

Crisis Legislating in Energy

**Lessons for
the Future**

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EXECUTIVE SUMMARY

Prior to World War I, government intervention in energy markets was limited, outside anti-trust law. Capital markets were self-regulated, private contracts were the norm, and the rule of law predictably and fairly settled disputes. The world-leading U.S. energy industries were, overall, relatively unhampered by public policy.

Beginning with the Great War, the past 100 years of energy policy in the United States has been a history of repeated interventions by government in energy markets. In each case, these interventions have come in response to a perceived “energy crisis.” The reasoning for declaring a crisis has varied: wars, the Great Depression, the Arab oil embargo, a general concern about energy security or dependence on foreign oil. In each case, though, the claim was that markets had failed (or were at risk of failing) and therefore government had to step in to ensure orderly operation of energy markets.

Looking at the record of these interventions, however, we see a continuing pattern of failing upward. Interventions repeatedly fail to solve problems, often making matters worse, which failures beget additional interventions and bureaucracy. Shortages were caused by failed efforts at central planning of supplies or attempts to centrally plan prices. New bureaucracies created to address a problem created by previous interventions. All of these were seasoned with a helping of cronyism as companies and individuals lobby for the fruits of government favor. In this paper we use the term “crisis legislating” to describe these government interventions in energy markets, though not all interventions were directly legislative. Many regulatory interventions were taken pursuant to broad authorities not necessarily specifically granted for energy market interventions.

This paper reviews this history of crisis legislating in energy policy and finds common themes that should lead policymakers to question the efficacy of central economic planning during real or perceived emergencies. What we find is that the symptoms of an energy crisis are often caused by government interventions themselves. Additionally, the heavy-handed intervention of bureaucrats actually impedes private market actors from undertaking needed adjustments. This suggests that allowing market forces to direct adjustments should be the front-line response to an energy crisis, but it is only in rare circumstances that such a hands-off approach is tried.

The most recent energy crisis surrounding the 2020 coronavirus pandemic has threatened to extend this cycle of government failure. The sudden collapse in oil demand, combined with a supply side glut from a market share battle, led to urgent calls for government to step in to fix or stabilize the situation. But the history described in this paper argues against these calls for intervention. Indeed, the rapid market-driven adjustment the U.S. energy industry has already made should make clear that such interventions are not needed.

The historic lessons of intervention to “solve” a crisis covered in this paper are also important for policymakers today looking forward as environmental activists loudly proclaim a “climate crisis,” which conveniently requires massive government intervention to solve. This is just the latest iteration of the pattern identified in this paper of attempts to centrally plan energy markets in the name of crisis.

The fundamental lesson of the past 100 years of energy market interventions is that government planning does not work. What we see from this overview of energy crises is that the actual problems in energy delivery and pricing often arise *after* government interventions rather than precipitating the initial action. This suggests that the various events and circumstances that we traditionally refer to as energy crises are in fact government intervention crises. This leads to the unavoidable conclusion that the solution to an energy crisis is to get government to stop intervening.

CRISIS LEGISLATING IN ENERGY: LESSONS FOR THE FUTURE

“Crisis” is a frequently overused term in politics and policy, whether out of a desire to amplify events to capture a news cycle or as a means to spur political action that is not otherwise forthcoming. The use or misuse of the term is especially a frequent tactic of those desiring government action to respond to a perceived crisis. History shows the danger of market intervention by government, especially during a true crisis like the current coronavirus pandemic. From restricting production to price controls and export bans, history is rife with adverse interventions in energy markets. Unfortunately, bad policy does not self-correct after a crisis passes; it often lives on in perpetuity, codified in law.

Secondary energy-related episodes concern the Korean War, the oil-industry depression of the mid-1980s, and the Gulf War of the early 1990s. Although falling short of a crisis, these events brought forth new bureaucracy, new intervention, or propagation of the same. This has also been the case for two perennial crises: the Malthusian notion of running out of resources and a livable climate.¹

The 2020 coronavirus pandemic, which dramatically curtailed transportation and reduced oil demand, has inspired a litany of interventionist proposals to aid certain industry segments. Not to let a crisis go to waste, rival energies have tallied their alleged losses or needs in search of more public aid.²

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Robert Higgs in *Crisis and Leviathan* documented how episodes of business depression and war mobilization created Big Government—not just bigger government—with authorities assuming entirely new functions. Higgs also documented a “ratchet effect” whereby the new intervention outlived the crisis to become a new, higher baseline for government activism. The author also identified ideological change coming out of emergency planning, facilitating expansive government going forward.

Higgs focused on World War I, the Great Depression, and World War II. Looking at U.S. energy policy specifically, a fourth major episode stands out: the 1970s energy crisis, composed of periodic natural gas and petroleum shortages, not to mention enduring price spikes.

The present study chronologically reviews the history of crisis-driven government interventions in energy policy from World War I through the 2020 Pandemic. Questions abound from a century of intermittent episodes. What new interventionist pressures and actual intervention resulted during the emergencies? Did the novel functions of government end or continue past the crisis? What was the effect of pre-existing government activism on the ability of markets to respond to each crisis?

Looking ahead, what can be learned from the present and past emergencies to elevate the public debate and promote the role of free and open energy markets relative to governmental planning and reliance?

THE HISTORY OF CRISIS LEGISLATING IN ENERGY

Robert Higgs defines crisis in political economy terms as when “certain conditions...call forth extensions of governmental control over or outright replacement of the market economy.”³ In *U.S. Energy Policy and the Pursuit of Failure*, Peter Grossman defines energy crisis as “a market disruption that causes a sudden price spike or a longer-term price surge, or leads to a transitory shortage.”⁴

Grossman adds:

*A crisis may be a logistical problem, a financial issue, or, most likely, a political failure that gives producers and consumers the wrong signals, leading producers to deliver too little of an, or the wrong, energy product, or consumers to demand more than current market conditions warrant.*⁵

Both crisis and energy crisis are differentiable from disaster, a more localized, external event of nature. “Crisis is defined here as a period of heightened danger that presents urgent challenges to decision makers,” explained John Singleton in *Economic and Natural Disasters since 1900*. “Disaster is defined as an event or process that generates heavy costs and severe disruption.”⁶

Accidents, such as the partial meltdown of a nuclear reactor at Three Mile Island Generating Station in 1979, would be subsumed under potential disasters rather than potential crises. Hurricane Katrina, a “classic natural disaster,” was really a man-made disaster (from a structural failure); the Great Depression was a policy-made crisis. In fact, public policy is central to economic crises in peacetime and economic mal-coordination during wartime.

For purposes of this study, *energy* must be disaggregated in terms of industry makeup, lobbying positions, and government policy. Four distinct industries compose the energy sector, in fact, each with its own subindustries.⁷

The petroleum industry has been marked by independents versus integrated companies in all three phases: upstream (wellhead), midstream (transportation, storage), and downstream (refining, retailing). Non-integrated versus integrated rivalries have resulted in lobbying tiffs both within and between these industry phases.

The natural gas industry is joined with the petroleum industry at the wellhead—but little further. Unlike the oil majors, integrated natural gas “majors” do not exist due to a long history of government edict and regulatory disincentive, leaving three distinct segments with different lobbying priorities: production, transmission, and distribution. In the review to come, natural gas became important in World War II and the Korean War and was prominent during the 1970s energy crisis.

The coal industry developed apart from oil and gas. Some coal producers integrated into transportation, but most passed their output to independent railroads to deliver to utility-owned power plants. Coal was prominent in World War I, less so during World War II, and emergent during the 1970s energy crisis.

The electricity industry has been vertically integrated for most of its history with generation, transmission, and distribution under common management. Under state public-utility regulation, the power industry avoided new regulation and shortages during the above crises. Rural electrification was an expanded federal function during FDR’s New Deal.

Historically, oil was king in the political economy of war and of business depression, coal and natural gas less so, and electricity the least.

THE MARKET INHERITANCE

Prior to World War I, coal and oil dominated the inanimate energy market. Natural gas was a local product due to limited pipeline reach; manufactured gas from coal (coal gas) was far more common for homes, industry, and business in major cities across the country.

Coal propelled the locomotives and ships before fuel oil came of age. Coal also generated the bulk of electricity, with hydro (“white coal”) a distant second. Kerosene from John D. Rockefeller’s Standard Oil companies modernized the illumination market, and the oil-fired internal combustion engine all but displaced the electric-vehicle industry.

Other here-and-there interventions were exceptions to private contracting and the freedom to enter, exit, modify, buy, sell, and price.

WORLD WAR I: THE FIRST ENERGY CRISIS

“The war was still young when we found ourselves in company, strange at first and then congenial and helpful. Industries apparently hopelessly and permanently divided by the bitterness begotten by years of relentless competition closed ranks at the call of government.”
(Walter Teagle, president, Standard Oil of New Jersey)

Reformers within government, less so industry lobbyists, inaugurated comprehensive federal intervention with oil, coal, and gas. President Woodrow Wilson demanded that the visible hand of government prioritize war needs relative to the home front. Pro-war propaganda softened the public to follow his lead.¹¹

Government intervention with energy prior to World War I was limited. But precedents were set and sophisticated rent-seeking by firms against rivals evident. Independent oil producers, for example, successfully lobbied state and federal authorities for non-contractual, preferential pipeline service. Antitrust law, a weapon against the integrated operations of Standard Oil, was another intervention championed by independents to great effect.

Other here-and-there interventions were exceptions to private contracting and the freedom to enter, exit, modify, buy, sell, and price.⁸ Capital markets were self-regulated, private contracts were the norm, and the rule of law predictably and fairly settled disputes. The world-leading U.S. energy industries were, overall, relatively unhampered by public policy.⁹

The same was true with the national economy. “[T]he American economy remained, as late as 1916, predominantly a market system,” stated Robert Higgs. “The next two years, however, witnessed an enormous and wholly unprecedented intervention of the federal government in the nation’s economic affairs.”¹⁰





Fiscal pragmatism was a motivator of federal activism. “In early 1917, when the government committed the nation to waging full-scale warfare,” Higgs found, “it became obvious that raising taxes enough to cover the full market costs of the resources the administration proposed to employ for war purposes would generate immense resistance.”¹² By usurping markets via edict or threat, the federal government could and would lower its energy bills and the related cost of required energy infrastructure.

With the European conflict growing, the Petroleum Advisory Committee (PAC) was formed within the newly established federal Council of National Defense. Staffed by prominent industry leaders, with Jersey Standard’s Alfred Bedford (pictured) as chair, PAC had no regulatory functions. But the industry was well aware of the regulatory functions of the Interstate Commerce Commission, the Department of Agriculture, the Federal Reserve Bank, and the Federal Trade Commission. “If there was to be federal oil regulation, the industry would not wait to hear about it; they planned to have a major say in its formulation and practice,” one industry historian concluded.¹³

With the U.S. declaration of war in April 1917, President Wilson replaced PAC with the producer-dominated National Petroleum War Service Committee (NPWSC). With Bedford continuing as head, the group represented a united industry front to facilitate federal wartime planning.

On August 10, 1917, the Food and Fuel Control Act (Lever Act) gave the President unprecedented powers to “provide for the national security and defense by encouraging the production, conserving the supply, and controlling the distribution of food products and fuel.” Expansive authority also came from the law’s declaration to “prevent, locally or generally, scarcity, monopolization, hoarding, injurious speculation, manipulations, and private controls, affecting such supply, distribution, and movement; and to establish and maintain governmental control of such necessities during the war.”¹⁴

The act explicitly covered fuel oil, natural gas, manufactured gas, coal, and coke, as well as oil pipelines. The law was silent on crude oil, gasoline, and kerosene, but federal regulators had *de facto* authority through their wartime power to license, regulate, investigate, requisition, and nationalize.¹⁵

Under Lever Act authority, President Wilson created the first energy-specific bureaucracy in American history, the United States Fuel Administration, to regulate the pricing and distribution of coal. In January 1918, the Oil Division was created within the Fuel Administration to extend price and allocation “recommendations” to petroleum. Within its fourteen subdivisions, the Oil Division would regulate the petroleum industry more closely than ever before ([see Appendix A](#)).

It had taken nearly forty years since the advent of large-scale coal mining in the 1880s, and nearly sixty years from the commercialization of oil in the 1860s, but systematic federal regulation was at hand. For energy, as elsewhere, it was *war collectivism*.¹⁶ The result would be dual crises: one for coal and one for petroleum.

The coal crisis stemmed less from inadequate production than from insufficient takeaway capacity from the mine.

The coal crisis stemmed less from inadequate production than from insufficient takeaway capacity from the mine. Heavy-handed rate regulation of railcars (and railroads in general) by the Interstate Commerce Commission left the industry weakened come World War I. With wartime regulation and continuing labor problems, transportation bottlenecks worsened, leading to nationalization of the rail industry in late 1917.¹⁷

On the oil side, maximum price controls came in 1918. “The law of supply and demand has broken down in the face of a demand far exceeding the available supply,” Oil Division head Mark Requa stated. “I do not believe there would be any stimulation of movement to production of petroleum by an increase in the price of crude oil.”¹⁸

Over the next 18 months, price ceilings for crude oil, oil products, and drilling equipment were joined by allocation

and conservation edicts. Entry was restricted for new firms, capital was allocated centrally, and special tax deductions were enacted for producers.

Planning problems begat more problems. “Federal policy fluctuated from week to week, and the loose threads of federal administration were tangled,” summarized two oil-industry historians. “The good intentions of government

agencies frequently were submerged in the ignorance, inexperience, and confusion of the times.”¹⁹ Eschewing

impersonal market forces, Washington planners, often with competing priorities, struggled with the what, when, where, and how much of different energies.²⁰

The “planned chaos” of central energy planning during World War I included:

- Stranded coal and oil supplies from tank car and oil tanker shortages.
- Emergency requisitions by the U.S. Shipping Board and the Emergency Fleet Corporation.
- “Gasless Sundays” edicts (and, almost, coupon rationing for vehicle owners).
- “Heatless Mondays” to conserve different fuels.
- “Lightless nights,” including the imposition of daylight savings time in March 1918.
- Conflicts and ostracization between those citizens obeying fuel conservation orders and those not.²¹

Price inflation from monetary inflation created a problem that price ceilings and requisition orders were nominally intended to address. Transparent public finance—where government spends what is taken in—could have been joined by flexible, free prices to best incentivize producers and consumers (including government) to maximize and husband supply, respectively.



With the armistice in November 1918, petroleum prices were freed from federal instruction. Licensing ended the next month. But what the *National Petroleum News* called “the authority to make a man discontinue his business,”²² lingered until June 1919 when the Oil Division of the U.S. Fuel Administration was disbanded. Readied proposals, such as limiting gasoline and kerosene to one grade and setting profit-based price ceilings, were narrowly avoided.

Rail nationalization ended in March 1920 with the returned companies subject to expanded oversight by the Interstate

Commerce Commission. The Food and Fuel Control Act remained on the books through Wilson's term; its repeal in March 1921 was a short-term ratchet effect. "That the President is fond of power no one can gainsay," noted the *National Petroleum News* about the reluctance of Wilson to abdicate his wartime powers.

*Legislation means power for the executive. It means new duties, and new duties mean more men to command and larger fields to cover. Another incontrovertible fact is that Congress has ... a large number of men with a decided leaning toward making the world perfect by legislation.*²³

The interventionist mentality, buttressed by ideological acceptance of the wartime experience, made central planning all but destined to reappear in similar circumstance.



The failure of World War I economic policy began with knee-jerk opposition against market reliance wherein government, through its broad powers to tax and spend, would still have been the primary demander. Oil-czar Mark Requa acclaimed patriotic cooperation, not

competition, as necessary for success.²⁴ But market rivalry uncovers improvement that cannot otherwise be known and implemented by cartelization-by-decree. In any case, state and federal antitrust law and Federal Trade Commission policies precluded the very supply-side strategies needed to meet outsized federal procurement.

Other prior government intervention worked against federal command-and-control, not to mention free-market reliance. Several dozen withdrawals of oil-laden public lands from development prior to 1917, in particular, limited the very supplies needed during wartime.²⁵

"The war was still young when we found ourselves in company, strange at first and then congenial and helpful."

