

Data Insight

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Private Participation in the Renewable Energy Transition

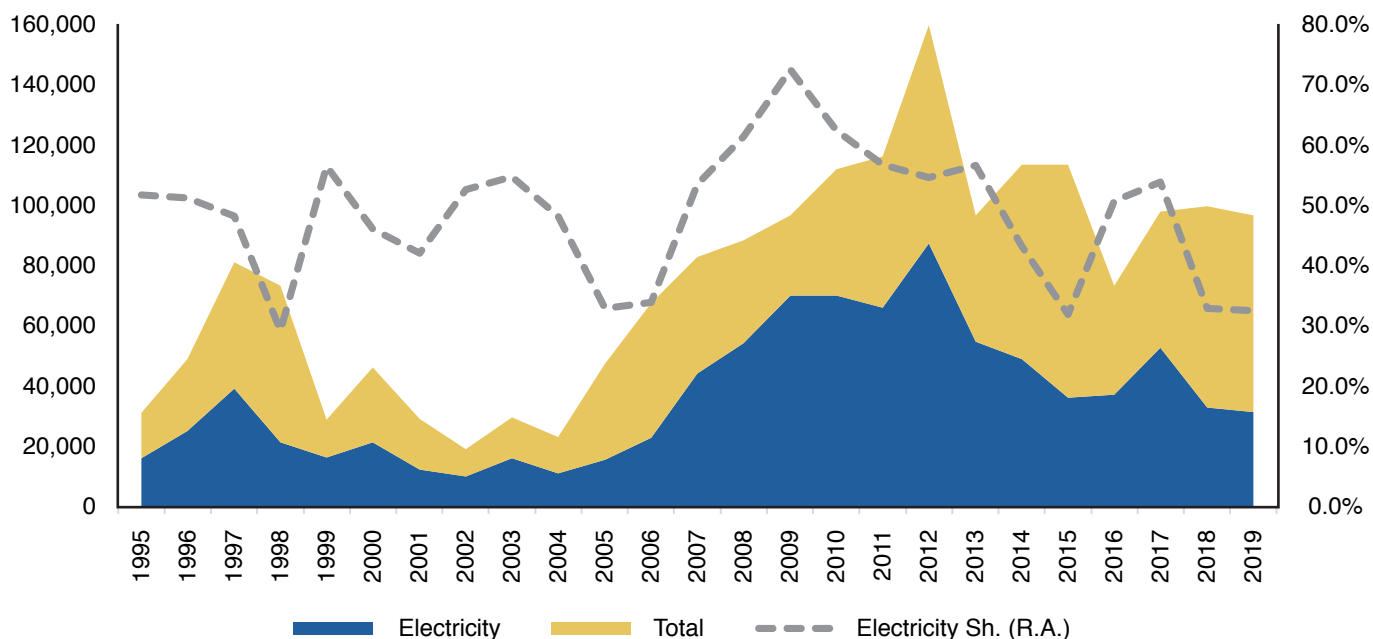
Context

The World Bank's Private Participation in Infrastructure Investments (PPI) database provides detailed information on all the PPI flows undertaken by private investors in low- and middle-income developing countries. With the growing role of private finance in the energy transition, especially in developing countries, keeping track of private renewable energy projects can deliver valuable insights. Annual data for 127 low- and middle-income reporting countries is available from 1990. It provides information on the contractual details of PPI, including contract type (e.g., build/rehabilitate/manage), production capacity, bidding criteria, primary revenue source (e.g., user fees/purchase agreements), capital subsidies, project financing structure, etc. The data is accessible from <https://ppi.worldbank.org/en/visualization> and includes interactive tools.

