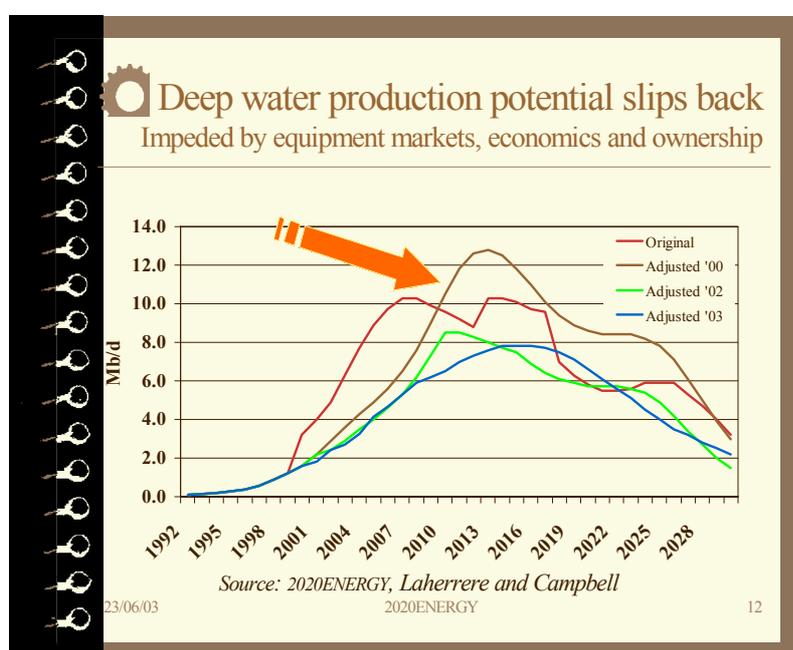


SUMMARY: World oil supply will increasingly focus on growth of capacity in the Persian Gulf as production approaches its peak for the rest of the world. Energy supply security now dictates that crude oil based fuels be supplemented by other immediately available fuels, mainly natural gas derivatives such as methanol. These alternatives to gasoline and diesel will help feed the transportation fuel demand surge that faces the world over the next two decades and beyond. This can be achieved by creative energy policy since the technology and the infrastructure are already in place.

OIL SUPPLY TIDE STARTS TO EBB: Apart from the enigmatic FSU, there is little prospect of long term growth for non-OPEC oil supply and a strong likelihood that over the next few years the trend will flatten and then decline irrevocably. Decline will come faster if the spectacular discoveries in the deep water offshore plays of the southern Atlantic and the Gulf of Mexico fail to attract sufficient investment to match the loss of production in the North Sea.

Deep water oil supply might be expected to reach a peak of as much as 6-7 million barrels a day by the

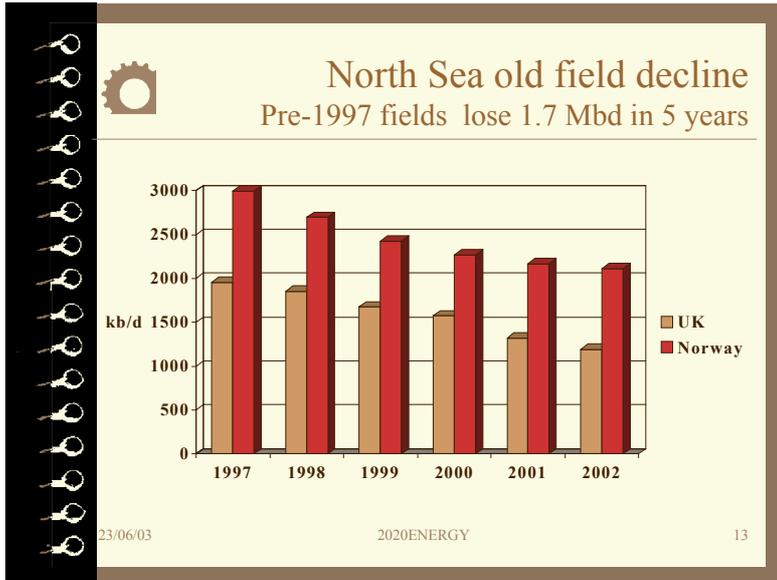


Deep water oil might be expected to reach a peak of as much as 6-7 million barrels a day by the time the North Sea has lost more than half its current output in the period beyond 2010. But economics play as strong a role as geology in real world oil business. Current indicators suggest that the prolific deep water wells are delivering less oil than expected and for a shorter period. That means less revenue.

The 30 year success story of non-OPEC oil supply stems directly from the oil price revolution of the 1970s, without which the North Sea and most other offshore oil plays would not have been economic. The non-OPEC oil boom was also necessary because access to the cheap oil of the Persian Gulf and a few other plays were simply not available to the international private sector oil industry, as they had been before. That era is now over.

