

Feed-In Tariffs

Designed to encourage investment in renewable technologies, a feed-in tariff (FIT) requires utilities to buy renewable electricity from customer-generators at fixed prices, typically at retail rates (or higher).

Unlike upfront incentives (rebates, buy-downs, and grants) that reduce the initial equipment and installation costs, a FIT pays out over a long-term contract (typically 10 to 20 years). Over time, the payments are usually sufficient to recoup system development costs and provide a reasonable return.

In Germany, FITs helped boost renewables to now comprise 25% of the country's energy mix (up from 6.3% in 2000). Compared to other countries, the United States has been slower to implement FIT policies, favoring renewable portfolio standard (RPS) policies driven largely by non-performance-based incentives (like rebates and tax credits). Only a few areas—such as in California, Florida, Hawaii, Indiana, New York, Vermont, Washington, and Oregon—have FIT programs through various utilities thus far.

A key distinction between net-metering and FITs is that most net-metering programs do not pay out cash—retail rate credit is given for any amount produced in excess of what is used on-site. The credit is rolled over from one billing cycle to the next and typically expires after a certain duration (a one-year cycle is common). Because the best that net-metered systems can do is to reduce (or zero out) the site's electricity bill, there also is no financial incentive to produce more electricity than the site uses.

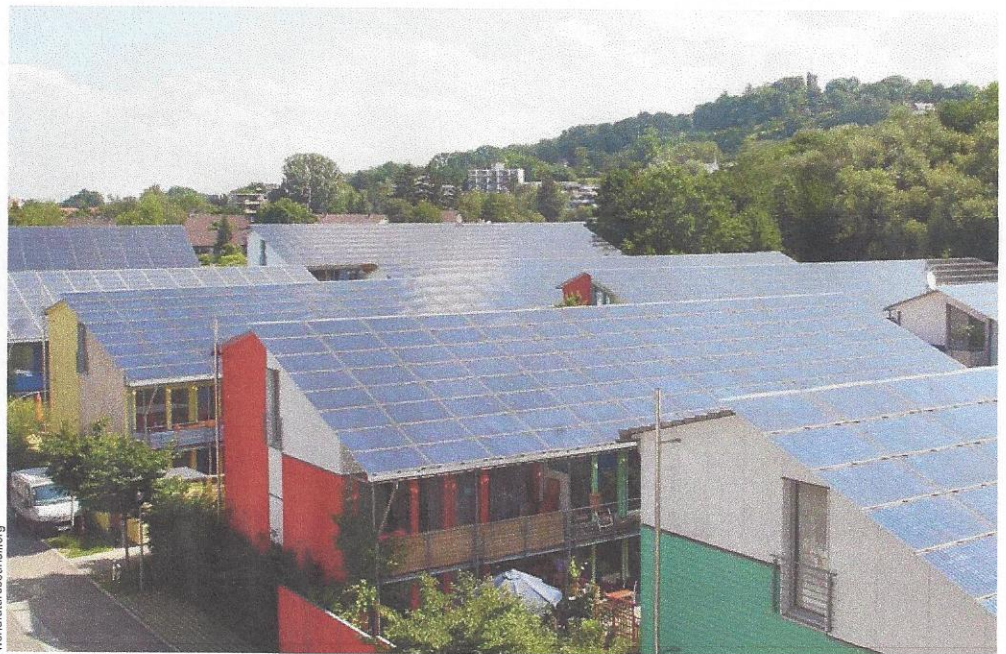
Conversely, FITs provide profit motivations to maximize a system's generation, which ultimately diminishes demand for conventionally produced electricity. Unlike net metering, a FIT encourages development on sites where there are no loads (vacant lots) or on sites where the generation may exceed what the site requires (for example, warehouses, farm buildings, and parking facilities). A typical FIT pays at a fixed rate (retail or higher, in most cases) based on the total number of kilowatt-hours (kWh) of renewable electricity produced.

FIT programs, like any incentive program, are not without their weaknesses. Incentive programs are vulnerable to changing political and economic conditions. Spain's FIT, for example, was remarkably successful in driving the development of new solar projects, but in response to the global economic downturn in 2008, the government lowered the FIT payments. Investors were shaken and projects were abandoned, and the resulting glut of PV modules helped to drive down global prices by nearly 40% in 2009.

In the United States, the size of projects qualifying for FITs varies by jurisdiction, and most FIT programs establish a queue on a first-come, first-served basis, with caps on how much electricity any site can sell back to the utility. To see FIT program details (along with all other RE incentives), visit the Database of State Incentives for Renewables & Efficiency (dsireusa.org).

—Kelly Davidson

Germany's FIT program has resulted in one of the most significant deployments of solar electricity in the world.



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