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Ryan Dadgari

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POWERING MARY JANE: MARIJUANA AND ELECTRIC PUBLIC UTILITIES

RYAN DADGARI

The discourse surrounding legalizing marijuana use and cultivation is full of political, legal, and economic voices. While some discussions address the high electricity consumption of marijuana grow operations and their effects on the energy grid, few—if any—discuss whether or not public utilities could be held federally liable for supplying power to marijuana grows and incentivizing growers to use more energy efficient methods. Just as banks, doctors and lawyers could be at risk for providing their services to this emerging industry, so too could public utilities. In some cases, utilities that refuse to provide service to state-legal marijuana grow operations experience theft of electricity. This occurs in states where marijuana cultivation is both legal and prohibited. Until Congress intervenes, public utilities must continue to operate in legal limbo if they supply power and incentives to marijuana grows. Legitimate state-legal marijuana businesses face a persistent dearth of resources that other legitimate businesses receive, and high energy consumption will increasingly strain our overburdened power grids. These issues could be addressed through a Federal Energy Regulatory Commission order, Congressional action, or Supreme Court rule.

I. INTRODUCTION

Over the last two decades, marijuana use has gone from illicit and underground to mostly decriminalized. In some cases, it has become a legalized substance vying for both recreational and medicinal recognition. Increasingly widespread marijuana use over the last two decades...
spawned a robust industry now experiencing exponential growth without the promise of basic services, like electric energy. As medicinal and recreational use of marijuana is decriminalized at the state level, many public utility companies are caught in a legal and ethical dilemma. Public utilities have expressed concern that providing services to businesses like marijuana grow operations (grows) could expose them to federal prosecution. However, selectively withholding services violates state mandates to provide electric energy to customers in their territory. Understandably, these public utilities are torn between fulfilling their statutory mandates and arousing the ire of federal prosecutors.

This article analyzes whether public utilities can be held liable for racketeering under federal Racketeer Influenced and Criminal Organization (RICO) statutes or aiding and abetting laws for providing or incentivizing electric service to marijuana growers and concludes that it is unlikely, absent specific circumstances. Part II of this article discusses the legalities of the marijuana industry, including federal prohibition of marijuana under the Controlled Substances Act (CSA), legalization of marijuana within the borders of individual states, and the evolution of the Department of Justice’s (DOJ) selective enforcement of the federal prohibition on marijuana. Part III analyzes the struggle between federalism and states’ rights, addressing the regulation of local electric energy distribution and the effects that the Interstate Commerce Clause, federal legislation such as the RICO statutes, and aiding and abetting statutes may have on public utilities. Part IV considers whether public utilities can legally provide service and incentives to marijuana growers under the current federal prohibition. Part V examines the high-energy consumption of marijuana grows, and the effects of consumption on the energy industry; this section also proposes interim solutions to the problems public utilities face until the legalization of marijuana is achieved at the federal level. Part VI of this paper provides recommendations to solve problems that public utilities and marijuana grows face under current law.

II. MARIJUANA INDUSTRY “LEGALIZATION”

To understand the complicated circumstances facing public utilities, it is important to first understand the changing landscape as it relates to marijuana laws. This section discusses the illegality of marijuana at the federal level under the CSA and marijuana’s status in states that have voted to legalize it. The section concludes with a discussion depicting the DOJ’s evolving stance on enforcing the federal prohibition of marijuana.
A. WHY GROWING IS FEDERALLY ILLEGAL

It was legal to grow and consume marijuana for most of American history. In fact, U.S. physicians began to recognize marijuana’s therapeutic potential as early as the 1840s. Between 1850 and 1941, the medical community recognized cannabis as a medicinal treatment in the United States Pharmacopoeia, a listing of federally approved drugs used in the United States. However, in the 1910s, several states criminalized the drug.

Throughout the 1920s and 30s, the American public began to associate marijuana with African Americans, Latino migrant workers, and crime. In 1932, Congress passed the Uniform Narcotic Drug Act, which regulated narcotic drugs, in hopes of controlling interstate crime thought to be caused by the increasing use of marijuana. After criminalization, aspirin, morphine, and other opium-derived drugs replaced marijuana as more potent treatments for pain and other medical conditions. Congress approved the Marihuana Tax Act of 1937, which placed a tax on the sale of cannabis. By 1941, growing opposition from the American Medical Association culminated in the removal of marijuana from the United States Pharmacopoeia, after being listed as a medicine for almost a century. Marijuana’s legal status continued to vary from state to state until Congress passed the Controlled Substances Act (CSA).

I. CSA – Schedule I Drug Classification of Marijuana

Due to pervasive and popular drug use among Americans in the 1960s, Congress passed the CSA in 1970. Lawmakers intended for the CSA to prohibit the importation and distribution of drugs that had an acute potential for abuse and virtually no medicinal significance. The

3 Id.
4 Erwin Chemerinsky et al., Cooperative Federalism and Marijuana Regulation, 62 UCLA L. Rev. 74, 81 (2015).
5 Id.
7 Eddy, supra note 2, at 1.
8 Id. at 2.
9 Id. at 2-3.
10 Id. at 3; Flynn, supra note 6, at 4.
11 Flynn, supra note 6, at 4-5.
CSA categorized drugs into five schedules according to their probability of abuse, their medicinal usefulness, and the physical and psychological effect on the abuser.\textsuperscript{12} The CSA classified marijuana as a Schedule I drug along with heroin, LSD, and cocaine.\textsuperscript{13} Schedule I drugs, according to the drafters, are drugs that: “1) have a high potential for abuse, 2) have no currently accepted medicinal use, and 3) are not safe to use under medical supervision.”\textsuperscript{14} Under the CSA it is illegal to manufacture, distribute, or possess with the intent to manufacture, distribute, or possess a controlled substance.\textsuperscript{15} Violating the prohibitions under the act can prompt unforgiving civil and criminal sanctions, and up to life in prison for large volume trafficking offenses by manufacturers and dealers.\textsuperscript{16}

