

CONFLICT IN THE MIDDLE EAST:

TIME FOR AN AMERICAN

ENERGY CONTINGENCY PLAN

by

EDWARD TELLER

© 1980 Edward Teller

For the last 10 years and more, the problem of US energy dependence and insufficiency has been a preemptive concern for those who bothered to look to the future. Despite some limited experience with rising fuel prices and long gas lines, we have as yet gained no idea of what a true energy shortage is. This knowledge may soon come to our nation in a most unhappy manner. The sad fact is that the coming crisis was largely avoidable. Had we adopted economically sound programs to encourage domestic oil production rather than penalize it, had we developed coal resources rather than simply talking about them, had we focused on a safe, clean, and inexpensive nuclear energy program rather than temporizing, we would not confront the crisis that lies ahead. Indeed, the greatest danger is no longer an energy crisis—it is the possibility of an energy catastrophe—and in seeking to place the blame for this catastrophe, we must look to ourselves, not to an Ayatollah.

What is the present situation? Soviet troops are in Afghanistan, positioned only 350 miles away from the sole maritime outlet of the Persian Gulf, the Strait of Hormuz, through which flows 40 percent of the Free World's oil. At the top of the Gulf, Iraq and Iran sit glaring at each other through the smoke and ashes of their destructive war, while the Soviets are poised opportunistically on the sideline. Southwest of the Strait, at a

distance of about 650 miles, there is the aggressive, Soviet-equipped, Soviet-advised army of South Yemen. The military threat to the Strait of Hormuz posed by this hammer and pincer is thus appallingly real.

That is not the only danger. If internal instability could frustrate the attempts of the Shah of Iran to move his country into the 20th century, one can hardly say that the prospects of King Khalid on the Arabian peninsula are brighter. The recent occupation of the most holy shrine in Mecca has a less well-publicized story connected with it. King Khalid was due in Mecca the day that the shrine was taken. He might have been captured by the rebels but for the fact that he was indisposed that morning and thus, by good chance, did not make the trip.

Stability in Saudi Arabia is more apparent than real. The population base consists of 5 million tribal Bedouins. Superimposed over them is the thinnest possible crust of oil aristocrats: the royal house and the hangers-on. Social injustice in Saudi Arabia is as great perhaps as anywhere in the world. The royal house itself is deeply split. King Khalid has survived three heart attacks. No one knows what will happen when he dies. The workers in the Saudi oil fields—a million Yemenites, half a million Egyptians, a quarter of a million Palestinians—do not appear to be any less susceptible to destabilizing influence than the

Iranian workers were. Imported South Korean workers are the exception, but they are kept isolated.

The fall of Saudi Arabia might well be a greater danger than blockage of the Persian Gulf, though either would cause catastrophic reverberations. These scenarios are unfortunately more than mere possibilities; they lie closer to the realm of probabilities. But in assessing the potential national responses in the event that these awful prospects come to pass, we should not even consider major military action in the Middle East. This would be true even if the United States had not shamefully neglected its military preparedness since the Vietnam War. The geography favors the Soviets—they are a few hundred miles from the scene of the action, while we are thousands of miles away.

Recourse to war is terrible under any circumstances. But recourse to a war we are bound to lose should surely be excluded. America's threats of armed retaliation in the wake of the Soviets' invasion of Afghanistan were ill-advised. Our threats amounted to sheer bluff and bluster, incapable as we are of matching Soviet power in the area. The "dare lines" we have drawn in the Middle East are about as effectual as etching granite with a twig.

Such being the case, we must confront the question, What non-military response shall we take when the oil stops flowing? I do not know when this will happen. It may be in a month, or sooner, or later. But the odds are high that the oil will not continue to flow freely. Our government, however, has no realistic contingency plan to deal with that potential catastrophe should it become a reality. Such a plan is in the interest not only of our comfort, but of our security as well. Indeed, peace itself could well depend upon it. Without a plan to moderate the effects of the loss of petroleum imports, economic blackmail is possible. Without contingency plans, arguments will be advanced for military action.

