



# Inside Energy

Published by the Caesar Rodney Institute  
Center for Energy Competitiveness

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## **RE: Wind Power is a Mature Industry, Time to End Subsidies**

**DATE: 4/16/11**

How long should government subsidies last for an emerging industry? The best answer is they should never start. New products go through a product development life cycle; invention, slow initial growth with iterative product improvements, market acceptance, rapid growth, maturity, and decline. New products that go through this process are robust and can withstand the challenges of the free market. Government subsidies lead to premature rapid growth and skip the tempering process of product improvement and market acceptance. Then, when the subsidies disappear, the market collapses. This is exactly what has happened in countries where high renewable energy subsidies are removed such as Spain.

But let's assume there are some products that are just so important we have to subsidize them. Most people would agree subsidies should still end when an industry becomes mature. There are several measures of market maturity. The most important measure is when a product reaches a certain share of the market, usually at about 10%, or begins rapid growth. A second measure is when the product becomes price competitive with most of the alternative available products. A third measure is when product innovation begins to level off and large numbers of competitors enter the market.

According to the American Wind Power Institute, wind energy has accounted for 35% of all new electric generating capacity built in the United States since 2007, second only to natural gas. They also report there are over 250 wind power manufacturing companies employing 20,000 people. The U.S. Energy Information Agency "2011 Annual Energy Outlook" projects the levelized cost of new electric generation capacity in 2016. Onshore wind turbines, without subsidies, are roughly equal in cost to new coal plants, lower than nuclear plants and slightly higher than natural gas plants (offshore wind and solar are 2.5 times onshore wind). New wind turbines beginning to enter the US market from China are even cheaper. The Department of Energy "2009 Wind Power Marketing Report" indicates both the average size of wind turbines and the average size of wind farms has stopped growing as innovation slows.

Clearly, by all the key measures, wind energy is a mature industry. Existing federal wind subsidies are set to expire at the end of 2012 and should be allowed to do so.

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