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THE OPEC OIL PRICE SHOCK CRISIS (1973) AND THE ACTIONS TAKEN BY THE UNITED STATES

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Abstract : *The OPEC Oil Embargo (1973) was precipitated by the Yom Kippur War. The United States was the first country to be sanctioned by Saudi Arabia, Libya, and other Arab countries on October 19, 1973 for its political and military support for Israel (particularly through the delivery of military equipment and arms, which played a key role in Israel's wars against neighboring countries). The 1973 Oil Embargo put a strain on a United States economy that had become increasingly reliant on foreign oil. The research is conducting to analyse the The Opec Oil Price Shock Crisis (1973) and Impact to United States of America. This study has two objectives. First, to identify the factor contribute to the 1973 OPEC Oil Price Shock Crisis and second, to analyse the actions taken by United States of America to stabilize the crisis. The concept of national interest is used to support the action of United States of America in solving the the crisis. The study is being carried out using a qualitative approach, including data gathered from secondary sources. The secondary data in this study also consists of printed and digital material gathered from articles and books. Findings of the study are, first, US intervention during the Arab-Israeli war has contributed to the factors for the crisis to happen. Second, an initiative called "Project Independence" which issued several new policies to control the economic situation during the crisis are well planned. This study concludes that the Government at that time succeeded in overcoming the problem of the crisis which was initiated by themselves and creating a peaceful atmosphere again to the United States.*

Keywords: *Embargo, OPEC oil crisis 1973, The United States of America, Stock crisis*

INTRODUCTION

The 1973 Oil Embargo imposed a burden on the US economy, which had become more dependent on foreign oil and gas. The President during that period, Richard M. Nixon tried to break the crisis, signaled a complex change in the world financial balance of power in favor of oil-producing nations, setting off a series of US initiatives to address the foreign policy difficulties raised by long-term reliance on foreign oil (Willner S, 2018). The introduction of the crisis set off a high spiral in oil prices that had worldwide consequences. The price of a barrel of oil doubled, then quadrupled, imposing escalating prices on consumers and creating structural dangers to the viability of national economies. A worldwide recession looked to be on the horizon since the

embargo corresponded with a currency devaluation. Although the US, European, and Japanese allies had stockpiled oil supplies, the long-term danger of rising oil costs and recession prompted a divide among the Atlantic Alliance. While attempting to separate themselves from US Middle East policies, European countries and Japan found themselves in the embarrassing position of requiring US assistance to secure oil supplies. With decreasing domestic reserves and a growing reliance on oil, the US found itself more dependant on imported oil than ever before, and was forced to discuss an end to the crisis despite severe domestic economic conditions that diminished its international influence. To add to the complication, proponents of the embargo linked its lifting to successful US efforts to bring peace to Israel's Arab neighbours (CFR, 2017). On November 5,1973 a cut in production of 25% announced by the Arab Oil Ministers which was below the September level (Takin. M, 1997). Portugal, Rhodesia, and South Africa were also included in the ban. Following a meeting of the OPEC Gulf Six in December 1973, they agreed to raise the price from $5.12 to $11.65 per barrel, the second substantial price rise in this oil crisis happened. Despite growing costs and the fact that the United States not only imported oil but also possessed considerable reserves, President Richard Nixon signed the Emergency Petroleum Allocation Act as a countermeasure, allowing the state to regulate petroleum production, pricing, allocation, and marketing (Roeder. J, 2005). The United States organised an energy conference on February 1974, in Washington which was attended by 13 different industrial and oil-producing nations, to deal with the massive oil price hikes and their economic consequences (Ditté. P, 2006).

FACTOR THAT CONTRIBUTE TO THE OIL CRISIS

i. Arab-Israeli War.