Key Insights on Electricity Sector and Renewable Energy Investments

- The electricity sector captures a significant portion of PPI flows in developing countries. Over half (51%) of total PPI flows in developing countries since 1995 (~ US\$1.9 trillion) went into the electricity sector (Figure 1). This figure covers the privatization of existing electricity infrastructure, as well as the deployment of new infrastructure, including power generation, transmission, and distribution projects.
- Since the early 2000s, annual average total PPI flows in developing countries increased to US\$40 billion, following electricity market liberalization in developed countries during the early 1990s.
- Between 2000 and 2010, the focus of PPI contracts was more on privatizing and rehabilitating existing infrastructure. Between 2010-2020, this trend then shifted to investing in renewables (Figure 2). One reason for this shift was the increased capital flows into developing countries after the 2008 Global Financial Crisis.
- The share of PPI flows into the electricity sector that were invested in renewable generation increased from 7.4% in 2010 to 46.5% in 2019. Among renewable technologies, wind and solar power attracted the most capital investment from private investors.

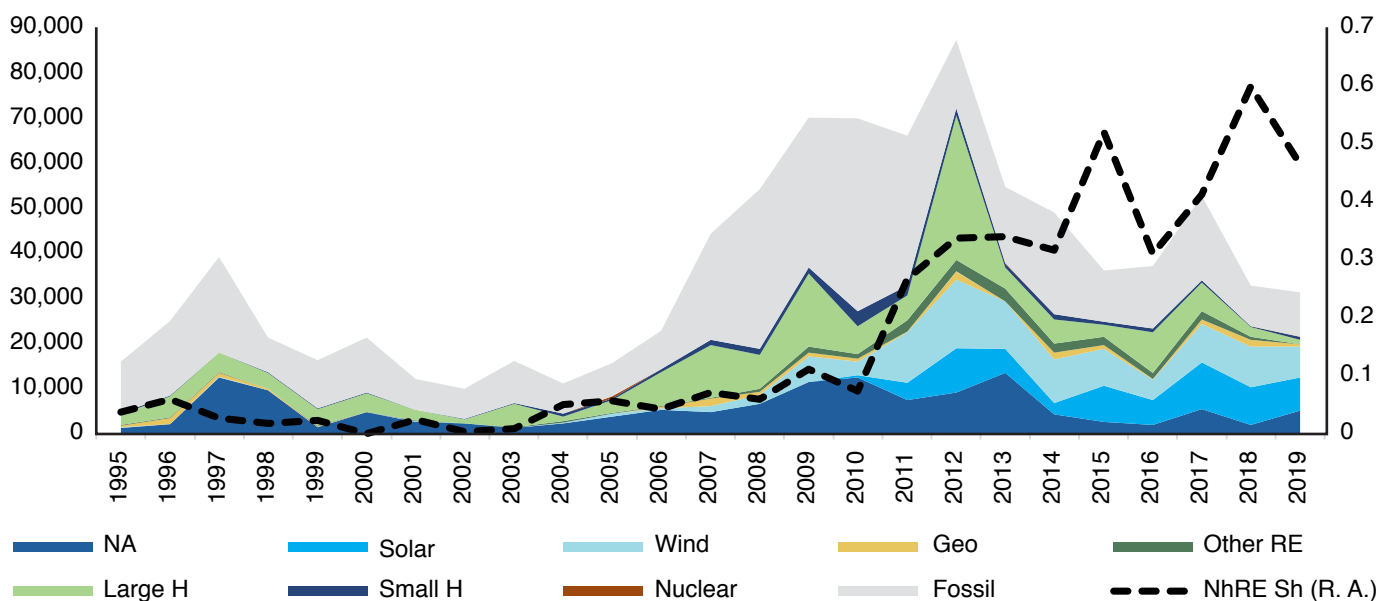
Figure 1. Total value of PPI projects (in million US\$, %).



Source: World Bank PPI Database.

Note: "Total" covers all the PPI investment flows.

Figure 2. Total value of PPI projects in the electricity sector by resource (in million US\$, share).



Source: World Bank PPI Database.

Note: NA = Not available, which mostly covers the distribution and transmission projects; Solar = solar power; Wind = wind power; Geo = geothermal power; Other RE = other renewable sources, including biogas, biomass, tidal power, and waste; (large, small) H = hydro power; Nuclear = nuclear power; Fossil = oil, gas and coal power; NhRE Sh = non-hydro renewable energy share in total PPI investment in the electricity sector, including solar, wind, geothermal, and other renewable resources.

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