

## Nonproliferation: Now a Workable Idea

By Amory B. Lovins and L. Hunter Lovins

On April 17, diplomats from 177 countries began a five-week effort to extend the 1970 Nuclear Non-Proliferation Treaty. The NPT's purpose and necessity haven't changed—but all its major factual premises have. When it was negotiated in the late 1960s, most experts thought nuclear bombs were impossible to steal, immensely hard to make, and unrelated to vital and economical nuclear power. Today, all those premises are untrue—creating the first opportunity to make the NPT really work.

The NPT was framed amid the cold war. Countries that based prestige on bombs, notably the superpowers, said they'd seek to disarm, but cynically stalled for decades. Now that the arms race has collapsed, they can transcend the hypocrisy of maintaining that a few "responsible" countries should keep bombs, a few others qualify for "don't ask, don't tell," and the rest are barred from seeking bombs.

The NPT's second fatal contradiction was its effort to split the atom into peaceful and military halves. The International Atomic Energy Agency (IAEA) was charged to enforce nonproliferation *and* promote nuclear power. All 178 signatory countries (including Libya and Iran, and earlier Iraq and North Korea) gained an "inalienable right" to access to nuclear technology "without discrimination"—only for peaceful purposes, of course.

But technical advances have so blurred the line between civil and military that virtually no *exclusively* peaceful nuclear activities now exist (except such minor, readily monitored uses as medical isotopes). Technical and political barriers to bombs are so eroded that scores of countries can vault right over them as Pakistan and South Africa did. Even subnational groups can buy bomb materials and skills. Plutonium is as easily smuggled as heroin, but more valuable and deadly: A baseball-sized piece, plus other commercially available components, can make a bomb thousands of times more powerful than the Oklahoma City blast.

Civilian nuclear power is now known to be a peculiarly convenient route to bomb making. All civilian fuel cycles involve unaccountably vast flows of materials, including plutonium extractable from power-reactor fuel, that can make powerful bombs. Reactors and training are heavily subsidized by exporters anxious to keep failing nuclear industries alive. Worse, the NPT's promotion of nuclear power lends these "some assembly required" bomb kits an innocent-looking civilian cover: Proliferators and suppliers claim their trade is peaceful, vital to development, and legally protected. Their "right" to "peaceful" nuclear energy thus makes nonproliferation impossible.

Fortunately, we are rapidly approaching a world where nuclear power is no longer an item of commerce. It has already shriveled from an incurable attack of market forces. Worldwide capacity in 2000 will be less than one-tenth of the IAEA's lowest 1973 projection; new orders are 99 percent lower—all by centrally planned energy systems.

As nearly every utility executive in the world now understands, nuclear power has been displaced by proven and widely available alternatives that work better and cost less: superefficient gas-fired generators, some renewables, and above all, energy efficiency. Using US electricity far more productively can save five times as much as all our nuclear stations are producing, but at 5 percent of their cost. Efficiency opportunities are similar in Europe and Japan, and even juicier in developing and formerly socialist economics.

The commercial collapse of nuclear power and the rise of clearly superior alternatives can at last reconcile the NPT's nonproliferation goals with its quest for secure and affordable energy. Today's new energy realities make clear that wanting nuclear reactors (or other dual-purpose nuclear technologies) reveals an unambiguously military intent. This unmasking should make bomb materials, equipment, and skills harder to get, more conspicuous to try to get, and politically far costlier to be caught trying to get—making proliferation, if not impossible, at least far more difficult and readily detectable.

Now the NPT's and developing countries' equity and development goals are better met by nonviolent energy options that support nonproliferation, development, and the environment. An "Efficiency and Sunbeams for Peace" initiative would abate global warming, increase profits and competitiveness, and boost American exports. Let countries that want costlier *nuclear* energy explain why.

Properly linked together, the global revolutions in energy, development, politics, and security can resolve the NPT's internal contradictions. The IAEA could then concentrate on what it does fairly well (technical safeguards); abandon its conflict of interest (promoting obsolete nuclear power); and leave private firms, national governments, the UN's better-equipped development and environmental agencies, and public-interest groups to foster truly peaceful and affordable energy options. Then we can finally achieve the treaty's goals, which look sounder every year.

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New energy and economic realities have blown the cover off 'peaceful' uses of nuclear power.