Before approaching the details of the contingency plan itself, we must try to look at the problem whole. What would happen if

the leaders in the Kremlin were to take possession of the oil spigot? Would they close it completely? Or would they dole out the oil to Western Europe and Japan on conditions reducing these nations to the political condition of Finland? Would they limit the flow of oil to the Third World, which needs it desperately? Would they thereby succeed in subjugating the developing countries? Third World nations must have oil in order to develop, but, more important, they must have oil if they want to eat. Without oil they cannot sustain the Green Revolution. The new crops produce less than the old unless there is ample irrigation (which is now machine-powered) and ample quantities of fertilizers (which require energy for their production). Without the increases of foodstuffs made possible by the Green Revolution, starvation on a massive scale seems unavoidable.

A sound contingency plan must take into account the needs of nations other than our own. Self-interest, not simply altruism, dictates that we consider the needs of our allies and other currently independent nations. To deal with the international situation, we must be prepared not only to give up our imported oil, but also to try to

Dr. Edward Teller is a Senior Research Fellow at the Hoover Institution, Stanford University. Born in Budapest, he received his Ph.D. in physics from Leipzig University in 1930. Because of the political situation in Europe in 1934, Dr. Teller fled to England; a year later he came to the United States. After gaining US citizenship in 1941, he joined the Manhattan Project as a physicist in 1942, working on development of the atomic bomb. In 1949, he undertook work at Los Alamos Scientific Laboratory which led to detonation of the world's first fusion device in 1952. Dr. Teller joined the Lawrence Livermore Laboratory that year, an association he has continued to maintain in one form or another to the present date. He also holds the Arthur Spitzer Chair of Energy Management at Pepperdine University. Since 1975 he has specialized in national energy policy and methods to ensure peace. Dr. Teller's recent books include *Energy From Heaven and Earth* (W. H. Freeman, 1979) and *Pursuit of Simplicity* (Pepperdine Press, 1980).



export energy to those nations which otherwise would be overwhelmed. Such willingness on our part would obviously entail tremendous sacrifice. We would be engaged in a desperate economic war, requiring great moral dedication.

A serious contingency plan must address the radical economic dislocations that would ensue from an energy crash. To anticipate and plan for the infinitely complex ripple-effects of a radical energy shortage will require the best efforts of our best economists. For example, the drastic contraction of steel use by the automobile industry in the wake of an energy crunch might be neutralized by a concurrent channeling of steel into an expanded drill and pipeline industry to sustain intensified domestic petroleum search and production efforts. Reverses for the logging industry owing to reduced construction might be compensated for by increased use of wood fuels. To maintain a viable national economy in the face of major energy deprivations, the foregoing types of economic adjustments, compensations, and tradeoffs must be foreseen and provided for in a comprehensive, integrated national contingency plan.

An effective national energy policy as well as a realistic contingency plan must, of course, reflect an awareness of present and future energy patterns in the United States. It is important to realize, for example, that just to stop importing oil, we would have to reduce our oil usage by more than 40 percent. To be able to offer oil assistance to our allies and other endangered nations, however, we would have to cut our usage by more than half. An appreciation of where conservation is possible can be gained by observing our current oil use pattern. Fifteen percent of our annual oil consumption supplies residences and commercial establishments. Eleven percent goes to general industry; another 11 percent supplies the raw material of the petrochemical industry. Ten percent is used to generate electricity. Fifty-four percent is consumed for transportation.

We should immediately cut gasoline

consumption massively. Unimaginable? By no means. Considering the current situation surrounding the Persian Gulf, a sound and prudent national energy policy would include conversion, wherever possible, from the automobile to bicycles, mopeds, and motorized tricycles. To encourage this changeover, traffic control measures could impose an alternating pattern of streets effectively closed to cars and thus opened without danger to smaller wheeled vehicles. We need to have busing of workers to their jobs rather than of school children to distant schools.