The abrupt eruption of the Yom Kippur War was the catalyst for the first global oil crisis (Issawi. C, 1978). Nasser's successor, Anwar el-Sadat, inherited a morally bankrupt society with massive military spending. The population had a poor quality of living, and the country had not improved economically during Nasser's leadership. To address this, Sadat’s first move was modified the country's traditional foreign policy: he expelled the Russian ambassador and suppressed the left-wing organization. In addition, he built significant friends in Islamic nations to avert an insurrection (Akins. J.E, 1973). Additionally, to strengthen this alliance, he freed the heads of the Muslim group movement who had been in prison by Nasser, making him look like a ferocious foe of Israel. (Roeder. J, 2005). After seizing control of the country's territory and killing the country's opponents in the Six-Day War, he was ready to strengthen his power and recapture the lost territories. The Egyptian president centred his battle strategy on oil, which he saw as critical in his success prospects. In reality, he felt that the only way to win the war was to keep Israel isolated, which meant keeping the US out. He needed to encourage Arab countries to use oil as a weapon to accomplish this (Maugeri. L, 2006). Sadat and Saudi Arabia's King Faisal allied in May 1973 who has always been politically apolitical when it comes to Gulf affairs, particularly the Arab-Israeli conflict (Kisswani. K, 2014). Saudi Arabia's authorities have long kept economic and political matters separate to avoid the two mergings. Nonetheless, the Saudi royal was unable to remain impartial this time. Because the country's historic alliance with the United States and King Faisal was terrified of a plot between Israel and the Soviets to conquer the Middle East, radical elements put pressure on the administration (Darmstadter. J, 1975). King Faisal met with Aramco,

the American firm that owns the concessions in Saudi Arabia, in Geneva at the end of May (Bahgat. G, 2003). According to Maugeri, the Saudis were becoming isolated in the Arab world, and they could not allow this to continue. Only until the precarious oil situation arose did the problem become apparent; in fact, Kissinger claimed that it would have been hard to imagine the Arab world attaining a single foreign policy without the use of oil as a weapon and the cooperation of the Soviet Union at the time (Maugeri. L, 2006).

Figure 1.1 Israel Defense Forces troops firing at Syrian targets on the northern front during the 1973 Yom Kippur War.
Source: Israel Governement Press Office (1990)

Figure 1.1 shows that the fourth Arab-Israeli war broke out in October 1973, on the Jewish holiday of Yom Kippur (Licklider. R, 1982). After a few days, Israeli Prime Minister Golda Meir warned Nixon that her country was collapsing and requested money and munitions to keep the war going. The US attempted to deploy armies into Israel through a covert operation known as an airlift. However, the effort was uncovered and failed miserably. The OPEC members reacted quickly, and six of them (Saudi Arabia, Iran, Iraq, Kuwait, the United Arab Emirates, and Qatar) unilaterally voted to raise the price of Arabian Light oil from $2.90 to $5.11 per barrel after meeting in Kuwait City on October 16th (Shihata. I, 1983). The transfer of price control from the Seven Sisters to the OPEC states marked the end of one chapter and another. (Akins. J.E, 1975).

ii. United States off of the gold standard (Nixon shock).

The Bretton Woods Agreement is named after a 1944 international meeting held at Bretton Woods, New Hampshire (Greenley. H, 2019). The conference also established the International Monetary Fund (IMF) and the World Bank and regulations controlling exchange rates and international monetary cooperation, which dominated global commerce and payments until August 1971. The agreement stipulated fixed exchange rates, with each member country's currency value pegged to the US dollar. Gold was used in formal transactions between national central banks at a set price of $35 per ounce (Seymour W.N, 1981). Several countries claimed in the late 1960s that the United States' fiscal and monetary profligacy, as a result of supporting the Great Society programs and the Vietnam War, as well as the Federal Reserve's monetization of the government's

deficits, they have amassed dollar reserves and experiencing growing domestic price inflation rates (Cox. J & Wright. A, 1975). Dollar reserves grew, and inflationary pressures mounted as those nations contributed more currencies to the foreign exchange markets to maintain their currencies linked to the dollar at set rates. As a result, United States has been accused of "exporting" inflation (Akins J.E, 1975).