Despite its illegality and the prospect of severe punishment, close to 30 million Americans admitted using some form of marijuana in 2010.\textsuperscript{17} Marijuana is now the most widely consumed illegal drug on the planet; between 124 million and 300 million people—or 3 to 4 percent of the global population—report using marijuana annually.\textsuperscript{18}

B. STATES IN WHICH MARIJUANA IS LEGAL

The battle between the states and the federal government over the decriminalization or legalization of marijuana began immediately after the passage of the CSA in 1970. In March of 1972, the National Commission on Marijuana and Drug Abuse, also known as the Shafer Commission, recommended that small amounts of marijuana should be legalized.\textsuperscript{19} Although President Nixon created the commission, he rejected its recommendation and, in July of 1973, formed the Drug Enforcement Administration (DEA).\textsuperscript{20} In October of that year, Oregon became the first of several states to decriminalize marijuana, contrary to federal classification under the CSA.\textsuperscript{21} Unlike the Nixon administration, President Jimmy Carter endorsed the Shafer Commission’s recommendation. In 1977, he sent a letter to Congress asking that they decriminalize

\textsuperscript{12} Id. at 5.
\textsuperscript{14} Id. at § 812(b)(1).
\textsuperscript{16} Chemerinsky, supra note 4, at 83; see also Robert A. Mikos, A Critical Appraisal of the Department of Justice’s New Approach to Medical Marijuana, 22 STAN. L. & POL’Y REV. 633, 635 (2011).
\textsuperscript{17} Flynn, supra note 6, at 5.
\textsuperscript{18} Id.
\textsuperscript{20} Id.
\textsuperscript{21} Id.
marijuana for adults. Just four years later, President Reagan reversed the course towards decriminalizing marijuana with his “war on drugs” campaign. Those states that had once adopted decriminalization began to tighten restrictions and recriminalize. With the Antidrug Abuse Act of 1986 and 1988, Congress and the Reagan administration created strict federal prison sentences for drug dealing convictions, designed the three-strikes law which made it possible for offenders with two or more prior convictions to be sentenced to life without parole, and established the first national director of drug policy or “drug czar.”

As different views than those of the federal government emerged, marijuana policy would not change until 1996, when California voters passed California’s Compassionate Use Act, Proposition 215 (Prop 215). Prop 215 legalized the cultivation, possession, and use of marijuana for medical purposes, laying the groundwork for future laws across the country. Sixteen years later, two States, Colorado and Washington, took it a step further by legalizing marijuana for recreational use.

1. Colorado

Colorado was the first state to enact legislation permitting the recreational use of marijuana, and it did so by way of another first—an amendment to the state’s constitution. Colorado’s state legislature wrote the recreational marijuana law to allow regulation of marijuana in the same way that alcohol is currently regulated in the state. Anyone over 21 years of age is authorized to possess and consume marijuana in quantities of one ounce or less, without the fear of criminal prosecution. Individuals who “possess more than one ounce of marijuana are required to show proof of a debilitating medical condition or physician’s prescription.” Those consuming marijuana must not do so in public or in a way that jeopardizes others. Those who wish to cultivate marijuana

23 Id.
24 Id.
25 Milestones in U.S. Marijuana Laws, supra note 19.
26 Id.
27 Id.
29 Id. at 394-95.
30 Id. at 395.
31 Id.
32 Id.
for personal use can cultivate up to six cannabis plants (three of which can be mature at any time), and must do so indoors.\textsuperscript{33} Commercial growing operations are also legal with the proper license from the Department of Revenue.\textsuperscript{34}

2. Washington

Along with Colorado in 2012, voters in Washington passed Initiative 502 allowing anyone over twenty one years of age to cultivate, possess, and consume designated amounts of marijuana privately.\textsuperscript{35} The initiative, incorporated into the state’s Uniform Controlled Substances Act, was intended to: 1) shift the focus of law enforcement resources toward violent and property crimes instead of marijuana-related crimes; 2) better fund “education, health care, research, and substance abuse prevention” by generating state and local tax revenue from marijuana; and 3) remove marijuana from the illegal drug organizations at play in the black market and place it into a state-licensed and highly regulated system.\textsuperscript{36} Washington’s regulation and licensing program controls commercial marijuana at three levels: production, processing, and retail sales.

