



# FEED-IN TARIFFS: THE MOST EFFECTIVE RENEWABLE ENERGY LAW IN THE WORLD

We face **twin problems**:

Emissions from fossil fueled power plants lead to **catastrophic climate change**

The **cost of energy** is rising and electricity is no exception

We not only must **stop carbon emissions** but find ways to reclaim some of the carbon already in the atmosphere.

We can convert to a **solar energy based economy**:

1. Eliminate all energy waste

2. Convert the **electric power grid**;

3. With renewably generated electricity operate houses and **buildings without fossil-fueled** heating systems

4. Using renewably generated electricity, convert land **transportation** to electricity.

A central power generation plant using **high temperature concentrating solar** collectors and molten salt thermal storage can generate steam for turbines **24 hours a day**. A grid based on such power plants can be augmented by wind and other renewable technologies, including decentralized, small power generators using photovoltaic cells mounted on houses and businesses.

The technology is available. However, there are significant **impediments** to such a systemic conversion to a solar economy:

**Cost and pricing:** Heavily subsidized fossil fuel sources, fluctuating oil/gas prices, high initial capital cost for renewable systems

**Legal and regulatory obstacles:** Lack of legal framework for independent power producers, planning restrictions, grid access, liability insurance requirements

**Market performance:** Lack of credit access, perception of technology uncertainty and risk, lack of skills and information

**Current policies** only protect utilities and keep electricity prices rising

**Tax credits** help only those with enough wealth to take advantage of them

**Net metering** benefits utilities more than small power producers

**Tax-financed programs** are under-funded and subject to budget cutting

Feed-in Tariff laws, pioneered in Germany in the 1990s, successfully **address these problems**. A good Feed-in Tariff law

provides a platform for **all renewable technologies**

provides favorable tariffs for all **scale** levels, from domestic to large

takes account of the **development level** of each technology

guarantees long term **investment security**

is **simple** to administer

is **easy to explain**, ensuring public acceptance

gives renewable energy **priority access** to the grid

**obliges grid operators** to purchase electricity from renewable energy sources

**sets the price** of renewable energy for a long, fixed period

sets **no limit** to the amount of renewable electricity fed into the grid

**promotes innovation** (annual reduction of tariffs drives technological efficiency)

promotes **stability** (no tax dollars involved: can't be cut from state budget)

promotes **public support: participation**, awareness, benefits

creates **fair market conditions** for every energy provider, regardless of size

Maine's feed-in tariff law will create **fair competition between utilities and citizen-producers**. It will

require utilities to pay a set price for renewable power, regardless of the amount generated

lock the price in for 15-20 years, but decreasing it every starting year

set the price independently of the retail rate so that it provides a reasonable return on the investment in renewable generating capacity

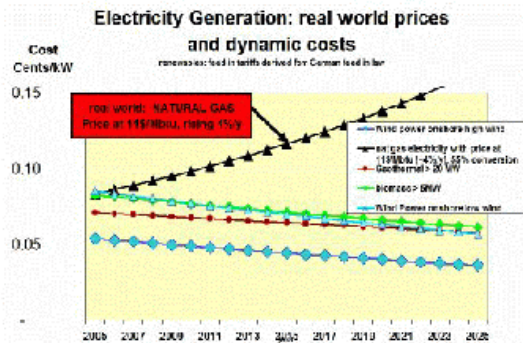
Since power generators, large or small, will be paid only for the power they produce, there is a built-in incentive to build only efficient generating systems and maintain them well

The idea behind Feed-in Tariff legislation is to use a **market-based approach** to hasten the time when renewable

energy becomes cheaper than the price of fossil-fueled power generation.  
There are no tax dollars involved.

Feed-in Tariffs have been shown to  
reduce CO<sub>2</sub> emissions  
create jobs  
stabilize and ensure the energy supply  
guarantee investment security  
drive technological innovation  
provide fair market conditions for all participants

Results of the German Feed-in Tariff law:  
became a world leader in solar power  
photovoltaics and wind power grew exponentially since law was introduced  
biomass sector grew 55% in 2006 alone  
**249,300 new jobs** have been created  
retail electric rates remained stable  
blackouts have been virtually eliminated; brownouts are extremely rare  
annual investment volume in renewables grew to 8.7 billion  
**business volume grew to 21.6 billion**  
**cost of PV systems dropped 25% (1999-2004)**  
**cost of wind turbines dropped 30%**



renewable power's market share rises 2%/year  
**carbon emissions were reduced** by 97 million tons  
of CO<sub>2</sub>

The **cost to rate payers** of a Feed-in Tariff law, based on the experience of nations where it has been introduced, is estimated to be 3-4 ¢/kWh as long as the program is in force. In contrast, Central Maine power residential rates rose 4 ¢/kWh since 2000 and will continue to rise as long as fossil fuel prices rise or fluctuate. **Feed-in Tariffs are a good deal!**

**For more information: [www.midcoastgreencollaborative.org](http://www.midcoastgreencollaborative.org)**