

Bulletin

January 2011 ■ Number 4

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EWG presentation as guest at the "Berlin Press Conference" in the building of the German government´s Press and Information Agency.
From the left: EWG initiator Hans-Josef Fell MdB, Wolfram Schweizer (Berlin Press Conference), Prof. Mark Z. Jacobsen (Stanford University, USA)

International Energy Agency Confirms the EWG's Warnings (from the EWG Press Release of 11 November 2010)

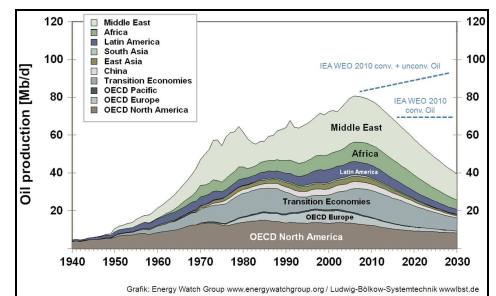
As early as three years ago, the Energy Watch Group (EWG) identified the highpoint of conventional worldwide oil extraction as having been reached in 2006. In its "World Energy Outlook 2010", the International Energy Agency (IEA) confirmed for the first time that crude oil production reached its peak in 2006 and declared that this level will never again be equaled.

Over the last few years, the IEA had steadily adjusted its annual prognosis of worldwide oil production downward, but in contrast to the Energy Watch Group, the Agency has continued to sketch an overly optimistic picture of the expansion of recovery from conventional and unconventional oil resources. Leading representatives of the IEA regularly state that 'several new Saudi Arabias' would need to be tapped only in order to maintain current output levels.

Moreover, the IEA continues to make unrealistic assumptions about the potential output from so-called "unconventional" wells: natural gas condensates and tar sands - two putative substitutes for crude oil. Production of the latter is very complicated and detrimental to the environment, and the availability of both is much lower. "Bringing them online is absolutely not comparable with the familiar oil production on land and in the sea", Seltsmann qualifies. Nonetheless, the IEA still suggests that the oil supply can be raised to meet demand.

The unjustified optimism about oil is paralleled by an equally unfounded pessimism vis-à-vis the expansion of renewable energies. As a result, the expansion rate outlined by the IEA is well below the current growth rates for renewables. EWG urgently recommends governments to ambitiously accelerate the expansion of renewable energy in order to counter the foreseeable shortages and price jumps of fossil fuels.

The EWG's position is that more rapid expansion of renewable energy is more economical overall than a slower approach. Even completely meeting energy needs with renewables is possible within a few decades and more economical in total than the further consumption of oil, natural gas, coal, and uranium.

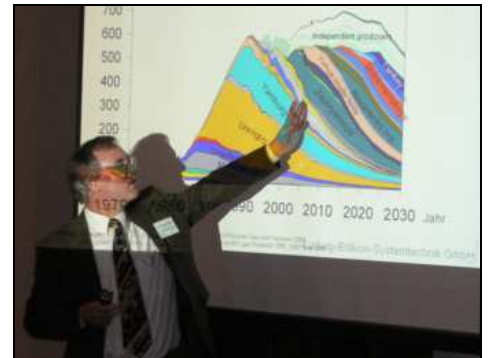


The EWG study's prognosis of worldwide oil production. The blue text indicates the current expectations of the IEA.

EWG Highlights in 2009/2010

28 October 2009: "Natural gas is running out"

At an event held in the Berlin-based *systaic* corporation's Energy Design Center, Dr. Werner Zittel introduced the EWG's Natural Gas Study. The Senior Scientist at Ludwig Bolkow Systemtechnik is an acknowledged expert on energy resources who has toured and assessed Russia's natural-gas infrastructure. According to Zittel, natural gas, too, will run out more quickly than hoped. In only a few years, the peak worldwide production point of this fossil raw material, too, might be reached. This is a central finding of the preparatory work for the EWG Natural Gas Study.