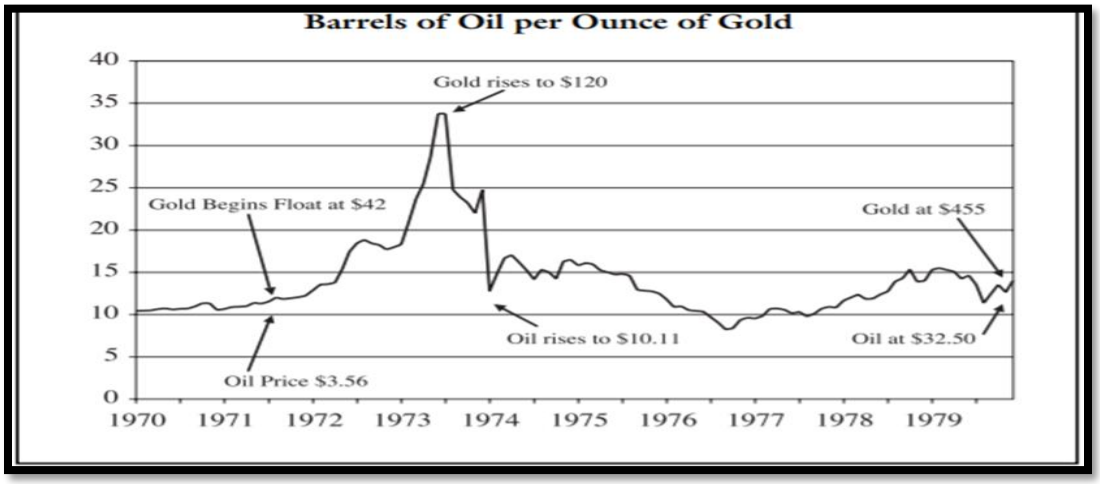

Figure 1.2 Prices of oil Per Ounce of Gold from 1970 to 1979 in the early stage of Bretton Woods exit
Source: Macro Investing Strategy (2000)

Based on Figure 1.2, when oil prices are assessed in gold instead of US dollars, the 1970s look to be very different. From the end of WWII until the late 1960s, the price of oil in US dollars rarely changed: on average, from 1947 to 1967, it increased by less than 2 percent per year (from $2.07 to $3.07 per barrel), barely keeping up with US price inflation (Mitchell. T, 2010). As a result of the Bretton Woods system, the price of oil per ounce of gold was essentially set. From the fall of Bretton Woods in late 1971 through the conclusion of this period, 10–15 barrels of oil bought an ounce of gold (Seymour W.N, 1981). In 1970, an ounce of gold cost more than 10 barrels of oil slightly. At the end of the Bretton Woods agreement the following year, gold was $42, and oil was $3.56 in US dollars. To acquire an ounce of gold, oil traders required around 12 barrels. (Kisswani. K, 2014). Oil-producing countries unaffected by the decline in actual oil prices and general worldwide inflation. The nominal (US dollar) price was adjusted by 2.5 percent annually by OPEC in 1971 (Hammes. D & Wills. D, 2005). January 1, 1974, the first significant price shock occurred when OPEC increased the US dollar oil price from $4.31 to $10.11 (Covi. G, 2015). The gold price of oil (at 12.8 barrels per ounce of gold) reverted to its historical range after this spike. The gold price of oil stayed within its normal range for the remainder of the decade, including the second spectacular price increase in 1979 (Mitchell. T, 2010). After the decade, 14 barrels of oil were traded for an ounce of gold, a price well within its historical range but about 25% lower than it had been at the start of the decade (Ahrari, 1986). According to OPEC, its members had moved from a scenario in which the price of their main export product had remained stable in terms of currencies and gold for decades to one in which comparable values were rapidly fluctuating. The

real value of their oil had plunged as the price of that commodity was fixed in terms of a single currency. This US dollar was rapidly losing value. To bring the actual oil price to historical levels when measured against gold, oil producers used nominal price rises similar to those implemented during the 1971–73 period, most notably in 1974 (Hammes. D & Wills. D, 2005).

iii. America political biased in Middle East.