3. Other States Allowing the Recreational Use of Marijuana

In 2014, Alaska, Oregon, and Washington D.C. voters legalized recreational marijuana.\textsuperscript{37} Alaska’s Ballot 2 legalized recreational marijuana use for adults and permits the possession of one ounce and up to six cannabis plants.\textsuperscript{38} Commercial cultivators are required to pay registration and licensing fees, and register with the Alcoholic Beverage Control Board.\textsuperscript{39}

Oregon legalized the cultivation, possession, and use of marijuana for adults 21 and over through Oregon Measure 91.\textsuperscript{40} This measure allows adults to possess one ounce or less in public and up to eight ounces in private, and the authority to grow up to four plants for household use.\textsuperscript{41} Oregon placed the burden of regulation on its Liquor Control Commission, which will also be responsible for qualifying commercial

\textsuperscript{33} Id.
\textsuperscript{34} Warren, supra note 28, at 395.
\textsuperscript{35} Id. at 396.
\textsuperscript{36} Id. (referencing Uniform Controlled Substances Act, \textit{Wash. Rev. Code Ann.} §§ 69.50.101-609 (2015)).
\textsuperscript{37} Id.
\textsuperscript{38} Id. at 397.
\textsuperscript{39} Id.
\textsuperscript{40} Warren, supra note 28, at 396.
\textsuperscript{41} Id. at 397.
cultivators by requiring them to go through a state licensing process and pay licensing fees.\textsuperscript{42}

Lastly, Washington D.C. legalized the possession of marijuana through Initiative 71, the Legalization of Possession of Minimal Amounts of Marijuana for Personal Use Act, in 2014.\textsuperscript{43} Seventy percent of voters chose to allow adults to possess up to two ounces of marijuana and six plants, only three of which could be mature at any given time, for personal use, but there are no commercial cultivation or licensing schemes for possession included in the Act.\textsuperscript{44} Today, a total of twenty three states and Washington D.C. have deviated from the federal government’s prohibition and claims of marijuana being a harmful drug with no medicinal significance.\textsuperscript{45} These states have either decriminalized or legalized the use and cultivation of marijuana within their boundaries.\textsuperscript{46} This progression forced the federal government and the Department of Justice to evaluate its views towards marijuana.

\section*{C. DOJ’s Evolution on Marijuana}

The Department of Justice’s (DOJ) views on marijuana evolved in recent years due to state legalization, budget reductions, and the Obama administration’s stance of non-enforcement, which allows states to experiment with marijuana legalization. Not long after California passed Proposition 215, the federal government worked tirelessly to block its implementation by targeting physicians who recommended medical marijuana, patients, and dispensaries.\textsuperscript{47} Drug-czar Barry McCaffrey announced that the government’s aim was to rescind physicians’ registrations with the DEA if they recommended marijuana use, leaving physicians unable to prescribe any controlled substance.\textsuperscript{48} In \textit{Conant v. Walters}, the Ninth Circuit Court of Appeals found that the DEA’s course of action was an unconstitutional infringement on the First Amendment rights of physicians, because it limited the physician’s capacity to speak “frankly and openly” with patients.\textsuperscript{49} The ruling forced the DEA to take

\begin{footnotesize}
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\item \textsuperscript{42} Id.
\item \textsuperscript{43} Id. at 397-398.
\item \textsuperscript{44} Id. at 398.
\item \textsuperscript{45} Id. at 391.
\item \textsuperscript{46} Id.
\item \textsuperscript{47} Alex Kreit, \textit{Beyond the Prohibition Debate: Thoughts on Federal Drug Laws in an Age of State Reforms}, 13 \textit{Chap. L. Rev.} 555, 566-67 (2010).
\item \textsuperscript{48} Id. at 567.
\item \textsuperscript{49} Id. (citing Conant v. Walters, 309 F.3d 629, 639-40 (9th Cir. 2002) (Kozinski, J., concurring) (noting that the DEA’s planned revocation policy would mean that physicians who spoke “candidly to their patients about the potential benefits of medical marijuana [would] risk losing their license to write prescriptions, which would prevent them from functioning as doctors”)).
\end{itemize}
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the only other viable option to disrupt the sale of medicinal marijuana: the more expensive and time consuming route of enforcement against the actors involved in the medical marijuana market.50

This new course of action proved to be more fruitful for the agency’s war on drugs according to the outcomes of court rulings.51 In 1997, the federal government sought an injunction against six medical marijuana cooperatives under the CSA in United States v. Oakland Cannabis Buyers’ Cooperative.52 The Defendants successfully argued that the medical necessity defense applied to their activities.53 The Supreme Court reversed and allowed the injunction, holding that the medical necessity defense was not valid against charges of manufacturing and distributing marijuana since “the balance had already been struck against a medical necessity exception” under the CSA.54

Four years later, Gonzales v. Raich raised a Commerce Clause challenge against California’s medical marijuana law.55 In this case, DEA agents raided the home of Dianne Monson (Monson), a California medical marijuana patient. The DEA agents seized six marijuana plants from Monson’s residence.56 The government ultimately did not file charges against Monson after the raid.

However, the incident prompted Monson to join fellow medical marijuana patient Angel Raich and two caregivers in filing suit for an injunction against the DEA to prevent the agency from enforcing the CSA against them for cultivating medicinal marijuana.57 The plaintiffs supported their position with two recent Supreme Court decisions that restricted the federal government’s authority under the Commerce Clause: United States v. Lopez and United States v. Morrison.58 These two cases held that “noncommercial” activity was beyond the reach of federal law and the commerce power of the government.59 Monson and Raich argued that marijuana cultivation for personal medicinal use was similar to other noncommercial activity, like possessing a gun in a gun free school zone.60 In the prior decision, the Lopez court held that possession of a gun in a school zone was noncommercial activity that fell outside the

50 Id.
51 Id.
52 Id. at 568. (citing U.S. v. Oakland Cannabis Buyers’ Coop., 532 U.S. 483 (2001)).
54 Kreit, supra note 47, at 568.
55 Id.
56 Id. (citing Gonzales v. Raich, 545 U.S. 1 (2005)).
57 Id.
58 Id.
59 Id.
60 Kreit, supra note 47, at 568-69.
federal government’s authority under the Commerce Clause, and struck down a provision making that activity a federal crime under the Gun Free School Zone Act of 1990.61

