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Testimony By CIA National Intelligence Council Chairman Henry Rowen Before the Senate Committee on Energy and Natural Resources
February 18, 1983

Mr. Chairman and distinguished members of the committee.

I welcome this opportunity to present the Central Intelligence Agency's views on the world energy situation and its implications. (U)

Our own analysis of the present oil market situation and outlook is very similar to the testimony just presented by the Department of Energy. We believe that a general cut in nominal oil prices is highly likely in the coming weeks. The persistent softness in the world oil market and growing financial difficulties of several oil producers is contributing to this possibility. Market weakness is due to a number of factors:

- o Economic growth continues weak and a recovery is not now expected until the latter half of the year.
- o Unseasonably warm weather in the Northern Hemisphere has held oil and energy use sharply below normal winter levels.
- o Because consumption is lower than expected, inventories remain surplus to company needs. Adding to the pressure to reduce inventories is the perception that purchases should be postponed because future prices will be lower.
- o Conservation and substitution away from oil continue albeit at rates slower than the past three years.

(3)

These factors have had a dramatic effect on the oil market:

- o OPEC crude production has fallen from about 31 million b/d in 1979 to only 17.2 million b/d in January. February production may be one million b/d lower.
- o Free World oil consumption has declined by 7 million b/d to about 45 million b/d.
- o Spot oil prices, which peaked in 1980 at about $44 per barrel for African light crudes, fell to the present level of about $29 per barrel, some $6-7 below official prices. (S NF)

The next several weeks will be a critical period for the oil market. Oil demand is trending sharply downward as consumption remains weak and buyers postpone liftings in anticipation of a future price decline.

- o Confronted by a several hundred thousand barrel per day reduction in oil sales since the beginning of the year, Mexico is now facing the prospect of either lowering prices to increase sales or further reducing output.
- o The UK is under pressure to cut in prices amid falling exports.
- o Nigerian production in January fell to 800,000 b/d compared with 1.4 million b/d during the fourth quarter.
- o Production in Saudi Arabia averaged 4.7 million b/d in January with prospects of further declines in February.

So far individual oil producers have been reluctant to initiate a price drop in an attempt to avoid provoking a round of competitive price cuts by other producers. (S NF)

The demand outlook for the balance of 1983 offers little relief for oil producers. Oil demand trends will depend on the shape of the business cycle, the pace of energy conservation and substitution and inventory patterns. Even with modest economic growth of 2 percent in the OECD countries, demand for OPEC crude oil, in our estimation, will average about 17.5-19 million b/d in 1983 no more than last year and possibly less. Surplus Free World available capacity will average about 8 million b/d.

- o We expect OECD energy consumption to be about the same as in 1982. Non oil energy use will probably increase by about 1 million b/d o.e.
- o Free World oil consumption is projected to fall by about 1 percent to 44.5-45 million b/d including refinery gain. Consumption is expected to remain far below year earlier levels during the first half of 1983 before beginning to rise above 1982 levels later in the year in response to the economic recovery.
- o We expect non-OPEC supplies will rise by about 500,000 b/d in 1983 to 24.6 million b/d. This figure includes natural gas liquids, net Communist exports and refinery gain. Most of the increase will come from Mexico, the North Sea, and Canada.
- o Oil inventories are projected to fall again in 1983. Companies are unloading stocks of oil as expectations

of a fall in its price--possibly large--have heightened. If inventories measured in terms of days of supply were to be restored to those prevailing in the late 1960s and early 1970s, before the increase in the oil price in 1973, at least .5 billion barrels of oil would be in surplus. Much or all of this might be run down in 1983. If so, stock reductions would average around 1.5 million b/d with most of the decrease occuring in the first half of this year. (C)

Unless an agreement on production quotas or price cuts is reached soon, Saudi Arabia and the other Arab producers in the Persian Gulf will continue to bear the brunt of the sharp decline in demand that is already underway. However, the Saudis have little willingness to cut output further, and have threatened price cuts of $2 to $4 per barrel to arrest eroding oil sales and force a production sharing agreement. Such action, however, would constitute a major policy shift by Riyadh, and the Saudis realize that lower oil prices would not boost oil demand appreciably in the short run. Moreover, such action could ignite a series of price cuts by other producers or possible retaliation by Iran against Saudi oil facilities. (C NF)

On balance, it is highly likely that oil prices will decline. The OPEC states will probably succeed in preventing an uncontrolled price decline by agreeing to a production sharing arrangement in the coming weeks. OPEC members realize that widespread price discounting could cause a price collapse that

would lower revenues drastically for all producers in the short run. (C)

