

# State and future challenges of renewable energy finance

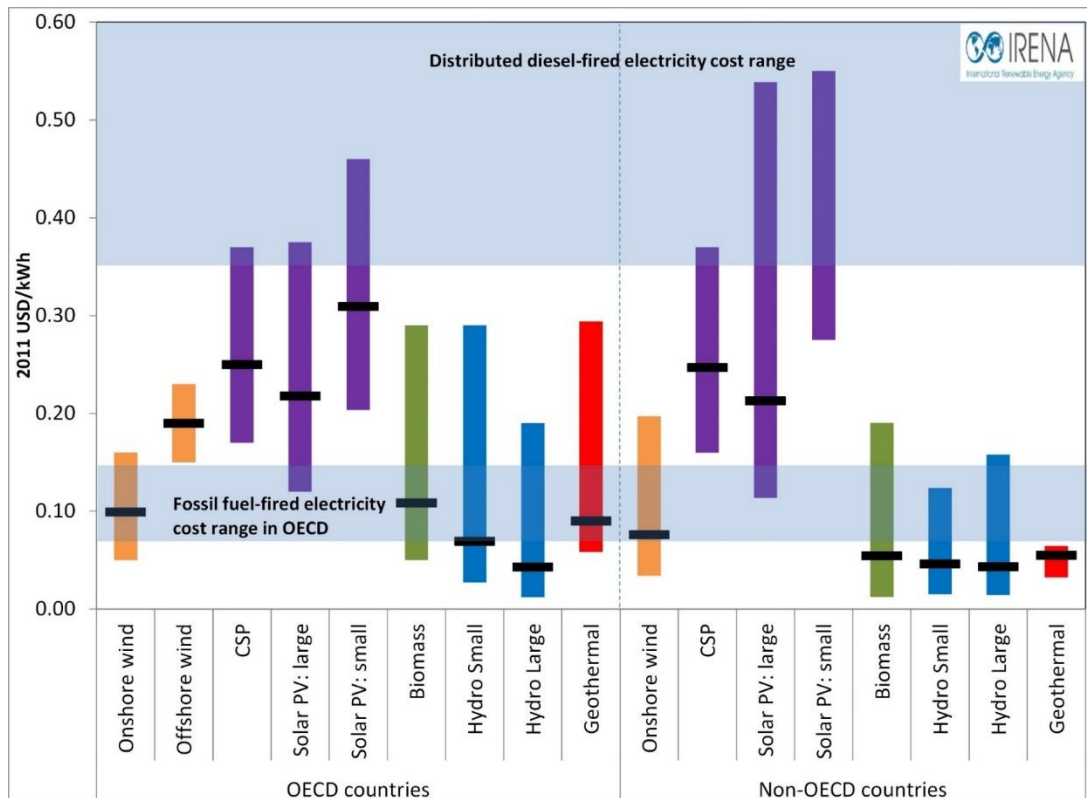
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Technology Dialogue

UNFCCC ADP  
Bonn, 11. March 2014

- Renewable Energy Costs - IRENA RE Costs and Costing Alliance
- Global Renewable Energy Investment Trends
- Financing issues – Macro perspective: Sources of Investment
- Financing issues – Micro perspective: Bankable Proposals - The IRENA Project Navigator
- Challenges for financing access

# Renewable Energy Costs Highlights

What do the costs of 9000 utility-scale and over 150k small-scale RE projects look like?