The road not taken was scarcely understood ex post. "While many viewed the mobilization of the economy as having established both the possibility and the desirability of extended governmental control of economic life," Higgs summarized, "hardly anyone came away from the crisis with an enhanced understanding or appreciation of the market system or greater insight into the inherent cost-imposing, cost-concealing character of a command economy."²⁶

Just the opposite, World War I planning changed the mentality of the petroleum industry. Interfirm cooperation provided a temporary refuge from the creative destruction of the marketplace for the industry establishment, particularly the well-represented integrated majors. "The war was still young when we found ourselves in company, strange at first and then congenial and helpful," observed W. C. Teagle, the president of Jersey Standard (now Exxon Mobil). "Industries apparently hopelessly and permanently divided by the bitterness begotten by years of relentless competition closed ranks at the call of government."²⁷

The majors at the center of the planning effort would continue the private-public partnership in peacetime. The *Oil & Gas Journal* reported "a growing sentiment among oil men of the various divisions of the industry favoring a permanent organization, similar to that which now regulates the oil business."²⁸ And so the aforementioned National Petroleum War Service Committee voted in March 1919 to reorganize as the American Petroleum Institute to, in the words of its charter, "afford a means of cooperation with the government in all matters of national concern."²⁹ The NPWSC's membership was carried forward with the addition of Requa, soon to be at work with the Sinclair Oil Company.

INTERLUDE: 1920–1932

With the U.S. Navy converting to fuel oil from coal, experts in and outside of government feared depleting crude supplies would hamper military procurement. Four Naval Petroleum Reserves were set aside between 1912 and 1923 for future development. In 1924, President Calvin Coolidge created the Federal Oil Conservation Board (FOCB) to “safeguard the national security through conservation of our oil.”³⁰ Unable to secure wide industry interest in its conservation priorities or plan to compile national statistics, the organization would disband in 1932.

Shortage fears were less grounded in geological or technological fact than in the policy failures of World War I. With deregulation, record production under the “rule of capture” was next. The “Great Reversal” began with

competing with all their promotions. And a new form of marketing with national repercussions was about to appear: self-service.

In mid-1927, with service stations numbering 125,000 compared to 12,000 six years earlier, the American Petroleum Institute (API) announced plans to devise a voluntary “code of fair competition” for downstream. Standard Oil of New Jersey, the largest marketer and dominant voice within API, tried to lead by example. “Overproduction in recent years has resulted in unfair practices and secret allowances being offered generally in the gasoline market,” Jersey Standard stated. “The announced change ... is made to correct unbusiness-like practices that have crept into the wholesale and retail marketing of gasoline.”³³

In December 1928, the American Petroleum Institute released the Code of Practices for Marketing Refined Petroleum Products. Nineteen practices were targeted, two considered illegal under antitrust law and the rest “unsound,” “undesirable,” or “unethical.” Each rule was in the service of reducing costs or raising prices to improve profitability—most at the expense of the discerning consumer.³⁴

Traditional refiner inducements to retailers, such as equipment leasing, start-up loans, station leasing, free construction, and free product delivery, were censured. The API code also took aim at leased or loaned equipment from the wholesaler, as well as subsidies for station construction or improvement. Another rule stipulated “conspicuously” posted prices for “each class of [motor fuel] delivery” without “rebates, allowances, bonuses, concessions, benefits, unusual credits, scrip books, or any plan, device or other scheme.”³⁵ Bland offerings with less price competition was the goal.

Self-interested business strategies proved hard to break. Being voluntary, noncompliers stood to gain at the expense of the adherents. Competition won out, and complaints rang loudest from the integrated firms. “We in the petroleum industry, are “absurdly demoralized,” W. R. Boyd, Jr., head of API’s Division of Refining, complained in a 1931 address.

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Oklahoma’s prolific Seminole field in 1926, which led the Oklahoma Corporation Commission to issue a “market-demand” proration order the next year. A statewide proration order followed in 1928.³¹ Texas, encountering its own mega-discoveries, issued a field proration order in 1927, a beginning that led to a statewide decree in 1930.

Wellhead oversupply went downstream to refiners and marketers. In a competitive tussle for gallonage, the majors chafed at price undercutting from “curb operators” and “tracksiders” (pumps at rail drop-off points).³² Integrated companies competed with promotions ranging from free glassware to razor blades. Independents, with lower costs and more flexibility, needed to be tamed, as did the majors

Downstream reform had to start with strict production limits at the wellhead, which required interstate coordination and federal control. But independents and majors were wary that Washington, D.C., could impose public-utility regulation, already in place for interstate oil pipelines.

In 1931, the (non-federal) Oil States Advisory Committee (OSAC) was formed to share ideas and information toward coordinated production cutbacks. But antitrust law remained in force, and a bigger crisis of too much competition and too many barrels of crude oil sprang up that year in the twin oil states.³⁶

In Texas, “overproduction” entered new territory with the discovery of a shallow 211-square-mile contiguous oil reservoir, the East Texas field. Producing up to a million daily barrels (nearly one-third of prior national production), wellhead prices sank from a dollar per barrel to a dime.³⁷ In response, Governor Ross Sterling declared martial law and closed the field (now a “military zone”) with 1,200 National Guardsmen. The same action had been taken

just weeks before in Oklahoma in response to the sizeable Oklahoma City field.³⁸

This industry’s “quest for stability” would reach neighboring oil states Kansas, Louisiana, New Mexico, and Arkansas in the next years.³⁹ But with capped supply, unregulated imports surged, and independent producers turned to protectionism. A vigorous debate ensued within API between the majors importing their own supply for their refineries versus nonimporting independents. The result was a breakaway organization, the Independent Petroleum Association of America (IPAA), that successfully lobbied for crude oil and oil product tariffs in the Revenue Act of 1932.⁴⁰

Oil interventionism, outside of war but during the Great Depression, had grown from domestic to international, state to federal, in search of “dollar oil.”⁴¹ Herbert Hoover, not FDR, had begun a “New Deal” for petroleum, sponsored by segments of the industry. Unlike World War I, in fact, this was industry leading the government, not the other way around.

THE GREAT DEPRESSION AND THE NEW DEAL

The stock market crash of October 1929 began a decade-long ordeal known as America’s Great Depression. While different from World War I planning in purpose and execution, President Herbert Hoover and President Franklin Delano Roosevelt’s unprecedented peacetime intervention offers a case study of the perils of government activism.

Integrated oil majors wanted strict domestic proration, including for California and smaller oil holdout states. Independent producers and refiners favored flush production, oil import restrictions, and antitrust activism against their integrated rivals.⁴²

In June 1933, FDR’s National Industrial Recovery Act (NRA) became law. Section 9(a) focused on controlling “hot oil,” meaning oil produced in excess of state or federal quotas, in East Texas and other trouble spots by outlawing interstate transportation of illegal crude. The NRA also authorized codes of fair competition for each industry, which would come to number 874.⁴³

Negotiations focused on the downstream. In gasoline marketing alone, 59 organizations drafted the “Chicago Code.” A 52 member Emergency National Committee (ENC), composed of representatives of refiners and marketers, would assist with what was to come.⁴⁴



Recognizing the increased likelihood of government action at the national level, industry officials and the American Petroleum Institute (headquartered in New York City) busily entered federal politics. In March 1933, the Committee of Fifteen was formed by Interior Secretary Harold Ickes to draft an industry-sanctioned recovery and wellhead conservation program. The floundering API Code was about to get a mandated, centralized remake.

“Our task,” Harold Ickes told the PCC, “is to stabilize the oil industry upon a profitable basis.”⁴⁵ That quest began in September 1933 with an approved Code of Fair Competition for the Petroleum Industry (Oil Code). To this end, Ickes, appointed an Oil Code administrator, replaced the ENC with the Planning and Coordination Commission (PCC), headed by independent producer and IPAA founder, Wirt Franklin. The PCC established a network of local-level committees staffed by oil executives to apportion wellhead quotas per covered state (fourteen did not have proration authority).

Article I prescribed the setting of price floors—a task that would end up being abandoned rather than implemented. Article II set wage and hour regulations for drilling and production firms. Article III, Production, limited storage withdrawals and capped domestic production to a national forecast of demand. (California, previously not subject to wellhead proration, was covered.) Section 4 set a maximum quota for oil imports, strengthening the tariffs enacted the year before.⁴⁶

For administration, Ickes established the Petroleum Administration Board (PAB), which “in functions and in structure...greatly resembled the old Oil Division of the United States Fuel Administration in World War I.”⁴⁷ The PCC, with expanded board membership and 8,000 industry volunteers, implemented and adjudicated the Code under PAB direction⁴⁸ (see [Appendix B](#)).

PAB reflected the wishes of the industry it was intended to serve. Federal *coordination* was provided in place of federal *control*. Proration assignments were left to state conservation agencies with assistance from monthly oil-demand forecasts by the Petroleum Economics Division of the Bureau of Mines (Department of Interior).

Incentives to produce, refine, transport, and market oil profitably overwhelmed the limited, unnatural effort of distant regulators represented by nearby industry volunteers.

Exempt from antitrust law, and enforced by fines and license revocation, the Oil Code began with wellhead prices rising nearly one-third. Wirt Franklin optimistically declared a new beginning for petroleum and “march back to prosperity for the whole nation.”⁴⁹

Self-interest then seeped in. In its first year, the Oil Code was modified hundreds of times—a case of “the spider becoming entangled in his own web.”⁵⁰ J. Howard Marshall II, a chief aid to Ickes on oil matters, described such regulation as “hell on wheels.”⁵¹ Incentives to produce, refine, transport, and market oil profitably overwhelmed the limited, unnatural effort of distant regulators represented by nearby industry volunteers.

State oil regulators gamed their federal assignments upward. Wildcat wells were kept off the books. Oil exports went unreported. “Hot oil” surreptitiously reached markets. Still, state proration was kept alive by federal reporting requirements, a federal one-mill crude tax in 1934 to inventory supply, and the federal and state tender system for transportation.

Downstream, price concessions for commercial accounts and the formation of cooperatives to secure quantity discounts and rebates (“patronage dividends”), both legal, flourished. Six hundred co-ops were formed, one by a group of Harvard New Deal economists receiving discounted home fuel deliveries. Simply put, what was not illegal was legal, and retailers found ways to increase gallonage.⁵²

Evasion and rule-breaking found enforcement a step or two behind. Service-station promotions, ranging from free soap to movie tickets, challenged rules 16 and 17 of the Oil Code. Jersey Standard got into trouble with its Babe Ruth contest whereby baseball equipment could be redeemed. The popular 18-state promotion was discontinued under federal threat in first-quarter 1934.

Leading Code figures of major companies found themselves in violation of the Code, embarrassing Ickes and resulting in unpublicized settlements. Ickes, frustrated no end, asked marketers to “establish a birth control clinic” to “put some curb in the reproduction of service stations.”⁵³

The Oil Code’s colossal misdirection of effort had one bright moment when price-fixing—setting floors, not ceilings—was rejected by regulators. Tasked with preparing an order fixing minimum prices for every grade of crude oil and petroleum product for all points in the United States, Howard Marshall and economists gave up after weeks of effort, telling Ickes that “we didn’t know enough to devise a national price-fixing order—and no one else did either!”⁵⁴ Ickes reluctantly agreed, leaving mandatory wellhead proration as the indirect lever on prices.

With several hundred rule changes and open rebellion by little and big alike, the Code was imploding. Whatever the legal status of the code, its practical effect was waning. But a rescue, if it could be called that, was just ahead.

On January 7, 1935, the Supreme Court invalidated section 9(c) of the Oil Code on a technicality; the section had been inadvertently deleted in a formally adopted prior draft. With hot-oil transportation no longer prohibited, state-level proration lost its most practical enforcement mechanism. A legislative substitute was quickly provided by Texas senator Tom Connally, however, that took effect the next month.⁵⁵

On May 27, 1935, the Supreme Court declared the entire NRA unconstitutional. In addition to the law’s vague delegated authority and tenuous claim to affect interstate commerce, the court found that “unfair competition” did not rise to the monopolistic acts defined by the Sherman, Clayton, and Federal Trade Commission Acts. In the high court’s words: “it is evident that in its widest range, ‘unfair competition,’ as it has been understood in the law, does not reach the objectives of the codes which are authorized by the National Industrial Recovery Act.”⁵⁶

With the book closed, a total of 627 administrative orders had been given under the Oil Code, several hundred of which certified allowables and approved allocations among states. More than one hundred pending code-related suits were dropped, and a West Coast cartel, the Pacific Coast Petroleum Agency, was disbanded. Industry sentiment for a third code was rejected by the Federal Trade Commission in 1946.⁵⁷

The New Deal was premised on the fallacious economic theory that higher prices and profits would bring general economic recovery. Top-down Codes of Fair Competition, with federal bureaucracy and industry volunteers, were the means. As such, the New Deal was entirely different from World War I’s central planning—and World War II’s bigger repeat just ahead—that complained about inflationary pricing and industry profiteering.

Central planning was the mentality of Progressives from progressive politicians to Ivy League economists. “I think [the NRA] is important as the first step toward...a national planned economy,” stated Senator Robert Wagner (D-N.Y.):

Until we have that, I venture to say that we are not going to have an orderly organized economic system. A good deal of the chaos and disorganization from which we

*are suffering now is due to this lack of planning...
We have got plenty in the midst of all this starvation...
It is paradox.*⁵⁸

As it was, the Hoover/FDR New Deal for oil was in vain. Rather than rely on market forces to reorganize and consolidate the industry, particularly at the wellhead

WORLD WAR II PLANNING

*The oil industry is under government control more drastic and absolute than any other industry of similar size.*⁵⁹

The policy errors of World War I reappeared in magnified form during the longer, more intense Second World War. Little thought was given to the relatively simplistic, practical, transparent alternative of market reliance.

FDR created the War Resources Board (WRB) in 1939 to work on an Industrial Mobilization Plan for the Army and Navy Munitions Board. Drawing criticism, and without power or executive authority, WRB was soon disbanded. Other advisory groups for a mobilization followed, with the President sensing a transformation from New Deal recovery to militarization.

In May 1941, with Germany in control of much of continental Europe, FDR declared an “unlimited national emergency” to create the Office of Petroleum Coordinator for National Defense (OPC), tasked with coordinating the energy programs of approximately thirty agencies.⁶⁰ A week later, Interior Secretary Harold Ickes was appointed coordinator and Ralph Davies, vice president of California Standard, deputy coordinator. J. Howard Marshall II was number three as Davies’s right-hand man.

Early planning was conducted by the OPC, as well as the Division of Petroleum and Other Liquid Transport within the Office of Defense Transportation (ODT).⁶¹

(something that should have already occurred), a suite of intervention wastefully protected independents at the expense of their better capitalized, better situated rivals. Overproduction and instability were institutionalized in a political quest for stability in the 1930s.

Ickes began by settling all outstanding antitrust actions against the industry. In July, five OPC offices were set up to cover the different oil regions. Two states without proration authority, Illinois and California, were warned. “The way for you to avoid an oil ‘czar,’ the pugnacious Ickes stated, “is to eliminate...wasteful practices,” adding:

People endured patiently for a long time the unlimited taking of game. Remember, too, it was the transgressions of the railroads that resulted in the creation of the Interstate Commerce Commission. It was disregard by business of the rights of the individual that brought about the antitrust laws. Public power is well on its way because of the oppressive practices of the private utilities. The Securities & Exchange Act sprang from the loins of Wall Street itself.

His case for intervention was highly debatable, but dominated intellectual thought.

In November 1941, the Petroleum Industry Council for National Defense, consisting of sixty-six members from oil companies and trade associations, was established. Closely resembling World War I’s War Service Committee, as well as the New Deal’s Planning and Coordination Committee, this group, soon renamed the Petroleum Industry War Council (PIWC), was the industry’s voice in government wartime planning.

With the U.S. declaration of war in December 1941, the OPC was renamed the Office of Petroleum Coordinator for War (still OPC). A year later, OPCW became the Petroleum Administration for War (PAW) (see Appendix C). PIWC, meanwhile, held its first meeting the day after Pearl Harbor with monthly meetings thereafter.

From the wellhead to the service station, for gasoline, fuel oil, and other petroleum products, command-and-control usurped entrepreneurship. Price controls were central.

In mid-1941, the Office of Price Administration and Civilian Supply (OPA) began a “voluntary” price-control program for crude oil. Direct price interference soon followed when oil producers from California to Pennsylvania received rollback orders.

To controllers, higher prices were “inflationary” and tended “to weaken the defense effort by causing economic dislocations and price spiraling and profiteering.” Never mind that monetary expansion to hide the expense of war mobilization was the culprit.⁶² The same criticisms were also used to justify price controls on petroleum equipment, one of 24 industries so regulated.⁶³

In January 1942, ceiling prices were established in the Emergency Price Control Act. But punitive assignments and cost-inflation led certain high-cost fields to face curtailment or shutdown. Between 1943 and 1945, more than 100 exceptions were granted. But overall price increases, twice requested by PAW in May and August 1943, were denied by OPA in conformity with FDR’s “hold the line” price directive.⁶⁴

Instead of market prices coordinating supply and demand, price edicts had their predictable effect: shortages. Without considering full decontrol, officials relaxed regulation in places and initiated new programs. Regarding the former, the oil states were instructed to suspend proration, as well as reduce royalty rates on federal land.