Even when inflation is considered, U.S. yearly contribution to the Middle East in decades after WWII was a minuscule fraction of current aid disbursements to the area, under dramatic different geopolitical conditions, US strategy was focused on assisting oil-producing nations in their growth, maintaining a neutral stance in the Arab-Israeli conflict while protecting Israel's security and limiting Soviet influence in Iran and Turkey (Ehnsio. R, 2001). In 1950s and 1960s, US officials employed foreign aid to achieve these goals (Sharp. J.M, 2010).

Figure 2.3 M60 tank unloaded from a USAF C-5 Galaxy during Operation Nickel Grass
Source: USAF (2008)

Based on Figure 2.3, in 1950s and 1960s, United States provided significantly less help to Israel than in the following years (Halabi. Y, 2006). Although the United States supplied Israel with little economic help in loan forms, at that time, France was Israel's main backer, equipping it with cutting-edge military technologies and equipment. Hawk antiaircraft missiles were Israel's first sophisticated weapons system, delivered by the US in 1962 (Christian Science Monitor, 2003). With solid legislative support, the Johnson Administration approved the sale of Phantom fighters to Israel in 1968, a year after Israel's victory in the Six-Day War, setting a precedent for US support in Israel's qualitative military superiority over its neighbours. The real value of their oil had plunged as the price of that commodity was fixed in terms of a single currency. This US dollar was rapidly losing value. To bring the actual price of oil to historical levels when measured against gold, oil producers used nominal price rises similar to those implemented during the 1971–73 period, most notably in 1974.

The US courted Egypt between 1950 and 1967, using foreign aid as a negotiating tool (Mann. J, 2013). During this time, Egypt faced severe Cold War rivalry. Egypt got a steady supply of excess wheat imports from the United States as part of the Food for Peace Program. Despite these attempts, promises of additional economic aid failed to persuade Egypt to stop its parallel relationship with the Soviet Union. Egypt followed a fiercely Arab nationalist and neutral policy that avoided intimate relationships with Western nations and partnership and peace with Israel. Egypt received primarily Soviet military help after 1955 (Klinghoffer. A, 1976). Foreign aid to the Middle East began to diminish in 1965, and by 1970, it had fallen by over 80% (Holloway. M, 2021a). Congress slashed financing for some nations due to several circumstances, including the June 1967 War and the mounting expenses of the Vietnam War (Graf. R, 2012). Egypt, whose annual contribution had already been reduced, lost all food aid after the 1967 War when it cut ties with the United States. Jordan and other Arab nations have had their aid curtailed as well. By 1970, annual subsidies to Iran were on their way out since many authorities thought Iran to be a middle-income country with its economy (Rustow, D.A, 1977).

U.S. aid policy has gradually evolved from a focus on preventing Soviet influence from gaining a foothold in the region and maintaining a neutral stance in the Arab-Israeli conflict to strengthening Israel's military and economy and using foreign aid as an incentive to foster peace agreements between countries in the region (Willner. S, 2018). Decades after WWII, U.S. annual funding to the Middle East was just a tiny fraction of current aid flows when adjusted for inflation. However, in early 1970s, the US significantly boosted its foreign aid to the Middle East (Emery. C, 2013). Following the US withdrawal from South Vietnam, Middle East began to receive more US foreign aid than any other region of the world, a trend that continues to this day (Sharp. J.M,2010). The United States foreign aid to the Middle East increased dramatically throughout the 1970s. Following the US withdrawal from South Vietnam, the Middle East received more foreign aid from the US than any other world region. This pattern has continued today (Halabi. Y, 2006). Large support packages to Israel, Egypt, and other Arab states prompted the United States to expand its foreign aid programs. After a succession of Arab-Israeli conflicts gave many Americans the impression that Israel was constantly under siege, the United States upped its aid to Israel significantly (Sharp. J.M, 2010).

