Three ways to attract domestic institutional investment for renewable energy projects in India

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In order to achieve India's renewable energy targets of 175 GW of solar and wind power by 2022, approximately USD 100 billion of investment in renewable energy infrastructure will be required, including USD 70 billion of debt.

While these ambitious renewable energy targets are important and admirable, financing them is going to be no easy task. Renewable energy in India has traditionally relied on domestic commercial banks for financing; however, this bank financing has become constrained by several limitations. Many banks are nearing their exposure limits to the power sector, and existing regulations do not distinguish between lending to fossil fuel-based power and renewable energy. In addition, the typical tenor of bank loans is around ten years, whereas most renewable energy projects require longer-term financing that matches the project life cycle of 20 to 25 years. Finally, bank debt at 12-13% interest rate is also costly; and together these inferior terms of debt – the high cost, short tenor, and variable interest rates – make renewable energy in India approximately 30% more expensive than in the US or the EU.

Achieving India's renewable energy targets is going to require mobilizing a lot more debt at more attractive terms, from alternative sources.

One promising solution is domestic institutional investors, such as insurance companies and pension funds, who are ideally positioned to both increase availability of debt and provide debt at more attractive terms to renewable energy projects. Compared to commercial banks, institutional investors not only invest over longer terms, but also accept lower returns in exchange for lower risks, thus providing a better match with the risk-return profiles of renewable energy projects.

Preliminary analysis by CPI, performed earlier this year, shows that these institutional investors are likely to invest approximately USD 400 billion from 2014 to 2019. Based on their traditional share of 3.75% of their investments going to the power sector, if this share could be diverted to renewable energy, that would provide USD 15 billion of debt financing – a significant amount of the debt required to meet the targets.

So, what's the catch? First, given high risks during construction, institutional investors, who prefer low risk, are unlikely to invest in renewable projects before they start operation. Second, even for operational projects, institutional investors require a domestic debt rating of AA or higher, which most renewable energy projects do not have.

The first issue is manageable - domestic banks can continue to fund projects under construction, and institutional investors can help refinance operational projects. This would free up bank debt to be used for new projects.

As to the second issue – **enabling institutional investment will require financial instruments that can raise the credit rating of renewable energy projects.** There are two promising instruments that may be

able to do this: infrastructure debt funds by non-banking financing companies (IDF-NBFCs) and renewable energy project bonds with partial credit guarantees (PCGs).

IDF-NBFCs are pooled investment vehicles designed to facilitate investment across infrastructure sectors, including renewable energy. PCG are a form of credit enhancement where the borrower's debt obligations are guaranteed by a guarantor with a strong credit rating.

Both of these instruments can reduce risks to meet institutional investors' minimum requirement of an AA rating. Compared to commercial loans, they have the potential to provide more attractive terms of debt by lowering the cost of debt by up to three percentage points, and increasing the tenor by up to five years.

However, both instruments face structural and regulatory issues which have impeded their use as investment vehicles. We identified three of the key issues that, if addressed with the right policy changes, could enable institutional investment in renewable energy.

First, for both instruments, the domestic debt market does not differentiate between construction and refinanced loans, making it hard for banks to release debt for refinancing. This can be addressed by **encouraging public banking institutions to provide loans during the construction state of renewable energy projects**, in order to catalyze the construction debt market**.**

Second, IDF-NBFCs require a three-way agreement between the project developer, the project authority (usually state-owned power distribution companies called DISCOMs), and the IDF-NBFC. However, in India, the poor financial health of DISCOMs presents a risk. . The government can mitigate this risk by **creating a model agreement for IDF-NBFCs which includes government guarantees for off-taker risk and robust termination provisions.**

Third, for renewable energy bonds with PCGs, existing regulations limit institutional investors to investing in only up to 10% of the bond offering. This would require more than ten institutional investors per bond offering, which is difficult given associated transaction costs and small number of institutional investors in India. **Relaxing this regulation such that individual investors could subscribe to 25-33% of the bond offering would help address this barrier,** making it possible to raise the required debt from only three to four institutional investors.

By taking these three steps, the government of India may be able to make significant progress towards financing India's renewable energy targets, by harnessing the potential of institutional investment into renewable energy.