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Program for the Immediate Relief of the Natural Gas Crisis

James Schlesinger, now acting in his capacity as "Energy Czar" in the Carter Administration, has proposed emergency legislation to deal with the present critical natural gas shortage. This legislation will provide no significant relief for this shortage, and, in fact, is designed to serve specific political ends — simply put, Schlesinger's proposals continue his self-admitted policy of lying when politically expedient (see Rand corporation report, No. P-3464, "Systems Analysis and the Political Process," June, 1967.) His bill calls for broad emergency Executive powers, which are designed to accomplish no more than forced conservation and redistribution of dwindling supplies, in a political context which amounts to militarization of energy production and distribution. Indeed, as Schlesinger himself has been forced to admit, the legislation is being proposed so that decreepowers can be placed in the hands of the Trilateral commission Administration; the campaign for war being proposed by the Trilateral commission is unthinkable without such domestic power. The critical question of increased gas production is not even being addressed.

It is *only* within the context of an intermediate-range nine to twelve month crash program of energy development that a competent solution and drilling, expanded importation arrangements (which involves both contracts and capital investment), and the initiation of a longer term energy research and development in nuclear (fission and fusion) energy production. The necessary premise for the right set of short-term emergency measures is therefore the extension of low-interest investment credit specifically geared to the realization of such a medium term program. Deregulation is no answer and contains no guarantee of increased production.

Emergency Measures

Once the incompetent premise of long-term fossil fuel conservation has been abandoned and an intermediate-range policy for necessary production increases has been adopted, the formulation of short-term crisis measures is relatively straightforward. At this point, we cannot hope to provide the quantity of gas necessary to make up for the whole three trillion cubic feet (TCF) originally expected shortfall of gas this winter. However, that is not necessary. The emergency measures are themselves being justified by the current *additional* shortfall which is approximately .7 TCF (for the six months of winter,

assuming continued severe weather conditions.) This shortage can be dealt with in the following manner:

1. Full exploitation of all gas reserves now in storage.
2. Speed up of production from existing wells.
3. Import of marginally significant amounts of natural gas and liquified natural gas from **Canada and Algeria.**

Table One contains a summary of the possible gas available from these sources:

TABLE ONE	
SOURCE	AMOUNT OF GAS AVAILABLE IN NEXT 60 DAYS
1. Exploitation of gas in storage: 20 per cent of 2.3 TCF base storage	.4 TCF
2. Maximum rate of pumping from present wells: 5 per cent of current production	.2 TCF
3. Importation:	
Canada	.1 TCF
Algeria	.1 TCF
TOTAL NATURAL GAS	.8 TCF

(Trillion Cubic Feet)

1. Key to solution of the current crisis is the immediate, full exploitation of all existing stored gas reserves. Supplies in storage at the beginning of this year (from excess summer production) totaled more than 3.4 TCF. Of this, 1.1 TCF is working storage which is projected to be used over the duration of the winter. This leaves 2.3 TCF, which is called base storage. This gas provides a reserve which is used to keep pressure in the storage facilities, to push other (working) gas through the pipelines, etc. It is possible, with only small risk to these storage facilities, to draw about 20 per cent of this gas out of storage. Estimates of minimum necessary gas which must be kept in base storage are difficult to provide, but, none exceed 2.0 TCF. Thus, we can provide a substantial

amount of gas by an emergency use of base reserves.

It is possible that the allocation of this gas will place, in some localities, an extraordinary burden on pipelines. This situation must be dealt with in the same manner: conservative ratings of pipeline pressure must be carefully raised, for example, so that adequate gas, on an emergency basis, can be provided.

2. Any remaining shortfalls between now and March 31 must be covered through increased production from existing wells. Due to technical complications and the already low overall pressure in the national pipeline systems, a lead time of three to four weeks is necessary to realize such increases. However, the technical equipment (compressors, etc.) for more rapid exploitation of wells exists, and given the relatively small added amounts of gas needed, the risk to the wells, with adequate planning, is at a minimum.

3. Canada, Algeria and the Netherlands have offered

varying small amounts of gas for import. While these amounts are marginal they could significantly contribute to the alleviation of certain local hardship situations. This import capacity exists now, without further capital investment.

It must at this point be reiterated that the present energy crisis is a direct result of postponement of the development and introduction of more advanced energy technologies. The U.S. Labor Party has already called for a congressional investigation into the causes for such "shortsightedness." Passage of the Schlesinger bill, aside from its most dangerous strategic political implications, would only further obscure the fact that this country at this time has no competent long-term energy policy and would abet those who would prevent its development. Defeat of the Schlesinger bill is an emergency measure on a par with the measures we have identified above.

EXCLUSIVE

The Real Causes Of The Winter's Weather

The abnormal weather afflicting North America this winter — the extreme cold in the East and the extreme warmth and drought in the West — is *not* the result of sunspots, Soviet radio signals, an impending Ice Age or any of a dozen absurd explanations currently being circulated. Its principal cause is the application of the very "energy conservation" policies which the cold wave is being used to justify.

The global disruption of weather over the past year has been triggered by the spreading drought in the Amazon basin, a drought caused by deforestation policies imposed on Brazil by the International Monetary Fund. This deforestation policy is the immediate correlate of the substitution of labor-intensive for energy-intensive methods in industry and agriculture, of the substitution of primitive charcoal for coal in Brazil's steel mills. It is the massive reduction in energy throughput caused by the application of such policies which is responsible for the weather disaster.

It is useless to attempt to understand the actual causes of the weather on the basis of the reductionist approach of most current meteorology. It is therefore scarcely surprising that no meteorologist working with that method has in fact come up with even a plausible reason for the current climatic shifts. What is required is the application of the same consideration of nonlinear effects which has been successfully used in the field of plasma physics.

The earth's atmosphere, as is the case with laboratory-sized plasmas, is dominated by nonlinear effects — self-expanding energy flows (energy flows which themselves contribute to the global process by which those energy flows are created). The dominance in the atmosphere of self-generating processes means that, in general, seemingly marginal initial effects can become rapidly

magnified into new self-expanding processes, eventually substantially altering global climate.

How Weather is Produced

To understand how local climatic effects in a single part of the world can affect global climate, it is necessary to understand how the earth's weather is actually produced. Energy coming to earth from the sun is converted to energy of motion through the evaporation and precipitation of water, as in a steam engine. This drives weather patterns. About 15 per cent of all solar energy hitting the earth is absorbed through the evaporation of water. In the normal weather pattern, solar energy is absorbed in the evaporation of ocean water in the large oceanic anticyclones (see Map I and Diagram 1) in a manner analogous to the boiler of a steam engine. The resulting moisture-laden air flows into the major tropical cyclonic regions — the tropical jungles of the Amazon, the Congo, and Southeast Asia. From the centers of these cyclonic regions the moist air is pushed upwards, cooled, and the water precipitated out of it, releasing the energy previously stored. This tremendous release of energy, by warming the upper level air at the level where precipitation occurs, actually drives the motion which continues the circulation. This energy of motion not only drives the cyclonic circulation of the tropics, but is the main engine for driving the entire global circulation. The polar cyclonic zones constitute secondary engines of a similar sort, but of lesser overall energy throughput.

The role of the biosphere in this energy flow is dominant, although foolishly ignored by most meteorologists. Plant life, by utilizing solar energy directly to pump water into the atmosphere, contributes greatly to the recycling of rainfall back into the circulation. At least