



Global Clean Power: A \$2.3 Trillion Opportunity

KEY FINDINGS

Pew published *Global Clean Power: A \$2.3 Trillion Opportunity* to examine private investment in clean, renewable energy assets through 2020 under three policy scenarios: **Business-as-usual**: no change from current policies; **Copenhagen**: policies to implement the pledges made at the 2009 international climate negotiations in Copenhagen and; **Enhanced clean energy**: maximized policies designed to stimulate increased investment and capacity additions. The underlying data for this report were compiled by Bloomberg New Energy Finance, the world's leading provider of news, data and analysis on clean energy and carbon market finance and investment.

1. Opportunity Abounds

- Under the enhanced clean energy policy scenario, cumulative investments in clean power projects across the G-20 total \$2.3 trillion over the next decade – \$546 billion more than is projected under the current policy scenario.
- Under the enhanced scenario, annual investment across the G-20 could total could be \$337 billion in 2020, a 161 percent increase over 2010 levels.
- All G-20 countries have an opportunity to attract more private investment in renewable energy assets by adopting strong clean energy policies.

2. Asia Leads the World in Clean Energy Investments Based on Surging Growth in China and India

- Within the G-20, China, India, Japan and South Korea are projected to account for approximately 40 percent of clean energy project investments in 2020 under all three scenarios.
- Under the enhanced scenario, China would attract \$620 billion in cumulative private investments over the next decade.
- Under the enhanced scenario, India would attract \$169 billion in cumulative private investments over the next decade.
- Annual clean energy investment in India is forecast to grow by as much as 763 percent over the next 10 years under enhanced clean energy policies, and 369 percent under current policies.

3. The United States Would Benefit From Strong Clean Energy Policies

- The United States is one of the three countries with the most to gain from adoption of aggressive clean energy policies, when enhanced policies are compared to current policies.

- The difference between cumulative investments in the current policies and enhanced clean energy policies scenarios for the United States is \$97 billion (40 percent).
- Under the enhanced scenario, the United States could attract \$342 billion in total private clean power project investment over the next decade.
- The United States could attract \$53 billion annually by 2020 under the enhanced scenario – a rise of 237 percent over 2010 levels.

4. Europe’s Clean Energy Economy Matures

- The European Union has the potential to increase cumulative investments by 20 percent to \$705 billion over the next decade if the enhanced policy scenario is realized.
- Taken together, EU Member States are expected to attract \$85 billion in annual investments by 2020 if enhanced clean energy policies are pursued.
- Under the enhanced scenario, cumulative clean power project investment over the next decade in notable EU countries:
 - i. Germany - \$208 billion
 - ii. United Kingdom - \$134 billion
 - iii. Italy - \$90 billion
 - iv. France - \$57 billion

5. Clean Energy Policies Reduce Greenhouse Gas Emissions

- Only enhanced policy measures would ensure that the power-sector did its part toward peaking global emissions by 2015, consistent with the IPCC’s estimate of what is necessary to keep global warming below two degrees Celsius.

6. Renewable Energy Capacity Additions Could Exceed 177 Gigawatts Annually by 2020

- Collectively, the G-20 could see cumulative capacity additions of 1,180 gigawatts over the next decade if the enhanced policy scenario is realized. This would be equivalent to adding four times the amount of clean power capacity that exists today.
- Key facts in the wind sector:
 - i. Wind energy is projected to be the leading recipient of asset financing through 2020, reflecting its status as a relatively mature and cost-competitive large-scale clean energy technology.
 - ii. Under the enhanced clean energy scenario, asset financing in wind power escalates to \$190 billion—an increase of 222 percent over 10 years.
- Key facts in the solar sector:
 - i. Solar accounts for the second-largest share of asset financing in G-20 countries and maintains this position under all scenarios.
 - ii. Under the enhanced policies scenario, solar investments increase by 53 percent.

- Key facts in other renewable technology sectors:
 - i. Collectively, investment levels rise more for biomass, geothermal, waste energy and small-hydro power than wind and solar if countries implement ambitious clean energy policies.
 - ii. Overall, investment could grow to \$69 billion under the enhanced scenario – an increase of 263 percent over 10 years.

7. Policy Matters

- The extraordinary worldwide growth in clean energy investment over the past five years has been defined by a simple fact: where supportive clean energy policies are adopted, investment follows.
- Time and again, it has been shown that nations with the strongest policy frameworks have attracted the most capital and enjoyed the associated economic benefits, including job creation.
- Growth in the clean energy sector creates jobs up and down the supply chain – from engineering to shipping – and market expansion can benefit workers and businesses all over the world.