The author of the EWG study,
Dr. Werner Zittel (LBST)

23 March 2010: "Meeting all energy requirements with renewables alone" (Press conference and expert discussion with Prof. Mark Z. Jacobsen, Stanford University, USA)

In the facilities of the German government's Press and Information Agency, the EWG presented the "Plan for 100 Percent Renewable Energy Worldwide by 2030", compiled by American scientists. Prof. Jacobsen demonstrated that the complete changeover of the energy supply by 2030 is technically feasible and made projections of the costs involved.



Prof. Mark Z. Jacobsen, Stanford
University, USA

In its supplementary analysis, The Energy Watch Group calculated that within this period, even at current prices, fossil energy resource cost more than the complete conversion to renewables. The details of the analysis can be found on the EWG website.

18 May 2010: Brief Study on "Unconventional Natural Gas" Joint Press Conference with the Association for the Study of Peak Oil and Gas (ASPO) Germany

Under the title "False Hope in Natural Gas / The Comedown from Peak Oil", the EWG and ASPO Germany introduced a short study entitled "Unconventional Natural Gas" by Dr. Werner Zittel. Based on experiences in the USA, the study demonstrates the technical expenditure and the ecological and health-related consequences of the exploitation of so-called "unconventional gas reserves" found in small concentrations in dense rock formations. The energy and gas industries hold high hopes for these resources. Numerous media, including the renowned German TV show "ARD Monitor", have reported on, quoted from, and linked to this unique publicly accessible analysis.



left to right: Joerg Schindler
(ASPO Germany), Prof. Kjell
Alektett (Uppsala University,
Sweden), Prof. Wolfgang
Blendinger (Technical University
Clausthal), Thomas Seltmann
(EWG)

The "BP Statistical Review 2010" A Comment by Thomas Seltmann

According to the oil company BP, the "statistical range" of mineral oil reserves has increased from 41 years to more than 45. This gives the impression that the amount of extractable oil has grown and can thus reduce even the medium-term price increases.

This impression is misleading for two reasons:

1. The underlying assumptions about the quantity of still-exploitable oil are not based on data regarding the total found so far and reserves that have a high probability of being discovered ("geologically available"). Rather, they merely reflect the fields already tapped and evaluated by the oil industry. Actually, the long-term, yet-to-be-developed deposits could be even larger, but they are nonetheless finite and have become smaller from year to year since 1986, when the yearly oil consumption exceeded the annual amount of new discoveries.
2. The statistical range gives an inaccurate image of the actual availability of oil because it suggests that current annual production can continue unabated and then end abruptly in the last year of the range. As a matter of fact, every oil field in the world develops in the shape of a bell-shaped curve: production gradually rises, but then inevitably drops after about half of the deposit has been extracted.

So far, almost the half the exploitable total has been consumed. Therefore the peak of worldwide oil production has either already been reached or will be soon. This follows on the heels of the high point of worldwide oil discovery (in the middle of the 1960s) and the apex of the residual reserves (in the middle of the 1980s).

Oil's availability is reaching its limits

First, the large, readily accessible, and easily exploitable deposits were drilled. Today only comparatively small, scattered, and hard-to-reach reserves remain untouched. Most of the old, major fields have passed their maximum output. The technical and cost requirements to compensate for only the production drops of these fields have increased disproportionately.

This is why in February 2009, none other than the head of the IEA himself, Nobuo Tanaka, warned that reanimation of the demand for oil would result in a supply shortage - followed by an economic crisis that "might even surpass the current one."



**The Mad Dog platform pumps oil in the deep waters of the Gulf of Mexico.
Source: BP Germany**

Media Feedback

A selection of the recent resonance elicited by the Energy Watch Group's research and analysis. Further comments and links to the original pieces can be found at www.energywatchgroup.org.

Spiegel - Online

"US Concern Pumped Poisonous Chemicals into the Ground in Lower Saxony ": [...] Energy consultant Werner Zittel, who elucidated the risks of unconventional gas extraction in a study [...]

Berliner Zeitung (daily newspaper)

"All Lights Are Green": [...] According to a study commissioned by the Energy Watch Group, the global energy supply can completely be changed over to renewables as early as 2030 [...]