...price edicts had their predictable effect: shortages.

Regarding expanded intervention, low-output “stripper” wells received cash grants from the Treasury Department; unconventional production was authorized in the Synthetic Liquid Fuels Act of 1944; and taxpayer-financed drilling was authorized in northwestern Canada.⁶⁵ The head of the Mid-Continent Oil and Gas Association noted the irony of an approach that would “not attract exploration by experienced oil men” but “encourage promoters [to] drill for the so-called subsidy instead of for oil.”⁶⁶

Ickes’s supply concerns reached foreign policy. The Foreign Operations Committee was formed within PAW to secure foreign oil concessions for U.S. companies to produce for the war theater. The secretive Petroleum Reserves Corporation, founded in 1943 within the Reconstruction Finance Corporation (RFC), controversially and unsuccessfully tried to buy a controlling interest in the Arabian-American Oil Company.⁶⁷

Midstream intervention added to upstream woes. Property rights were violated by requisition edicts. In May 1941, the U.S. Maritime Commission commandeered twenty five tankers to supply oil to Britain as part of the “lend lease” program, a precedent that influenced private shipping for the rest of the war.⁶⁸

Price-controlled tank cars, tank trucks, and tankers lived off government “recommendations.” Certain practices were banned, others rationed. OPC tallied ten thousand inventory sheets to try to coordinate supply and demand in the absence of market price-and-profit incentives.⁶⁹

Planned chaos had many fathers, one being when badly needed tank trucks were idled due to a shortage of heavy-duty tires.

Top-down, one-size-fits-all rules stifled innovation. *The National Petroleum News* noted how “‘reasonable’ prices... are still making it impossible for the ingenious minds of the oil industry to bring more river and lake barges of all sorts and descriptions, more tank cars and particularly more trunk transports and truck into service to run petroleum products from mid west marine and pipeline terminals and refineries to the East Coast.”⁷⁰ Planned chaos had many fathers, one being when badly needed tank trucks were idled due to a shortage of heavy-duty tires.

Government-built infrastructure was another part of the planning approach. “Economic czar” Jesse Jones of the RFC got in the oil pipeline business in 1942 and 1943 when the War Emergency Pipelines built interconnected lines from Texas to New Jersey to replace tanker shipments susceptible to German U-boats. In mid-1942, RFC also began covering the transportation deficits (losses) from forced transactions.⁷¹

Downstream, refineries and wholesalers were subject to price controls and product instruction. There could not be a *regulatory gap* where an unregulated transaction could capture the price or profit denied to others. Planning required *total* applicability and compliance, stage-by-stage, firm-by-firm, transaction-by-transaction.

The Refining Division of OPC/PAW gave price commands, as well as product orders, none bigger than for 100-octane

aviation fuel. Patents were pooled by decree, and federal monies were allocated for refinery construction and modernization. Case-by-case exemptions to federal orders were given to those small refineries found to be unduly burdened.⁷²

Retail intervention, adding to the inefficiencies of the upstream and midstream, waylaid the civilian consumer in 1941–45. Shortages from price controls, coupon rationing of gasoline and fuel oil (a first), service-station inconveniences, mandatory conservation edicts, mass prosecution—never had so much been imposed on motorists and homes heated by oil. Natural gas, too, fell in the price-regulation, shortage, allocation-regulation spiral with negative consequences.⁷³

Demand-side intervention tried to undo the incentives created by artificially low prices. It began with hundreds of radio spots by Secretary Ickes exhorting motorists to avoid quick starts, keep engines tuned, and “make 4 gallons do what 5 did before.”⁷⁴



Industry editorialists were nonplussed. “Our solons are veering toward a false and dangerous premise,” the *Oil & Gas Journal* remarked in mid-1941, “that a large part of

petroleum consumption is in the nature of luxury use. This doctrine is being expressed in new taxes, talk of rationing of use, and threats of gasolineless Sundays.”⁷⁵



Conservation edicts came next. Prior to America’s entrance into the war, Ickes imposed a 7 p.m.–7 a.m. curfew on service stations and restricted their wholesale deliveries. Public backlash forced authorities to end these restrictions “after a painful but extremely educational life,” but more dramatic restrictions were just ahead.⁷⁶

War mobilization after Pearl Harbor created a dire need for rubber and aviation gasoline. Coupon gasoline rationing was now a threat due to transportation “inadequacy,” as well as petroleum and rubber shortages (under price ceilings).⁷⁷ Station curfews were reimposed, and homes were ordered to substitute coal for heating oil. Strict gallon limits per person resulted in dry tanks, not to mention inequities and hardship. The dollar bill could not do its job without scarcity pricing.

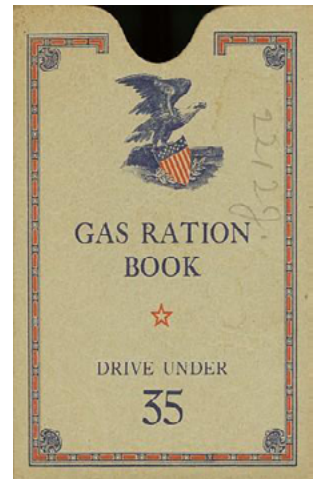
In early 1942, PAW’s Rationing Division printed and allocated ration tickets for the eastern seaboard (District 1). Gasoline cards, joining the same for sugar and tires, were dispensed to motorists by 9,000 ration boards set up in neighborhood public schools.

Ration cards were counterfeited, and bootleg gasoline shipments into District 1 from the west (Districts 2–5) gave motorists access to quantities despite government limitations on price and supply (see Appendix D). An estimated 150,000 gallons per day, priced at double the legal amount, flowed in black-market commerce. Gasoline stripped from natural gas was another illegal source.⁷⁸

Problems with partial coupon rationing led to national rationing in late 1942. Predictable problems emerged with the extra 80 million motorists: violations, enforcement issues, and changing rules. An enforcement posse of 2,000 OPA staffers and volunteers, posing as ordinary motorists, including pleading women, descended upon stations to entrap dealers into selling gasoline without punching the ration card. Multiple convictions followed with penalties of suspended gas allotments.⁷⁹

Tickets were replaced by coupons in mid-1942 where each dealer traded the coupons for the next fuel allotment. Seven new categories were established, and “supplemental” coupons went to 14 classes, with public-sector uses (government business; U.S. mail service; and public-school transportation) prioritized.⁸⁰ Political candidates would be added to the “essential” category.

Dollar-plus-coupon purchases could not prevent retail fuel shortages in District 1, which became a “Gasoline Shortage Area” with six zones for tailored allocation. The black market, as it were, was distributing more counterfeit and stolen coupons than bootleg gasoline. Local ration boards were also liberally allocating discretionary supply under community pressure. Program modifications seemed to be behind situational problems.⁸¹



In 1944, physical shortages of fuel despite coupons became regular fare, necessitating strict gasoline quotas per region. Prices were way too low, and the black market was in full swing with coupons, real and counterfeit. Enforcement was an industry unto itself with “Kangaroo Courts” issuing uneven judgments and harsh verdicts—and special rations to get defendants to trial.⁸²

Gaming, too, beat the system. Hardship-case allocations resulted in an extraordinarily high number of requested hospital visits and funeral attendance. Change-of-residence coupons, intended for normal relocations, including war-related transfers, were claimed by individuals taking short stays, extended vacations, and temporary transfers.

Fuel oil, too, was subject to coupon rationing with many problems. Private home allotments were determined by floor area, degree days, and past consumption. Multiple dwellings were allowed to have two-thirds of the previous year’s consumption. Government agencies were eligible for auxiliary supply. The same draconian penalties for willful noncompliance—a maximum penalty of \$10,000 and 10-years imprisonment—applied.⁸³

Wartime planning began to ease in the last year of the war, as much due to regulatory fatigue as ideology. Some was a surrender to markets for better results. Back in 1942, in fact, aviation gasoline, toluene, and associated base stocks were deregulated to ensure needed supply.⁸⁴

Petroleum transport planning was first relaxed in October 1944. But the bulk of decontrol came in the summer of 1945 after Germany’s surrender when only the war against Japan remained.

In June, twenty-two minor petroleum products were decontrolled by OPA. In July, PAW and WPB relaxed material rationing. In August, ODT removed the last of its transportation restrictions; the RFC ended its transportation

subsidy plan; PAW deregulated petroleum movements nationwide; and PAW ended rationing, supplier quotas, the credit card ban, maximum service station hours, and road oil restrictions.⁸⁵

On September 1, all regulations governing well spacing and well construction and servicing were dropped. Price decontrol for crude oil and major products was another matter with OPA continuing controls through 1946, citing high industry profits and inflation.⁸⁶ Wage regulation continued from pre-war federal and state laws, and RFC low-interest loans to dealers remained in force until maturity. The PIWC disbanded on December 31, 1945, while the PAW and the OPA continued into the next year.

In May 1946, the PAW was dissolved by executive order, the same month OPA removed price ceilings on tank trucks. In July, crude oil, gasoline, heating oil, and oil equipment prices were finally deregulated. Standby regulation expired August 20, 1946, when the Decontrol Board failed to reimpose price ceilings.⁸⁷

The RFC’s War Emergency Pipelines—the “Big Inch” crude line and “Little Inch” product line—were privatized by the Surplus Property Administration in 1947. Privatization of oil tankers was completed the next year.⁸⁸ Harold Ickes’ pet project, the Liquid Fuels program, meanwhile, having no market value, continued into peacetime and then the next military conflict.⁸⁹

World War II planning, described by Ralph Davies as “an unprecedented program of Government-industry cooperation,” was a larger reenactment of the seventeen-month planning experience of World War I.⁹⁰ It did not initiate, but furthered the relationship between the oil industry and the federal government that began in 1917 and reappeared in the New Deal.

Crude output was discouraged by price controls and the rationing of wellhead equipment. Inefficiency, corruption, black markets, and shortages plagued gasoline marketing.

The distortions of wartime petroleum planning were most associated with price controls and shortages, which precipitated rationing.

As with World War I, a critical review of World War II planning identifies some of the same barriers to free-market wartime response. The government's call for "teamwork of the highest order" could not be expected to strike a responsive chord with recent or ongoing antitrust activism against the industry. War finance via expansionary monetary policy created inflationary pressures that price controls were rationalized to address.

Rate and service regulation for trucks and railcars, fashioned by and for special interests, made the Interstate Commerce Commission the foe of transportation efficiency going into

1940 and 1941. Interstate oil pipelines were in the middle of lawsuits with the Justice Department that resulted in profit-and-dividend regulation in 1941. Almost 30 government agencies regulated oil and gas in peacetime, hardly a free market foundation for war performance.

World War II petroleum planning aggravated and prolonged the errors of World War I. Competition and innovation were banished in favor of sweeping directives and cartelized reliance on the pre-existing industry structure. Crude output was discouraged by price controls and the rationing of wellhead equipment. Inefficiency, corruption, black markets, and shortages plagued gasoline marketing.

Shortages and havoc on the home front were not necessary to fuel the war effort. Market-clearing prices sans bureaucratic direction would have served both fronts by encouraging more supplies and rationing demand to its highest uses.

Three crises in consecutive decades produced a sea change in the relationship between government and the economy. From a market viewpoint, more had been lost in 28 years than in the previous 140. But wartime controls were mostly rescinded in 1945 and 1946, suggesting a fresh start for a more entrepreneurial future. Progressivist Harold Ickes left the scene too, ending a tenure at the Department of Interior that began in 1933.

INTERLUDE: 1946–1950

Post-war prosperity defied the pessimistic predictions of mainstream Keynesian economists, who saw elevated government spending as the way to full employment. But the central planning mentality lived for the next emergency. "I have been impressed with the great contribution of Government-industry cooperation in the success of the war petroleum program," President Truman remarked in early 1946, "and feel that the values of such close and harmonious relations between government and industry should be continued."⁹¹

Government agencies and committees, fearing Communist expansion, were in Cold War mode. Petroleum for mechanized war was a central government concern. In May 1946, the Oil and Gas Division was created within the Department of the Interior as the locus of federal petroleum regulation. A month later, the National Petroleum Council (NPC) was founded as an industry-government liaison—a peacetime version of World War II's PIWC.⁹²

In 1947, the Military Petroleum Advisory Board (MPAB) was formed with twenty industry representatives, most veterans of PAW. The National Security Act of 1947 created

the National Security Resources Board (NSRB) to design “programs for the effective use in time of war... for military and civilian needs.”⁹³

Fears about oil seemed justified with a heating oil emergency in the winter of 1947–48. A price surge, not a shortage, however, was the problem—and briefly. Still, the experience provided impetus for the synfuels program authorized back in 1944. The Liquid Fuels Act of 1948 added monies to build projects, although hardly on the scale that some (including Interior Secretary Julius Krug) wanted.⁹⁴

KOREAN WAR: 1950–1953

On June 25, 1950, war broke out between North Korea and South Korea. The “limited police action” engaging U.S. forces led to the Defense Production Act of 1950, which empowered the Office of Defense Mobilization (ODM) to set priorities, allocate supply, regulate wages and prices, control credit, requisition assets, settle labor disputes, and expand industrial capacity to increase supply.

In October, President Truman created the Petroleum Administration for Defense (PAD) to command the oil,

In the same period, a three-year study of petroleum requirements for a global conflict was undertaken at the highest levels of government. In 1950, finally, the Office of Assistant Secretary for Mineral Resources was formed within the Interior Department to oversee the Bureau of Mines, Geological Survey, and Oil and Gas Division.⁹⁵

gas, and coal industries, as well as assume functions from the Oil and Gas Division of the Department of Interior. Modeled after the World War II’s Petroleum Administration for War, PAD was empowered to allocate petroleum products, coordinate transportation, and prepare forecasts of petroleum supply and demand⁹⁶ (see Appendix E).

Natural gas prices and equipment came under wartime regulation for the first time. But a separate bureaucracy proposed by the American Gas Association’s National Defense Committee was turned down by Secretary of the Interior Oscar Chapman in early 1951. The Federal Power Commission (FPC) continued to exert regulatory jurisdiction over rates and service of interstate gas pipelines and, increasingly, production dedicated to the interstate market.⁹⁷

Petroleum price regulation began in December 1950 when the Office of Price Stabilization (OPS) telegraphed 40 Eastern and Midwest companies to freeze prices and to give its parent, the Economic Stabilization Administration (ESA, reporting to the ODM), notice of any planned increases. Price rollback requests were also issued for crude oil and refined products elsewhere.

Temporary ceilings for crude oil became effective January 25, 1951. This “sneak attack from the clear blue,” as described by the *National Petroleum News*, brought

The Defense Production Act of 1950, empowered the Office of Defense Mobilization (ODM) to set priorities, allocate supply, regulate wages and prices, control credit, requisition assets, settle labor disputes, and expand industrial capacity to increase supply.

skeletons out of the closet. World War II price controls were described as “political” and responsible for “cut[ting] down severely the country’s war supplies.”⁹⁸ Patriotism, at least in the oil patch, was strained from the start of the Korean “police action.”

In May 1951, permanent controls set maximum crude prices. Increase requests from producers were repeatedly denied in 1951–52; OPS was more interested in a stripper-well subsidy plan to keep the highest-cost, lowest-output wells operating than in price decontrol.

After almost a year and a half of priority requests and forced redistribution of company inventories, regulation was relaxed as war demands slackened in spring 1952. As late as November, however, California producers complained to PAD about inadequate materials.⁹⁹

Second-best fixes tried to substitute for foregone market signaling. Producers lobbied PAD to finance wildcat drilling in return for a royalty override and to otherwise loan money for drilling to increase crude supply. While denied, other initiatives were tried with little success. A multimillion-dollar exploratory program in the Alaskan naval reserve by the Navy found oil—but was stymied by a lack of transportation and hospitable weather.

A continuing effort at synthetically producing oil from coal and natural gas, begun in World War II, produced very little at very high cost. With funding ended in 1953, the three demonstration plants were shuttered between 1954 and 1956.¹⁰⁰

In February 1953, five months before the July 27 armistice, crude prices were decontrolled pursuant to President Eisenhower’s directive to remove wartime regulation. (Materials regulation had been previously relaxed.) In April 1954, PAD was abolished, returning the regulated firms to a peacetime footing—and pre-existing state regulation.

Crude-oil “overproduction” was evident at the height of hostilities with market-demand proration factors below 80 percent in Texas and New Mexico, as well as prorated output elsewhere.

What had been unnecessary and counterproductive from the start had lingered for too long.