As with other such cases, the Ninth Circuit ruled for the plaintiffs in Raich.62 However, the Supreme Court reversed in a 6-3 decision, holding that regulating “the possession and noncommercial cultivation of marijuana was a necessary part of Congress’ efforts to criminalize the interstate market for the drug under the Controlled Substances Act.”63 The majority distinguished the Raich case and the prior Lopez and Morrison cases on the ground that regulating the possession and cultivation of marijuana for personal use was an indispensable component of regulating larger economic activity, “in which the regulatory scheme could be undercut unless the intrastate activity were regulated.”64

With both the Oakland Cannabis Buyers’ Coop. and Raich cases, the Supreme Court clarified that federal officials could prosecute medical marijuana cultivators, providers, and patients constitutionally—a power that the federal government has exercised numerous times over the last decade and a half.65 Despite the Supreme Court’s decisions, California had over 700 medical marijuana collectives openly operating with the acceptance or support of city and county governments, serving approximately 300,000 to 400,000 qualified patients by 2009.66

Despite its best efforts, the federal government failed to stop the spread of marijuana laws.67 In 2009, U.S. Deputy Attorney General David W. Ogden issued the DOJ’s first memorandum for prosecutorial guidance on medicinal marijuana enforcement, signaling the first step in the government’s shift away from full enforcement.68 Ogden suggested that prosecuting seriously ill people using marijuana as a physician-recommended treatment consistent with applicable state law, or caregivers operating in “clear and unambiguous compliance with existing state law” to provide marijuana to individuals, is “unlikely to be an efficient use of limited federal resources.”69

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61 Id. at 569.
62 Id. at 569; Gonzales v. Raich, 545 U.S. 1 (2005).
63 Kreit, supra note 47, at 569.
64 Id. (citing U.S. v. Lopez, 514 U.S. 549, 561 (1995)).
65 Id.
66 Id. at 570 (citing Roger Parloff, How Medical Marijuana Became Legal, FORTUNE 141, 144 (Sept. 18, 2009)).
67 Kreit, supra note 47, at 570-71.
68 Id. at 571; see also William Baude, State Regulation and the Necessary and Proper Clause, 65 CASE W. RES. L. REV. 513, 515 (2015).
To ensure that this recommendation did not undermine the government’s ability to enforce federal laws, U.S. Deputy Attorney General James M. Cole (Cole) issued another memorandum to prosecutors in 2011.70 In the 2011 memo, Cole clarified that the DOJ remained committed to enforcing the CSA in all states and that the Ogden memo was never intended to shield “large-scale, privately operated industrial marijuana cultivation centers” from “federal enforcement action and prosecution,” even if they complied with state law.71 This memo seemed to illustrate the DOJ’s willingness to prosecute any large grow operation. Two years later, Cole issued another memorandum in response to Colorado and Washington legalizing recreational marijuana, signaling another step towards an even more selective attitude in federal enforcement. Cole suggested that the DOJ would not interfere with states that legalized marijuana-related conduct, implemented a robust and effective system of regulation, and showed a willingness to enforce their laws and regulations if they did not undermine the eight chief priorities of federal enforcement.72 The central federal enforcement priorities are:

(1) Preventing distribution of marijuana to minors; (2) Preventing marijuana revenue from funding criminal enterprises, gangs or cartels; (3) Preventing marijuana from moving out of states where it is legal; (4) Preventing use of state-legal marijuana sales as a cover for illegal activity; (5) Preventing violence and use of firearms in growing or distributing marijuana; (6) Preventing drugged driving or exacerbation of other adverse public health consequences associated with marijuana use; (7) Preventing growing marijuana on public lands; and (8) Preventing marijuana possession or use on federal property.73

In evaluating an alleged violation, Cole advised prosecutors that they should assess conduct on a case-by-case basis and consider not only the size or commercial nature of the operation, but also whether the state has a strong and effective regulatory system in place, the operation’s compliance with the state’s regulatory system, and whether the operation’s conduct implicates one or more of the federal enforcement priorities.74

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73 *Id.* at 1-2.

74 *Id.*
DOJ also stated that it would not sue to block laws legalizing marijuana in the states and the District of Columbia, which some proponents hailed as a step toward ending the drug’s prohibition.\textsuperscript{75}

This trend has since reversed with the new presidential administration. In a memorandum issued January 4, 2018, current U.S. Attorney Jeff Sessions (Sessions) rescinded guidance allowing states to implement their own marijuana laws.\textsuperscript{76} With this return to federal marijuana enforcement, federal prosecutors are free to enforce federal laws against marijuana, putting all actors involved in the marijuana industry—including utilities—in jeopardy.\textsuperscript{77}

III. FEDERALISM VERSUS STATES’ RIGHTS

Since the DOJ decided to follow a policy of selective enforcement, the states found that they have some leeway in legalizing marijuana and managing the use of the drug.\textsuperscript{78} State laws that allow for either medicinal or recreational marijuana are in direct conflict with the federal ban under the CSA.\textsuperscript{79} However, as the DOJ noted, so long as the industry is regulated by a strong and effective state regulatory system—and the entities involved do not impede upon the federal enforcement priorities—the industry will be left to state regulation and enforcement.\textsuperscript{80}