Märkische Allgemeine (daily newspaper)

"Energy: 100 Percent Green Electricity" / "According to a study, by 2030 worldwide requirements can be met by eco-energy alone"

Deutschlandfunk (German radio)

"Looking into the Future": [...] From an economic perspective, too, renewable energies have long since become an alternative to fossil fuels. [...]

N24 (TV)

"How can the future energy supply be ensured without damage to the environment and climate? This is one of humanity's the central issues."

Süddeutsche Zeitung (Germany's largest subscription daily newspaper)

"A Number for the Whole Thing": US researchers have calculated the cost of the energy turning point: 100 trillion dollars

FOCUS (weekly magazine)

"Coal's Twilight": [...] For global economic growth, more than seventy percent more coal needs to be mined until 2030. Before than, though, experts warn that peak production will have long been exceeded. [...]

Handelsblatt (business daily)

"What needs to be known about oil"



The EWG 2011/12 Work Program

In a brief time span, with minimal financial resources and a great deal of volunteer work, the Energy Watch Group has come to be recognized as a source of credible, independent energy-supply information by the media, policymakers, and the world of science. Journalists in particular have an urgent need met through the Energy Watch Group's efforts.

We seek to consolidate and intensify this work, as well as broaden our scientific basis. For implementation of the program presented here, we require about 620,000 euros:

Basic resources:

In order to make the Energy Watch Group an ongoing media presence and enable us to consistently expand our political consultation capacity, we seek to establish an office in Berlin for the effective coordination of our studies, our scientific and parliamentary networks, and our public relations endeavors.

Research Studies Program:

- Natural gas resource study – a comprehensive analysis of the real availability of natural gas, including unconventional resources: How much natural gas can actually be extracted, where the resources are located, and what the dependencies are.
- Updating, extending, and producing a summary of all the resource studies on oil, coal, uranium with the natural gas study: a basis for the overall fossil-energy scenario and an analysis of the "peak" of the world's fossil and atomic fuels
- Development of a scenario in regard to meeting the complete worldwide energy needs with renewables: how quickly this could be achieved and the efforts and investments that would be necessary for the changeover
- Combining the resource studies with the renewable-energy scenario for a world energy outlook based on an economic model:

A comprehensive deliberation tool for policy and economic consultation, in order to direct investment flows into energy and economic infrastructure efficiently and effectively and prevent investments errors



Website and info guides

We've updated and revamped our website, sorting the contents by topic to enhance clarity. In addition to our studies and a selection from the media response we've elicited, completely redone info guides about the Energy Watch Group's goals and work are available for download.

Why supporting the EWG makes sense

- Energy policy needs objective information: Other sources of information serve special political or economic interests.
- Independent information helps prevent managerial and economic mistakes, as well as investment errors whose consequences can run into billions.
- Transparency in information accelerates the implementation of sustainability-oriented innovation such as in the areas of energy efficiency and renewable energy.
- The Energy Watch Group neither purveys self-serving good news nor engages in scaremongering. It focuses on delivering a fact-oriented overview and actionable analysis.

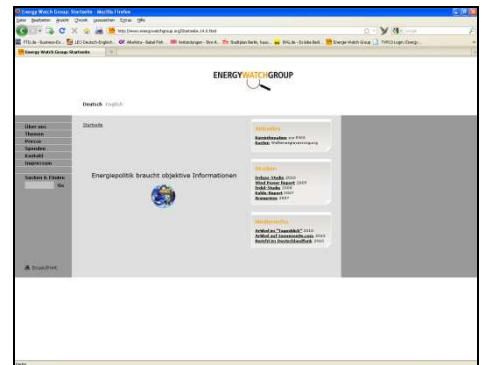
The Energy Watch Group's efforts are funded exclusively by contributions made to the Ludwig Boelkow Foundation.

Objective information needs independent financing – which makes it worthwhile to support the EWG's efforts.

Bank details of the Energy Watch Group

(for international donations)

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