Why did regulation occur in the Korean War? Crude-oil “overproduction” was evident at the height of hostilities with market-demand proration factors below 80 percent in Texas and New Mexico, as well as prorated output elsewhere. Open lobbying by independents for restrictions on crude imports was another sign of supply plenty. In fact, government price orders may have served more to set floor prices than cap prices.¹⁰¹ As it was, price controls caused scattered fuel oil and lead additive shortages that led to allocation directives.

An opposite wartime strategy of deregulating the industry from state proration would have addressed the supply problem. And as in World War I, public-land oil production was discouraged by unstable public policy, this time being the state-federal “tidelands controversy” concerning offshore oil and gas.¹⁰² Regulation by the Interstate Commerce Commission, too, hindered petroleum transportation going into the conflict.

Antitrust law reared its ugly head when cooperation was most needed to meet federal fuel demand. Bruce Brown, chief oil and gas planner during the Korean War, identified a “fear of prosecution by the Department of Justice” as the “principal present deterrent to our being able to supply the military with petroleum.”¹⁰³

STANDBY PLANNING: 1954–1972

After the demise of the PAD in April 1954, emergency planning was relocated in the Interior Department's Office of Defense Mobilization, which included the Oil and Gas Division and several advisory groups: the MPAB, the Military Fuels General Advisory Committee, the Foreign Oil Supply Committee, and the National Petroleum Council.

Almost immediately, the Committee on Oil and Gas Emergency Defense Organization of the NPC recommended war emergency committees for each (of five) PAD district with separate subcommittees for oil and gas. Later, the presidential-level Office of Emergency Planning and the Army's Office of Civil Defense assumed the role previously held by the Office of Defense Mobilization.¹⁰⁴

In 1958, the Office of Defense Mobilization and the Office of Civil Defense merged to form the Office of Defense and Civilian Mobilization, only to return to their separate functions in 1961. Peacetime preparedness was again reshaped on August 28, 1963, with the establishment of the Emergency Petroleum and Gas Administration, staffed by "executive reservists"—leading industry figures who consented to plan petroleum matters in the event of an emergency¹⁰⁵ (see Appendix F).

An emergency of a different kind engulfed the domestic crude oil producers. Market-demand proration buoyed prices in the oil states, but the same prices encouraged imports of crude and oil products. Despite tariffs dating from 1932, imports tripled between 1944 and 1949, turning the United States into a net crude importer for the first time. IPAA issued a plea to Congress in 1949 to limit imports on grounds that production and refining "may be built in the theaters of future hostilities" and thus "of little value in time of war."¹⁰⁶

Investigations ensued, and who-was-importing-what became part of the political debate. By 1953, the major importers had to submit information to the Texas Railroad Commission. The next year, President Dwight Eisenhower created the cabinet-level Committee on Energy Supplies and Resources Policy with the military's fuel needs in mind. Their final report recommended voluntary import restrictions if not mandatory controls. "As a result," one economist noted, "the work of the Texas Railroad Commission was taken over by the Office of Defense Mobilization."¹⁰⁷

Voluntary import restrictions began with a federal club-in-the-closet. Under 1955 legislation, the President could "adjust" imports on natural security grounds.

Voluntary import restrictions began with a federal club-in-the-closet. Under 1955 legislation, the President could "adjust" imports on natural security grounds.

With imports increasing, and tanker traffic disrupted in a 1957 incident in the Suez Canal (during the Suez Crisis, October 1956–March 1957), IPAA and 18 other producer groups petitioned the ODM to make a national security determination. ODM so advised Eisenhower, and Ike appointed a Special Committee to Investigate Crude Oil Imports. With its affirmative finding, Ike then instructed the newly created Oil Import Administration to administer a voluntary oil-import rollback.¹⁰⁸

A second shot at voluntary limits was overwhelmed by complexity and petitioned exemptions. Noncompliance set in with foreign crude 20 percent below domestic prices.

With imports surging to more than one million barrels per day, domestic producers went back to ODM for another favorable finding.¹⁰⁹

In March 1959, President Eisenhower imposed mandatory oil import quotas by executive order. While warning about “tendencies of special interests in the United States to press almost irresistibly for special programs...in conflict with the basic requirement on the United States to promote increased trade in the world,” Ike triggered a messy, controversial program that endured until the Arab embargo 15 years later.

1970s ENERGY CRISIS

Government intervention with petroleum in the 1970s is a monument to regulatory ambition and predictable failure. It started with expansionary monetary policy and consequent price inflation, resulting in the *Economic Stabilization Act* of 1970, which gave the President the authority to enact wage and price controls. President Richard Nixon invoked his power on August 15, 1971, by setting a 90-day freeze on all wages and prices in the U.S. economy.

Government intervention with petroleum in the 1970s is a monument to regulatory ambition and predictable failure.

The first peacetime price control program in U.S. history would go through *five phases* over the next 33 months and distort petroleum more than any other major industrial sector. Fuel shortages, at least on the wholesale level, developed by late 1972, with Congressional hearings on energy conservation following.

Not only did MOIP save domestic proration from a natural demise (as did earlier oil protection and federal actions against interstate transportation of “hot oil”), the 1959 action incited the formation of the Organization of Petroleum Exporting Countries (OPEC) the next year by victimized Venezuela.¹¹⁰ Once again, needed industry consolidation was thwarted by federal intervention rescuing prior state intervention.

The Energy Policy Office was created in response to 1972–73 supply issues.¹¹¹ The Arab OPEC embargo against the United States in the fourth-quarter 1973 worsened the situation. But it was preexisting federal price regulation, not the embargo, which fathered the “energy crisis.” The on-and-off crisis, which included natural gas, persisted until decontrol and market adjustments set in during 1981.

While Nixon’s discretionary price controls were lifted for the rest of the economy, oil was comprehensively regulated in the Emergency Petroleum Allocation Act of 1973 (EPAA). This law, the most consequential in the peacetime history of the U.S. energy market, was introduced months prior to the embargo. It was enacted during a retail oil shortage not experienced since World War II.

Two central elements of the mandatory allocation program, the *supplier/purchaser* rule and *buy/sell* program, had complicated, controversial lives amid inherited and self-inflicted distortions.¹¹² The same was true with price controls that valued the same physical product two ways (“tiers”) in 1974, and then three in 1976, five in 1977, and eight and then eleven in 1979.¹¹³

Intervention-begetting-intervention marked the seven-year reign of the EPAA. The new law required that crude oil be “equitably distributed” to U.S. refiners in volume and price.¹¹⁴ Yet multi-tiered oil price ceilings for domestic oil, coupled with non-regulated imports, created the opposite situation. Inland refineries tied to domestic oil capped at \$5.25 per barrel in 1974 were greatly advantaged over coastal refineries paying the world price near \$10 per barrel.¹¹⁵ This competitive distortion resulted in a major new regulatory program in 1975, the Old Oil Entitlements Program, which required refiners with an average crude acquisition cost under the national average to write a monthly check to an oppositely situated refiner.

Entitlements “equalization” was politicized from the beginning. The small refiner bias awarded “bonus entitlements” to refine low-cost oil without obligation. This subsidization of “tea kettle” refineries and other undersized, inefficient units continued the same favoritism that existed under prior government programs. Exemptions and exceptions, in short, rewarded the most inefficient and/or politically astute refiners, while penalizing large, efficient refiners.¹¹⁶

The refiner-entitlements program was the most visible and criticized program under the EPAA. Its distortions were well documented and skewered by a range of notable economists such as Joseph Kalt and Kenneth Arrow.¹¹⁷ A less visible regulatory episode grew up alongside oil price and allocation controls—the oil reselling boom—that ranks as one of the most bizarre consequences of regulation in U.S. history.¹¹⁸

The revenue that would have gone to oil producers (and royalty owners) instead went to foreign petro-states and to fly-by-night resellers, some or many who became “regulatory millionaires.”

The nation suffered through several major petroleum shortages during the 1970s, but for more than 90 percent of the price-controlled period, supply and demand reasonably meshed. Why did U.S. consumers pay record-high prices—even the price of world oil—despite maximum price regulations at every transaction point to ensure the opposite result?

Part of the answer was that domestic refiners purchased uncontrolled imports to price-blend with domestic regulated crude that increased the cost of imported oil by an estimated 10–20 percent.¹¹⁹

Second, a swarm of nouveau oil resellers was buying price-regulated (underpriced) oil and reselling it toward unregulated (market) levels—a regulatory gap that energy planners could not plug despite regulated margins for every oil transaction. While physical transportation, refining, and retailing involved a limited number of markups, resellers could buy and sell the oil repeatedly with the oil in the same place.

Back-to-back trading became commonplace to capture the margins and prices that, by law, were denied at the wellhead. So long as the refiner could buy the “daisy chained” crude and make its maximum profit, and so long as the retailer could sell the churned oil-product at full margin, the opportunists could bid up the price to “market” levels.¹²⁰

Hundreds of resellers consummated hundreds of thousands of transactions in this way. The good news was that the resulting price increases kept motorists out of gasoline lines for the most part during the eight or so years of the EPAA; the bad news was that domestic oil producers were prevented from producing an estimated one million (more) barrels per day.¹²¹ The revenue that would have gone to oil producers (and royalty owners) instead went to foreign petro-states and to fly-by-night resellers, some or many of whom became “regulatory millionaires.” This was another example of superfluous entrepreneurship—what other economists would call an unintended consequence of intervention.

The original EPAA regulations covering 27 pages in the *Federal Register* in early 1974 would be supplemented by more than 5,000 pages of amendments in its first two years.¹²² In the EPAA's seven years, noticed Joseph Kalt, there would be "no fewer than six different regulatory agencies and seven distinct price control regimes, each successively more complicated and pervasive."¹²³

The unprecedented peacetime exercise in cumulative intervention went far beyond the EPAA. Between 1977 and 1980, more than 300 energy bills were considered in Congress. State legislatures considered many more.¹²⁴

Dozens of state and federal laws mandated energy efficiency and conservation that harked back to World War I and World War II. Major federal laws created the Strategic Petroleum Reserve (1975), the Synthetic Fuels Corporation (1980), and the Windfall Profit Tax (1980). These interventions each brought their own issues and challenges.

Energy independence became a rallying cry for government activism beginning in 1973 with the embargo. Not to blame himself and price controls, Nixon blamed the Arabs for politicizing their hitherto dependable supply. In an energy address to the nation in November, Nixon set a goal of oil autarky. He explained:

*From its beginning 200 years ago, throughout its history, America has made great sacrifices of blood and also of treasure to achieve and maintain its independence. In the last third of this century, our independence will depend on maintaining and achieving self-sufficiency in energy. What I have called Project Independence 1980 is a series of plans and goals set to insure that by the end of this decade, Americans will not have to rely on any source of energy beyond our own.*¹²⁵

Carter's Energy Security Act of 1980 promised much to many. But it would fail.

The Project Independence Report of November 1974, 800 pages and based on extensive computer modeling, pathed out changes in oil supply and demand to reach such independence.

Nixon's interventionism for independence continued with President Ford in the Energy Independence Act of 1975, pushing back the autarky goal to 1985.

Energy policy also became a major fixation of Congress. Prior to the 1970s, energy was a marginal issue on Capitol Hill, but in 1975 the rising political importance of energy led to the Interstate and Foreign Commerce Committee forming a Subcommittee on Energy and Power. In February 1977, the Senate adopted a resolution reorganizing its committees, creating the Committee on Energy and Natural Resources. In 1981, under Rep. John Dingell, the House Interstate and Foreign Commerce Committee was renamed the Energy and Commerce committee and the committee's jurisdiction was officially expanded to claim energy policy. Having specific committees covering energy policy meant that legislative responses or proposed responses to energy events became more frequent.

The same era brought Jimmy Carter's "moral equivalent of war." "Beginning this moment," he declared, "this nation will never use more foreign oil than we did in 1977—never."¹²⁶ Carter's Energy Security Act of 1980 promised much to many. But it would fail. "None of it held up; in fact, almost as soon as it was passed, it began to seem wasteful and irrelevant," Grossman noted.¹²⁷ Oil prices, fully deregulated in early 1981, would soon peak and head south, ushering in a buyers' market that would plague OPEC, for many years to come.

1980s ENERGY CRISES

“America is rapidly replacing its dependency upon imported crude oil for dependency upon foreign gasoline. This development has serious consequences for national security, our economic recovery, and consumers.”
(Independent Refiners Coalition, 1985)

Fears of oil shortages would be quieted—and opposite alarms raised—in the 1980s. Oil prices peaked at \$31 per barrel in 1981 before heading south, triggering the wellhead recession of 1982–83, an independent refiner recession in 1984–85, and then a wellhead depression in 1986.

Natural gas had already reversed by 1981. When debilitating shortages hit the price-controlled interstate markets in the winter of 1976–77, Texas and other intrastate markets had plenty of natural gas, if not a surplus. The next year, in interstate markets, authorities reported a gas “bubble” with some pipelines obligated to buy more supply than they could sell at the city gate. It was Economics 101; higher prices had increased supply, and shortfalls triggered fuel switching to oil and coal. An industrial recession was at work too.

Thought to be transient, the gas bubble of the late 1970s only grew in the 1980s.¹²⁸ The shortage “crisis” in the winters of 1971–72 and 1976–77 for end-users was now a “crisis” for interstate pipelines which had long-term, price-fixed contracts that were out of the money. The so-called take-or-pay problem would bring result in large write-offs and losses for many and bankruptcy for others—a result few could have predicted under federal public-utility regulation.

Politics engulfed the oil side. Surging oil-product imports led to protectionist sentiment beginning in 1984 when the Independent Refiners’ Coalition (IRC) lobbied authorities to limit the import of gasoline and other light products.¹²⁹

“America is rapidly replacing its dependency upon imported crude oil for dependency upon foreign gasoline,” stated the IRC.

*This development has serious consequences for national security, our economic recovery, and consumers... An import quota on gasoline or a combination of quota and tariff are the appropriate remedy to meet the national security threat posed by increasing gasoline imports.*¹³⁰

The new protectionists cited presidential authority under Section 232 of the Trade Expansion Act of 1962 to restrict product imports in the name of national security.

More than one hundred refineries had closed between 1981 and 1985, representing one-fourth of national capacity. Product imports, tripling in the same period, were driving out domestic capacity that had lived off special government subsidies during the 1970s. Worldwide refining with low feedstock costs and modern equipment, in other words, was displacing the less efficient segment of the domestic distillation market.¹³¹

Integrated refiners, organized as the National Petroleum & Refiners Association (NPRA, the predecessor to the American Fuel & Petrochemical Manufacturers), did not endorse protectionism. NPRA did cite a need, however, to revisit import controls “in light of a multiplicity of import restrictions in Europe, Japan, and other marketplaces for petroleum products so that U.S. refiners are not unfairly disadvantaged.”¹³²

Formed to oppose the IRC, the Coalition of Independent Petroleum Product Marketers, consisting of independent gasoline marketers, fuel oil distributors, and marine oil interests, supported free petroleum trade. Lower prices meant more sales, and the less politics the better given a risk of import regulation.

As it turned out, the Department of Commerce declined to investigate, a position supported by the Reagan Administration and the U.S. Department of Energy.¹³³ Refiner angst would disappear in 1986 when margins reversed in their favor. The battle cry of “national security” that independent refiners had sounded since 1979 was over.¹³⁴

Scattered calls for a crude oil tariff grew into a roar by summer 1986.

In 1986, the energy-security debate shifted from independent refiners to independent producers. Calls for a crude oil tariff began in mid-1985 as the prospect for a oil price plunge came into view. Saudi Arabia, in particular, repeatedly cutting back production to support prices, had to reach a limit or turn into an importer.

Saudi Arabia announced a new policy in December 1985, and production increased by 75 percent a few months later. Posted domestic crude prices of \$28 per barrel in November 1985 fell to \$12 per barrel in March 1986. The largest yearly decline in active oil wells was underway.¹³⁵

Scattered calls for a crude oil tariff grew into a roar by summer 1986. The Texas Independent Producers and Royalty Owners Association (TIPRO) had called for wellhead protectionism the year before, and by year-end 1986 the Independent Petroleum Association of America (IPAA) joined in. The oil-state conservation agencies joined in, as did the heads of a number of energy companies in oil-field services and natural gas transmission.

Chevron's CEO, also chairing API, went protectionist as well. The other majors, led by Exxon and Shell, with substantial international operations, remained opposed.¹³⁶

The U.S. Department of Energy raised its concern about market share going to foreign suppliers in a 1987 study, *Energy Security*.