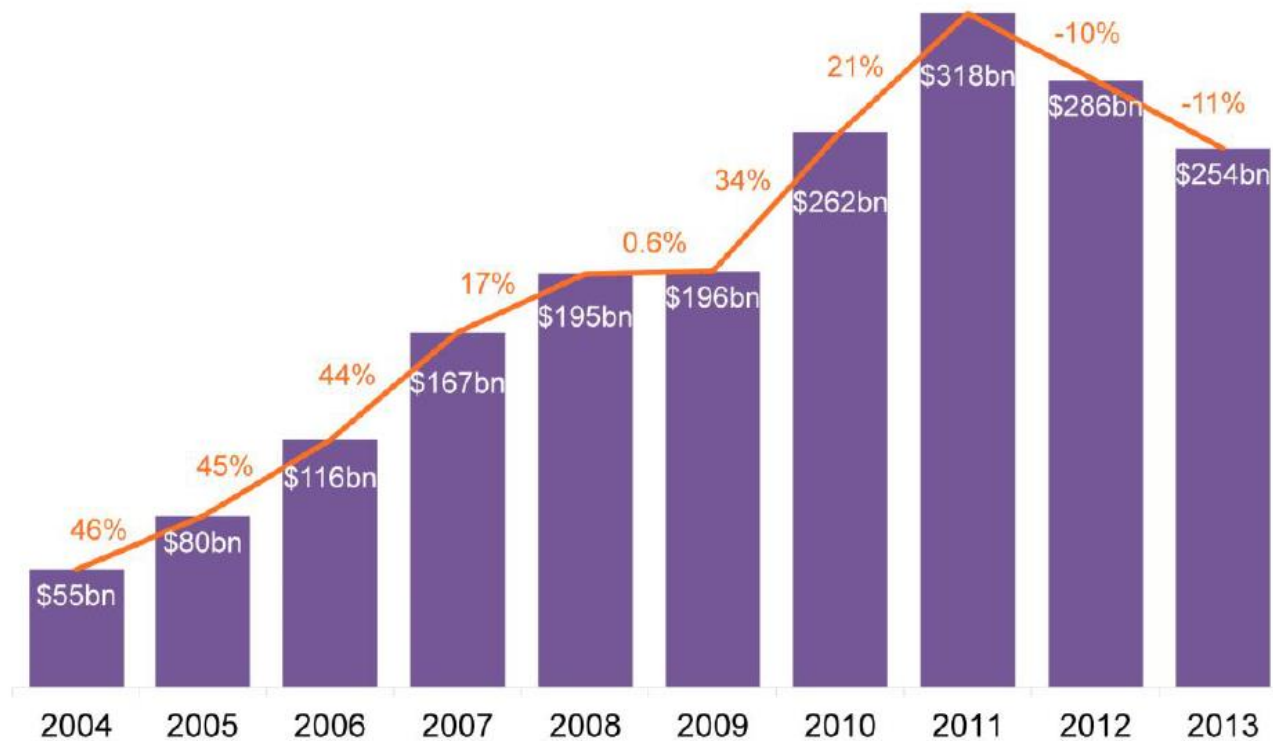
Renewable power generation is increasingly competitive



