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Ashok Dhillon has 40 years of front-line business experience in Canada and International markets. He incorporated his first construction company in 1974, and since then has founded and led companies in construction and international power development.

Over the last 20 years Mr. Dhillon, has led and worked with top Canadian talent in the legal, engineering and accounting firms, such as Fasken Martineau, Russell & DuMullen, Stikeman Elliott; Hatch, Monoco Agra, New Brunswick Power, SNC Lavalin; and Ernst & Young, Arthur Anderson, and Grant Thornton. And in London, worked with Perkins Couie and Morgan Grenfell. Mr. Dhillon's companies have partnered and worked with Pan Canadian Oil & Gas, WestCoast Energy, TransCanada Pipelines, and international companies such as AES, Enron Power, Hyundai Heavy Industries.

Mr. Dhillon has worked and negotiated with highest levels of Governments in Canada and India. He has pursued and won mandates to develop power plants in Canada, and foreign jurisdictions such as Hungary, Iran, Pakistan and India with uncompromising ethical standards. His extensive experience in securing and negotiating multi-hundred million and billion dollar mandates in power project development, gives him in-depth knowledge and intuitive insights into macro and micro, national and international, geo-political and economic realities and trends.

Mr. Dhillon has been invited to speak on international business at various forums, including as an expert witness for the Standing Senate Committee, Government of Canada, on "The Rise of Russia, China and India".

Earth Day Simple Solutions – Courtesy of Mr. Bjorn Lomborg

On this past Earth Day, after reading an article that is obviously written to incite readers, and stir controversy by being deliberately simplistic, by the controversial Danish author Bjorn Lomborg, of "The Skeptical Environmentalist and Cool It" fame, I felt impelled to respond to the author's downright irresponsible, glaringly simpleminded, unbalanced and one sided article.

The article was certainly doing what it had been written to do, generate more controversy and publicity for the author, but unfortunately it also puts forth and promotes the idea of there being simplistic solutions, for that which is by any measureable yardstick, a complex and critical problem - that of finding an environmentally sustainable and economically affordable global energy solution, for an environmentally and economically challenged, energy hungry World.

The article was titled "What I'd like to see this Earth Day: More fracking" – as it appeared in one of Canada's leading newspapers, The Globe & Mail. Mr. Lomborg started by writing in the opening paragraph, "...governments have invested billions of dollars in inefficient, feel-good policies – such as subsidizing solar panels and electric cars. But really, there are far better ways to improve environmental prospects for humanity and our planet. This Earth Day we need more fracking, more wealth, smarter investments, and fewer inefficient subsidies". Fracking is a relatively controversial method of releasing natural gas trapped in subterranean rock formations.

The problems with what this article articulated are too many to cover in detail, but, for instance, its first contention that governments have foolishly "invested billions in inefficient, feel-good policies, - such as subsidizing solar panels and electric cars" – totally ignores the painful reality, that governments have "invested" far more **trillions** in developing and subsidizing the global fossil fuel energy sources, such as coal, oil and natural gas.

According to estimates by the International Energy Agency (IEA), subsidies in 2011 (in one year alone), to the fossil fuel industry were a whopping \$523 billion - versus \$88 billion, for the renewable energy industry. If one were to approximate the total investment and government subsidies to the development, processing, distribution, and pricing of the global fossil fuel industry, from the time of their discovery till today, it would be in the multiples of trillions. So, would it not be reasonable to expect similar "investment" in the development of alternative renewable energy, till it became the same affordable and pervasive energy source globally, as the fossil fuel source is today, from the days of wood, dung and - whale oil? From that perspective, is the investment in renewable energy development be it "solar panels and electric cars", or the rest, really just "inefficient, feel-good policies", or necessary development costs required to bring about sustainable and affordable global energy supply for the future? There has been no economic or environmental "free lunch" from fossil fuel development so far, has there?

The current globally pervasive, readily available, and affordable fossil fuel supplies were developed over centuries with unaccountable trillions invested, and with more trillions required in significant subsidizes annually, even today, to keep energy supplies readily available and affordable for industry and the public. Nobody really wants to calculate and face the real costs of the supposed "cheap" coal, oil and gas energy sources that our 'personal worlds' run on. If these annual subsidies to the global fossil fuel industry were to be stopped, the public at large would be shocked at the real price of our cheap energy, particularly here in the West. And, the currently available "expensive" renewable energy wouldn't look quite so expensive. Cheap energy from any source is only possible after decades and decades of "Research and Development", and trillions spent in energy infrastructure investment, and yes subsidies.

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The new method of extracting additional natural gas through fracking has been a boon to the World, as it has made available vast quantities of natural gas (NG) that hereto had been unextractable. NG is the cleanest burning fossil fuel of the other two dominant fuels, coal and oil. But, fracking is still a relatively recently used technology and methodology, and has some concerning environmental impacts in its usage. In some countries, and in some U.S. States and Canadian Provinces, fracking has been put on hold till more extensive environmental impact assessment studies have been carried out, to ascertain the short and long term impact of possible toxic chemical contamination of underground aquifers, and the effect on seismic activity. This is not forestalling the gas industry from halting all fracking activity. In fact, the availability of NG through fracking has been so abundant in North America, the World's greatest energy consumers that the prices of NG are at their historic lows. But, going forward it certainly requires prudent caution, as the possibilities of serious damage to the environment and people, is always a possibility. To propose a policy of "full steam ahead and damn the torpedoes" is simply irresponsible.

Additionally, Mr. Lomborg's assertion that vast amounts of funds are being spent on solar energy and electric cars that will impact the end result of delaying global warming by mere minutes, is once again more sensational than useful information. The fact that it has taken a century and a half and trillions in capital and government assistance, to develop efficiency in combustion technologies for oil and gas, is totally ignored by him. If previous generations had stopped spending vast amounts of time and money, in trying to improve the crude technologies of the past, consistently and for decades, till today, we would still be covered with soot from ill burning devices of the distant past. Similarly, it will take time, money and persistent effort to increase efficiencies in today's renewable and clean energy technologies. Yes, their current carbon foot prints are large and they are dependent to a great degree on fossil fuel energy to make or

recharge, but that will decline over time, and one day will come when there won't be a significant carbon foot print at all, but not if we stop because the technologies are not there yet.

Mr. Lomborg continues to further his argument that everyone has got it wrong, by asserting that rather than focusing on the inefficient subsidized development of expensive renewable energy, focus should shift to wealth creation as wealthier people find a way to have cleaner air, water and environment, as in the West, as opposed to the extremely polluted conditions that the poor in developing countries live in; because – well, they are simply too poor to clean up their environment. What an elegantly simple solution to one of the World's most complex problems. Just make everyone rich and they will find a way to fix their environmental problems. Why did this not occur to everyone else?

It seems so obvious to Mr. Bjorn Lomborg. No frustrating, long-term, expensive 'Research and Development' required. No years of incremental improvement required that tests everyone's patience. No wads of tax payer's money required to be spent for years on experimental technologies. Just "smart investments" and straight forward "wealth creation", elimination of "inefficient subsidizes" (although only to the renewable and clean energy sector, and definitely not to be taken away from the fossil fuel industry). And last but not least, to solve the global warming and environmental degradation problems, which he acknowledges are real problems, on this Earth Day he recommends – "more fracking"!

I am an international energy project development expert, a Canadian power project developer that has spent the last 20 years on the front lines of major power and energy project development in Canada, India and other international jurisdictions.