

# The Coming Problems with Fossil Fuel Supply

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**Abstract:** It is increasingly recognized that the world production of oil is reaching a peak in terms of absolute levels of production, and that, due to supply limitations, is unlikely ever to reach a level of even 90 million barrels a day. Supply recently reached a level of 86 mbd but has since declined due to reduced demand in the recession. Outside of the Oil Producing and Exporting Countries (OPEC) there is evidence that oil production may never exceed the levels that were produced last year, and within OPEC the opportunities for increased production rate are limited. The declining production rates of existing reservoirs are also likely to grow, from the currently assumed 4 – 4.5% to over 6% as fields increasingly are developed using horizontal rather than vertical wells for oil recovery.

What is not as recognized is the increasing reliance that the United States is placing on natural gas recovery from shale deposits such as the Barnett, Fayetteville, Haynesville, Bakken and Marcellus shales. These fields, some of which are just coming into production, have been heralded as the future of the industry, and with the nation getting 25% of its electricity from gas fired power plants, are a keystone to future progress. However wells in these rocks only produce for a very short time (depletion around 60% the first year) thus an increasing number of wells must be drilled each year just to ensure the following year's supply. Such long horizontal wells are expensive (in excess of \$5 million each) and funding for them is disappearing as capital dries up, and the current price of natural gas falls. The consequence is likely to be a shortfall in supply within the next two years that will not be able to be made up by imports.

While there is an adequate coal resource around the world to provide a transition fuel over the next two or three decades, until some new source is available at sufficient scale, the recent concerns over the generation of large quantities of carbon dioxide, when coal is fired have led to a changing political climate, in which plans for coal-fired stations are increasingly being cancelled or postponed. With no other fuel sources being available at the scale required and with the facility for use, the energy future of several nations for the next two decades, is becoming of greater concern.

## Web Sites

- Bit Tooth Energy is found at:  
<http://bittooth.blogspot.com/>
- The Oil Drum is found at:  
<http://www.theoil Drum.com/>