Emission reduction goal easily within our reach

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Why has President Bush agreed to reduce our emissions by only 50 percent by 2050? I've spent the past three years researching what the average citizen needs to know about the energy situation, and what can be done about it.

My research shows there are four main areas that can be improved upon to reduce emissions, and by my calculations, it can be done much more quickly than 50 percent by 2020. Here's how:

Let's say consumers focus on reducing their energy consumption.

That means both businesses and households turnoff lights when they're not in use, buy energy efficient bulbs, turn thermostats up or down to minimize energy use, etc. It might mean taking baths and showers less often, cutting lawns less often.

However it's achieved, though, every household and business would set a goal of reducing its energy consumption by 20 percent.

Secondarily, let's say consumers focus on reducing their emissions. That means buying products that have lower emissions, such as electric lawn mowers, solar energy products, low-emissions cars, alternative fuels, etc. Let's give them a goal of 20 percent reduction in emissions.

Now consider the energy suppliers. Let's look at their emissions. We'll give all energy suppliers the goal of reducing emissions by 20 percent through the use of clean energy. Austin Energy has recently raised its goal from 20 percent to 30 percent clean energy by 2020 - much sooner than 2050.

The remaining component is reducing the amount of energy that energy suppliers must produce to meet the demand. This means improving efficiency and reducing waste. Energy is wasted if it is produced but not used. This is where the global grids, smart grids and energy storage come into play. We'll set a goal of 20 percent for energy suppliers to increase efficiency.

If we reduce each of these four components by just 20 percent, that means we could cut emissions by more than half. To understand this, consider this example. Say you go to a store where they have 100 marbles. You buy 80 percent of them. That's 80 marbles.

When you get them home, you notice that 20 percent of them are flawed in some way so you keep only 80 percent of them. That means 64 are good.

Now let's say 20 percent of the remaining marbles are an unappealing color, and you decide not to use them. So you use 80 percent of the 64 marbles, which is 51.

But then you discover the box you want to store them in can hold only 80 percent of the remaining marbles, leaving you with 41.

In the same way, if we combine these four areas of improvement (80 percent of the current consumer energy usage x 80 percent of the emissions coming from the products that consumers use x 80 percent of the emissions as compared to the emissions from current energy production sources x 80 percent due to efficiency gains in production, storage and distribution) we can get to 41 percent of the emissions we're currently producing.

Stated differently, these improvements would reduce emissions by almost 60 percent, or more than half of what we would otherwise produce.

It doesn't need to take 42 years to accomplish this. In fact, we might be surprised at how quickly we can succeed.

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