It is ending not because oil is too cheap, but because there are powerful reasons for change. Firstly there is not enough non-OPEC oil left to allow much growth beyond the next few years. Secondly, the economics of deep water and other offshore oil may not be attractive enough. Thirdly the doors to the Middle East may now be opened again to companies that may be allowed to write those assets on their balance sheets and to generate attractive profits allowing better return on investment and thus higher share prices. There is no more compelling reason for a shift in investment strategy than the lure of better profits. Stock markets have not rewarded oil companies for their record profits in recent months because they are anxious about rates of return on future projects and by the inability of oil companies to grow production and revenue from their main product: oil.

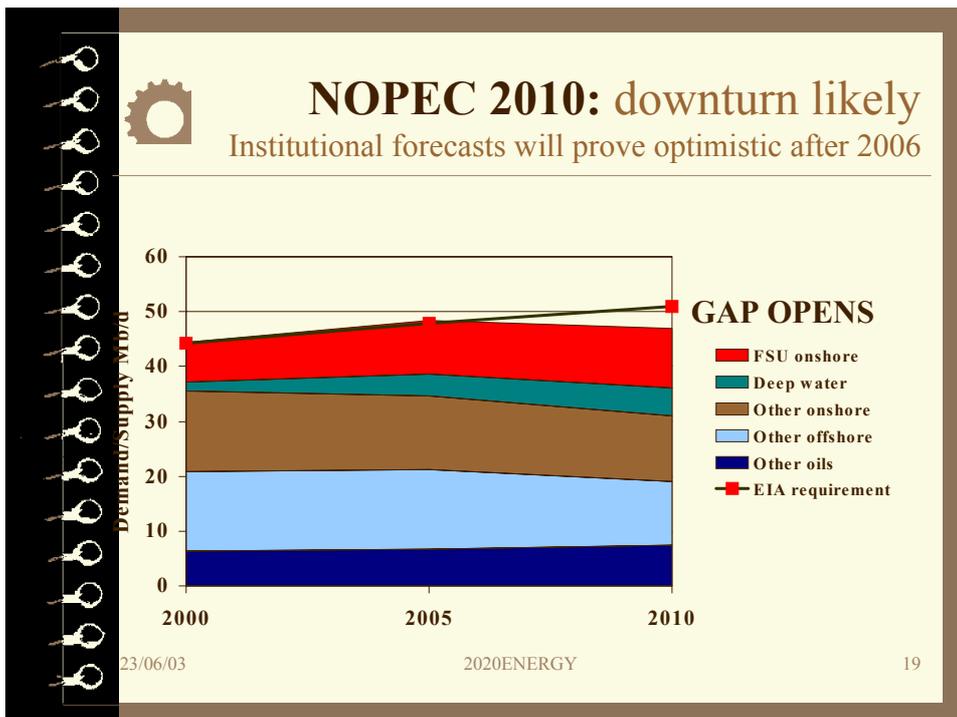
Indeed, most major oil companies are swinging their investment away from oil into gas and have been doing so for most of the last decade. A ticket for entry to the Persian Gulf would change that but it is not obvious now that the opportunity will be made available, when and to what degree, despite the radically changed political and military environment in the region.



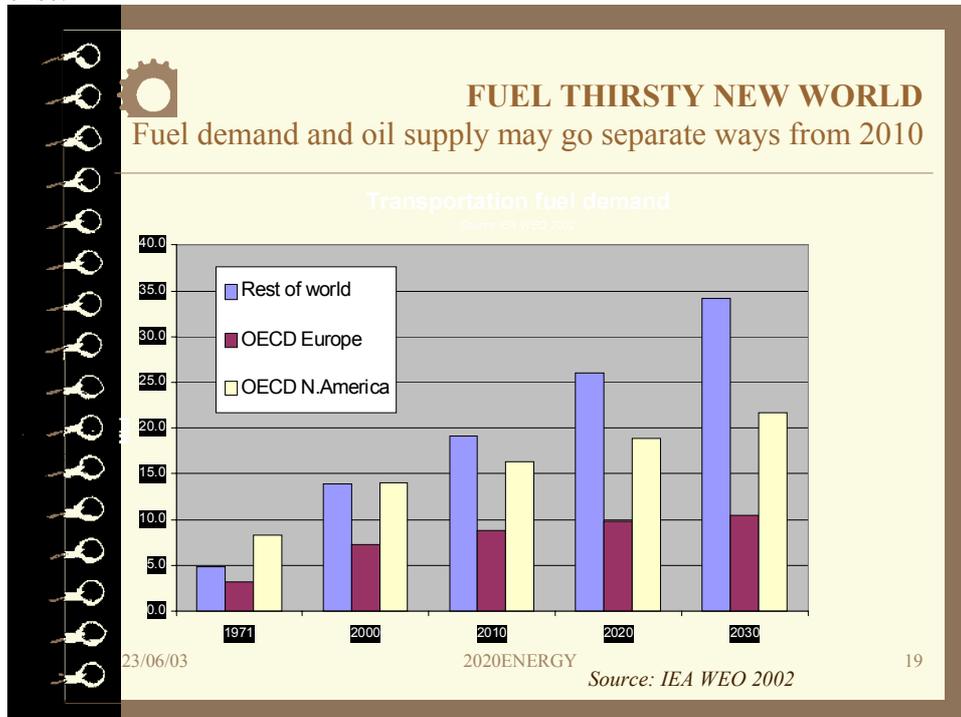
This is just the start of something bad for the UK and Norway as decline is likely to accelerate through the next decade, turning the UK into a net importer again with nowhere to turn except the Persian Gulf

