TODAY "An Inconvenient Truth," Al Gore's movie about the greenhouse effect, opens in New York and California. Many who already believe global warming is a menace will flock to the film; many who scoff at the notion will opt for Tom Cruise or Tom Hanks. But has anything happened in recent years that should cause a reasonable person to switch sides in the global-warming debate?

Yes: the science has changed from ambiguous to near-unanimous. As an environmental commentator, I have a long record of opposing alarmism. But based on the data I'm now switching sides regarding global warming, from skeptic to convert.

Once global-warming science was too uncertain to form the basis of policy decisions -- and this was hardly just the contention of oil executives. "There is no evidence yet" of dangerous climate change, a National Academy of Sciences report said in 1991. A 1992 survey of the American Geophysical Union and the American Meteorological Society found that only 17 percent of members believed there was sufficient grounds to declare an artificial greenhouse effect in progress. In 1993 Thomas Karl, director of the National Climatic Data Center, said there existed "a great range of uncertainty" regarding whether the world is warming. Clearly, the question called for more research.

That research is now in, and it shows a strong scientific consensus that an artificially warming world is a real phenomenon posing real danger:

The American Geophysical Union and American Meteorological Society in 2003 both declared that signs of global warming had become compelling.

In 2004 the American Association for the Advancement of Science said that there was no longer any "substantive disagreement in the scientific community" that artificial global warming is happening.

In 2005, the National Academy of Sciences joined the science academies of Britain, China, Germany, Japan and other nations in a joint statement saying, "There is now strong evidence that significant global warming is occurring."

This year Mr. Karl of the climatic data center said research now supports "a substantial
human impact on global temperature increases."

And this month the Climate Change Science Program, the Bush administration's coordinating agency for global-warming research, declared it had found "clear evidence of human influences on the climate system."

Case closed. Earth's surface, atmosphere and seas are warming; ocean currents are slowing; ice shelves are melting faster than projected; spring is coming ever sooner; rainfall patterns are changing; North American migratory birds are ranging farther north; the ability of the earth to self-regulate to resist warming appears to be waning. While natural variation may play roles in climatic trends, overwhelming evidence points to the accumulation of greenhouse gases, mainly from the burning of fossil fuels, as the key.

Many greenhouse uncertainties remain, including whether rising temperatures would necessarily be bad. A warming world might moderate global energy demand: the rise in temperature so far has mostly expressed itself as milder winters, not hotter summers. Warming might open vast areas of Alaska, Canada and Russia to development. My hometown of Buffalo might become a vacation paradise. (Buffalo lakefront real estate is cheap. Here's a tip: buy some now.)

But it seems likely any global-warming benefits will be offset by unwanted trends. The National Academy of Sciences estimates that in the coming century, sea levels may rise by as much as three feet. Tropical storms may continue to increase in number and fury. Diseases now confined to equatorial regions may spread farther north and south.

The greatest worry is that climate change will harm the agricultural system on which civilization is based. Suppose climate change shifted precipitation away from breadbasket regions, sending rain clouds instead to the world's deserts. Over generations, society would adjust -- but years of global food shortages might occur during the adjustment, likely causing chaos in poor countries and armies of desperate refugees at the borders of wealthy nations.

Scientific substantiation of a warming world is not necessarily reason for gloom. Greenhouse gases are an air pollution problem, and all air pollution problems of the past have cost significantly less to fix than critics projected, and the solutions have worked faster than expected.

During the 1960's, smog in America was increasing at a worrisome rate; predictions were that smog controls would render cars exorbitantly expensive. Congress imposed smog regulations, and an outpouring of technical advances followed. Smog emissions in the United States have declined by almost half since 1970, and the technology that accomplishes this costs perhaps $100 per car.

Similarly, two decades ago a "new Silent Spring" was said to loom from acid rain. In 1991, Congress created a profit incentive to reduce acid rain: a system of tradable credits that rewards companies that make the fastest reductions. Since 1991 acid rain emissions
have declined 36 percent, and the cost has been only 10 percent of what industry originally forecast.

Today no one can make money by reducing greenhouse gases, so emissions rise unchecked. But a system of tradable greenhouse permits, similar to those for acid rain, would create a profit incentive. Engineers and entrepreneurs would turn to the problem. Someone might even invent something cheap that would spread to the poorer countries, preventing reductions here from being swamped elsewhere. Unlikely? Right now reformulated gasoline and the low-cost catalytic converter, invented here to contain smog, are becoming common in developing nations.

President Bush was right to withdraw the United States from the cumbersome Kyoto greenhouse treaty, which even most signatories are ignoring. But Mr. Bush should speak to history by proposing a binding greenhouse-credit trading system within the United States. Waiting for science no longer justifies delay, as results are now in.