*Politically inspired production cutbacks by major oil producers could...hurt the U.S. economy or at least limit its geopolitical options. If dependence on certain oil producers carries with it these dangers, the government has a responsibility to take defensive action of some sort.*¹³⁷

Academic support was found in a study released by Harvard University's Energy & Environmental Policy Center. *Oil Tariff Policy in an Uncertain Market* (1986) found the "optimal" crude-oil tariff to be between \$10 and \$11 per barrel. Describing OPEC in market-failure terms, a negative externality was calculated with an economic (demand) component and a security component, with two-thirds of the "social cost" being the latter.¹³⁸

The above technical analysis failed to consider the offsetting cost of their prescribed "tariff shock," much less account for government failure in the quest to correct for alleged market failure. The perfect-knowledge construct also defaulted on the question of analytic failure, how "experts" can err in devising social models of the complex, changing world.¹³⁹ Real-world experience, too, is important. Government intervention, not free markets, had set the stage for oil emergencies as the present study documents.

Independent refiners, meanwhile, benefitting from lower feedstock costs, abandoned their push for product tariffs and advocated having higher product tariffs if crude oil tariffs were to occur.¹⁴⁰

The grand result of the 1980s politicking was political inaction. In a nation where oil consumption was substantially greater than domestic production, the difference being imports, consumers had the upper hand. Congress also had a large constituency that remembered the crisis of high prices and short supply the decade before. An oil tariff was off the table by mid-1986.

The result of policy neutrality for vulnerable refiners and for producers was *consolidation*. Low oil prices helped consumers, while reshaping the industry toward fewer, stronger, more integrated firms. A recovery in prices beginning in 1987 found the industry healthy and free of overcapacity. It was a victory for free markets.

Into the late 1980s, rhetoric from the energy-crisis years remained, such as “economic warfare” by oil-exporting countries using the “oil weapon.” Government entities such as the Contingency Planning Office, the Emergency Response Planning Office, and the Office of Policy, Planning, and Analysis existed within DOE for a repeat of the oil shocks of the decade before. The Strategic Petroleum

Reserve continued, but the Synthetic Fuels Corporation was shut down. The International Energy Agency arose several years later as buffers to anticipated oil-supply cutoffs. Traditional wartime planning—even contingency wartime planning—was no longer a primary issue either.

GULF WAR IN THE 1990s: “ENERGY SECURITY” RESURRECTED

In August 1990, Iraq invaded and occupied Kuwait, reawakening Middle East tensions. Sanctions on Iraq followed from the UN Security Council, and Western Powers (led by the U.S. and the U.K.) readied a military action. Operation Desert Shield achieved its objective within several weeks.

Oil-export sanctions on Iraq and Kuwait by the U.S. and other allies, took 4.5 million barrels off the market, sent gasoline and other petroleum-product prices soaring. The supply-side shock was not unlike that of the Arab embargo of 1973 and the Iranian revolution of 1979, both highlighting the “energy crisis” era. Yet without price and allocation controls, prices stabilized and came back down. Without shortages, moreover, the Gulf War, oil-wise, was the crisis that was not.¹⁴¹

Nonetheless, energy security (really oil security) was back in play for the George H. W. Bush Administration (1989–1993). Ken Lay of Enron invoked the Gulf War as reason to substitute natural gas for fuel oil in homes and power plants, specifically lobbying the Federal Energy Regulatory Commission (FERC) to expedite a certification application for more pipeline capacity to gas-short California. Mission accomplished; it would be the fastest approval of an interstate pipeline in FPC or FERC history.¹⁴² Beyond this, Lay went interventionist by advocating a stiff oil tariff to correct for the alleged negative externality of imported oil.¹⁴³

Lay extended his push to natural gas vehicles: “Any policy to reduce the potential harmful economic impact of oil shocks must include measures to diversify transportation fuels.”¹⁴⁴ Gas vehicles needed government favor too, something the ethanol lobby already had in order to compete against oil on the premise of natural security and energy independence. Methanol and electrics were also part of the elder Bush’s transportation plan.¹⁴⁵

The new energy security/energy independence blueprint was Bush senior’s National Energy Strategy (NES), released in February 1991. With an executive summary of 31 pages and 214 glossy pages overall, there was something for everyone. There was drilling in the Alaska National Wildlife Refuge (ANWR) and a multi-billion-dollar pitch for electric-vehicle battery research. And all this was in response to very little, for while oil prices briefly rose to almost \$80 per barrel in the middle of the Persian Gulf crisis, prices were back below \$40, and falling, by the end of Bush’s term, with gasoline prices only fluctuating by about \$0.30 per gallon.¹⁴⁶

With a combination of the Valdez oil spill (1989) and the Gulf War, oil found itself on its public policy heels. In the

thousand-page Energy Policy Act of 1992, most of the subsidies went to everything else: wind, solar, electric vehicles, natural gas vehicles, ethanol, etc.—all in hopes of reducing oil imports by several million barrels per day.¹⁴⁷ Two years in the making, Bush’s signature legislation

ENERGY POLICY IN THE NEW CENTURY: SCARCITY AND SECURITY

The claim or charge of “energy crisis” would persist in the absence of physical shortages or sustained price spikes. “[F]or virtually the entire twenty-first century, there has been an energy crisis,” noted Peter Grossman. “The crisis label has been invoked so often that a concept with little meaning to begin with has become almost completely empty.”¹⁴⁹

Still, the idea of oil-imports as bad had legs. President George W. Bush in 2006 surprisingly opined in his State of the Union address that “America is addicted to oil.” He explained:

*Keeping America competitive requires affordable energy. And here we have a serious problem. America is addicted to oil, which is often imported from unstable parts of the world. The best way to break this addiction is through technology.... And we are on the threshold of incredible advances. So tonight, I announce the Advanced Energy Initiative—a 22 percent increase in clean-energy research...*¹⁵⁰

At the same time, the energy debate was rapidly morphing into a climate debate with energy in tow. But what happened to President Clinton’s BTU tax in 1993, designed in part to reduce oil imports, would happen with President Obama’s cap-and-trade scheme for carbon dioxide, the centerpiece of the American Clean Energy and Security Act of 2009. Both were defeated by bipartisan opposition due to the taxes and higher costs they entailed.

Another legacy in the pursuit of energy independence from the 1970s and again from the 1990s was ethanol (once called gasohol) mandates. The Renewable Fuel

became remembered for some not quite energy related: a ban on toilets using more than 1.6 gallons per flush. And far from a reversal, oil imports rose year after year, rising 43 percent by decade-end.¹⁴⁸

At the same time, the energy debate was rapidly morphing into a climate debate with energy in tow.

Standard (RFS) originated with the Energy Policy Act of 2005 and was expanded and extended by the Energy Independence and Security Act of 2007. The preamble of the latter law stated:

*To move the United States toward greater energy independence and security, to increase the production of clean renewable fuels, to protect consumers, to increase the efficiency of products, buildings, and vehicles, to promote research on and deploy greenhouse gas capture and storage options, and to improve the energy performance of the Federal Government, and for other purposes.*¹⁵¹

Administered today by the U.S. Environmental Protection Agency, the law still requires increasing amounts of (domestic corn-based) ethanol to be blended by refiners with gasoline regardless of demand even as the United States has transitioned into a net exporter of both oil and refined products.

“Security” and “independence,” at least in the post-1972 lexicon, died with a revolution in oil and gas drilling technology, hydraulic fracturing combined with directional drilling, centered in the U.S. Record domestic crude production displaced most imported crude and created a vibrant oil export market.

Yet climate policy made imports (and exports) bad. John Holdren, who went on to become President Barack

Obama’s science advisor, titled a 2000 essay, “How to Reduce Oil-Import Dependence and Climate-Change Risks at the Same Time,” arguing that any government action to reduce oil usage (thus imports) was good.¹⁵²

Energy security, energy independence were the watch words—but with no energy crisis except for the perennial crisis of Malthusianism, running out of climate even if not running out of energy.

THE PANDEMIC CRISIS

At the start of 2020, American energy production had reached new heights. Thanks to hydraulic fracturing, in just over a decade domestic oil production more than doubled and domestic natural gas production increased by 50%. This increased production made the United States both the largest oil and largest natural gas producer in the world. From September of 2019, the U.S. became a net oil exporter for the first time since 1953. Net imports peaked at 60% of consumption in 2005.

The U.S. shale industry responded by rapidly innovating and cutting costs, substantially bringing down their break-even prices.

However, the performance of the American energy industry as a whole was uneven. Shale producers, both of natural gas and oil, were struggling with profitability. Transportation limitations meant some areas of the country faced gluts of gas or oil, which depressed prices. Many shale producers were also heavily indebted, having taken large loans to buy up acreage and to fuel production growth.

Internationally, partly due to the massive growth of U.S. shale oil production, oil prices had also declined from the \$100 or more per barrel heights of the early 2010s. In the

second half of the decade, dollar a barrel prices typically were in the 50s and 60s. These lower prices further pinched the profitability of U.S. producers. Low prices also put many oil exporting countries into difficulty, with a number of OPEC countries needing higher prices simply to balance their budgets.

Instigated by Saudi Arabia, OPEC had already in the middle of the decade attempted to stymie the growth of U.S. shale production, flooding the market with crude oil to drive down prices in the hopes of bankrupting U.S. shale producers. The U.S. shale industry responded by rapidly innovating and cutting costs, substantially bringing down their break-even prices. This forced OPEC to abandon their effort and prop up prices to protect national balance sheets. What did come from the 2015–16 price war was a cooperation agreement between Saudi Arabia and Russia to manage the price of oil. This alliance was dubbed OPEC+ and succeeded in raising prices from their 2016 lows.

By 2020, the alliance was already fraying, with Russia especially chafing at the supply limitations because ongoing sanctions and economic struggles meant that oil and gas were the country’s main export earner and supported the government’s budget. In early 2020, the start of the coronavirus pandemic in China, the second largest oil consumer and the main source of demand growth, suddenly depressed global oil demand, prompting the IEA and others to lower demand forecasts.

OPEC+ acrimoniously failed to agree on new cuts in response, prompting an unrestricted battle for market share between OPEC and Russia, sending prices plunging.

The Saudi-Russian supply war came at the worst possible time as the coronavirus outbreak was simultaneously spreading from China around the world. In response, governments curtailed travel and countries engaged in various levels of lockdowns. These policies suddenly crushed demand for oil around the world, driving oil prices even lower just as the Saudi and Russian supply increases started to hit markets.

2020 CALLS FOR INTERVENTIONS

The Coronavirus Aid, Relief, and Economic Security Act (CARES) passed in March of 2020 provides generally applicable relief that many energy industry companies participated in. The CARES Act provisions that have been most frequently used by energy companies are the Paycheck Protection Program, which provided forgivable loans to small businesses in exchange for maintaining employment, the Federal Reserve's corporate bond buying program, and a corporate tax refund provision, which allowed losses from the past two years to be used to offset tax paid as long as five years prior, when corporate tax rates were higher.

However, some energy industry participants called for additional interventions specific to the energy industry. These proposals can be broken down into nine categories:

- 1 Federal loans in return for an ownership interest in or control over a producer's production;
- 2 Federal payments to producers to keep oil in the ground;
- 3 Bailout payments to ethanol producers to compensate for reduced demand;
- 4 Anti-dumping investigations against oil exporting countries;
- 5 Proration of production by state regulatory bodies including the Texas Railroad Commission, Oklahoma Corporation Commission, and the North Dakota Industrial Commission;

This combined shock—both a supply surge and a simultaneous demand plunge—hit the U.S. oil and gas industry hard. Especially for shale producers already struggling with profitability, the price collapse came as a crushing blow. Facing bankruptcies and job losses, some in the industry sought government intervention, dusting off some of the old crisis legislating ideas from earlier decades discussed in this paper, including mandatory proration and tariffs, as well as newer ideas like federal loans or bailouts.

- 6 Import restrictions and tariffs;
- 7 Royalty-payment reductions for production on federal lands;
- 8 Diplomatic pressure on other countries for global production cutbacks;
- 9 Purchasing oil for the Strategic Petroleum Reserve (SPR) and leasing space to private entities in the SPR.

Of this list, action was taken in just the final three categories. The Department of Interior granted numerous applications for temporary reductions of royalties. Congress refused to appropriate money for purchases for the SPR, however the administration was able to lease storage space in the SPR to a handful of companies. President Trump, senior members of his administration, and numerous members of Congress both publicly and privately leaned on Saudi Arabia, in particular, to back away from its supply war with Russia. Whether due to this pressure or simply due to its own self-interest, Saudi Arabia eventually did come to terms with Russia. The new OPEC+ agreement in April 2020 cut nearly 10 million barrels per day of production, about 1/10th of global supply.¹⁵³ These cuts, combined with market-based production cuts elsewhere like the United States and Canada, managed to stabilize oil prices, though still at very low levels.

Of the other categories, the proposals that moved the closest to implementation were prorationing and

import restrictions. The other proposal categories were either based on questionable legal authority or required additional legislation from Congress that was not forthcoming. Import restrictions were especially targeted at media reports of a wave of tankers filled with Saudi crude oil headed for the Gulf Coast of the United States.¹⁵⁴ Members of Congress made public statements threatening to prevent the ships from unloading, calls came for the Department of Commerce to deploy anti-dumping investigations, and legislative proposals were floated for tariffs or other restrictions intended to protect domestic producers. However, none of these proposals were put into effect either by law or regulation.

The prorationing debate was most significant in Texas, though hearings were also held before the Oklahoma Corporation Commission and the North Dakota Industrial Commission. The Texas Railroad Commission has long had authority to order production cuts to prevent “waste.”

HAVE THE LESSONS OF HISTORY BEEN LEARNED?

The coronavirus crisis is expected to have lingering effects on the energy industry, with low prices from weak demand forecast into late 2021 or even the following year. Large energy firms have announced thousands of layoffs, bankruptcies of smaller indebted firms have been numerous, and several large and midsized firms have announced mergers. However, thus far the heavy-handed interventions from Congress or the executive branch have been avoided. The oil and gas industry has largely been left to adjust as dictated by markets. As documented in this paper, that is a marked departure from past practice. Several factors may account for the relative lack of government action responding to the 2020 coronavirus energy crisis.

Firstly, there has been a strong consensus across all phases of the energy industry opposed to government intervention. Upstream, midstream, and downstream,

As discussed previously in this paper, this power was extensively used in the first half of the 20th century, however it had not been exercised for 50 years. During the hearing and debate over prorationing, the large majority of the oil industry opposed Railroad Commission intervention. Ultimately, while one commissioner supported action, a prorationing order was not approved by the Railroad Commission. The Commission instead proposed some smaller regulatory relaxations to aid the storage and transportation of excess oil. Other oil producing states subsequently followed Texas’s lead in declining to intervene, leaving the industry to adjust in a market-based manner.

Thus, as a whole, despite calls from many quarters, federal and state governments have largely refrained from interventions in the energy industry in response to the 2020 crisis. As this paper documents, that represents a departure from much of the last 100 years of American energy policy.

natural gas or oil, there have only been a handful of companies asking for government help and they have been opposed by most of their peers. This is an important departure from the past. As documented in this paper, government interventions were frequently organized and directed by energy companies themselves. Laws passed in the second half of the 20th century were often driven by lobbying priorities, seeking to promote or disadvantage specific fuels or industries.

Second, federal gridlock undoubtedly plays a part. With the House of Representatives controlled by Democrats and the Senate and presidency controlled by Republicans, agreement on many issues has been hard to reach throughout 2020. Broad-based relief has been approved, but targeted support for specific industries has failed to gain traction.

Third, there is a green ideology, especially prominent in the Democratic Party, which adamantly opposes support for any disfavored energy source. Indeed, much of the green movement opposes the very existence of energy sources like coal, oil, natural gas, or nuclear power. This is the first energy crisis where this formerly radical attitude has had substantial political power. This means that even if the energy industry were more supportive of government assistance, such support would be unlikely to pass the Democratic controlled House. This movement has grown so radical that they object even to energy companies being eligible for the broad-based loans and financial aid that were made available to all American companies in the CARES Act.

Fourth, and perhaps most significantly, this is a crisis of low prices and oversupply. Unlike the wartime interventions or the 1970s crises, there was no concern in 2020 about lack of access to energy supplies. Unlike the 1970s or the 2000s, there was no consumer pressure for action to address high energy prices. The absence of those factors meant that the 2020 energy crisis was not a broad economy-wide concern. The harm was concentrated in the energy industry itself as well as in those parts of the country where the energy industry is a major economic driver. This is a hugely consequential difference. A lack of broad national concern meant that calls for interventions did not develop their own public relations momentum and prompt government action in the name of “doing something.”

