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Declining Years of Hydrocarbon Production

One of the hazards of maturity is a failure to recognize changes that accompany the aging process. When the first big snow falls, hundreds of older males charge out with their shovels and attack the white stuff. They behave as if they were youths of twenty. Heart attacks follow.

The analogy is imperfect with respect to the United States and its approach to energy problems. Nobody but nobody is charging around. However, there has been a failure to recognize the limitations accompanying the maturing process.

We remember ourselves as a nation of great technological competence that was able to place men on the moon. The present reality is that we cannot do well such a simple thing as burn coal. In addition, this nation is rapidly losing its ability to take hydrocarbons out of the ground, and there is no prospect that the ability will ever be fully restored. Yet the country acts as if it were in its youth when it could afford to squander its resources.

Perhaps, one day, there will be abundant supplies of energy derived from the sun, the wind, the oceans, fusion, or geothermal sources. But these sources will not make substantial contributions for a decade or two or three. Before we reach those promised lands of abundant energy, some of which may turn out to be mirages, we must endure the crippling realities of the next decade, and especially the next 3 years. Unless very substantial new areas are opened to exploration for oil and production is developed quickly, the energy content of domestically produced hydrocarbons could drop by as much as 30 percent during the next decade.

In any event, during the next 3 years before Alaskan oil flows, this nation's ability to produce energy from domestic hydrocarbons (oil and natural gas) will decline to 15 to 20 percent below what it was in October 1973 when the oil embargo began. Only a small part of this drop will be made up by energy from additional nuclear plants coming on line or by coal from underground mines.

Throughout this century, except for several years during the Depression, the United States has experienced steady growth in the use of energy. Unless we can obtain and pay for much larger imports of oil, the drop in energy consumption will be similar to that of the early 1930's. If the widely quoted relation between energy consumption and gross national product is valid, we face a long period of recession. In addition we face greatly heightened vulnerability to a new embargo.

Merely to maintain current total energy consumption would require increasing imports of oil by 2 to 3 million barrels a day over present levels. Recently, Canada announced that it was cutting back oil shipments to the United States, and Venezuela has curtailed production. Additional imports must come mainly from the Eastern Hemisphere.

Last winter was only a tiny sample of what might happen in the near term. The Arabs cut back production only 25 percent, the weather was mild, the effective duration of the embargo was about 3 months. With their present enormous dollar holdings, the Arabs could afford an embargo of more than a year's duration and with a much deeper cut in production.

Perhaps Dr. Kissinger can talk the oil producing and exporting countries out of indulging in the pleasures and profits of a new adventure. But maybe history will show that the Arabs merely used Dr. Kissinger.

We cannot afford to continue to procrastinate. Now, and for the next decade, time is against us. We should stop sitting on our behinds content with visions of a glorious past. If this country is to have a good future it must awake to the new scene and begin to move with programs of conservation, substitution for hydrocarbons, and development of additional sources of energy.—PHILIP H. ABELSON

Declining Years of Hydrocarbon Production

Philip H. Abelson

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