As a result, with broad popular support, Congress committed to significantly increasing foreign aid to Israel to boost its military and economy capabilities. In 1971, United States provided Israel with $545 million in military aid, up from $30 million in 1970 (Takin. M, 1997). In 1971, Congress was the first to allocate a precise sum of money to Israel. The Commodity Import Program (CIP) for American commodities replaced project funding, such as support for agricultural development activities (Willner. S, 2018). The US took over the role that France had ceded after French President Charles De Gaulle declined to equip Israel with military weapons in protest at the country's pre-emptive commencement of the June 1967 War (Varisco. D, 2009). In 1976, Israel became the United States' largest receiver of foreign aid. 1971 until today, the United States has provided over $2 billion in annual funding to Israel, with military assistance accounting for two-thirds of the total (Sobel. R, 1974).

Figure 1.4 Anwar Saddat the former Prime Minister of Egypt.
Source: Foley, B. (1997).

Based on figure 1.4, Egypt's economy, in desperate need of cash and investment after two wars, turned to the United States for help, just as Israel's long-standing relationship with the US was beginning to take form (Licklider. R, 1982). Egypt's new leader, Anwar Sadat, improved US-Egyptian relations in the mid-1970s, eager to abolish Soviet excessive influence in Egypt and embark on an economic liberalisation program, leading to the resumption of economic aid in 1975 and the signing of two disengagement agreements with Israel concerning the Sinai desert (Emery. C, 2013). After the Jordanian Armed Forces drove Palestinian rebels from Jordan, where they had posed a danger to stability, the US dramatically increased its economic and military aid to Jordan (Sharp. J.M,2010). Despite shifting geopolitical circumstances, national security concerns in the Middle East have long influenced US foreign aid to the area. In a region with vast oil reserves but volatile intergovernmental relations, the United States pursued a foreign policy of stability. Policymakers have repeatedly utilized foreign aid to achieve this purpose. Foreign aid has been used as a negotiating tool to help Israel reach a peace agreement with its Arab neighbors while also strengthening bilateral connections between the United States and Israel and between the United States and moderate Arab governments (Krutakov. L, 2021). Foreign funding has helped establish strong military cooperation between the US and regional countries, deterring local governments from participating in unmanageable arms competitions. Economic aid also had a strategic basis since US monies have been used to support development in partner nations to counter extremism (Holloway. M, 2021a). It is impossible to say how much foreign aid has helped the US achieve its aims in the Middle East. However, most observers agree that US economic and security aid has contributed significantly to Israel's security, Egypt's stability, and Jordan's alliance with the US (Ikenberry. G, 1988). The offer of US aid to Israel and Egypt during peace talks in the late 1970s enabled both countries to take the necessary risks. It may have helped both countries think that the US was committed to supporting their efforts. Apart from Iraq, Israel and Egypt are the two most essential recipients of US aid (Christian Science Monitor, 2003).

THE ACTIONS TAKEN BY THE U.S. GOVERNMENT TO OVERCOME AND CONTROL THE 1973 OIL CRISIS.

i. Shuttle Diplomacy

In the weeks following the Arab oil embargo, the US professed interest in halting hostilities and pursuing a peaceful solution in the area. In this strategy, oil looked to be a critical component of the Middle East peace endeavour. In the weeks following the conclusion of the fighting in October 1973, US Secretary of State Henry Kissinger initiated disengagement talks between the warring parties. Kissinger's "Shuttle Diplomacy" saw him travel between the capitals of Syria, Egypt, and Israel in an attempt to achieve troop disengagement agreements in hope that the Arabs ended their oil embargo on the United States. The US has been attempting to play more balanced role in the Arab-Israeli conflict since the October war (Tominaga. E, 2017). According to the Arabs, the American attempts are still a long way from achieving Arab aims. However, they appear to have taken on a new dimension and a step in the right direction. On the home front, President Nixon urged the American people to rally behind a great national initiative akin to the development of the atomic weapon and the launch of a man to the moon (Rustow. A.D, 1977).