In spite of the federal government’s policy, the reality of the federal ban’s existence still threatens the services that regulated commercial businesses need to thrive.\textsuperscript{81} For example, marijuana-related entities have difficulty accessing banking services in states where marijuana is legal.\textsuperscript{82} The American Bar Association has not clarified whether lawyers can counsel in-state entities without being held liable for criminal conspiracy or found guilty under accomplice liability.\textsuperscript{83} And at a time when Western states are facing water shortages due to drought, the Federal Bureau of Reclamation recently stated that “Reclamation will not approve use of

\textsuperscript{75} Milestones in U.S. Marijuana Laws, supra note 19.
\textsuperscript{77} Id.
\textsuperscript{78} Baude, supra note 70, at 516.
\textsuperscript{80} Cole Memo, supra note 72.
\textsuperscript{81} Baude, supra note 70, at 516.
\textsuperscript{82} Hill, supra note 79, at 600.
\textsuperscript{83} Baude, supra note 70, at 517.
Reclamation facilities of water in the cultivation of marijuana.” While the industry continues to grow exponentially, many marijuana-related companies face multiple challenges that companies in other industries do not. The primary challenge is federalism.

Public utilities are caught in the same quagmire. By servicing and incentivizing marijuana grows, these utilities risk federal prosecution; however, withholding services and incentives from grows within their territory violates state mandates requiring utilities to service and protect all customers within their territory. To analyze this issue in more detail, it is important to know how electric energy is regulated, and how federal laws would apply to public utilities that provide electricity to marijuana grows.

A. Who Regulates Electric Energy?

The energy delivery industry is a billion-dollar business. In fact, it is larger than any other industry in the United States today. Weighing in at “roughly twice the size of telecommunications and almost thirty percent larger than the U.S.-based manufacturers of automobiles and trucks,” electric utilities necessitate “far more investment than the average manufacturing industry and even ten to 100 times more per unit of delivered energy than gas and oil systems.” Regulation of the electric industry was once the sole jurisdiction of the states, but over the last 100 years, federal laws and regulations have slowly eroded the bright lines that once separated federal and state jurisdiction. Today, “the network of interconnected electric facilities is national in scope,” and presents problems that call for national solutions in some cases and local solutions in others.

The Federal Energy Commission (FERC), an independent federal agency, oversees the regulation of the electric industry. The Federal Water Power Act of 1920, the first major piece of legislation to address the electricity industry, established what would eventually become

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86 Id.
87 Id. at 354-355.
FERC. This Act purported to carve out a portion of states’ jurisdiction to be regulated by the federal government and created FERC’s predecessor, the Federal Power Commission (FPC), to oversee the industry’s regulatory obligations.

In 1935, Congress passed the Public Utilities Act, which created Title I, the Public Utilities Holding Company Act (giving the Securities and Exchange Commission authority to regulate utility holding companies) and expanded and renamed the Federal Water Power Act to the Federal Power Act (FPA), Title II. The FPA expanded FPC jurisdiction to include “transmission of electric energy in interstate commerce and the sale of electric energy at wholesale in interstate commerce” and “all facilities for such transmission or sale of electric energy.” The FPC’s jurisdiction expanded yet again with the passage of the Natural Gas Act (NGA) of 1938, which placed the “transportation of natural gas in interstate commerce” under its authority. However, the NGA did not grant the commission jurisdiction over “any other transportation or sale, local distribution,” or “production or gathering” of natural gas.

Another major piece of legislative authority for the agency was the Department of Energy Organization Act of 1977, which expanded the agency’s jurisdiction to include the regulation of oil pipelines and reorganized the FPC as FERC. The last piece of authoritative legislation, the Public Utility Regulatory Policies Act of 1978, amended the FPA to encourage the development of renewable energy resources and promote energy conservation, and gave FERC oversight of these objectives. With the nation moving increasingly toward interconnectedness, where infrastructure or borders are no longer the clear demarcation of jurisdiction, Congress continues to increase the federal government’s regulatory authority over the industry. As the history of FERC demonstrates, Congress progressively whittled away at states’ rights to regulate electric energy by implementing laws that place more control in the hands of the federal government.

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90 Schmidt, supra note 88, at 580.
91 Id. at 580-81.
92 Id. at 582 (citing 16 U.S.C. § 824(b)(1) (2006)) (“A wholesale transaction is ‘a sale of electric energy to any person for resale.’” § 824(d). A “retail sale” is a sale directly to an end-user. See Panhandle E. Pipe Line Co. v. Pub. Serv. Comm’n, 332 U.S. 507, 517 n. 12 (1947)).
94 Id. at 205.
The United States’ Constitution created a federalist system in which both the federal government—via FERC—and the states—via state public utility commissions—oversee the regulation of today’s electric industry. Section 201(b) of the FPA (now codified as 16 U.S.C. § 824) declares that federal regulation applies to those parts of business that consist of the transmission and sale at wholesale of electric energy in interstate commerce, but does not apply to those matters that are subject to regulation by the states. Under this bright line, Congress intended the FPA to occupy the field of transmission and wholesale sales in interstate commerce. States cannot have jurisdiction over subject matter that is regulated by FERC or any other federal entity.

FERC states that its statutory authority grants it regulatory power over electric energy transmissions in interstate commerce. FERC also regulates the wholesale sales of electric energy by public utilities in interstate commerce and all facilities for such transmission. FERC’s jurisdiction includes corporate activities and transactions of public utilities such as accounting, mergers, and securities issuances. FERC also maintains siting authority over hydroelectric and nuclear generation.

