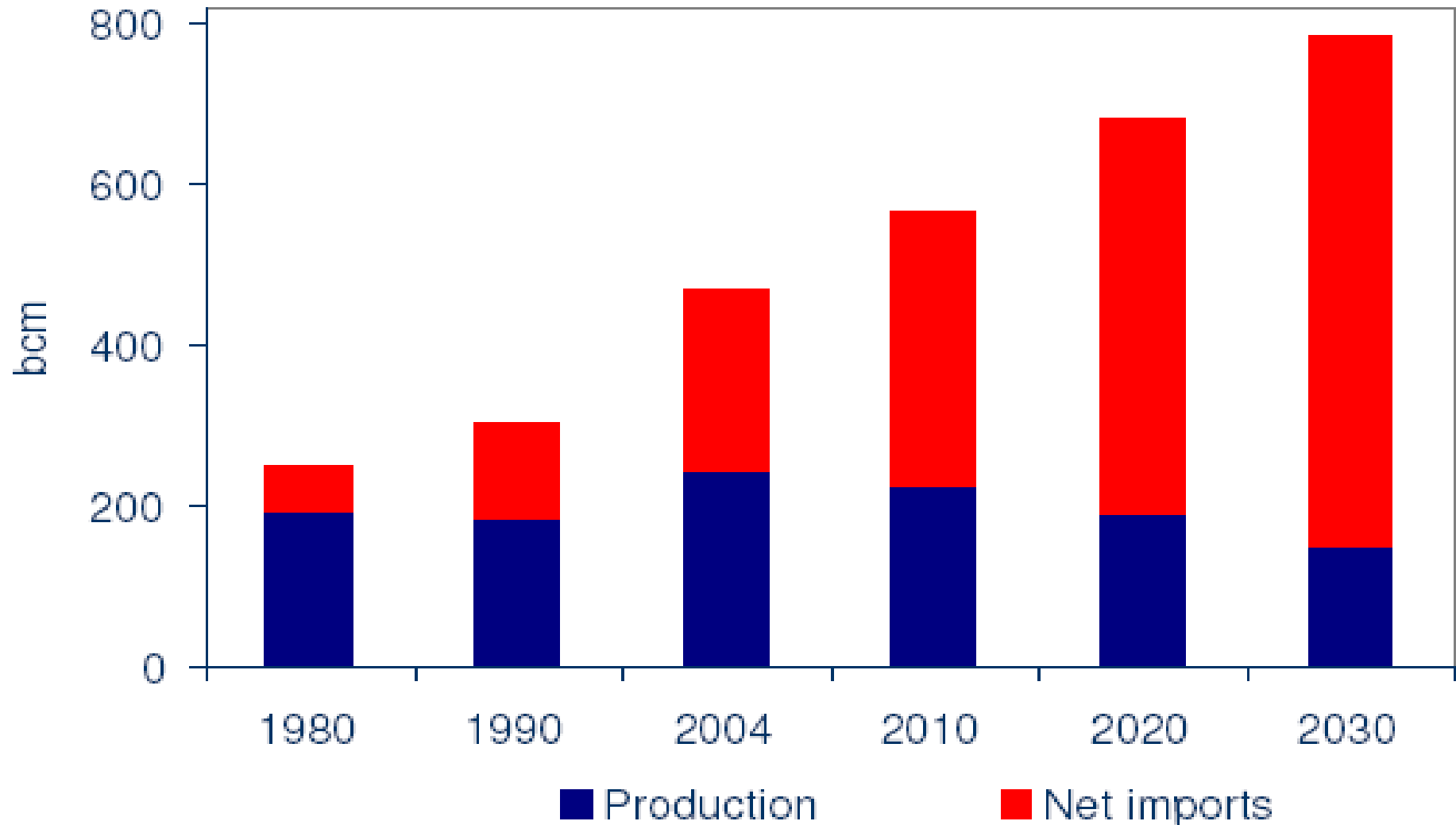


2020



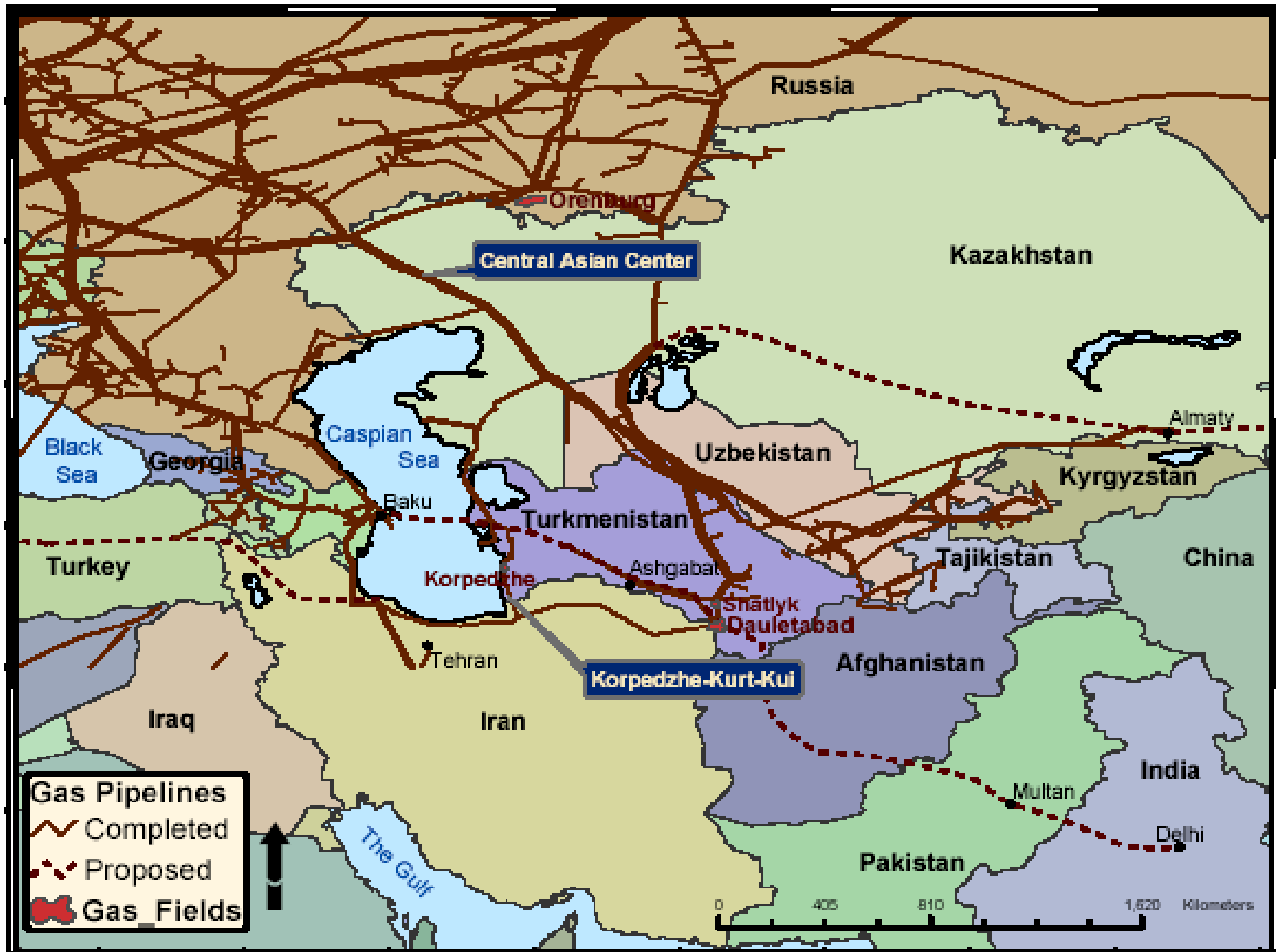
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EU Gas Supply Balance



Diversification Strategies: L.N.G.?

- If History is really repeated as a farce or a tragedy, then the cornerstone of EU gas diversification is more likely to emulate the former rather than the latter. In the late 1970s we were running to Soviet Gas to “save” ourselves from Persian Gulf Oil. Now we seem to be running in the opposite direction betting on Persian Gulf gas to limit our dependence on Russian gas imports. OAPEC+Iran Gas is 64% of global LNG-2002 trade and will still controls 2/3 of 2030 LNG-trade which will have nonetheless increased by a margin of 5,5 times. All of this will be coming out of the volatile Hormuz Straits.
- No one has still explained though why higher dependence on OAPEC+Iran Gas is more politically secured compared to Russian exports. Historically speaking this has not been the case. (Soviet) Russia has never embargoed its E.U. clients and is not likely to start doing it now that NG exports account for 27% of its federal budget income. It is less likely to do so before *at least* 2015 since it will not acquire any alternative





The Energy Community of SEE – Natural Gas *cont'd*