Under a fully operational contingency plan, worse sacrifices than these would be required. Air conditioning would have to be relinquished. One can live without air conditioning. In the winter, however, particularly in the East, North, and Midwest, one cannot live without heating. More rigorous solutions might require families to move into the same house together or perhaps to heat only one room in a house. Such contingency measures, if put into effect, would doubtless entail inconvenience, irritation, hardship, and disruption of our living patterns. Yet, the issue is survival itself, and the living patterns suggested are far less horrible than war.

Would we be able to do it? Certainly not without proper planning and preparation. Shall we be able to limit the duration of the emergency by building the power plants, including nuclear plants, in sufficient time? The Taiwanese enjoy a 63-month construction schedule for their nuclear plants. In the United States it takes more than 12 years to put a similar plant in operation because of repetitive licensing procedures. Many nations in Europe are moving with considerable speed. But the United States appears paralyzed.

The fable of a "China Syndrome" notwithstanding, experience shows that nuclear energy is safe. The long licensing process does not make it any safer. Today we have 200 nuclear generating plants throughout the Free World. They have operated on the average for 10 years apiece. The most dramatic and damaging accident that has yet

occurred was at the Three Mile Island plant in Pennsylvania. In this case, if the four operators, when the first problem occurred at 0400 hours, had called for the help of competent engineers and then gone home, and if those engineers had gotten out of bed, drunk three cups of coffee, showered, driven carefully to the plant, and spent two hours there deciding what to do next, few people today would have heard of Three Mile Island.

Even as it was, no one suffered physical harm. The amount of radiation exposure to those outside the plant was about the same as that from watching 40 hours of color television or flying in an airplane as a stewardess for a month. The worst reasonable prediction that can be made is that possibly 10 years from now there might be one additional case of cancer, and for that there is only a small probability. The only material harm was severe damage to a nuclear generator. Costs were compounded by many billions of dollars because replacement energy had to be produced from oil.

But regardless of whether we talk about nuclear energy, natural gas, solar energy, or energy from coal, additional energy sources can be developed only in small quantities during the next five years. Any effective contingency program for the interim must rest mainly on stringent conservation. Each month that we delay the development of our own resources creates more danger, lengthens the period of true deprivation should a contingency plan be needed, and weakens our economy further. Our national leaders must have the courage to impress the unpalatable realities of our energy situation upon the people.

Obviously, to talk of the oil companies as the heroes of our society is neither popular nor justified, but to introduce a form of taxation which makes it no more profitable to drill oil wells than to buy government bonds is complete folly. Similarly, the government was ill-advised to step in and prevent energy companies from ratifying realistic contracts to buy Mexican gas. With regard to coal,

there is no coherent and unified national policy. The rhetoric of national leaders encourages the development and expanded use of coal; yet, environmental concerns inhibit such expansion. The tradeoffs between the advantages and disadvantages of coal vis-à-vis those of nuclear energy must be explained rationally to the American people and choices must then be made. In the seven years that have elapsed since the OPEC embargo put us dramatically on notice of our energy vulnerability, we could have put 200 nuclear plants into production. Instead we have about 70. We must have firm and enlightened leadership, at both the state and national levels, to convince the people of the threat of a massive oil shortage and galvanize the country into action.

Despite talk of detente, the cold war is likely to continue; but no matter how cold that war turns out to be, it will be incomparably better than a hot war. To lessen the probability of such a hot war, it is vital that we decrease our dependency on Middle East oil with all possible speed. As the situation now stands, we as a major power are hostage to the continued availability of Middle East oil, but we lack any guarantees for its continued availability, even if we were willing (which one would devoutly hope is not the case) to use military means, including nuclear weapons. To end our dangerous dependency, the primary requirement is a national energy development program. Meanwhile, looking to the possibility that events in the Persian Gulf region might result in an involuntary cutoff of our oil supplies, we must have a comprehensive, realistic, national contingency plan ready for use. Having neglected domestic energy production for so long, we must make radical conservation the heart of such a plan. Only by taking action *now*—by providing secure national energy sources as rapidly as possible and by careful planning to moderate the effects of an oil cutoff—are we likely to survive as a free and independent nation.