However strong the evidence of an imminent peaking of offshore and perhaps of total non-OPEC oil supply, the reality is that governments will not readily recognise a “bad news” scenario that will inevitably tarnish their own political image. It follows that a global and permanent threat to their economies and energy security from a shortfall in oil supply outside the Persian Gulf and central Asia will only become a policy assumption if viable and attractive energy policy options are available.

If there is a single focus to any energy supply threat, then it is the market for transportation fuels. Demand for gasoline, diesel and kerosene represents the strongest growing segment of the energy market. More importantly, transportation fuel is the only segment of the energy market where there are no significant, large scale and immediate alternatives already on offer. Even though electricity demand is the fastest growing end-use energy sector, there are many small and large scale alternatives from wind and solar at local level to nuclear power at national and regional grid level. The mistake of energy policies everywhere is to allow gas to be burned in power stations, because that too is import dependant for many and because gas is needed for fuel for stationary and automotive markets.



TRANSPORTATION FUEL POLICY SOLUTION If oil supply turns the corner into downturn in the next 10-15 years, there is no industrial or financial obstacle to the large scale introduction of fuels other than current specification gasoline and diesel. Almost all the current initiatives to explore and encourage alternative fuels address a very long term future in which fuel cells or hydrogen or “California-clean” liquids replace the current fuels at the pump. Further, most research concentrates on the environmental aspects of the alternatives rather than their large scale and timely industrial availability. Yet the hard reality is that any solution to the global oil supply dilemma must be large scale (at least 10% of the total market for transportation fuels) and soon, which means within a decade or so.

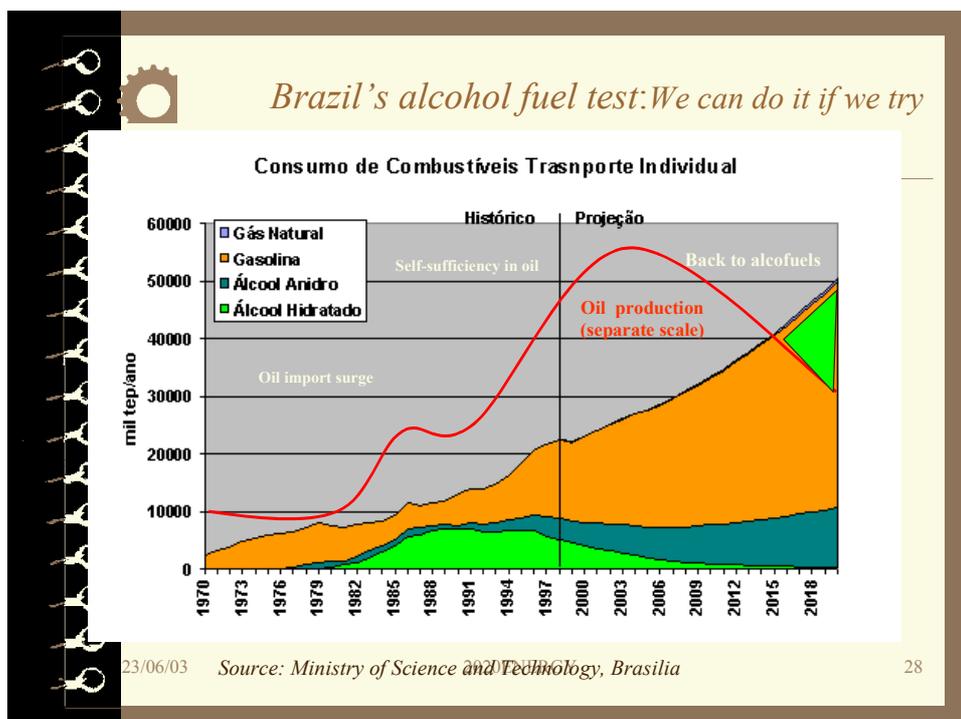


The technical facts are that fuels such as ethanol and methanol can be produced in very large volumes and delivered to the consumer without any significant change to the huge consumer infrastructure constituted by the global internal combustion engine manufacturing industry and by the existing fuel distribution networks.