ii. **Project Independence**

In response to the 1973 Oil Crisis, President Nixon and his administration implemented several new domestic measures to ameliorate its effects (Kash. D & Rycroft. R, 1985). They did so to assist the country in achieving its objective of energy independence, and many of these new policies relied on public participation to be successful. President Nixon delivered a speech to the American people in November 1973, about a month after the embargo was imposed, describing the country's status at the time, as well as the efforts he and the government were taking to address the problem (Greenley. H, 2019). He assuaged Americans' fears of economic collapse by reassuring them that their country was faring better than some of the embargo's other victims, such as several European nations. He stated that because these countries were in worse shape than the United States, they required more rules to stay stable. Some of these limits were significantly more stringent than the US (Vietor. R, 1984). Nixon sought to comfort the American people by pointing out that they might be in worse shape than they were and since they were not, they could recover faster. The President also emphasized actions in the United States to preserve oil and change energy rules. He announced the formation of an Energy Emergency Action Group to assist him in making decisions regarding new domestic laws in response to the Oil Crisis. In this speech, Nixon also addressed the five significant aspects of this endeavor stage (Nixon. R, 1973).

iii. Fuel rationing

These new internal laws were a proposal to cut American gasoline output and restructure it to produce more heating oil (Neu. C, 2012). Because heating oil was more crucial to daily life than gasoline, Nixon and his staff believed restricting fuel and a minor reduction in driving would be less invasive into American’s lives than freezing in their own houses. As a result of this action, gas stations around the country were ordered to close their pumps every weekend between 9 p.m. on Saturday and 12 a.m. on Sunday (Holloway. M, 2021b). While this was not yet a law, it was being passed by Congress at the time. Because of the scarcity of gasoline and the limitations on

when Americans could fill up their automobiles, gas stations were more packed during the approved times, causing motorists to queue for blocks. Nixon told the American people that the new limitation would have minimal effect on their lives. However, it would prevent them from traveling long distances on weekends, resulting in more petroleum conservation (ERDA, 2018).

iv. Reducing driving habits.

The notion that everyone in the country would have to adjust their driving habits was the next component of Nixon's sequence of rules to the American people (ERDA, 2018). Nixon congratulated Americans for complying with his new limits thus far, noting that they will have a substantial influence on the country's condition during this crisis, and that it is now vital to have obligatory and complete compliance with this critical step. Nixon's plan for the second phase focused on fuel conservation, and it was scheduled to coincide with the first step, which mandated gas stations to limit their operation hour (Joint Committee, 1974).

v. Lower Speed Limit

This action enforced a maximum speed restriction for all motor vehicles on the road across the country. The maximum speed limit for all normal autos is currently fifty miles per hour. Larger vehicles, such as buses and heavy trucks, are more efficient while traveling at higher speeds, hence the maximum speed limit for these vehicles was lifted to 55 mph (Covi. G, 2015). Nixon and his government anticipated that by taking this step, they would be able to cut down on the use of petroleum that was unnecessary. A bill was being proposed in Congress during Nixon's speech that would make this new instruction a national law rather than voluntary action by the American people (Graetz. M, 2012). Because it was successful in achieving the goal of making automobiles more energy efficient, this regulation was one of the most important responses to the 1973 Oil Crisis, as evidenced by the fact that it was kept in place even after the crisis ended, when other less effective regulations were frequently withdrawn (ERDA, 2018).

THE ESTABLISHMENT OF FEDERAL ENERGY ADMINISTRATION (FEA).

Nixon proposed creating a federal energy administration to continue the work of the Federal Energy Office, to provide a balanced energy policy in the future, as well as a department of energy and natural resources, as well as an energy research and development administration he pushed for prioritizing the top two agencies. When a cabinet-level department was formed, Nixon accurately anticipated that it would integrate the tasks of the other two departments. Efforts by the president to have his energy plan approved into law continued throughout the spring, but to no avail. Finally, on May 7, he signed legislation creating the Federal Energy Administration (FEA), a new and independent agency to replace the Federal Energy Office (Laquatra. J & Carswell. A, 2015). After Nixon's resignation in August 1974, it was left to his successors to enact the final versions of Nixon's original energy ideas (Nixon. R, 1973).