Does this mean the lessons of the last 100 years of failed interventions documented in this paper have been learned? While the relative lack of government intervention thus far is certainly good news, it remains to be seen how much this is a victory for free market principles versus the specific 2020 political factors mentioned above. While

There is also a rising effort to connect the coronavirus crisis with a perceived “climate crisis,” creating a super crisis that would justify wholesale government central planning in energy such as that envisioned by the proposed Green New Deal.

the heavy-handed energy proposals discussed above have been set aside, it does not mean that federal or state governments have reconciled themselves to leaving energy policy to the markets or any notion of rolling back the energy policy bureaucracy that has been built up over decades of interventions. Conversely, there remains a strong desire among politicians for more spending to offset continuing difficulties from the coronavirus response. In energy, this spending is likely to take the form of distortionary tax credits to subsidize politically favored industries or technologies. There is also a rising effort to connect the coronavirus crisis with a perceived “climate crisis,” creating a super crisis that would justify wholesale government central planning in energy such as that envisioned by the proposed Green New Deal. This policy construct deliberately harks back to the era of central planning of the 1930s and 40s, which was a disastrous mess as discussed earlier in this paper.

The rapid, market-driven adjustment by the energy industry to the coronavirus crisis should serve as a lesson in itself that micromanaging government intervention should not be the knee-jerk response to a crisis.

APPLICATION TO FUTURE ENERGY POLICY

Given the record of crisis legislating in energy policy documented in this paper, the efficacy of central economic planning during emergencies must be thoroughly reconsidered. Coercive planning by the few precludes natural planning by everyone; only the individual knows their wants and needs.

The romantic assumption favoring expansive government is that the authorities—the experts in charge—are neutral and fair-minded. They are public servants in a higher calling. But technocrats are human, and to be human is to have emotions, biases, and personal goals. Each regulator, like the regulated, has a past and a desired future that colors the present.

Prior to the 1970s, major emergencies brought forth experts from the regulated industry. They came from companies, were well-disposed to the same, and typically returned after a stint in government. Beginning in the 1970s, the reverse occurred. Experts from anti-business nonprofits or academia became bureaucrats—sometimes for an administration or two, sometimes for life. Antipathy toward the regulated industries became commonplace if not the norm.

Ideally, a government planner would be neutral, having no particular motivation to help or hurt the industry or its particular firms. He or she would be nonpolitical, nonideological, just carrying out the assigned tasks of the day. While this mentality might apply to some, it has not been typical, with the bias pendulum swinging in one direction or the other.

Motivations aside, and assuming the best of intentions, bureaucrats individually or as a whole do not have the

collective knowledge that is spontaneously generated by the competitive market of suppliers and demanders. Given the dispersed knowledge that cannot be captured or synthetically produced in whole form, planners who usurp the market are and must be relatively ignorant.

With planning error inevitable (as documented in the present study), and deregulation shunned, more government intervention follows prior intervention. The administrative state becomes the “entangled deep state,” even an “escape from democracy.”¹⁵⁵ Competition and pluralism are subsumed by monopoly and elitism. “Fairness” is simply what the planners decide. The perennial questions are: Who regulates the regulators? And who plans for the planners?

It has been almost a foregone conclusion that centralized planning is necessary for wartime and emergency mobilization, in order to replace competition with cooperation; interfirm rivalry with the pooling of managerial talent, physical facilities, and stocks on hand. It is as if given resources merely need to be mobilized with innovation obsolete.

But conditions change with the passage of time, even during an emergency. Supply and demand must reconfigure to incorporate new opportunities, technologies, and knowledge. Some firms should expand, contract, or reconfigure. Other firms should enter or exit. Market prices and profit and loss impart the signals that cannot be otherwise known in the buildings of Washington, D.C.

Central government planning in our examples did not emerge from market failure. Just the opposite, the market response to emergencies was stymied by existing government practices of monetary inflation, punitive regulation, mismanaged resources, and particularly antitrust law.¹⁵⁶

Removing government intervention, rather than expanding the same, was the road not taken in World War I, World War II, the Korean War, and the 1970s in regard to energy.

Supply and demand must reconfigure to incorporate new opportunities, technologies, and knowledge.

The current pandemic has witnessed a multitude of interventionist proposals, some novel, some continuations, and others repeats from prior experience. The good news is that few new interventions have been enacted in 2020; the bad news is that a plethora of interventions are continuing with sometimes strong business and political support.

These zombie interventions stagger on, distorting markets and raising costs for consumers and energy industry participants alike. The Renewable Fuel Standard (RFS), created in 2005 to address a dependence on foreign oil crisis, clings grimly on in an era where the U.S. is a net oil exporter, defended by its beneficiaries in the ethanol industry. The Wind Production Tax Credit (PTC), created as a temporary fillip for wind generation in 1992, continues to survive repeated attempts to kill it (though on current law it is supposed to terminate at the end of 2020). The Jones Act, a post-World War I response to a shipping crisis, to this day pushes up domestic transportation costs for all goods, including energy, leading to the absurd circumstance where New England imports liquid natural gas from Russia while natural gas in Texas is flared off for want of transportation. Section 3 of the Natural Gas Act prohibited gas exports in order to enforce government domestic price controls on natural gas, but today even as price controls have been dropped, exporters must still obtain a permit from the federal government to export natural gas.

More dangerously, zombie interventions can become tools for future aspiring central planners. The Corporate Average Fuel Economy (CAFE) rules, a relic of the 1970s energy crisis

that forces cars to be more fuel efficient, became a key part of the Obama administration's climate policy. The above-mentioned Natural Gas Act export permitting process was used by the Obama administration to slow walk export permit approvals in an effort to suppress growth of the American liquefied natural gas export industry.

Even those interventions that were eventually withdrawn often lasted well beyond the immediate crisis that was used to justify action. The ban on crude oil exports, implemented in 1975 during that decade's energy crisis, was not repealed until 2015. In its last years, the export ban was a significant brake on domestic oil production as U.S. crude grades were routinely priced below comparable international grades. However, it had developed a constituency that defended it: domestic refiners who benefitted from the artificially depressed domestic crude prices. The price controls of the 1970s discussed above were not withdrawn until the 1980s after years of disrupting energy markets.

The baleful impacts of these interventions are in stark contrast to fields where the default state is removal of government interventions. A change in mandate at FERC to promote competition in interstate wholesale electricity markets has spurred innovation in electricity provision. The most famous recent case is a little noticed provision in the Energy Policy Act of 2005 that made clear that the then nascent process of hydraulic fracturing was not subject to certain Clean Water Act provisions. This clarification gave the domestic oil and gas industry the space to create the domestic energy production boom that has turned the United States in an energy exporter, finally banishing the specter of foreign energy dependence which drove so many American energy and foreign policy decisions for decades.

How does one explain “the serial failures of U.S. energy policy, failures that have been extraordinarily wasteful, with little learned by policy makers in the process”?

How does one explain “the serial failures of U.S. energy policy, failures that have been extraordinarily wasteful, with little learned by policy makers in the process”?¹⁵⁷ It is not market failure, as many mainstream analysts have contended. It is government intervention ranging from antitrust law against cooperative drilling to full-fledged top-down planning premised on price controls and licensing authority.

This study documents the history of the role of crises in the growth of government and their impact on American energy policy in the twentieth century. It embraces a perspective that identifies, and takes seriously, the knowledge and incentive problems that are inherent to the top-down bureaucratic approach to public governance. As the history here shows, interventionist energy policy produced a system where economic and political elites cooperate for mutual benefit and pass the costs on to the public writ large. This outcome of the top-down bureaucratic approach to public governance suggests a change in our orientation toward public policy, one that allows private property, voluntary exchange, and neutral rules of the game to create a reliable framework for meeting energy demands even during, and perhaps especially during, an energy crisis.

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- ¹ The debate over the “existential threat” of climate change, originating in 1988, is not the subject of this essay because of its vast, amorphous, multi-decade nature. Mini-crises such as the 1965 and 1977 New York City electrical blackouts, and the 2000-2001 and 2020 California electricity shortages, are only mentioned here.
- ² In response to the U.S. financial crisis in 2008 (the “Great Recession”), the American Recovery and Reinvestment Act of 2009 authorized a “stimulus” package totaling approximately \$830 billion, more than \$90 billion of which went to “low-carbon technologies,” wind and solar in particular. According to an executive of the International Energy Agency, this unprecedented level of public subsidy created “a positive feedback loop ... that helped drive cost declines as the technologies progressed rapidly.” This precedent has shaped the debate over 2020 stimulus packages.
- ³ Higgs, *Crisis and Leviathan: Critical Episodes in the Growth of American Government* (New York: Oxford University Press, 1987), p. 17. Adds Peter Grossman: “That politicians and commentators dub the situation a ‘crisis’ means it is important, of national or global significance, and should be taken very seriously—like a war, an epidemic, or an earthquake.” Grossman. *U.S. Energy Policy and the Pursuit of Failure* (New York: Cambridge University Press, 2013), pp. 6–7.
- ⁴ Grossman, *U.S. Energy Policy*, p. 6.
- ⁵ Grossman, *U.S. Energy Policy*, p. 7.
- ⁶ John Singleton. *Economic and Natural Disasters since 1900* (Northampton, MA: Edward Elgar, 2016), p. 7.
- ⁷ A fifth energy industry would be ethanol. But because this transportation fuel is produced from corn and other farm products, ethanol can also be classified as agriculture.
- ⁸ Federal interventions included an oil tax and import tariff by the North during the Civil War; oil pipeline rate and service regulation in 1906; and oil-leasing rules on public lands. See Robert Bradley Jr., *Oil, Gas, and Government: The U.S. Experience* (Lanham, MD: Rowman and Littlefield, 1996), pp. 262–66; 712–13; 775–83; 1762–63; 1822–24. In addition to municipalization by local governments, statewide public-utility regulation for gas and electricity distribution was being implemented state-by-state.
- ⁹ See Bradley, *Oil, Gas, and Government*, pp. 18–25.
- ¹⁰ Higgs, *Crisis and Leviathan*, p. 123.
- ¹¹ “After the war erupted in Europe, its effects on the United States created strong political pressures for the government to ‘do something.’” Higgs, *Crisis and Leviathan*, p. 73. Britain’s central-government approach in wartime impressed U.S. leaders too.
- ¹² Higgs, *Crisis and Leviathan*, p. 157. Higgs (p. 66) differentiated between “a command (cost-concealing) economy and a market (cost-revealing) economy.”
- ¹³ Bradley, *Oil, Gas, and Government*, p. 224.
- ¹⁴ See Bradley, *Oil, Gas, and Government*, pp. 225–26; Higgs, *Crisis and Leviathan*, p. 136.
- ¹⁵ Bradley, *Oil, Gas, and Government*, pp. 1317–18; Higgs, *Crisis and Leviathan*, pp. 136, 141. The industry was ambivalent to federal control, explaining the omissions.
- ¹⁶ Higgs, *Crisis and Leviathan*, p. 158.
- ¹⁷ Bradley, *Oil, Gas, and Government*, p. 631; Higgs, *Crisis and Leviathan*, p. 145. The U.S. Railroad Administration eliminated competition by running the nation’s trackage as one unit under nationalization.
- ¹⁸ Quoted in Bradley, *Oil, Gas, and Government*, p. 227.
- ¹⁹ George Gibbs and Evelyn Knowlton, *The Resurgent Years, 1911–1927: History of Standard Oil Company (New Jersey)* (New York: Harper & Brothers, 1956), 227. Quoted in Bradley, *Oil, Gas, and Government*, pp. 225n10, 632.
- ²⁰ Higgs, *Crisis and Leviathan*, pp. 138–39. “Priority inflation” occurred where more and more orders were designated of high importance to try to get effectuated.
- ²¹ Bradley, *Oil, Gas, and Government*, pp. 231–33, 631–36, 1314–19, 1774–75; Higgs, *Crisis and Leviathan*, p. 138; https://en.wikipedia.org/wiki/United_States_Fuel_Administration. “Planned chaos” is a term used Ludwig von Mises in a 1947 essay to describe the perils of central economic planning.
- ²² Quoted in Bradley, *Oil, Gas, and Government*, p. 229.
- ²³ Quoted in Bradley, *Oil, Gas, and Government*, pp. 229–30.
- ²⁴ Bradley, *Oil, Gas, and Government*, pp. 96, 636
- ²⁵ Bradley, *Oil, Gas, and Government*, pp. 230–31, 265–67. Oil production on the public domain was described as at a “standstill” from the withdrawals (5.5 million acres of federal land in California alone).
- ²⁶ Higgs, *Crisis and Leviathan*, p. 156.
- ²⁷ Quoted in Bradley, *Oil, Gas, and Government*, p. 95.

- ²⁸ Quoted in Bradley, *Oil, Gas, and Government*, p. 96.
- ²⁹ Quoted in Bradley, *Oil, Gas, and Government*, p. 96.
- ³⁰ Quoted in Bradley, *Oil, Gas, and Government*, p. 97.
- ³¹ Norman Nordhauser, *The Quest for Stability* (New York: Garland Publishing, 1979), pp. 27–28. Mandatory proration was where state authorities assigned a monthly production limit per well or per field to reduce supply to a predetermined market demand, which firmed prices to prior (higher) levels. Although justified as a conservation measure to reduce overproduction and waste, proration was a political program in place of a free-market solution: removing existing barriers to cooperation and allowing (low) prices to result in fewer, more disciplined firms.
- ³² Bradley, *Oil, Gas, and Government*, pp. 1326.
- ³³ Quoted in Bradley, *Oil, Gas, and Government*, pp. 1329–330.
- ³⁴ Bradley, *Oil, Gas, and Government*, pp. 1118–119, 1330–333.
- ³⁵ Quoted in Bradley, *Oil, Gas, and Government*, pp. 1333. “The big company will post [prices] so the little fellow can see; the little fellow will post [prices] so the big fellow can see,” it was stated in debate.
- ³⁶ Bradley, *Oil, Gas, and Government*, pp. 92–94, 116–17.
- ³⁷ Bradley, *Oil, Gas, and Government*, pp. 93, 98. Prices in some transactions fell to as low as two cents per barrel.
- ³⁸ Bradley, *Oil, Gas, and Government*, pp. 92–94, 116–17, 138–39. Texas governor Ross Sterling was a cofounder of Humble Oil Company, later part of Exxon. Oklahoma governor William Murray, without an industry background, took the integrated majors’ viewpoint of higher wellhead prices from less supply, voluntary or mandatory.
- ³⁹ Bradley, *Oil, Gas, and Government*, pp. 162–63.
- ⁴⁰ Bradley, Robert. *The Mirage of Oil Protection* (Lanham, MD: University Press of America, 1989), pp. 37–41.
- ⁴¹ Bradley, *Oil, Gas, and Government*, pp. 138, 640.
- ⁴² Bradley, *Oil, Gas, and Government*, p. 99.
- ⁴³ The Oil Code was one of 557 basic codes. The rest were supplemental codes (189), division codes (109), and joint codes (19) that “spelled out more than a thousand different kinds of provisions for the regulation of 150 different types of competitive practices.” Clair Wilcox, quoted in Bradley, *Oil, Gas, and Government*, p. 1360n219.
- ⁴⁴ Bradley, *Oil, Gas, and Government*, p. 1345.
- ⁴⁵ Quoted in Bradley, *Oil, Gas, and Government*, p. 101. The natural-gas and natural gasoline industry, represented by the American Gas Association, confined its code to labor provisions. *Ibid.*, p. 1347 n159.
- ⁴⁶ Bradley, *The Mirage of Oil Protection*, pp. 42–43.
- ⁴⁷ Quoted in Bradley, *Oil, Gas, and Government*, p. 101. Applauding events in the background was World War I oil-czar Mark Requa.
- ⁴⁸ Bradley, *Oil, Gas, and Government*, pp. 1348.
- ⁴⁹ Quoted in Bradley, *Oil, Gas, and Government*, p. 1348.
- ⁵⁰ Quoted in Bradley, *Oil, Gas, and Government*, p. 1777.
- ⁵¹ J. Howard Marshall II. *Done in Oil* (College Station: Texas A&M University Press, 1994), p. 35.
- ⁵² Bradley, *Oil, Gas, and Government*, pp. 1348. Stated the head of Standard Oil of Ohio: “There is a fundamental rule of statutory construction that if a statute in this way attempts to enumerate all the specific acts which constitute violation, then any acts which are omitted are not prohibited.” *Ibid.*, pp. 1354–59.
- ⁵³ Quoted in Bradley, *Oil, Gas, and Government*, p. 1357. Ickes added: “I have no doubt that in the race for gallonage ... gasoline will in course of time come to be free, leaving only lubricating oils from which to extract a reluctant profit.... Who will be so bold as to deny that it may come to pass that the tourist of the future will have to trade in his Chevrolet or his Plymouth for a huge truck in order to be able to triumphantly to carry home the radios and kitchen stoves and baby grand pianos that he will be able to garner as premiums from competing filling stations as he tours the country?”
- ⁵⁴ J. Howard Marshall, *Done in Oil*, p. 28.
- ⁵⁵ Bradley, *Oil, Gas, and Government*, pp. 103, 648.
- ⁵⁶ Quoted in Bradley, *Oil, Gas, and Government*, p. 1358.
- ⁵⁷ Bradley, *Oil, Gas, and Government*, pp. 1358–59. Two major antitrust actions against the oil industry, the Madison (1936) and Socony-Vacuum (1940) cases, ended the industry’s state-federal cooperation era. Then after World War II planning, it was back to pre-war conflict and competition.