This large, immediate and obvious opportunity has not been grasped so far for the excellent business reason that the status quo is profitable and convenient for those who now control the fuel business. There is now near-term profit in encouraging competing fuels. It will therefore take determined policy and attractive tax-funded price incentives to kick start a change in direction in fuel specification.

There is a difference between policy and business priorities in energy. It is after all, the duty of integrated oil companies to deliver best value for their shareholders, not to find secure, competitive, long term energy solutions to meet the needs of consumers and their governments.

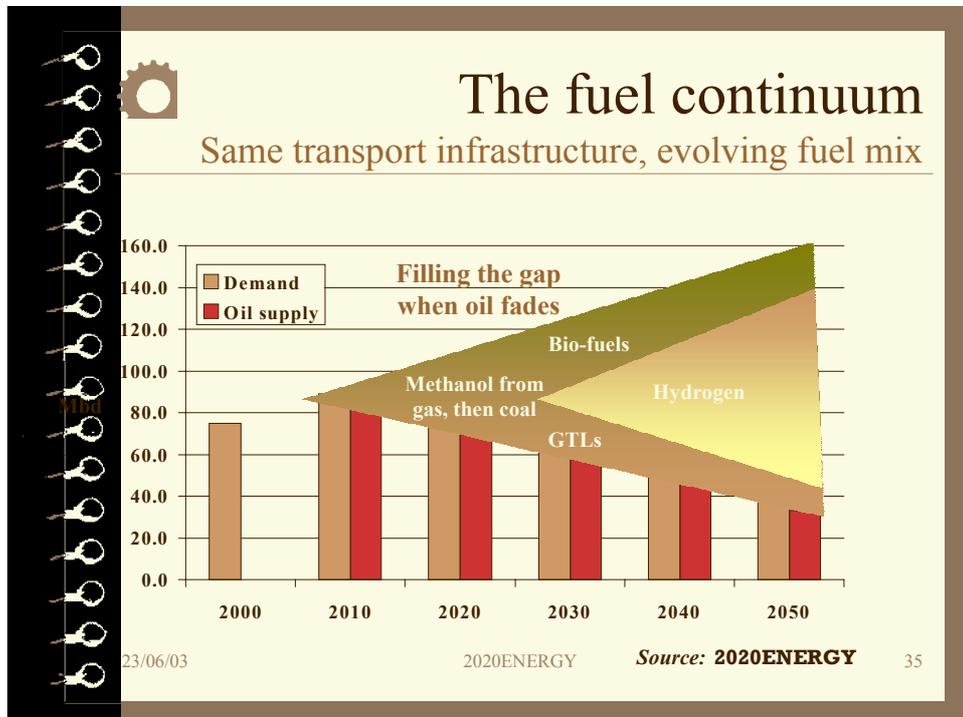
A FUEL CONTINUUM In short, there is no need for a massive metamorphosis in fuels, or engines, or cars or delivery systems which fuel cells and other alternatives necessitate. Instead, it is entirely feasible that any growth in transportation fuel demand in the critical period a decade from now can be met by simple changes in the specification of current fuels through blending of bio-diesels, methanol from natural gas, ethanol and other products. This process will deliver a transportation fuel continuum that does not form a significant part of any national energy policy outside Brazil, a country which has plainly demonstrated what is possible for many years.



For politicians, these policy options are profitable in terms of balance if payments savings, new investment, employment and energy security. For investors, non-crude oil transportation fuels are likely to enjoy long term demand growth, controllable political risk, large volumes and an opportunity to break into a market until now the exclusive domain of large integrated oil companies.

The potential for a seamless fuel continuum is wasted if the threat of tightening oil supplies is not recognised. Policy change through crisis is the norm, but damages economies and triggers political trouble or worse. Large institutions adapt poorly to change and are uncomfortable with forecasts. The worst forecast in the energy industry today may be that the threats now being aired are not forecasts but history. If US gas supply has indeed already reached its maximum, then it has occurred because it was assumed that production growth would be almost exponential, as propounded by the main US agencies.

If it is true for US gas, it may also be true for world oil and if so there is little time left to implement the many options available. All industrial scale options for a fuel continuum without further crude oil supply growth for another decade at least require five to tens years capacity expansion to meet the need.



Further details of this work are available at info@2020energy.net

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