

# Economics in Brief



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## What next for global energy investments?

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This week the International Energy Agency (IEA) of the OECD presented the "World Energy Investment Outlook" Special Report on scenarios and financing opportunities for global investment needs in energy infrastructure up to 2035. The rising needs are posing significant challenges for financiers. Promotional banks play a crucial role.

### Energy supply: at least USD 40 trillion worldwide

The IEA is looking at two basic scenarios: the "New Policies Scenario", which takes into account current political guidelines and plans, and the "450 Scenario", in which the aim of limiting the rise in temperature to two degrees Celsius is reached (based on the 450-ppm threshold for CO<sub>2</sub> in the atmosphere). In the New Policies scenario, the cumulative investment in energy supply infrastructure up to 2035 exceeds the sum of USD 40 trillion. This amounts to USD 1.9 trillion per year and thus USD 300 billion more than is currently invested per year.

Some USD 24 trillion of the 40 trillion relates to the provision of energy resources. A further USD 16 trillion must be invested worldwide in electricity generation, mostly in transmission and distribution (42%), as well as for renewables (36%).

### At least another USD 8 trillion for energy efficiency measures

By 2035, energy efficiency investments will rise more than four-fold compared to today, according to the New Policies Scenario. All in all, USD 8 trillion will be invested by 2035 to reduce final energy consumption. Of this, 75% relates to a sector that, in terms of climate protection, has so far come off badly in most countries due to its complex nature and

whose activity level is also rising constantly – with a knock-on effect on greenhouse gas emissions: the transport sector. In the report, all measures that exceed current energy-efficiency standards are considered to be investments in energy-efficiency.

In the 450 Scenario, a further USD 5 trillion will need to be invested in energy-efficiency measures. Furthermore, in the 450 Scenario some 15% less is invested in providing energy resources and around 18% more in electricity generation, particularly from renewables.

### Energy investments are long-term and risky

Investments in energy infrastructure are characterised by high risks and long amortisation periods. The main concern from a financing perspective is that the cash flow (or energy savings in the case of energy efficiency measures) should always be sufficient to service interest debts and repayments. There are various political, economic and project-specific risks involved here. This means that energy investment projects mostly require tailored and long-term financing solutions (such as project financing).

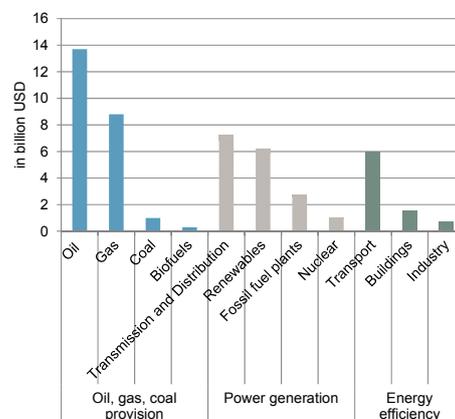
New regulations such as Basel III or Solvency II should reduce the risk of another financial crisis by means of stricter equity capital requirements for banks and insurance companies. Yet they also tend to result in higher costs or fewer offers of the kind of long-term financing that is required for energy infrastructure.

### Promotional banks needed for financing

The IEA highlights that promotional banks make a crucial contribution to providing long-term financing for the en-

ergy sector. Risks can be mitigated and attractive financing packages offered via refinancing under good terms, the use of interest subsidies and additional state guarantees such as export credit insurance. This way, investors and other financiers receive important support for their energy infrastructure investments. What is also beneficial is that many promotional banks have years of experience in the energy sector and in emerging markets, while the co-financed projects are also subject to strict environmental and social impact analyses. ■

Figure: Cumulative investments in the New Policies Scenario 2014–2035



Source: IEA – World Energy Investment Outlook