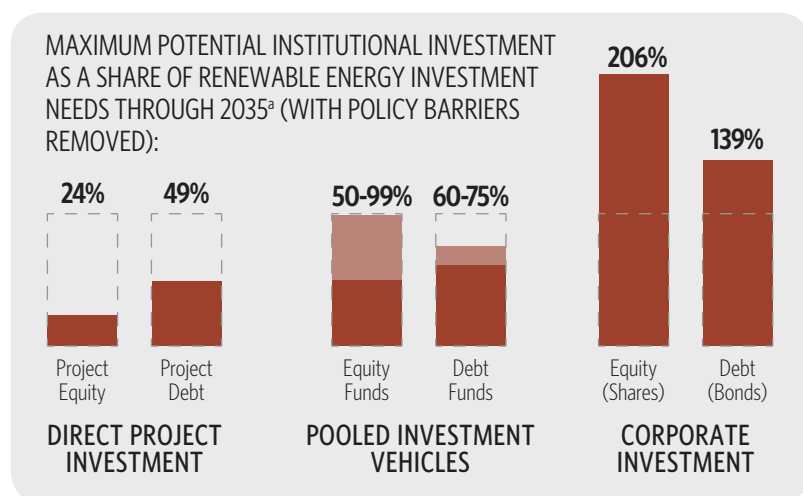


While institutional investors manage more than \$70 trillion in assets, renewable energy investment potential from institutional investors is limited by the ways these investors must manage their portfolios.

As a result of these limiting factors, and the investment options available, institutional investors may not be able to invest at sufficient scale to transform the cost of financing renewable energy.



ABILITY TO INFLUENCE COST OF FINANCING DIFFERS BY THE INVESTMENT VEHICLE USED:

DIRECT PROJECT INVESTMENT

- Typically illiquid and carries a premium return
- Potentially a good match with institutional investor profile; best opportunity for institutional investors to lower cost of capital for renewable energy projects
- Institutional investor capital may not be available at sufficient scale to impact market dynamics and thus lower cost of capital

POOLED INVESTMENT VEHICLES

- Investment vehicles that buy and hold renewable energy assets for the long-term may be able to reduce cost of capital and provide some liquidity
- Match with institutional investor profile, and potential to lower cost of capital, depends on fund structure, strategy and fees

CORPORATE INVESTMENT

- Institutions invest in utilities and other corporations, which may face their own constraints to investing in renewable energy
- Cost of capital will be determined by corporate finance and strategy concerns and capital market conditions, rather than institutional investor involvement; as a result, corporations may not pass through institutional investor advantages in providing low-cost, long-term financing to their renewable energy investments

FACTORS LIMITING INVESTMENT IN RENEWABLE ENERGY PROJECTS:

- Some institutions **have short-term needs** for liquidity and cannot invest in long-term assets
- Many institutions (particularly pension funds) are **too small to justify building a dedicated team** for direct renewable energy project investment
- All institutions require significant **liquidity in their investment portfolios**, to meet regulatory requirements and ensure their financial security, and are limited in the amount of illiquid assets they can own (such as project debt)
- Institutional investors must **diversify** across investment options to reduce investment risk, which limits their exposure to a single asset class like renewable energy

There are five improvements that can help institutional investors reach their renewable energy investment potential.

Institutional investors are far from this potential.^b We identify five potential avenues to encourage greater level of investment from institutional investors:

1. **Fix policy barriers that discourage institutions from investing.** However, this must be done carefully, considering the trade-offs being made to increase institutional investment in renewable energy. Examples of policy barriers include:
 - » **Renewable energy support policies that put institutional investors at a disadvantage;** for example U.S. tax credits, which cannot be used by tax-exempt pension funds
 - » **Policies with other objectives which discourage institutional investment in renewable energy;** for example European electricity market “unbundling,” designed to ensure efficient market operations, make investors choose between renewable energy generation and transmission assets
 - » **Energy and renewable energy policies that are inconsistent and create perceived policy risk;** for example Spanish retroactive tariff cuts and start-stop expiration of U.S. incentives discourage institutions from investing
2. **Improve institutional investor practices,** including treatment of illiquid assets, specialized investment expertise for renewable energy, and using asset allocation approaches that capture the risk and return characteristics of renewable energy assets
3. Identify whether **financial regulations affecting renewable energy investment** can be modified without negatively impacting institutional investors’ financial security, solvency, or operating costs
4. **Develop better pooled investment vehicles** that create liquidity, increase diversification, and reduce transaction costs while maintaining the link to underlying cash flows from renewable energy projects
5. **Encourage utilities and other corporate investors.** However, these investors may face their own set of barriers, and would not have the unique advantages of institutions when it comes to financing costs

^a Based on CPI analysis: “The Challenge of Institutional Investment in Renewable Energy.” Project and pooled investment potential shown as a share of required project finance investment. Corporate investment potential shown as a share of required corporate / balance sheet finance. Investment needs, are based on the International Energy Agency’s World Energy Outlook 2011, and Bloomberg New Energy Finance.

^b See CPI (2012), “The Landscape of Climate Finance 2012.” In 2011, over \$600 million of institutional investment flowed to new renewable energy projects, compared with an estimated maximum potential of \$39 billion per year to renewable energy. However, this figure excludes reinvestment and secondary transactions - which comprise the bulk of insurance company and other institutional investor activity.