

*Private Members' Business*

ment itself; second, it highlights a red book promise that will not be kept, concerning the reduction of greenhouse gases.

The member's motion is not very solid. It shows an obvious lack of front-line information. I am sure that the member can present us with much more substantial motions.

I conclude on an energy-saving note by telling you that on December 8, 120,000 Christmas lights will be lit on and around Parliament Hill—I repeat, 120,000 lights.

• (1840)

Also, I invite you to count how many government vehicles are left idling on the Hill, with their engines running, all day long. A good contribution to saving and the greenhouse effect! I believe that the federal government should do its own homework before imposing on others.

[English]

**Mr. Bill Gilmour (Comox—Alberni, Ref.):** Mr. Speaker, one of the main justifications for the use of renewable over non-renewable sources of energy is the greenhouse effect. I believe this is the rationale for this motion from the member for Davenport.

The greenhouse effect is the concept that increased emissions of greenhouse gases caused by human activity such as the burning of fossil fuels will lead to increased temperatures in the global climate, hence the move toward renewable sources of energy as opposed to the burning of fossil fuels.

It is a fact that the earth's surface temperature and human emissions of greenhouse gases have both increased over past decades. However, to suggest that we must abandon traditional sources would be unwise to say the least.

It is important that any shift from non-renewable to renewable resources be based on the merits of that resource, not simply on an anticipation of what may or may not happen. Energy policies must be based on economic, environmental and industrial concerns. I agree that Canadians need to actively participate in energy conservation and efficiency. This does not mean the government should be issued a blank cheque to promote this concept.

The member for Davenport suggests that we should place greater reliance on renewable sources of energy over non-renewable resources. Many renewable energy technologies are available. They are already in use around the globe and can provide different alternatives.

There are several sources including solar power, wind, wave, tidal, and hydro or water power. I would like to go into this a bit to show there is really no easy fix in this huge equation.

Other less known sources include biomass, which is the conversion of plant and animal matter into energy, and geothermal energy which is from within the earth and is very popular in New Zealand.

Converting to renewable sources of energy is not an easy procedure. We need to look at the whole picture when we talk about non-renewable and renewable forms of energy because it is not as simplistic as it may appear at first glance. Renewable energy is not without its own problems. There are economic, environmental and practical considerations that must be taken into account.

California uses several forms of solar energy. There are huge energy collectors which provide electricity for hundreds of thousands of homes at competitive rates. Solar energy is also used for hot water heating in buildings and current solar energy research is looking into the concept of converting direct sunlight into electricity.

Although solar energy appears to be a sound environmental choice there are still considerations. The manufacture, installation and disposal of solar power systems involves environmental health and safety considerations. We need to question how much fossil fuel energy input is required for solar systems compared to fossil energy consumed by comparable conventional energy systems.

The manufacture of solar cells also uses hazardous material such as arsenic and cadmium. Some of these materials can be quite hazardous to the people who use them. What I am simply pointing out is that every area has its problems.

Another concern with solar power is the large amount of land required for the plants. Approximately one square kilometre is required for every 20 to 60 megawatts generated and this causes a problem.

Wind energy is another source of renewable energy. Windmills have been around for centuries and are still functioning in many areas such as California and Denmark. Presently wind turbines produce 1 per cent of the electricity for California and Hawaii and many nations are currently looking into this resource as a positive alternative.

What needs to be noted when we examine these various sources of energy is that almost every energy source has some kind of negative environmental impact. Renewable sources of energy are not without their problems and considerations.

For example, although wind power produces no air or water pollution and does not involve toxic or hazardous substances, it faces public opposition because of its visibility and the noise of the turbines.

• (1845)

Our traditional form of renewable energy is hydro power. Dams generate the electricity through the weight of water going