Under the FPA, the Commission has authority over public utilities defined as “any person who owns or operates” a facility used for “the transmission of electric energy at wholesale in interstate commerce.” FERC asserts that the FPA does not give it authority over local electric energy distribution, the retail sale of electricity to end users, and the siting of generation facilities that are not nuclear or hydroelectric in nature. Therefore, these responsibilities fall to the States. Since the passage of the FPA, utility companies, states, and the federal government have continuously called upon the Supreme Court to assist in determining where the jurisdiction of the federal government ends and where state regulation begins. Through a series of decisions, the court interpreted the intent of Congress regarding federal jurisdiction in cases involving the movement of electricity under the FPA.

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100 Chadwick, supra note 94, at 208.
101 Id.
103 Id. at 11 (quoting 16 U.S.C. § 824(e)).
104 Id. at 12.
1. Intent and Jurisdiction of the FPA

The Supreme Court has considered the congressional intent behind the FPA and how it affects FERC’s jurisdiction multiple times since the law’s enactment. \(^{105}\) In the 1943 case *Jersey Central Power & Light Co. v. FPC*, the Court determined that the FPA’s principal function was to allow a federal agency the authority to regulate electric energy sales across state lines. \(^{106}\) Two years later, in *Connecticut Light and Power Co. v. Federal Power Commission*, the Court quoted an FPC Commissioner as saying that the Act “is designed to . . . fill the gap in the present State regulation of electric utilities” and that it was “conceived entirely as a supplement to, and not a substitution for State Regulation.” \(^{107}\)

Specifically, a House Report cited by the Court noted that the Act was “drawn as to be a complement to and in no sense a usurpation of State regulatory authority and contain throughout directions to the Federal Power Commission to receive and consider the views of State commissions.” \(^{108}\) Another House Report regarding a revision of the Act confirmed “the policy of Congress [was] to extend . . . regulation to those matters which cannot be regulated by the States and to assist the States in the exercise of their regulatory powers, but not to impair or diminish the powers of any State Commission.” \(^{109}\) Thus, the Court held that while Congress intended the Act’s jurisdiction to follow the surge of electricity into interstate commerce, the Act’s language allows it to “extend only to those matters which are not subject to regulation by the States.” \(^{110}\) In doing so, the Court was sure to note the complexity of regulating an industry such as electricity, where any part of the supply that comes from outside a state may be present in every distribution facility that is connected to the network. \(^{111}\) The Court stated that, had the Act not placed an artificial limitation on regulation, federal jurisdiction would reach “a toaster on the breakfast table.” \(^{112}\)


the Court determined that Congress intended to draw a bright line to distinguish between state and federal jurisdiction. \(^{113}\) Finding that it was

\(^{105}\) Dennis, *supra* note 98, at 625-26.

\(^{106}\) Schmidt, *supra* note 88, at 582 (citing 319 U.S. 61, 67-68 (1943)).

\(^{107}\) *Id.* (citing 324 U.S. 515, 525 (1945)).

\(^{108}\) *Id.*

\(^{109}\) *Id.*

\(^{110}\) Dennis, *supra* note 98, at 625-26 (citing 16 U.S.C. § 824(a) (2000)).

\(^{111}\) *Id.* at 626.

\(^{112}\) *Id.*

the intent of Congress to codify a strict distinction between local and national jurisdiction, the Court held that Congress, through the FPA, ultimately authorized federal jurisdiction over wholesale sales and state regulation over retail sales.114 The Court explained that Congress enacted the FPA due to previous court decisions establishing the pervasive notion that a state cannot regulate wholesale transactions but can regulate retail sales.115 In *New York v. FERC*, the Court upheld that the FPA extended federal jurisdiction to those electric energy matters previously under state control, which indirectly related to interstate commerce.116 The Court also stated that the Act preserved state jurisdiction and was replete with statements describing Congress’ intent to do so.117 Thus, the Court drew the line making it easier to identify regulators of the electric industry.

**B. INTERSTATE COMMERCE**

While states regulate the retail sale and local distribution of electricity, almost all electricity delivered to consumers in the U.S. ultimately passes through FERC’s jurisdiction.118 Due to the interconnected nature of the grid119 and untraceable nature of electricity,120 Congress and the courts consider electric energy as interstate commerce.121 As a result, the Commerce Clause is one of the federal government’s enforcement tools. In *Arkansas Electric Cooperative Corporation v. Arkansas Public Service Commission*, the Supreme Court cited several previous cases regarding electricity and natural gas. The Court explained that Congress intended for the FPA to adopt the bright line in *Attleboro*, where federal jurisdiction was limited to the wholesale of electricity and retail sale to the end user was wholly under state jurisdiction.122 However, the Court rejected this distinction, and instead looked to its general trend in Commerce Clause jurisprudence that calls for each case to be evaluated on “the nature of the state regulation involved, the objective of the state, and

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114 Chadwick, *supra* note 94, at 199.
119 *Id.* at 505.
120 Ferrey, *supra* note 115, at 55.
the effect of the regulation upon the national interest in the commerce.’”

In the more recent General Motors Corporation v. Tracy, the Court found that retail sales to domestic consumers regulated by the state were not immune from ordinary Commerce Clause jurisprudence. However, this ruling diverged from the precedent the Court set in cases involving both the FPA and the NGA that upheld the exemption of state regulation of in-state retail sales from dormant Commerce Clause attacks. The Supreme Court denied hearing two cases expected to clarify this ruling. For that reason, this article makes arguments consistent with the traditional view that state regulation of in-state retail sales is exempt from attack under the dormant Commerce Clause. Therefore, states and public utilities are not under threat of federal action under the Commerce Clause for encouraging public utilities to provide electric service and efficiency incentives to state-legal marijuana grows; however, the cultivation of marijuana is not exempt from Congressional regulation.

