

Ferguson: Energy Matters

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What's the Value of Green Power?

"A cynic is a man who knows the price of everything and the value of nothing." Oscar Wilde

As a numbers junkie, I understand the urge to quantify everything. Numbers can tell us a lot if we listen to them. But only a foolish cynic believes that prices can tell us everything, as Oscar Wilde noted.

California has launched a process to decide what electric transmission facilities should be built to access renewable energy resources—'green' power. Since we are all shoppers at heart, our natural instincts are to access the least expensive resources first. So, the first step in the transmission planning process will be to estimate what the likely cost of power from each potential resource area would be.

Cost is only half of the equation. The other half is value.

Mother Nature makes some renewable resources available only when the sun shines or the wind blows. Other sources provide energy 24/7. What is the relative value of these resources?

This question is usually answered by comparing the cost of conventional 'brown' power during different times of the day and the year. For example, if the price of brown peaking power is twice the price of baseload power, perhaps it is reasonable to assume that the value of renewable power on peak is also twice the value of baseload green power.

These calculations are not simple, especially when you consider that transmission facilities will last for many decades. Not only do they require estimates of the current prices of electricity everywhere in every hour of every day, prices many years into the future must be estimated as well. A great many assumptions must be made, including what the price of natural gas will be in 20 years.

The transmission planners are undaunted by this challenge, even though their track record in forecasting gas prices is abysmal.

Even if we knew what the price of both green and brown power would be at every instant for the next 50 years, it wouldn't provide us the information we need to decide what transmission lines should be built.

California is interested in renewable power not only because ten years from now—by the time the transmission lines are built—it may be cheaper than gas-fired power. Green power has more **value** than brown power, but how much more?

Those convinced that price is everything try to calculate the price of the damage that brown power causes. The price of global warming can be translated into the price of carbon dioxide emissions, for example. California appears determined to establish a market in which carbon emissions permits are traded and permit prices can be used as a proxy for the cost of global warming. In Los Angeles there is a price for air pollution permits that serves as a proxy for the cost of sick children.

You get the idea. For every benefit that green power provides, cynics believe that the value is merely the estimated price we would 'pay' if we continue to rely on brown power.

This is quantification run amok.

As every serious numbers junkie knows, when you pile one estimate on top of another before long you have meaningless numbers. You have become Oscar Wilde's foolish cynic who thinks he knows the price of everything—including global warming and children's asthma—and knows the value of nothing.

You didn't fall in love because you calculated the monetary cost of being lonely. You didn't raise your family because it was cheaper than being childless. The difference between right and wrong is not cost.

Unfortunately, our bureaucratic system discourages the use of values in the decision making process. For example, California's touted global warming legislation requires that any regulations promulgated to reduce greenhouse gas emissions be 'cost effective', whatever that means.

The intent of this language is to ensure that regulations don't cost too much, a reasonable goal. What the language means to bureaucrats, however, is that they must compare the cost of regulations to the cost of global warming—an apples to oranges comparison if ever there was one.

When it comes to building a transmission line, permitting agencies are required to demonstrate the 'need' for the line. Unfortunately, 'need' has become synonymous with 'cheapest'. Consultants are hired to estimate the price of everything to establish a 'record' on which the cheapest decision can be based.

It is impossible to calculate the value of renewable energy and that it is the height of folly to try. There is an upper limit to the price we are willing to pay for that value, but determining that price is a judgment call, not a calculation.

The future is bleak indeed if California must know the price of everything.

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