Still we cannot rule out the possibility of a much larger oil price decline. Since a $2-4 price decline would not increase demand significantly for some time, oil producers would see their total revenue fall. This would generate pressures, in the absence of a viable production sharing scheme, for individual producers to shave prices in an attempt to their increase market share. Moreover, political animosities between Saudi Arabia, Iran, and Libya may be sufficient to override rational thinking in favor of a more emotional response to setting prices. The Saudis and their fellow members of the Gulf Cooperation Council with huge financial reserves could more easily handle a drop in revenues resulting from a price cut. They are also the world's lowest cost oil producers. In the long run they will gain production share if the real price of oil is lower. (C)

In addition, if the expected economic recovery fails to materialize and oil consumption continues to fall at a rapid rate OPEC would have a more difficult time preventing a sharp price decline. (C)

If prices begin to slide, we cannot predict how far they might fall short of a price equivalent to the current cost of production for marginal oil fields around the world. This cost is uncertain but probably very low, perhaps under $10/b. At well above that price, we believe OPEC members and other oil producers would agree on some rationing scheme to arrest the price slide. (C)

In any event, a drop in oil prices would have major impacts on the world economy. There are substantial positive aspects that could occur including:

- o Lower inflation
- o Higher economic growth
- o Higher employment
- o Lower oil import costs and
- o Reduced interest rates. (C)

At the other extreme, lower oil prices could lead to intensified international financial stress as well as increased Third World political instability. Unsettled conditions in key oil exporting countries could eventually translate into a supply disruption threatening an oil price runup well before the positive impact of the initial price decline worked its way through the system. Sharply lower prices would also dampen conservation, slow exploration and delay alternative energy development. These effects could take time to be felt. In contrast, the most immediate concern brought on by a sharp price decline would be the risk of damage to the international financial system from the impact on high debt countries that are dependent on income from oil, especially Mexico. Nigeria, Venezuela, Indonesia, and Egypt would also be in trouble. For more details of the impact of an oil price decline--both the potential gains as well as the risks--see the attached DDI Intelligence Assessment "The Global Implications of a Possible Oil Price Decline." (C)

Despite the substantial capacity cushion and outlook for a soft oil market, the continuation of hostilities between Iran and Iraq poses a risk to oil supplies. The outcome of the conflict could affect the oil market in widely different ways. An escalation of the conflict to neighboring states could disrupt oil flows and eliminate the supply cushion. Alternatively, a quick end to the war could allow Iraq to increase exports to prewar levels within six months. The addition of 2 million b/d would add further to downward price pressures. (C)

Prospects and Risks Beyond 1983

If a sharp oil price decline is avoided this year, almost all petroleum industry projections of oil and natural gas markets indicate only moderate growth in consumption, ample supplies, and little or no upward pressure on real prices well into the late 1980s. Over the next several years, real oil prices could continue to decline as a result of a combination of lower-than-expected oil demand, an increase in Mexican oil production, and an end to the Iran-Iraq war. Major industrialized countries will remain heavily dependent on imported oil, and West European countries and Japan will become increasingly dependent on imported natural gas. If the market gradually tightens later in the decade as it would if future non-OPEC supplies fail to grow at their recent rate, the present cushion of surplus productive capacity is likely to shrink and the market would become more vulnerable to supply disruptions. (C)

If, as is more likely, prices break in the near term, the greater economic growth and in time higher oil consumption would hasten this vulnerability period. Much uncertainty exists regarding the response of oil users to sharply lower prices. Some argue that demand will rebound quickly; others say that because of structural changes in oil use, a sharp price drop will not cause a major rebound early in oil demand. As between these two views, there are strong reasons for expecting a slow recovery in oil demand even if the world economy grows strongly for several years. For example, oil use by electric utilities has shrunk dramatically in recent years around the world. It is most unlikely that the utilities or their regulators will permit growth in oil use to earlier levels. Another example is use of motor fuel. In the US, auto efficiency standards have built in downward pressure on gasoline use. Moreover, the US is increasing auto fuel taxes and other governments are likely to do likewise as the price of oil falls. (C)

The Stable Market Scenario

Economic growth assumptions and energy price trends are critical in forecasting long-term energy demand. A small change in annual GNP growth can cause a substantial change in energy requirements. Most projections assume a Free World GNP growth of 3 percent annually during the 1980s. Even if GNP growth on average approximates this level over the next several years, oil demand could still change because of sharp variations in year-to-year growth caused by the business cycle. (C)