In Gonzales v. Raich, the Court held that there was a rational basis for Congress to regulate in-state marijuana cultivation, because it affects price and market conditions whether it is grown for personal use or for the express purpose of being sold in the interstate market. The court noted that marijuana cultivated for both purposes is a fungible commodity, with well-established interstate markets that are susceptible to fluctuations in supply and demand based on the introduction of personal consumption into the national market. When the effects of individual producers are combined, Congress can rationally expect its actions to have substantial effects on interstate commerce.

With this decision, the Court acknowledged that the broad-regulatory scheme principle was a constitutional and effective means of regul-

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123 Id. at 379.
125 Id. at 291-92.
128 Id.
129 Id.
lating a presumably in-state activity, in lieu of a jurisdictional element.\textsuperscript{130} The Court demonstrated that, through the Commerce Clause, local cultivation of marijuana can be regulated without a case-by-case analysis or requiring a jurisdictional addition to the CSA.\textsuperscript{131} Therefore, even if a jurisdictional element existed in the CSA, case-by-case analysis would be bypassed; federal statutes regulate the cultivation of marijuana and offer a rational basis for Congress to believe that failure to regulate marijuana cultivation would undercut the overall economic scheme.\textsuperscript{132} As a result, Congress can regulate activities by devising broad regulatory schemes such as the CSA, even if the activities would fail a case-by-case analysis in statutes that incorporated a jurisdictional element.\textsuperscript{133}

Accordingly, marijuana grows are subject to Congressional regulation under the CSA and the Commerce Clause, even though the cultivation of marijuana is legal at the state level. This could lead to federal prosecution under the CSA and under the Commerce Clause. Growers could be found liable under the CSA because their actions are in direct violation of the statute. They could also be liable under the Commerce Clause for interfering with interstate commerce. As stated previously, public utilities are exempt from prosecution under the Commerce Clause, but may be held liable under the CSA should the court find that they specifically intended to violate the statutory prohibitions as “racketeering influenced criminal organizations” or if they are determined to be aiding and abetting growers in the furtherance of prohibited activities under the CSA.

1. **Racketeer Influenced and Criminal Organizations**

To prove a substantive RICO violation under 18 U.S.C. § 96, the government must prove beyond a reasonable doubt that: “(1) an enterprise existed; (2) the enterprise participated in or its activities affected interstate commerce; (3) the defendant was employed by or was associated with the enterprise; (4) the defendant conducted or participated in the conduct of the enterprise; (5) through a pattern of racketeering activity.”\textsuperscript{134} According to Congress, the term “racketeering activity” refers to many things, including “any act or threat involving murder, kidnapping, gambling, arson, robbery, bribery, extortion, dealing in obscene matter,

\textsuperscript{130} Noelle Formosa, Ganging Up on Rico: Narrowing Gonzales v. Raich to Preserve the Significance of the Jurisdictional Element As A Constitutional Limitation in the Racketeer Influenced and Corrupt Organizations Act, 82 S. Cal. L. Rev. 135, 153 (2008).

\textsuperscript{131} Id.

\textsuperscript{132} Id. at 153-54.

\textsuperscript{133} Id. at 154.

\textsuperscript{134} Id. at 155 (quoting U.S. v. Marino, 277 F.3d 11, 33 (1st Cir. 2002)).
To convict under the statute, federal prosecutors must prove the existence of a “pattern of racketeering activity,” which is defined as at least two acts of racketeering activity. Even if the activity has a de minimis effect on interstate commerce, courts can exercise jurisdiction by “proof of a probable or potential impact.” The jurisdictional element of this statute, found under § 1962(c), applies to “any person employed by or associated with any enterprise engaged in, or the activities of which affect, interstate or foreign commerce” that “conduct[s] or participate[s], directly or indirectly, in the conduct of such enterprise’s affairs through a pattern of racketeering activity.” Given the Supreme Court’s opinion in Raich, the jurisdictional element is not needed because the CSA is a broader scheme statute, and the activity of cultivating marijuana for personal and commercial use affects interstate commerce. Accordingly, the federal government must only prove the elements of RICO beyond a reasonable doubt.

If the federal government pursues prosecuting public utilities under RICO statutes, cases would likely include several elements. First, an enterprise that affects interstate commerce exists, no matter how it is construed. State-legal marijuana businesses are illegal federally, and the Raich decision established that cultivation of marijuana, even for personal medicinal use, affects interstate commerce. Commercial cultivation of marijuana clearly affects commerce, even if the product is only sold to in-state businesses or individuals. Likewise, public utilities are enterprises that affect interstate commerce, because the amount of energy they withdraw from the grid has a direct effect on other entities—often in different states—sharing energy from the same sources.

