



## Carbon Busting for Fun and Profit

**T**HIS BOOK IS BASED ON A VERY SIMPLE PREMISE: environmental protection is cheap!

If you add up all the services provided by a healthy biosphere, and compare these to the costs associated with living an energy-, material- and pollution-intensive life-style, the environmentalist approach comes out far ahead every time.

Let's take a simple example: the Kyoto Protocol.

The Kyoto Protocol became a legally binding treaty on February 16, 2005.<sup>4</sup> The protocol aims to reduce the world's anthropogenic (human-induced) greenhouse gas emissions (carbon dioxide, methane and a few other gases). In fact, the goal of this international agreement is to reduce greenhouse gas emissions of participating industrialized countries by five percent or more below 1990 levels by 2008 to 2012.<sup>5</sup>

The treaty has been ratified by 55 nations, including all the major industrialized nations, with the notable exceptions of Australia and the US. Kyoto was signed under Bill Clinton, but not ratified under George W. Bush, despite the fact that the US is the world's largest single greenhouse gas emitter.

The Kyoto Protocol, although perhaps the most significant global agreement ever to come into force, is actually only a first baby step. Based on the world's most comprehensive scientific analysis, as represented by the findings of the Intergovernmental Panel on Climate Change (IPCC), we have to reduce our greenhouse gas emissions by 60 to 80 percent below 1990 levels just to stabilize today's already elevated atmospheric greenhouse gas levels.

Some individuals and organizations have argued that Kyoto would be too costly to implement, claiming costs as high as \$359 billion for the US alone,

### Quick Fact

**carbon busting** (Kär'bən bus'ting) *v. Informal.* employing the most cost-effective methods to drastically lower greenhouse gas emissions.

based on costs of \$67 to \$348 per tonne (Note: one metric tonne — international symbol “t” — is equal to 2,204 pounds, or 1.1 US tons.).<sup>6</sup>

However, careful analysis shows that implementing the Kyoto protocol is not only affordable, but highly profitable. As Amory Lovins, head of the renowned efficiency think tank Rocky Mountain Institute points out: “The amount is about right. Only the sign has to be reversed!”<sup>7,8,9</sup>

For example, while some oil companies, notably among them American-based ExxonMobil (with its chain of Exxon, Esso and Mobil gas stations), were still lobbying heavily against the Kyoto protocol on the grounds that it was “too expensive,” manufacturer 3M and European-based oil companies BP and Shell announced that they had already exceeded the requirements of the Kyoto Protocol, at no cost, or at huge profits, due to energy savings.<sup>10</sup>

For example:

- Between 1975 and 1999, 3M saved \$827 million and achieved energy efficiency improvements of 58 percent per unit of production.<sup>11</sup>
- Shell reduced its emissions 10 percent below 1990 levels (exceeding Kyoto targets by 100 percent), at no net economic cost, and achieved this in 2002, six years ahead of the 2008 to 2012 target.<sup>12</sup>
- BP achieved savings of \$650 million from emissions reductions.
- Interface, the largest flooring manufacturer in the world and a pioneer in offering service models for carpeting, saved \$185 million. (The company rents out long-lasting quality carpets.)<sup>13</sup>

Apparently, ExxonMobil has spent \$12 million since 1998 in an attempt to convince politicians not to take action on climate change.<sup>14</sup> It makes one wonder by how much ExxonMobil could have exceeded the Kyoto Protocol requirements, and how much money ExxonMobil *could* have saved for its shareholders, if it had invested those \$12 million in energy-efficient operations instead.

### Quick Fact

Preventing climate change is hugely profitable, not costly.

Let's take another example: Carbon Busters Inc., the company from which the title of this book is derived, and which supplies the author with his monthly income.

Carbon Busters advises large facility operators, for example school boards and municipalities, on how to run their buildings more energy efficiently.

With only a handful of staff, Carbon Busters helped its clients reduce greenhouse gas emissions by a stunning 121 million pounds of carbon dioxide.

What was the cost of creating these savings?

Well, here is the interesting part: The building operators didn't lay out a single cent to create these enormous greenhouse gas savings.

Instead, the whole program was financed by a fraction of the achieved utility savings. The rest of the money went to buy school books and basketballs, to reduce school taxes, and to purchase efficiency technologies to create even higher savings.

So, the “cost” of creating 121 million pounds of greenhouse gas reductions actually turned out to be \$16 million in utility savings.

Remember the projected cost of saving one tonne of carbon? \$67 to \$348. Well, it turns out that the large building operators supported by Carbon Busters were actually *saving* \$318 for each metric tonne of carbon dioxide emissions prevented, or \$1,163 per tonne of carbon.

And before you think that these kinds of savings are only possible in wasteful North America, it pays to keep in mind that a lot of these Carbon Busters savings were created in supposedly energy-efficient Europe. And, understandably, even higher savings can be achieved in many developing countries that often rely on even more ancient and less efficient technology than that in use in the average American household or Canadian factory.

Which leads us to the purpose of this book: carbon busting for fun and profit, and how you personally (and the environment generally) can benefit from the energy efficiency revolution.

This book describes step-by-step where the modern carbon miser can do the most good, and where your bank account can grow the fastest.

By following the efficiency measures outlined here, a typical family can save \$17,000 in energy costs over five years, and exceed the requirements of the Kyoto Protocol in the home arena by 860 percent, with an average payback of 3.5 years.

It is left to you, the reader, to decide if you want to maximize your dollar return by choosing the path of the Carbon Miser (*Carbon Miser*, p. 15), or maximize your carbon savings by following the road of the Carbon Buster (*Carbon Buster*, p. 15), for that extra warm feeling that comes from going beyond the call of common duty.

Either way, I hope that you will enjoy the journey, give an environmental boost to our planet, and save a bundle.

### Quick Fact

The US and Canada alone can realize over \$300 billion in annual, cost-effective energy savings.