Would you be willing to pay 3 ½ cents a day to reduce the pollution from the electric power you use by 40%?

In a recent article, the San Francisco Chronicle talked about the high price of adding renewable energy to the grid. Citing a study prepared by the California Public Utilities Commission's Division of Ratepayer Advocates, it reported that, on average, new contracts for renewable power are 15% more expensive than power from a natural gas plant. The implication is that consumers should brace themselves for big rate increases as the new solar and wind projects come on line. Perhaps it's worth taking a minute to look at the actual numbers.

The utilities in California must deliver a third of their power from renewable sources by 2020. Their renewable shares are already close to 20%. The question, then, is what the rate impact would be from expanding to reach the 33% goal. Let's be conservative about this. California Governor Jerry Brown is hopeful that the utilities will actually deliver 40% renewable power within the same timeframe. So, let's assume an additional 20% increment of renewable power.

If, as predicted, that new renewable power costs 15% more than the best alternative (natural gas), what would the effect be on consumer rates and bills? Here is the math:

Purchasing 20% more power at a 15% mark-up adds 3% to the overall cost of power (.2 x .15 = .03). The electricity itself comprises about half of the customer's bill, so the additional cost of power would result in a 1.5% increase in the utility's revenue requirement (if the current revenue requirement is 2X, the impact of the added renewables can be represented as 2X + .03X = 2.03X; the percentage change looks like this: 2.03X/2X = 1.015).

Rates would have to be raised by 1.5% to cover the added cost. For customers with an average rate of 18 cents per kilowatt hour, that's an increase of .27 cents (a quarter of a penny) per kilowatt hour. Customers using 400 kilowatt hours per month would pay an additional $1.08 per month. That's on top of a current bill of $72.00. For the typical family, the added cost is 3 ½ cents per day.

In our current economy, no rate increase is trivial. But this particular one is small. The utilities could raise rates twice as much this year alone just to cover inflation. And just think about how much this small increase can buy. Since California regulated utilities already get about half of their power from sources with little or no greenhouse gas emissions (hydroelectric, nuclear, and existing renewables), that additional 20% renewable power can knock out about 40% of the emissions that remain. Not a bad deal, for 3 ½ cents

a day.