

**THE ECONOMIC TRANSITION TO RENEWABLE ENERGY PATH
IN 3 STEPS**

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While the overall strategy is simple:

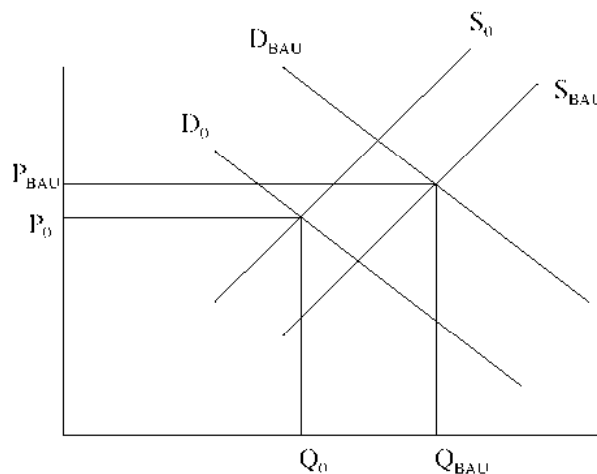
Increase the supply of renewable energy, decrease the supply of fossil fuel generated energy and decrease the demand for energy through improving efficiency,

the mechanics of actually doing so require 3 specific economic steps (these steps can be concurrent).

The following illustrates these 3 steps using the example of a generalized market for electricity.

Baseline Case:

Characterize the current situation as the Demand (D_0) for and the Supply (S_0) of electricity as having the quantity demanded (Q_0) at a price of (P_0).

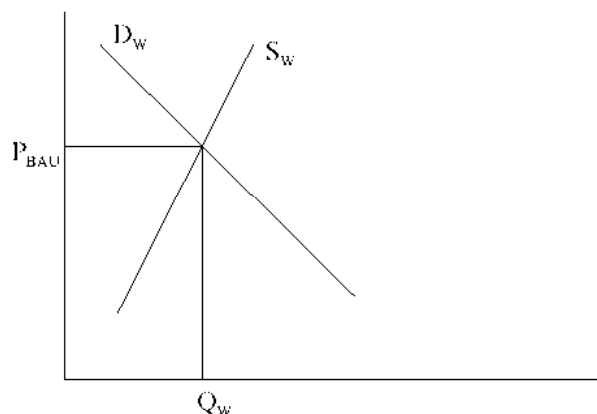


Business As Usual (BAU)

Under business as usual both Demand and Supply would increase, but probably Demand more than Supply, resulting in higher quantity (Q_{BAU}) at a higher price (P_{BAU})

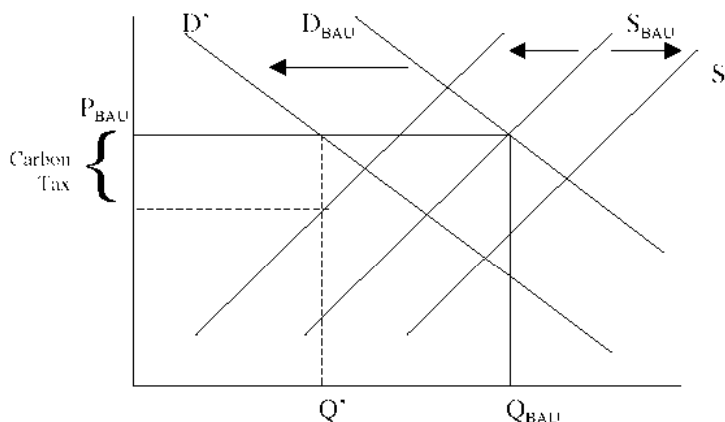
Step 1:

Using the BAU price to target a guaranteed "Electricity Feed Law" price (see Paul Gipe) paid to producers of renewable energy, such as Wind Power. This would greatly increase Wind Power (Q_w) as has been the case in the EU, over the existing quota type arrangement used in the US



Step 2:

Decrease the supply of fossil fuel energy by a combination of enforcement of the Clean Air Act and an emissions cap and trade system (possibly through the McCain-Leiberman Act) and increase energy supply by the increase in wind power



And decrease the demand for energy through comprehensive and extensive implementation of energy efficiency measures

Step 3:

Institute an income-neutral carbon tax to make the market clear at the Business As Usual Price (P_{BAU}).

Result:

The result is a market that supplies energy needs at the price that would have resulted under the Business as Usual scenario, but with a substantial increase in renewable energy, decrease in fossil fuel energy, and a decreased demand for energy over the business as usual case. Depending on the precise magnitude of the demand and supply shifts involved, the final quantity of energy could be greater than that provided currently. But in any case, the quantity of carbon emissions associated with the energy produced would be lower than that produced currently.