i. The Energy Reorganization Act of 1974

On October 11th, 1974, The Energy Reorganization Act was signed by President Gerald R. Ford. The Atomic Energy Commission was abolished, and three new federal agencies were

established: the Energy Research and Development Administration (ERDA), the Nuclear Regulatory Commission (NRC), and the Energy Resources Council, which included the Secretaries of State and Interior, the ERDA and FEA administrators, and the Director of the Office of Management and Budget. The Energy Research and Development Administration has assembled the primary research and development programs for all energy sources for the first time. In addition to the programs, 7,222 workers were transferred to the new agency, which had a $3.6 billion budget for fiscal year 1975. Through its large network of offices, national labs, and nuclear weapons research and manufacturing centers, the Atomic Energy Commission provided personnel, funds, and projects related to nuclear reactors, fusion research, uranium enrichment, and fundamental scientific inquiry (ERDA, 1975).

ii. The National Energy Research, Development and Demonstration Plans

The Energy Research and Development Administration was impacted by each of the five main energy laws approved by the 93rd Congress. While the first, the Energy Reorganization Act of 1974, established the Agency, the second, the Federal Non-Nuclear Act of 1974, added a mandate that the Administrator submit a comprehensive plan for energy research, development, and demonstration to Congress by June 30 of each year (Speight. J, 2020). The Solar Heating and Cooling Act of 1974, the Geothermal Energy Research, Development, and Demonstration Act of 1974, and the Solar Energy Research, Development, and Demonstration Act of 1974 all contained injunctions directing the ERDA Administrator to commence and conduct solar and geothermal energy research and associated operations. The research would include other government entities with distinct technical capabilities. (ERDA, 2018).

ALTERNATIVE ENERGY SOURCES

Seamans presented an updated version of the national energy plan, "Creating Energy Choices for the Future," on April 15, 1976. Conservation, or energy efficiency, was singled out for special attention and listed alongside essential supply technologies as a major national priority, although the broader goals and strategy remained substantially unaltered (Anders. R, 1980). More time might be spent on other energy sources to augment dwindling oil and gas supplies if conservation efforts were increased. The 1976 plan also included a short-term planning category that focused on technological development prospects that would take effect within five years, as well as a stronger emphasis on industry engagement in the development of new energy technologies. Federal measures to assist industry in accelerating the commercialization of near-term technologies were an essential part of the strategy.

i. Geothermal Energy

In response to the requirements of the Geothermal Research, Development, and Demonstration Act of 1974, Assistant Administrator team and his colleagues performed a preliminary investigation into the obstacles of producing geothermal energy as a feasible future alternative. Despite the nation's vast geothermal resource base, various impediments hampered the industry's quick development, according to a report published in October 1975 (Van e Graaf. T, 2014). There were no specific materials available, and there was a lack of awareness of the possible environmental consequences or control technology needs that fast industrial expansion may

necessitate. Regardless of the report's flaws, the Energy Research and Development Administration recommended a geothermal energy program that included federal assistance in high-risk regions, information distribution, and loan guarantees to reduce financial risk. In collaboration with other federal, state, and local authorities, the agency worked on a number of geothermal projects. One of the first efforts was drilling for hot water in areas where ground waters had infiltrated heated rock formations via a process known as hydrothermal convection. In February 1975, ERDA, the State of Idaho, and the Raft River Corporation worked together to successfully drill a hot water well in southern Idaho. At 4650 feet, the well produced a water flow of roughly 1500 gallons per minute, heated to 280 degrees Fahrenheit (ERDA, 1976).