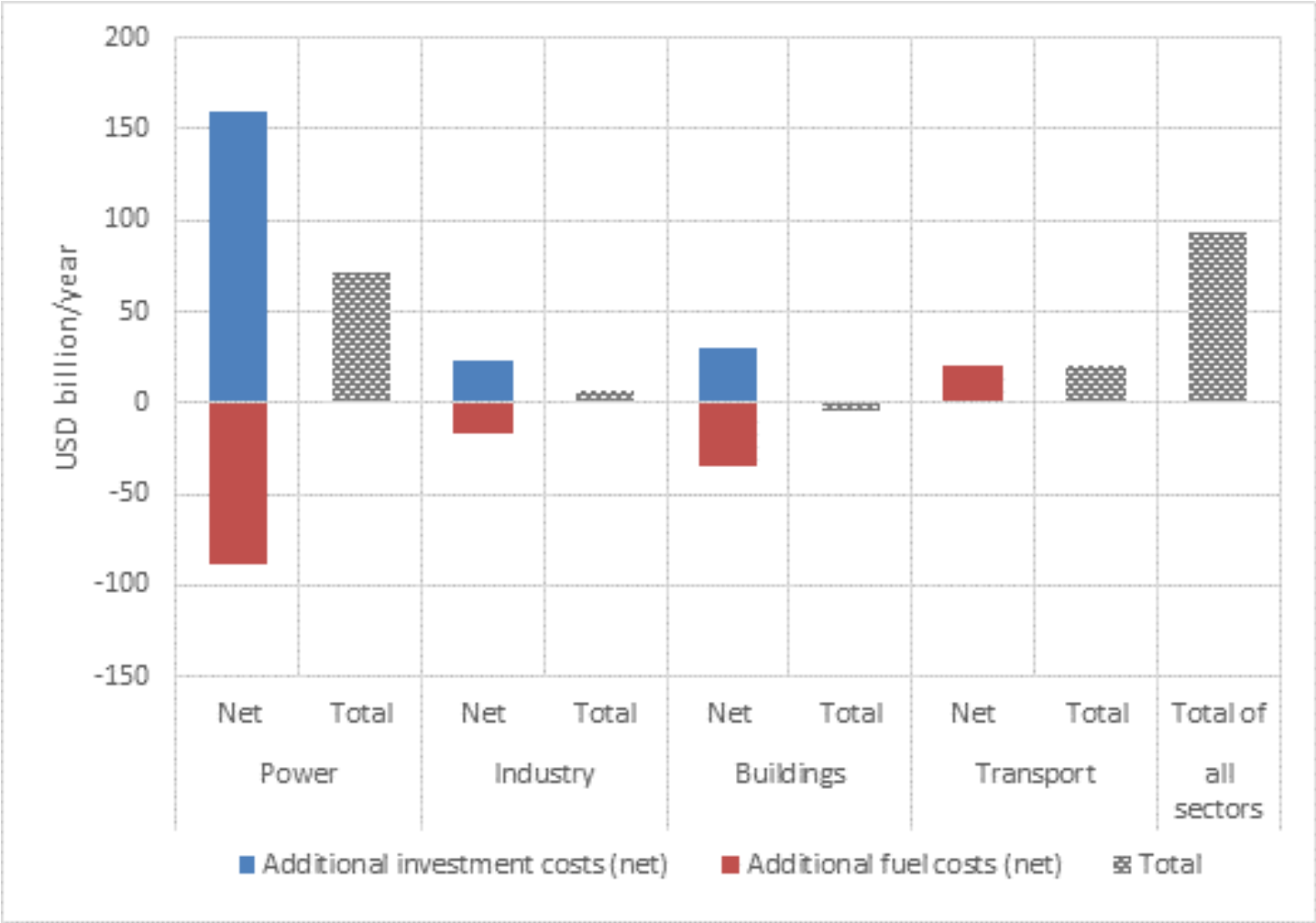
# Trends in Renewable Energy Investments

## NEW INVESTMENT IN CLEAN ENERGY

2004–13 (\$BN)



# Additional investments and changes in fuel costs



Source: IRENA Remap 2030

# Macro perspective: Sources of investments

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- Climate Finance  
(CDM, Tech-Transfer)

- Development banks

- Utilities

- Insurance and Pension Funds

- Green bonds

- Crowd funding

The traditional investors of the past are unlikely to provide the main share of future investment into renewable energies

Likely new investors will provide the main share of future renewable energy investments

## Project Navigator Background

### The Challenge of Renewable Energy Technology (RET) projects

- Failures to prove bankability to funding institutions
- Insufficient knowledge on project proposal development
- Higher project development costs
- High risk of project failure



IRENA member countries called for a solution to make project development

transparent and explicit

### IRENA Project Navigator:

- Best practices in project development tools
- Facilitating access to finance



The screenshot shows the IRENA Project Navigator website. At the top, the IRENA logo and name are displayed. Below the header, a navigation bar reads "IRENA Project Development Communication and Coordination Platform". The main content area is divided into several sections:

- Welcome, Roland Rösch!**: A personalized greeting with a small image of the wind turbine structure.
- News**: A section with three news items:
  - April, 2014**: Project Navigator launched
  - January, 2014**: First Project Navigator prototype system available
  - November, 2013**: Requirements defined.
- Project Navigator**: A dark blue button with the text "Quick Access to learning section".
- Start a project**: A dark red button with the text "Quick Access to create a workspace".
- Financial Navigator**: A green button with the text "Quick access to Financial Navigator".