- ⁵⁸ Quoted in Bradley, *Oil, Gas, and Government*, p. 1358.
- ⁵⁹ Warren Platt (1941). Quoted in Bradley, *Oil, Gas, and Government*, p. 1136. The editor of National Petroleum News made this statement the month before the U.S. declared war on Japan.
- ⁶⁰ Bradley, *Oil, Gas, and Government*, p. 234.
- ⁶¹ Bradley, *Oil, Gas, and Government*, pp. 655–56.
- ⁶² Quoted in Bradley, *Oil, Gas, and Government*, p. 236. A notorious OPA regulator was John Kenneth Galbraith. Galbraith's future ideological opponent, Milton Friedman, working in the Treasury Department, helped devise federal tax withholding, which facilitated higher collection during World War II and after. Robert Higgs, *Delusions of Power: New Explorations of the State, War, and Economy* (Oakland, CA: Independent Institute, 2012), pp. 140–42.
- ⁶³ Bradley, *Oil, Gas, and Government*, p. 239.
- ⁶⁴ Bradley, *Oil, Gas, and Government*, pp. 236–37.
- ⁶⁵ Bradley, *Oil, Gas, and Government*, pp. 238–39, 244. Canol's average cost above \$40 per barrel for the several hundred thousand barrels qualified as a boondoggle. Bradley, *Oil, Gas, and Government*, p. 244.
- ⁶⁶ Quoted in Bradley, *Oil, Gas, and Government*, p. 239.
- ⁶⁷ Bradley, *Oil, Gas, and Government*, pp. 242. The quasi-nationalization, given the ownership interest of Standard of California, was opposed by PIWC and the squelched in Congress.
- ⁶⁸ Bradley, *Oil, Gas, and Government*, pp. 654. In a free market, the government would have to buy out contracts for its military needs short of coercion, direct or indirect.
- ⁶⁹ Bradley, *Oil, Gas, and Government*, pp. 656, 660–61.
- ⁷⁰ Quoted in Bradley, *Oil, Gas, and Government*, p. 662.
- ⁷¹ Higgs, *Crisis and Leviathan*, p. 204. Bradley, *Oil, Gas, and Government*, pp. 661.
- ⁷² This discussion is taken from Bradley, *Oil, Gas, and Government*, pp. 1136–39.
- ⁷³ Bradley, *Oil, Gas, and Government*, p. 237.
- ⁷⁴ Bradley, *Oil, Gas, and Government*, p. 1397.
- ⁷⁵ Quoted in Bradley, *Oil, Gas, and Government*, p. 1397.
- ⁷⁶ Quoted in Bradley, *Oil, Gas, and Government*, p. 1400.
- ⁷⁷ Bradley, *Oil, Gas, and Government*, p. 1401.
- ⁷⁸ Bradley, *Oil, Gas, and Government*, p. 1404.
- ⁷⁹ Bradley, *Oil, Gas, and Government*, pp. 1405–1406.
- ⁸⁰ Bradley, *Oil, Gas, and Government*, p. 1407.
- ⁸¹ Bradley, *Oil, Gas, and Government*, p. 1411–12.
- ⁸² Bradley, *Oil, Gas, and Government*, p. 1414, 1415.
- ⁸³ Bradley, *Oil, Gas, and Government*, pp. 1408–1409.
- ⁸⁴ Bradley, *Oil, Gas, and Government*, p. 1406.
- ⁸⁵ Bradley, *Oil, Gas, and Government*, pp. 661–62, 1420.
- ⁸⁶ Bradley, *Oil, Gas, and Government*, pp. 242–43.
- ⁸⁷ Bradley, *Oil, Gas, and Government*, pp. 243, 1420.
- ⁸⁸ Bradley, *Oil, Gas, and Government*, p. 234.
- ⁸⁹ Richard Vietor, "Business, Government, and Markets: Synthetic Fuels Policy in America," in *The Unfulfilled Promise of Synthetic Fuels*, ed. Ernest Yanarella and William Green (New York: Greenwood Press, 1987), pp. 6–10.
- ⁹⁰ Quoted in Bradley, *Oil, Gas, and Government*, p. 234.
- ⁹¹ Bradley, *Oil, Gas, and Government*, p. 248.
- ⁹² Bradley, *Oil, Gas, and Government*, pp. 248–49.
- ⁹³ Craufurd Goodwin characterized the NSRB as "a creature of the early cold war." Goodwin, "The Truman Administration," in *Energy Policy in Perspective*, ed. Craufurd Goodwin (Washington, D.C.: Brookings Institution, 1981), p. 17.
- ⁹⁴ Richard Vietor, "Business, Government, and Markets," pp. 6–7.

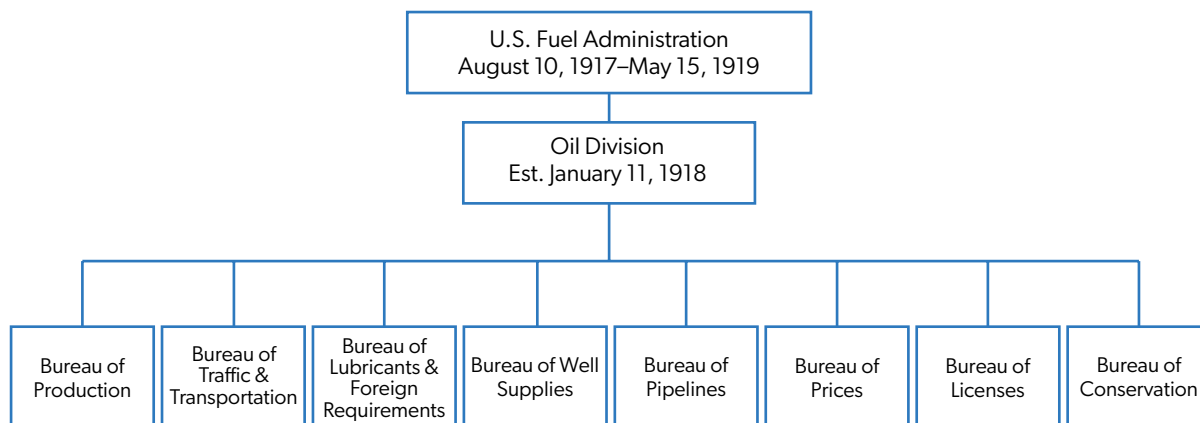
- ⁹⁵ Bradley, *Oil, Gas, and Government*, p. 248.
- ⁹⁶ Bradley, *Oil, Gas, and Government*, pp. 249–50.
- ⁹⁷ Bradley, *Oil, Gas, and Government*, p. 254.
- ⁹⁸ Quoted in Bradley, *Oil, Gas, and Government*, p. 250.
- ⁹⁹ Bradley, *Oil, Gas, and Government*, p. 254.
- ¹⁰⁰ Vietor, “*Business, Government, and Markets*,” pp. 6–10.
- ¹⁰¹ Bradley, *Oil, Gas, and Government*, p. 252.
- ¹⁰² Bradley, *Oil, Gas, and Government*, pp. 255, 282–83. Lost production is dated from 1948 until 1953.
- ¹⁰³ Quoted in Bradley, *Oil, Gas, and Government*, p. 1781.
- ¹⁰⁴ This section is taken from Bradley, *Oil, Gas, and Government*, pp. 255–57.
- ¹⁰⁵ Quoted in Bradley, *Oil, Gas, and Government*, p. 256.
- ¹⁰⁶ Quoted in Bradley, *The Mirage of Oil Protection*, p. 46.
- ¹⁰⁷ Quoted in Bradley, *The Mirage of Oil Protection*, p. 49.
- ¹⁰⁸ Bradley, *The Mirage of Oil Protection*, pp. 49–50.
- ¹⁰⁹ Bradley, *The Mirage of Oil Protection*, p. 50–51.
- ¹¹⁰ Bradley, *The Mirage of Oil Protection*, pp. 67–69.
- ¹¹¹ The evolution of federal-level petroleum bureaucracy began in late 1972 when Nixon established a “super cabinet” position, the Counselor to the President on Natural Resources. This was followed by the Oil Policy Committee (OPC) in early 1973 and the Energy Policy Office (EPO) soon thereafter to oversee the OPC. The EPO, in turn, was replaced by the Federal Energy Office (FEO) on December 6, 1973. Bradley, *Oil, Gas, and Government*, p. 487n81.
- ¹¹² The supplier-purchaser rule attempted to lock-in historical relationships between oil sellers and buyers between the wellhead and refinery, and between refining and retail; the buy/sell program attempted to “equitably” allocate crude oil to refiners. Bradley, *Oil, Gas, and Government*, pp. 674–76.
- ¹¹³ Bradley, *Oil, Gas, and Government*, p. 1787.
- ¹¹⁴ Bradley, *Oil, Gas, and Government*, p. 1205.
- ¹¹⁵ Bradley, *Oil, Gas, and Government*, p. 1206.
- ¹¹⁶ Bradley, *Oil, Gas, and Government*, pp. 1209–15.
- ¹¹⁷ See Joseph Kalt, *The Economics and Politics of Oil Price Regulation* (Cambridge: MIT Press, 1981); Kenneth Arrow and Joseph Kalt, *Petroleum Price Regulation: Should We Decontrol?* (Washington, DC: American Enterprise Institute, 1979).
- ¹¹⁸ Bradley, *Oil, Gas, and Government*, pp. 707–10.
- ¹¹⁹ Kalt, *The Economics and Politics of Oil Price Regulation*, pp. 286–87.
- ¹²⁰ Bradley, *Oil, Gas, and Government*, pp. 687–710.
- ¹²¹ Kalt, *The Economics and Politics of Oil Price Regulation*, p. 287.
- ¹²² Bradley, *Oil, Gas, and Government*, p. 1787.
- ¹²³ Joseph Kalt, “The Creation, Growth, and Entrenchment of Special Interests in Oil Price Policy,” in *The Political Economy of Deregulation*, ed. Roger Noll and Bruce Owen (Washington, D.C.: American Enterprise Institute, 1983), p. 98.
- ¹²⁴ Quoted in Bradley, *Oil, Gas, and Government*, pp. 1787–88.
- ¹²⁵ “Nixon’s Speech on Energy Policy and ‘Project Independence, 1973.” Council on Foreign Relations, at <https://www.cfr.org/world/nixons-speech-energy-policy-project-independence-1973/p24131>.
- ¹²⁶ Carter. Energy Speech of July 15, 1979. At <https://millercenter.org/the-presidency/presidential-speeches/july-15-1979-crisis-confidence-speech>.
- ¹²⁷ Peter Grossman, *U.S. Energy Policy and the Pursuit of Failure*, p. 216.
- ¹²⁸ Arlon Tussing and Bob Tippee. *The Natural Gas Industry* (Tulsa: PennWell Books, 1995), p. 197; Bradley, *Edison to Enron*, pp. 337–38, 454.
- ¹²⁹ Bradley, *The Mirage of Oil Protection*, pp. 9–10. IRC’s membership included the American Independent Refiners Association, founded in 1962 to represent nonintegrated small refiners.

- ¹³⁰ Quoted in Bradley, *The Mirage of Oil Protection*, p. 10. IRC also argued that the national security was served by dispersed smaller units capable of meeting military needs.
- ¹³¹ Bradley, *The Mirage of Oil Protection*, pp. 75–76.
- ¹³² Quoted in Bradley, *The Mirage of Oil Protection*, pp. 11–12.
- ¹³³ Bradley, *The Mirage of Oil Protection*, pp. 13–14.
- ¹³⁴ Bradley, *The Mirage of Oil Protection*, p. 82.
- ¹³⁵ Bradley, *The Mirage of Oil Protection*, p. 121.
- ¹³⁶ Bradley, *The Mirage of Oil Protection*, pp. 15–21. The New York Times editorialized vehemently for oil tariffs on revenue and national security grounds.
- ¹³⁷ U.S. Department of Energy, *Energy Security: A Report to the President of the United States* (March 1987), p. 10.
- ¹³⁸ Bradley, *The Mirage of Oil Protection*, p. 185–86. If the imported price is \$15 per barrel, the “right” price (factoring in the damage of unregulated, underpriced imports on the economy and military) is \$25 according to the study authors, Harry Broadman and William Hogan.
- ¹³⁹ Bradley, *The Mirage of Oil Protection*, pp. 186–194.
- ¹⁴⁰ Bradley, *The Mirage of Oil Protection*, p. 12.
- ¹⁴¹ Robert Bradley. “What Now for U.S. Energy Policy? A Free-Market Perspective” (Cato Institute: Policy Analysis No. 145, January 29, 1991).
- ¹⁴² Robert Bradley. *Enron Ascending: The Forgotten Years, 1984–1996* (Hoboken, NJ: Scrivener Publishing and John Wiley & Sons, 2018), p. 262.
- ¹⁴³ Lay’s tariff support began in 1991 and was formalized in 1993 with a \$5 per barrel oil tariff compared to crude prices around \$17 per barrel.
- ¹⁴⁴ Quoted in Bradley, *Enron Ascending: The Forgotten Years, 1984–1996*, p. 318. Lay’s \$5 per barrel oil tariff compared to the average price of crude in 1993 of less than \$17 per barrel.
- ¹⁴⁵ Grossman, *U.S. Energy Policy and the Pursuit of Failure*, p. 265.
- ¹⁴⁶ Grossman, *U.S. Energy Policy and the Pursuit of Failure*, pp. 270–71.
- ¹⁴⁷ Grossman, *U.S. Energy Policy and the Pursuit of Failure*, pp. 275–76.
- ¹⁴⁸ Grossman, *U.S. Energy Policy and the Pursuit of Failure*, p. 276.
- ¹⁴⁹ Grossman, *U.S. Energy Policy and the Pursuit of Failure*, pp. 286–87.
- ¹⁵⁰ Quoted in Steve Coll. *Private Empire: ExxonMobil and American Power* (New York: Penguin Press, 2012), p. 436.
- ¹⁵¹ Quoted in Grossman, *U.S. Energy Policy and the Pursuit of Failure*, p. 309.
- ¹⁵² Holdren, “How to Reduce Oil-Import Dependence and Climate-Change Risks at the Same Time,” *Global Change* (May/June 2000).
- ¹⁵³ <https://www.bloomberg.com/news/articles/2020-04-12/oil-price-war-ends-with-historic-opek-deal-to-cut-production>
- ¹⁵⁴ <https://www.npr.org/2020/05/04/849947414/calls-grow-for-trump-to-stop-saudi-oil-from-reaching-gulf-coast-refineries>
- ¹⁵⁵ Koppl, *Expert Failure*, pp. 12, 7.
- ¹⁵⁶ For historical examples of intervention’s negative effects even in micro-emergency situations in the United States, see Jack Hirshleifer, *Disaster and Recovery* (Santa Monica, Calif.: Rand Corporation, 1963), pp. 113–24.
- ¹⁵⁷ Grossman, *U.S. Energy Policy and the Pursuit of Failure*, p. 45.