ii. Wind Energy

Wind energy began to be seriously considered as a feasible source of electricity for commercial usage in the United States in the 1970s (Holloway. M, 2021b). Despite the fact that windmills had been used on farms across the country for years, the Smith-Putman wind turbine machine, erected in Rutland, Vermont, in October 1941, was the biggest windmill ever built and operated for commercial reasons in the United States. The 1.25-megawatt windmill irregularly supplied electricity to the Central Vermont Public Service Company's electrical network from October 1941 until a rotor blade broke in March 1945 (Mammadzada. L & Abuzarli. U, 2015). The equipment was never fixed, and until the early 1970s, wind power as a source of energy received little attention. In 1975, the agency completed the first prototype wind power system. The 100-kilowatt wind generator, with a 125-foot blade, was developed and built in partnership with NASA to test components and gather data on wind turbine systems. It is located near Sandusky, Ohio (Buck. A, 1982). The next year, ERDA decided to build a second 200-kilowatt Sandusky machine in Clayton, New Mexico. These new windmills will eventually decide the economics of wind energy systems that are coupled to conventional power plants (Thomas, R. L, & Richards, T. R, 1977).

iii. Nuclear Energy

During the first year of the agency's establishment, ERDA administrator faced a disproportionate amount of problems in the nuclear energy program. This was not entirely surprising, given that the Atomic Energy Commission funded the majority of ERDA's activities, employees, and budget. The security of the nuclear weapons program, the utilization of national labs, the future of the liquid metal fast breeder reactor, and the processing and storage of nuclear wastes were all issues that needed to be addressed quickly. Sailing teams were created to investigate the best course of action in each area (The White House, 1976).

iv. Solar Energy Research Institute

Under the Energy Reorganization Act and the Solar Energy Research Development and Demonstration Act of 1974, Congress approved the formation of a Solar Energy Research Institute to support ERDA's solar program and to assist in the building of a solar energy industrial base (Krutakov. L, 2021). The National Academy of Sciences was swiftly enlisted to assist in the definition of the institute's scope and organization. The institute was strongly recommended by a National Academy committee chaired by IBM's research division Richard L. Garwin, who agreed

that the congressional mandate reflected not only a public assessment of solar energy's importance, but also a congressional desire for solar energy activity comparable to the country's twenty-five-year support of nuclear energy. The committee's proposal called for a knowledge center capable of leveraging science, technology, and analysis for the benefit of the country. The location of the Solar Energy Research Institute, or SERI as it was subsequently dubbed, sparked a lot of public attention. After two years of vigorous competition, the acting administrator Robert Fri picked Golden, Colorado, as their first location for SERI in March 1977. The Midwest Research Institute has been named as the project manager. Other regional centres would be built if needed. Regional centres were a departure from the National Academy of Science's recommendation of having a single research centre with just a few small specialized field stations (Ethan B. K, 1979).

CONCLUSION

In conclusion, we can see that the intervention of the United States in defending the state of Israel during the Arab-Israeli war that taken place is one of the influential factors that caused the 1973 oil crisis. Moreover, the US withdrawal from the Bretton Woods monetary has significantly impacted the Arab oil-producing countries and caused them yearn for revenge. Not to forget the biased attitude of United States towards some countries in the middle east also added further reasons for OPEC countries to create this crisis. From another angle, it can be said that these three factors are linked to one name. The name is Richard Nixon, the 37th President of the United States. This is because of the cause of his ideas. Withdrawal from Bretton Woods monetary, military aid and equipment for the state of Israel during the Arab-Israeli war and a biased attitude towards middle eastern countries. It all happened during his reign. However, that does not mean he is a failure. During the 1973 Oil Crisis, President Nixon was aware of some of the charges brought against him and sought to address them, most likely to gain public support and participation in the newly adopted national legislation. He addressed the concerns of some Americans, notably those who belonged to diverse organizations and thought that he and his administration were disregarding important issues. Not only did the President try to reassure the American people, but he also tried to reassure the government with whom he was negotiating a solution to the Oil Crisis. He expressed confidence that their new plans and legislation will assist them in achieving their long-term goal of energy self-sufficiency, and he urged the administration to continue working to stabilize the nation. President Nixon asserted in his State of the Union Address in early 1974 that "there would be no recession in the United States," expressing his unflinching confidence that the country will emerge undamaged from the crisis. Their economy through a difficult period, owing mostly to the oil crisis.

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