Overcoming barriers to international investment in clean energy

by
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Most of us would agree that clean energy is a worthwhile goal, and the world has invested more than USD 2 trillion on renewable-energy plants in the past decade. In 2014, energy generators added more renewable capacity than even before. But are we doing enough? According to the IEA World Energy Investment Outlook 2014, cumulative investment in low-carbon energy supply and energy efficiency will need to reach USD 53 trillion by 2035 to keep global warming to 2°C. It sounds a lot, and it is, but it’s only 10% more than the USD 48 trillion that would likely need to be invested in any case in the energy sector if the economy continues to expand and demand for power continues to grow as it has been doing in recent decades.

And the price difference with other types of energy is shrinking. Clean energy, especially electricity generation from renewable-energy sources, is increasingly competitive with new-built conventional power plants. It could therefore play a significant role in the transition to a low-carbon economy and help to meet broader economic and development goals. For example, the fact that electricity generation from renewables such as wind or solar power can exploit small distributed systems makes this form of energy suitable for areas not served by the large, centralised grids of traditional systems.

However, the deployment of low-carbon technologies is heavily influenced by government support, in particular in the solar- and wind-energy sectors. In the past decade, governments have provided substantial support to clean energy that has benefited both domestic and international investment. Globally, public support to clean energy amounted to USD 121 billion in 2013. At least 138 countries had implemented clean-energy support policies as of early 2014. Incentive schemes have contributed to enhancing clean energy investment worldwide, even if clean energy investment had to coexist with disincentives to investing in the sector, for example fossil-fuel subsidies, and the difficulties inherent in shifting away from fossil-fuels in the electricity sector, given the massive investments already made in traditional generation and the way electricity markets function.
Largely driven by government incentives, new investment in clean energy increased six-fold between 2004 and 2011, reaching USD 279 billion in 2011, before declining in 2012-13. Solar and wind energy have received the largest share of new investment – USD 114 billion and USD 80 billion respectively in 2013.

Prices of the equipment needed to generate clean energy, such as wind turbines and solar panels, have been falling, in part thanks to international trade and investment helping the solar photovoltaic (PV) and wind energy sectors to become more competitive. However, since the 2008 financial crisis, the perceived potential of the clean energy sector to act as a lever for growth and employment has led several OECD countries and emerging economies to design green industrial policies aimed at protecting domestic manufacturers, notably through local-content requirements (LCRs).

Local-content requirements typically require solar or wind power developers to source a specific share of jobs, components or costs locally to be eligible for policy support or public tenders. A forthcoming OECD report on Overcoming Barriers to International Investment in Clean Energy shows that as of September 2014, such requirements have been designed or implemented by at least 21 countries, including 16 OECD and emerging economies, mostly since 2009.

New, empirical evidence presented in the report shows that LCRs have hindered global international investment flows in solar PV and wind energy, reducing the potential benefits from international trade and investment mentioned above. This might be related to the fact that such policies increase the cost of intermediate inputs (the components needed to build the final products). This could lead to less competition in downstream segments of the value chain such as installation. Downstream activities are associated with more value creation than midstream manufacturing activities or upstream raw materials production and processing. The estimated detrimental effect of LCRs is slightly stronger when both domestic and international investments are considered. This indicates that LCRs do not have positive impacts on domestic investment flows.
In addition, according to results from a 2014 OECD Investor Survey of leading global manufacturers, project developers, and financiers in the solar-PV and wind-energy sectors on “Achieving a Level Playing Field for International Investment in Clean Energy”, LCRs stood out as the main policy impediment for international investors in solar PV and wind energy. It’s not surprising that a majority of international investors involved in downstream activities of the solar and wind-energy sectors selected LCRs as an impediment. More unexpectedly, a majority of international investors involved in upstream or midstream activities also identified LCRs as an impediment. This result suggests that LCRs can hinder international investment across the value chains.

As demonstrated in the OECD report, evidence-based analysis is needed to help policy makers design efficient clean-energy policies. Policy makers should reconsider measures in favour of domestic manufacturers for enhancing job and value creation in the clean energy sector if, as the OECD study suggests, the overall result is less investment and probably fewer opportunities for the very sector protectionism is supposed to help. Co-operation at a multilateral level is needed to address barriers to international trade and investment in clean energy.

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