Most forecasts assume flat or declining real oil prices to 1985, with prices rising thereafter by 2 to 3 percent per year. The price path, however, may not be a smooth one. Most forecasts for 1990 expect the price of benchmark OPEC oil, the Saudi Arabian light crude, to range from $27 to $37 per barrel in 1982 dollars even if prices tumble in the near term. Of course, the record of most forecasts has been so poor that one should attach little importance to their estimates. (C)

Barring an unexpected supply disruption, supplies of oil and natural gas should be ample to meet anticipated Free World demand at least through the 1980s. Most forecasters now expect oil productive capacity in the Free World to average about 56-57 million b/d in the latter half of the decade. The objective range of uncertainty must be larger than this. A weak oil market could cause some erosion in productive capacity later in the decade. Industry projections indicate non-OPEC productive capacity will increase slightly in the late 1980s, with growth in Mexican capacity accounting for much of this increase. Except during periods of unusual weakness in the oil market, non-OPEC producers will be operating at or near capacity. (C)

Overall, we estimate that Free World oil consumption in the late 1980s will approximate 48-55 million b/d--at least 3 million b/d above 1982 levels. Given these consumption estimates and non-OPEC supply forecasts, we believe that the demand for OPEC oil will climb to about 26 million by the late 1980s. As a result, the Free World will remain dependent on OPEC oil for about half of total oil requirements. Most industry and

government forecasts expect OPEC oil productive capacity to average several million b/d above the expected demand. This includes a return of the combined productive capacity of Iran and Iraq to pre-war levels. (C)

Under these circumstances, oil supplies could support several years of fairly rapid economic expansion without strong upward pressure on prices, possibly with a real oil price well under $30 a barrel in 1982 dollars. Surplus productive capacity through the late 1980s should be sufficient to protect the oil market from all but major supply disruptions. This ample supply situation should give the United States wider freedom in dealing with individual oil-exporting countries than enjoyed in the past. Oil exporters whose interests are inimical to ours--Libya, for example--will not have the financial flexibility they have previously enjoyed. Other exporters, however, including Nigeria, Venzeuzela, Indonesia, Mexico, and Egypt will have to cut back imports further and could face economic austerity so severe it may generate some degree of political instability. Countries losing access to aid from OPEC nations also could face more hardship. (S NF)

Oil Disruption Risks

These unsettled conditions in key exporting countries could heighten the risk of a supply disruption, perhaps of major proportions. Such a disruption could drastically and quite suddenly alter the energy picture. The oil price run-ups of the 1970s were direct results of major market disturbances:

- o Libya's move to reduce foreign company production in 1970, coincident with pipeline sabotage in Syria, resulted in a 25 percent rise in oil prices.
- o The 1973 Arab oil embargo supported a tripling of oil prices and contributed to an abrupt curtailment of GNP growth.
- o Supply losses resulting from the Iranian revolution contributed to a doubling of oil prices between late 1979 and early 1980. (C)

Although the odds are against a major internal or external disruption in oil exports in any particular exporting nation or region, the probability of some sort of disruption is quite high. The uncertain political climate and recent escalation of hostilities in the Middle East has heightened fears of a potential supply disruption in that region, which is expected to continue to account for about one-third of Free World oil production. The Persian Gulf has a particularly high concentration of petroleum production and export facilities highly vulnerable to damage from war or sabotage. A change in regime or political policies can also pose a threat to oil flow patterns. (S NF)

The impact of a supply cutoff would depend on the nature of the disruption. Despite the present supply cushion, the United States and its allies could be hurt by deep, sustained production cuts that could occur under a variety of circumstances. Among the possibilities that could occur are:

- An expansion of the Iran-Iraq war to other Persian Gulf countries, which could affect as much as 17 million b/d in oil productive capacity.
- Closure of the Strait of Hormuz, the only sea route into the Indian Ocean from the Persian Gulf, would produce a comparable disruption. More than 9 million b/d of crude oil was shipped through Hormuz last year, nearly 7 million b/d to OECD countries. Four pipelines totalling close to 4 million b/d in export capacity circumvent the Strait, but these also are vulnerable to disruption, and two transitting Syria are currently closed for political reasons.
- A disruption in Saudi Arabian oil production could affect more than half of Persian Gulf oil supply although prospects for political stability in Saudi Arabia appear good.
- An Iranian victory in its war with Iraq would likely result in greater instability in the Persian Gulf, and heighten the threat to the Saudis and other conservative regimes.
- The ever present threat of terrorist attacks against key oil facilities could increase as a result of Palestinian setbacks in Lebanon. (S NF)