At the bottom of the page, there is a copyright notice "© 2013 IRENA" and social media icons for Facebook and YouTube.

# Challenges for RE finance

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**Significant investments in RE and infrastructure are needed to decarbonize the energy sector:**

**Challenge 1:** The traditional investors of the past like Development Banks and Utilities are unlikely to provide fully the investments needed in the future.

**Need:** Adaptation of business models to focus more on capabilities and partnering with financial investors like Funds, Green Bonds and Crowd Funding.

**Challenge 2:** Scale of investments – investment trend goes to smaller projects like in renewables

**Need:** More people need to understand how project development and project financing works – IRENA Project Navigator.

**Challenge 3:** Unpredictable policies and regulatory uncertainty as main barrier to new investments from Funds, Green Bonds and Crowd Funding.

**Need:** Stable and predictable policy frameworks for renewable energy finance.

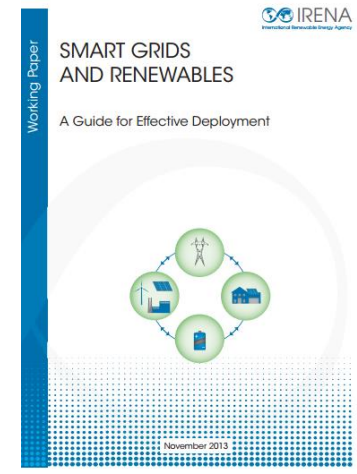
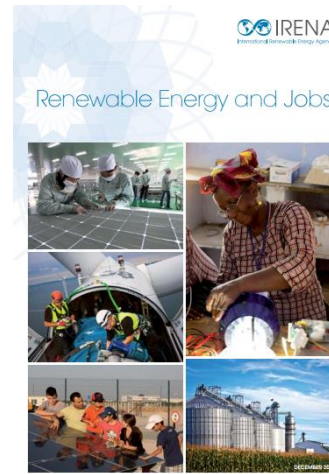
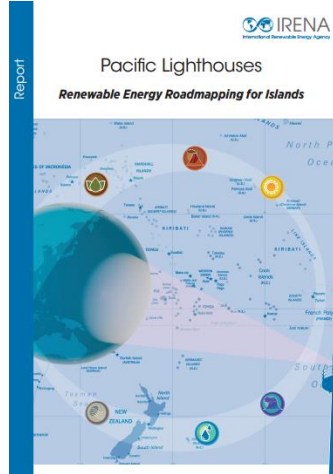
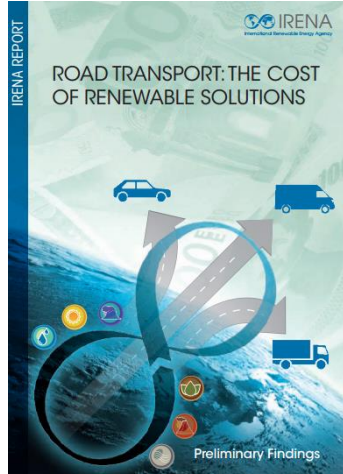
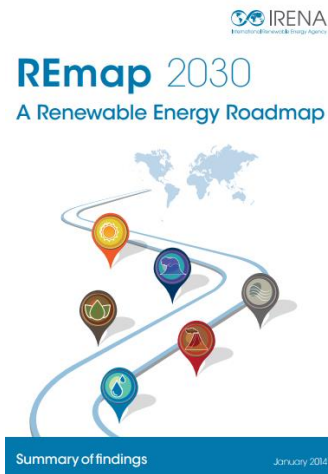
**Challenge 4:** Private investors consider the risk for investments in renewable energies still high compared to alternative investments.

**Need:** Risks and the cost of capital need to be reduced.



- What are the political risks related to renewable energy finance?
- How can risks and the cost of capital be reduced?
- What is the role of the different stakeholders in reducing risk for renewable energy, specifically the governments?
- How could the framework for RE finance from new investors like funds, green bonds and crowd funding be improved?

# IRENA PUBLICATIONS



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