APPENDIX

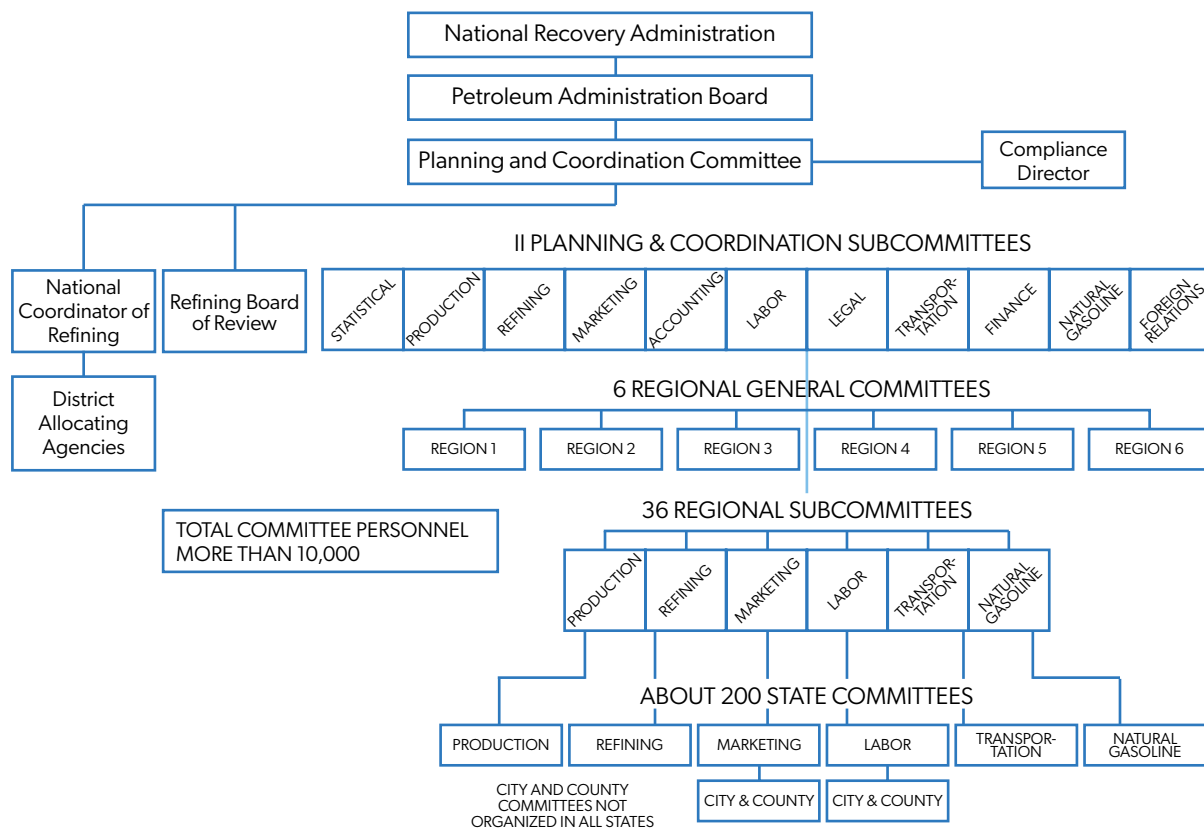
APPENDIX A.

World War I Petroleum Planning



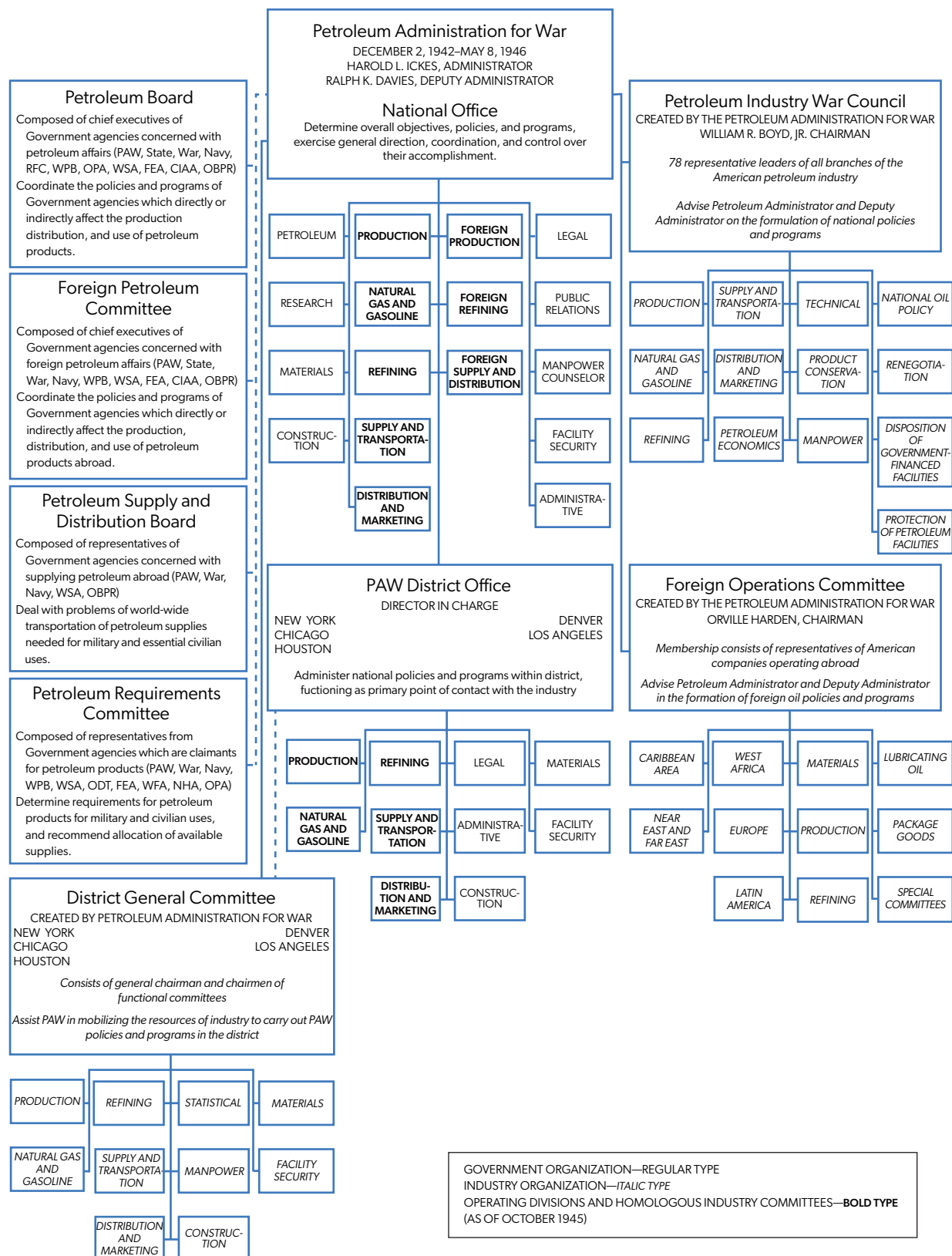
APPENDIX B.

Petroleum Regulation Under the National Industrial Recovery Act, June 19, 1933–January 7, 1935



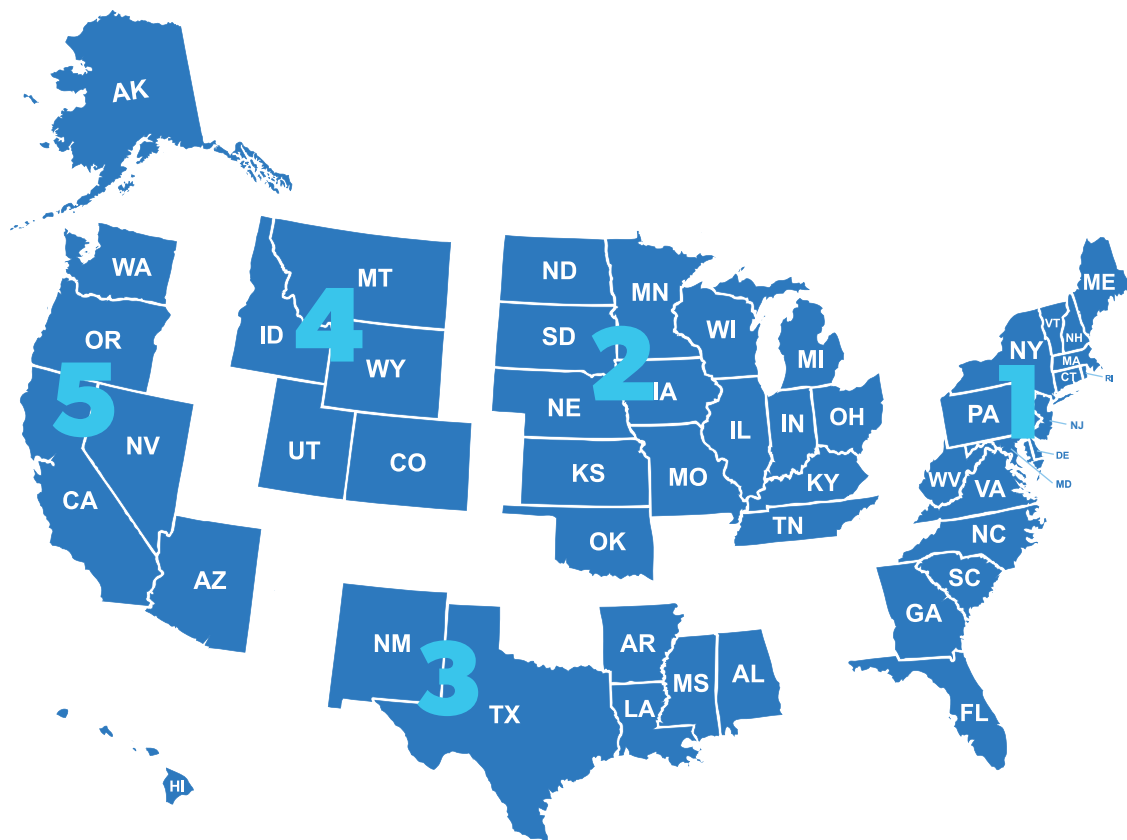
APPENDIX C.

World War II Petroleum Planning



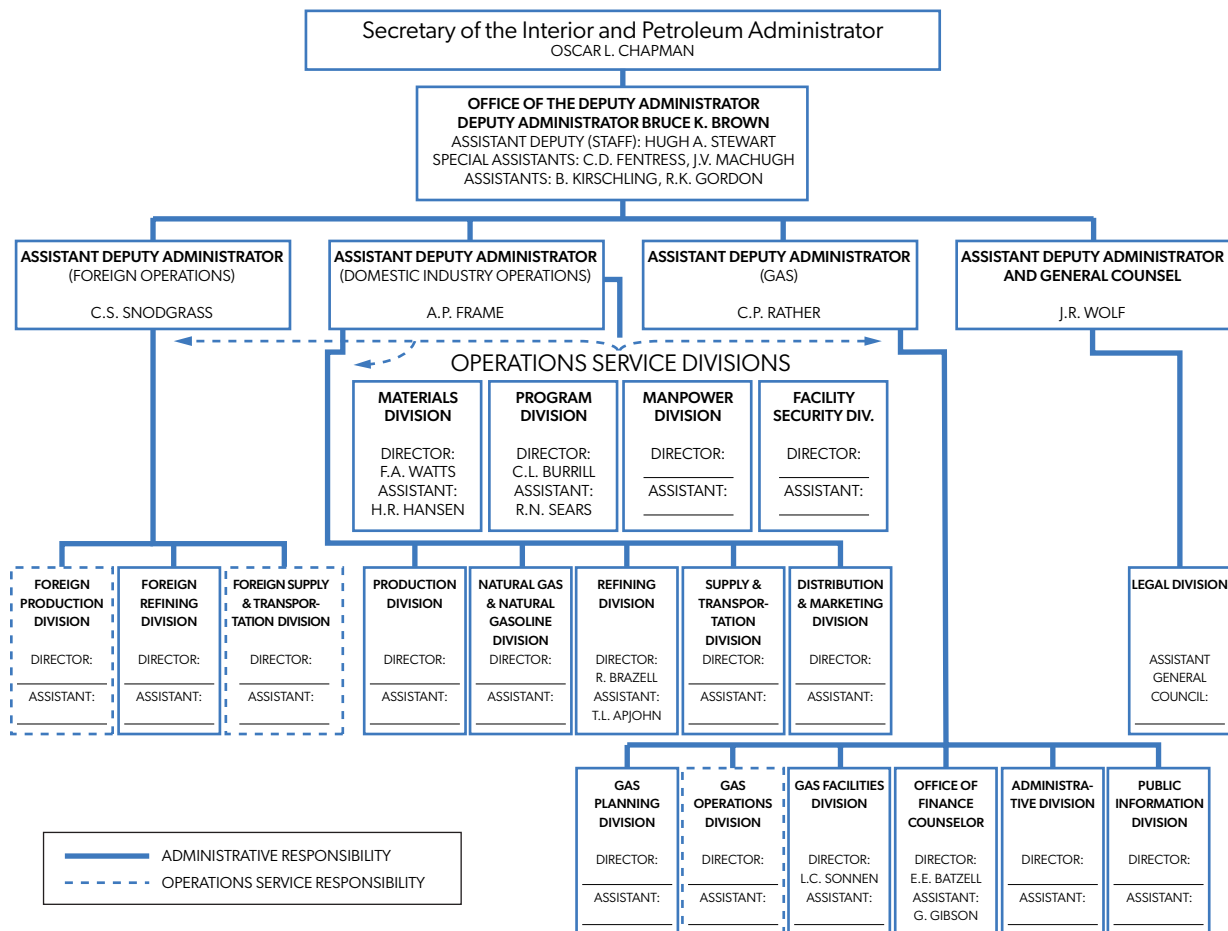
APPENDIX D.

Petroleum Planning Districts Under the Petroleum Administration for War and the Petroleum Administration for Defense



APPENDIX E.

Korean Conflict Petroleum Planning Under the Petroleum Administration for Defense
October 3, 1950–April 30, 1954

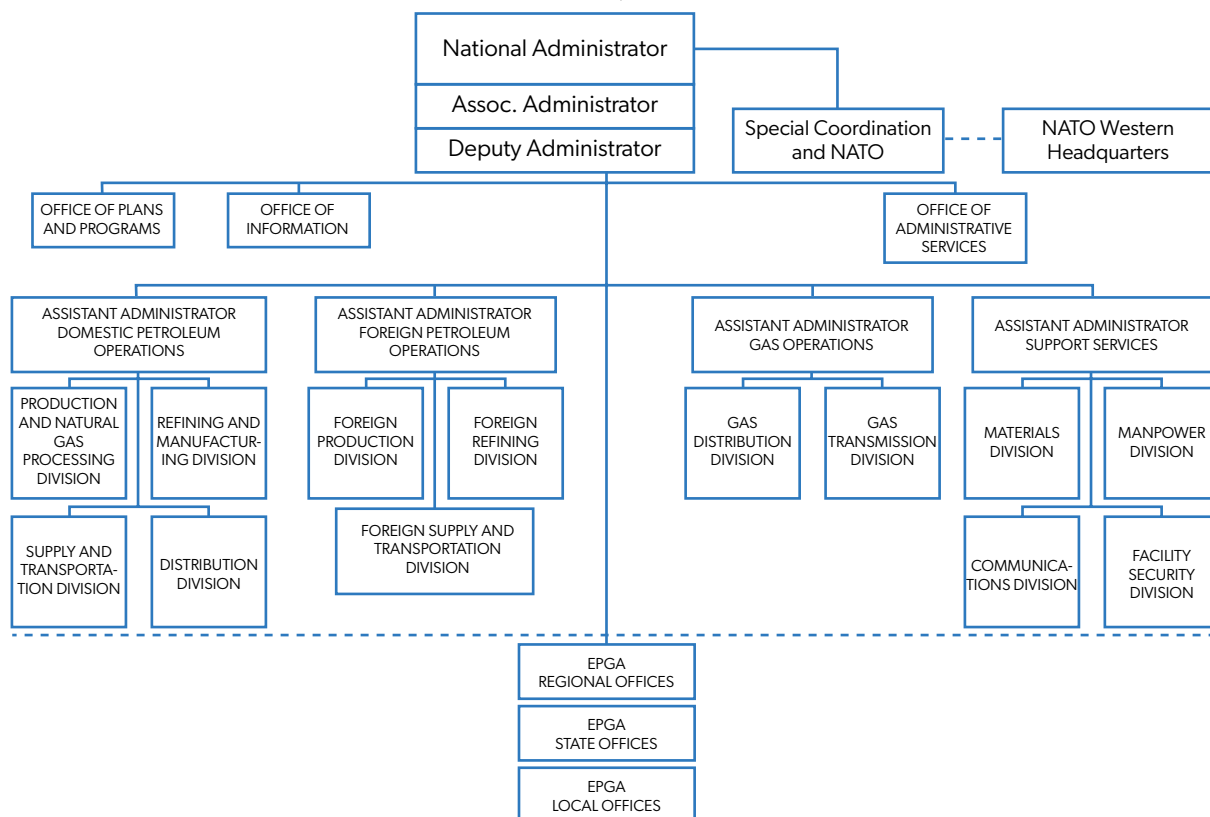


APPENDIX F.

Peacetime Preparedness

EMERGENCY PETROLEUM AND GAS ADMINISTRATION

AUGUST 28, 1963–



EPGA REGIONAL ORGANIZATION

