

By Eugene F. Mallove, Sc.D.

# Cold Fusion Goes Commercial...

## We knew all along it would happen.....

"cold fusion" would begin to be commercialized long before science fully came to grips with what the mysterious and extremely potent excess heat-generating process really is.

Remarkably, cold fusion is being commercialized even in the face of continued wide-spread, but obviously misguided skepticism that the phenomenon even exists! As former Los Alamos National Laboratory scientist Dr. Edmund Storms, now with Salt Lake City-based ENECO, has suggested, "We can thank the skeptics for allowing some of us the chance to become very rich." Clearly, if the U.S. Department of Energy evaluation of cold fusion in 1989 had been even 10% objective, and if threatened institutions had been open to the new discovery, in 1995 there would be precious little room in the field for small companies and entrepreneurs.

As it stands now, "cold fusion" and allied "new energy" technologies, in which energy appears to materialize perhaps literally from the vacuum quantum fluctuations of space or from subtle mass conversion to energy — are possibly the greatest commercial opportunities of this century. It is the quintessential entrepreneurial field, in which those "in the know" have an opportunity to reap vast rewards in a tidal wave of business activity. The entire energy infra-

structure of advanced industrial civilization is at the brink of radical reconstruction as early-stage and prototype cold fusion systems emerge with great vigor.

Our *Infinite Energy* cover highlights the work of Dr. James Patterson and his robust cold fusion cell, which has the honor of having been granted the first U.S. Patent for a cold fusion apparatus. It was a smash hit at the Fifth International Conference on Cold Fusion (ICCF5) at Monte Carlo, Monaco last April. Participants were invited to test it themselves—and they did. The cell bubbled with excess energy throughout the conference.

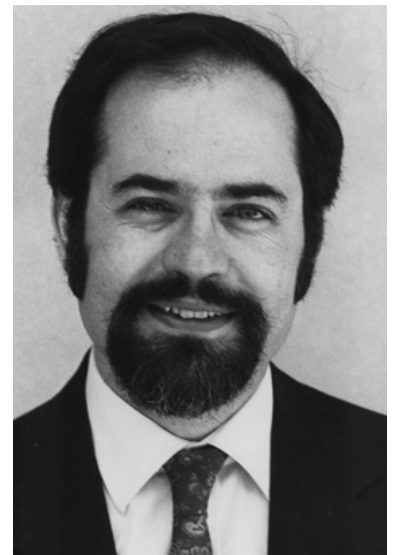
Clean Energy Technologies, Inc. (CETI) of Dallas, Texas intends to scale up this highly reproducible electrochemical cold fusion system, which has already proved that output/input power ratios of 10:1 (i.e. 1,000 %) are achievable. The CEO of CETI, Jim Reding (incidentally, the grandson of Dr. Patterson), has told *IE* that his company is working with other individuals and companies to produce high power units in the kilowatt range as soon as possible. It seems to us at *IE* that kilowatt-level heat production with this process is a distinct possibility within the next six-months or so.

There may even be a light-weight cold fusion-powered car within the next two years! Many readers may have heard of the spritely solar-powered cars that have traversed the U.S. and Australia in "Tour de Sol"

races in recent years. Well, at least one cold fusion pioneer has his eyes on driving such a light-weight vehicle —with solar panels replaced by a one-horsepower cold fusion engine—clear across the U.S. Maybe he will park it near the U.S. Patent Office, which is still blocking hundreds of U.S. patent applications for cold fusion. (Patterson's was granted by what amounts to a bureaucratic slip-up by the obstructing authorities!)

It is most remarkable that the Patterson Power Cell works with *ordinary* water, *not* the heavy water of the original Pons and Fleischmann cell. The potential of this ordinary water technology has been a very hot prospect ever since Dr. Randall Mills in Pennsylvania announced his nickel-based ordinary water "hydrocatalysis" process back in 1991. Technological setbacks may have temporarily stalled the work at Hydrocatalysis Power Corporation and at nearby Thermacore in Pennsylvania, but it is very much alive in Texas and at other labs and corporations known to be working with CETI.

