



INTERNATIONAL ENERGY AGENCY

WORLD ENERGY OUTLOOK

2008

Out of the turmoil of the energy markets of the last 12 months and our evaluation of future influences on the sector has emerged a new underlying price assumption for the *World Energy Outlook* – an oil price through to 2030 which nudges twice the level in *WEO-2007*. The era of cheap oil is over.

This alone should be enough to make policy makers sit up. But so should the results set out in this volume. On present trends, just to replace the oil reserves that will be exhausted and to meet the growth in demand, between now and 2030 we will need 64 mb/d of new oil-production capacity, six times the size of Saudi Arabia's capacity today. The big resources lie, increasingly, in a few countries, whose share of the world market climbs inexorably. The international oil companies have diminishing access to these reserves. Investment per barrel of oil produced has shot up. But big producers are becoming so wealthy that they are losing the incentive to invest. Though the resources are there, the world will struggle to satisfy its thirst for oil, even at today's prices.

Consumers and producers are not at loggerheads. Producers have a sovereign right to determine what pace of development of their resources is in their national interest. Consumers respect this, though they also expect commitments to be met. But in any case, demand is booming in Middle East countries, too: they account for 20% of oil demand growth over the period to 2030. If prices rise still higher, they will drive even faster the search for non-oil solutions in OECD countries and oil-importing countries elsewhere.

High oil prices do, over time, serve one purpose now almost unanimously accepted worldwide: to cut greenhouse-gas emissions to levels which will not cause irreparable damage to the world's climate. Relative to *WEO-2007*, this year's figures show lower global fossil-fuel energy use and greenhouse-gas emissions. But, despite the price changes, the reduction is nowhere near enough. Global energy-related greenhouse-gas emissions still *increase* by 45% by 2030.

This situation can be changed. Negotiators at Copenhagen in 2009 will seek to do that. Energy is a big part of the total climate change picture – over 60% of greenhouse-gas emissions come from energy production and use – but still only part. We show here how energy relates to the total picture and, in detail, how to go about making the energy future sustainable as part of a global climate solution. All nations would need to be involved, in a fair and proportionate manner.

We have two options. We can accept as broadly inevitable the outcome portrayed here in the first part of our analysis, which shows the destination of the course on which we are now set; and prepare ourselves to adapt to that uncertain even alarming, future. This path would lead to possible energy-related conflict and social disruption. Or we can plan and implement a new course, drawing on a united determination on the part

of governments and action by committed citizens across the globe. The International Energy Agency sets out here what needs to be done to arrive at a supportable and sustainable future. The IEA will work with all nations, member countries and non-member countries alike, to help effect the necessary changes. For those who wish to see, this *WEO* points the way.

As last year, I pay tribute to Fatih Birol, who has conceived and directed this analysis, his team and the many others who have contributed. The calibre of their work matches, in depth, the profundity of the problems.

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