Should a disruption occur, its impact would depend heavily on the availability of energy supplies from surplus productive capacity, alternative fuels such as coal and gas, and stockpiles. To some extent, the impact of future oil disruptions

will also be modified by a number of changes in energy use. Price controls have been eliminated in several countries, more efficient capital stock has been installed, and many industrial oil users have converted to other fuels or developed a dual-fuel capability. Stock drawdowns can play a major role in offsetting lost oil supplies. Commercial stocks represent the bulk of oil inventories held in consuming countries, however, and in several past disruptions oil companies have been reluctant to draw down inventories beyond certain levels. Sizable strategic stockpiles are located only in the United States, Japan, and West Germany. At present, the foreign countries have no specific plans on how to distribute this oil in the event of a crisis. (S)

Surplus productive capacity will afford the OECD considerable protection against an oil disruption at least for the next several years. Surplus capacity in the Free World available to offset a supply cutback currently stands at more than 10 million b/d. This, of course, assumes that none of the countries possessing excess capacity is involved in the disruption. Little more than 3 million b/d of surplus capacity are outside the Persian Gulf. Over the next several years, the market may be vulnerable only to a cutoff of Saudi oil production or to the flow of oil from the Persian Gulf. The expected reduction in commercial stocks this year will increase this vulnerability. (S)

After the mid-1980s, the capacity cushion is likely to shrink as OECD economic growth rebounds and productive capacity erodes in some OPEC countries. Oil market vulnerability to

smaller supply disruptions could greatly increase. We have estimated that under a high demand scenario, available surplus capacity would shrink to less than 2 million b/d by 1990, leaving the market vulnerable to even small supply disruptions. (S)

The Price Break Scenario

A price break in the near term which stimulates consumption and leads to cutbacks in capacity development projects could greatly accelerate the convergence between available capacity and demand. We are already witnessing cases where major producers are postponing or canceling capacity development plans, both because lower than expected oil revenues have reduced available investment funds and because lower demand levels make it doubtful additional supplies could be marketed. Such cutbacks could significantly impair the ability of producing countries to respond to a supply disruption later in the decade. Considering the importance of imported oil to US allies, there is no way the United States could insulate itself fully from the economic reverberations of a supply disruption. (S NF)

Gas Markets

The natural gas outlook is, for the most part, similar to that for oil. Ample supplies are anticipated at least through the mid-1980s in each of the three major markets--Western Europe, Japan, and North America. Because of the high cost and inflexibility of gas transportation, however, the capability of the market to shift supplies from one region to another in

response to a disruption is much more limited, making consumers more vulnerable to a supply cutoff. (C)

In Western Europe, the Netherlands will remain the largest single supplier of natural gas and will be Europe's critical source of surge capacity in the event of a disruption. Substantial new supplies are expected to come from Algeria by means of the recently completed Transmediterranean pipeline to Italy if pricing issues can be resolved. Additional deliveries of Soviet gas are likely to begin between 1985 and 1987, either through spare capacity in existing pipelines or the Siberian pipeline when completed. Given the Soviets' need for additional markets in Europe, it is likely that price competition will prevail late into the 1980s. (S NF)

Rising gas requirements in Japan will have to be satisfied by increasing LNG imports, largely from Indonesia, Abu Dhabi, and Malaysia. If all of the LNG projects now under way in countries supplying Japan are completed on schedule, supplies to Japan should begin to exceed demand around 1985. (C)

Gas supply disruptions appear to pose a major threat only to Western Europe through the late 1980s. Because of its ability to switch fuels, Japan probably could withstand a major gas cutoff if alternative oil supplies could be obtained. US gas imports will remain a small share of supply. (C)

Growing dependence on imported gas could leave Western Europe dependent on Algeria, Libya, and the Soviet Union for almost 40 percent of its gas needs by 1990. These three suppliers could be providing as much as 70 percent of total

Italian gas supplies, 50 percent of French requirements, and more than 30 percent of West German needs. Under these circumstances, a gas supply disruption is potentially quite serious, especially if it occurred in winter when European gas use peaks at more than twice the summer level. Even given an unlikelihood that these exporters woud act in concert, a cutoff by any one or more would provide the remaining suppliers with considerable leverage that could be used to political or economic advantage. (S NF)