

Investment Trends and Perspectives of Renewable Energies: Global and regional outlook

REPORT NO. LXXIX
August 2014



TABLE OF CONTENTS

EXECUTIVE SUMMARY	3
1. CURRENT SITUATION	2
Global Outlook	2
Developed Economies	9
Emerging Economies	11
<i>BRICs</i>	11
<i>Other Developing Economies</i>	14
Renewable Energy vs. Fossil Fuels	17
2. SOURCES OF INVESTMENT	19
Funds	19
Green Projects and Bonds	21
Development Banks	23
Institutional Investments	23
3. FINANCING	24
4. STOCK EXCHANGE AND PRIVATE EQUITY	28
Stock Exchange	28
Private equity	30
5. MAIN ASPECTS AND INVESTMENT PERSPECTIVES OF KEY LATIN AMERICAN COUNTRIES	34
Mexico	34
Chile	37
Peru	40

EXECUTIVE SUMMARY

According to leading specialized forecasts, renewable energies will account for nearly half of the increase in world electricity generation by 2035, and wind and solar photovoltaic energy will make up as much as 45% of renewable energy expansion. China will have the largest increase in power generation from renewable sources, more than the European Union, the United States and Japan combined. These perspectives bring with them a set of investment opportunities that both developed and developing economies began taking advantage of over a decade ago, steadily increasing investment through 2011. However, in 2013 investment in renewable energies decreased in developed countries as well as in developing countries, although there were exceptions.

In the case of developing countries, investment decreased over the last year, ending a constant annual growth trend in total investment, which peaked at US\$ 107.4 billion in 2012. A positive aspect of the 2013 figure of USD 92.7 billion is that the reduction was partly due to a decrease in the cost of solar photovoltaic panels and that their share of investment in renewable energies was 43%. Their share of the total amount invested was only 33% in 2011 and 25% in 2006. In addition, developing economies continue to account for the majority of investment in wind energy and small hydroelectric plants, despite the fact that it increased in the former case and decreased in the latter.

Regarding investment in other technologies, developing countries were significantly surpassed by developed countries. This was particularly the case of solar energy, where developing economies invested USD 38.9 billion (a 19% reduction), compared to USD 74.8 billion in developed economies (a 21% reduction). Three of the four leading investors in solar energy were developed countries: Japan at USD 28.7 billion, the U.S.A. at USD 18.7 billion, and Germany at USD 5.4 billion. At USD 24 billion, China was the exception.

In wind energy production, the top five investors in 2013 were China at USD 28.4 billion, the U.S.A. at USD 14.1 billion, the United Kingdom at USD 6 billion, Germany at US\$ 5.4 billion dollars and Canada and India, tied in fifth place at USD 3.6 billion. The smallest technologies (in terms of USD invested) showed opposite trends.

In the case of biofuels, both types of economies showed a greater than 20% reduction in their investment, while investment in geothermal technology grew 115% in developed countries, at USD 2 billion, and decreased 42% in developing countries, to USD 528 million. Investment in small hydroelectric plant technology fell 19% in developing economies to USD 4.6 billion, although it grew 40% in developed economies, reaching USD 507 million.

In conclusion, levels of investment in renewable energies excluding large hydroelectric plants rose 443% from 2004 to 2013, totaling USD 214 billion. However, much larger amounts are needed for the transition to a low-carbon economy; according to the World

Economic Forum, some US\$ 6 billion per year needs to be invested in infrastructure through the year 2030. Investment in clean energy may yield positive financial returns, but it has the disadvantage that current legislation on investor behavior leads to a short-term perspective that lacks adequate consideration of risks related to the environment and resources. This results in a poor allocation of capital to high-risk, unsustainable investments that may not even be profitable in the end. The additional investment required to accelerate the transition to a green economy can only be enabled through improvement in the financial regulatory framework, particularly legislation and incentives governing financial markets that place long-term sustainable behavior at a disadvantage.