At ICCF5, electrical engineer Bruce Klein with Bechtel Corp gave the attendees his perspective of how large corporations could begin to become involved in the field. For their own sake, one hopes that some of them will heed Klein's advice, which we reprint here in full. Dr. Robert Horst of Tandem Computers also puts forward his personal ideas about market strategies for cold fusion companies.



Now for an incredible commercial bombshell— a water-fuel device that did not originate from the main-line cold fusion field at all, but which is very definitely penetrating the marketplace already in eastern Europe. We have learned that in a former region of the Soviet Union, now the country of Moldova (known also as Moldavia), the VIZOR Corporation in Kishinev has already sold thousands of heating units to homes and industries! These work on the cavitation principle in ordinary water, very reminiscent of the Hydrosonic Pump of Hydrodynamics, Inc. of Rome, Georgia in the US, only they are apparently *much* more effective in generating excess thermal energy.

The Hydrosonic Pump of James Griggs may produce 10% to 50% excess power as steam or hot water—in the kilowatt range, from a metal cylinder rotating in ordinary water in a confined chamber. This is remarkable enough, and has already been confirmed to have reduced the electric heating bills in some US installations. But Dr. Yuri S. Potapov's devices input several kilowatts of electricity into a centrifugal water pump that feeds the device and gets out reportedly 400% to 1,000% excess

power in hot water! Laboratory reports from other CIS states appear to confirm these claims. But what is most important is that hundreds upon hundreds of satisfied customers have *ratified the technology in the marketplace!* Who would buy a device that potentially could *increase* their electric hot water heating bill by 100% if the conventional centrifugal pump were say only 50% efficient (a common efficiency for such pumps)? The answer is simple: nobody! Russians and Moldovans are no fools. They know when their water heating and space heating bills have been cut in half or less— as VIZOR's customers regularly report. That would mean these devices *have* to be in the range of at least 400% "over-unity." Of course, this is such a provocative preliminary conclusion, it simply *has* to be tested in laboratories in the US and elsewhere before it can be fully accepted. That is precisely what will soon happen. Please stay tuned!

*IE* contributing editor Chris Tinsley of the UK and *IE* scientific advisor, chemical engineer Dr. Peter Glück of Romania, traveled to Kishinev to see what was going on at VIZOR; they file their report in this issue. What they found was most astonishing: an obviously robust commercial enterprise, producing a variety of heating units that can heat entire large buildings. The essence of these units is a fluid vortex chamber that apparently produces intense cavitation between fluid layers. If the Griggs Hydrosonic Pump and the E-Quest Sciences ultrasonic reactor are taken as confirmed evidence that remarkable energy-producing effects are at work in cavitation systems, then it is a small step to imagine that Potapov's machines work too. The quantum leap of VIZOR's machines is their spectacularly greater efficiency in their present embodiment.

People associated with the Russian space program have become convinced that the Potapov technology is real and revolutionary. Moreover, theoretical physicist Dr. Lev G. Sapogin of MADl Technical University in Moscow proposes a theory to explain the Potapov device, as well as more conventional "cold fusion" processes. Readers are invited to explore his challenging theory in this issue of *IE*. Preliminary testing revealed no neutron or gamma radiation emanating from tests of the Potapov devices. Certainly no mere chemical ash commensurate with the astonishing excess power could be found. What does that

leave? Zero Point Energy? Subtle mass conversion to energy in heretofore unknown ways, or some subtle radiationless nuclear reaction still undetected? Whatever the case, profound shocks are certain to be coming to the world of physics—ordinary "conventional" cold fusion was enough to do that already. Electric energy production in self-sustaining devices may not be far behind—or may already have been achieved, as Dr. Potapov suggests. But these earthquakes from cavitation devices that may rock physical theory to its foundations are no less portentous than the shock to the world's energy economy that is about to occur. Welcome, indeed, to the Water Fuel/"Free Energy" age! Cold fusion, at long last, has gone commercial.



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P.O. Box 58639  
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Also available, *Cold Fusion Impact in the Enhanced Energy Age*, a book about the near future of the world energy situation. Phone for information: 801-583-6232

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We are an intellectual property clearinghouse serving the interests of both cold fusion inventors and commercial developers throughout the world. Our staff is actively pursuing allowance of U.S. and international patents in most areas of cold fusion effects, including the original, pioneering work of Pons and Fleischmann.

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