Under the second element, utilities participate in or affect interstate commerce by providing electric energy services to marijuana grows. If utilities deny indoor marijuana grows access to electric energy, marijuana production decreases substantially, which directly affects supply and demand in interstate markets. This element is met since the output of the grow is higher than it could be without the electric service provided from a public utility. In addition, the public utility would utilize power

136 § 1961(5).
138 Formosa, supra note 130, at 155 (quoting 18 U.S.C. § 1962(c)).
139 18 U.S.C. § 1961(4) (“‘enterprise’ includes any individual, partnership, corporation, association, or other legal entity, and any union or group of individuals associated in fact although not a legal entity”).
140 18 U.S.C. § 1962(c) (“It shall be unlawful for any person employed by or associated with any enterprise engaged in, or the activities of which affect, interstate or foreign commerce.”).
from the grid to supply the energy these grows need, affecting interstate commerce for a racketeering activity.

The third element is employment, or association. When a public utility has no common purpose with the grower—in other words, no intent to grow marijuana—the element can only be met in a few ways.141 First, if a marijuana business or one of its decision-making officers purchases public utility stocks with the proceeds from the sale of marijuana and has enough of a controlling interest in the utility to affect its decisions, association implicates the utility.142 Second, if a public utility purchases a controlling interest in a marijuana enterprise, it implicates the utility through association.143

Under the fourth element of participating in the conduct of the enterprise, incentivizing energy efficient methods could be construed as public utilities conducting or participating in the racketeering enterprise.144 Unless the utility is involved in the actual management and operation of the grow, this is likely not sufficient to implicate the utility for conducting or participating in the conduct of the racketeering enterprise.145

Under the fifth and final element, other than acts involving controlled substances, it is unlikely that more than one racketeering activity is in play where public utilities are servicing marijuana grows.146 If the provision and maintenance of service are the only acts involved, this element is likely not met. However, if any other racketeering activity is present, this element is easily met.

Through the above analysis, a public utility could be found culpable under RICO without much perversion by simply striving to comply with state mandates to provide electric energy service to all legal entities in its territory. Where elements three, four, and five fail here, it would not be farfetched to see that, although highly unlikely, an imaginative prosecu-

141 Phillips, supra note 137, at 1519 (citing U.S. v. Olson, 450 F. 3d 655, 688 (7th Cir. 2006) (“noting that the Latin Kings operated as a “well-equipped organization with a defined hierarchical command structure,” “allegiance to a national organization,” and maintained “structure throughout the period described”)).
142 18 U.S.C. § 1962(a) (prohibiting direct and indirect use or investment of any income resulting from racketeering activity).
144 Phillips, supra note 137, at 1530-31 (Must make decisions in operation or management of the enterprise to conduct or participate, but decision-making of a low degree may not constitute participation in the enterprise’s affairs).
145 Id. at 1530.
146 18 U.S.C. § 1961(5) (“pattern of racketeering activity’ requires at least two acts of racketeering activity, one of which occurred after the effective date of this chapter and the last of which occurred within ten years (excluding any period of imprisonment) after the commission of a prior act of racketeering activity.”).
tor could arrange the facts so that a judge or jury would believe that the elements are met. Barring an imaginative prosecutor, or a far-reaching court, a public utility would likely not be found guilty under RICO. In such cases, the government could turn to the aiding and abetting statute as applied under the CSA.

2. Aiding and Abetting

Behind almost every criminal statute is a hidden feature that allows for perpetrators of a crime and those that assist them to face the same punishment. Section 2(a) of 18 U.S.C. states that “[w]hoever commits an offense against the United States or aids, abets, counsels, commands, induces or procures its commission, is punishable as a principal.” This section defines aiding and abetting as “assisting in the commission of someone else’s crime.” Mere knowledge of an offense without assistance is not enough to be found culpable; likewise, assistance without intent is not enough.

Yet someone culpable under this statute need not assist in every aspect of the criminal offense. Aiding and abetting is not a stand-alone offense; it must take place either before or at the time of the substantive offense. While the substantive offense must be completed for a conviction, the hands-on offender does not need to be named or convicted. Section 2(b) states “[w]hoever willfully causes an act to be done which if directly performed by him or another would be an offense against the United States, is punishable as a principal.” Under this language, actors and the intermediaries—innocent or not—are liable for their conduct if, when taken together, it amounts to an offense. The mens rea requirement under section 2(b) is “willfully” which, although not entirely clear, seems to mean “intentionally.” The courts “believe that an individual ‘willfully’ causes an offense when he intends the commission of conduct that constitutes a crime and then intentionally uses someone else to commit it.” Even if someone is unaware that his un-

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149 Doyle, supra note 147, at 3.
150 Id.
151 Id. at 4.
152 Id.
153 Id.
155 Doyle, supra note 147, at 8.
156 Id.
157 Id. (citing U.S. v. Gumbs, 283 F.3d 128, 135 (3d Cir. 2002)).
derlying conduct is criminal, an individual may still incur liability under Section 2(b) if he intends to assist in the facilitation of the substantive criminal action.158

Since “assistance” and “facilitation” are malleable terms, public utilities rightfully have concerns when servicing marijuana grows and offering incentives to curb high consumption.159 If the court interprets aiding and abetting to implicate individuals who “specifically intended to facilitate” or truly “assisted” in the commission of an act that violated the CSA, public utilities could have some potential for liability.160 However, because public utilities specifically intend to remain in compliance with state mandates, an analysis of the elements of aiding and abetting demonstrates where lines of intent can be drawn. To convict an individual for aiding and abetting, the prosecution must prove beyond a reasonable doubt: “(1) That the accused had specific intent to facilitate the commission of a crime by another; (2) That the accused had the requisite intent of the underlying substantive offense; (3) That the accused assisted or participated in the commission of the underlying substantive offense; and (4) That someone committed the underlying offense.”161

In proving the first element, a public utility’s intent would be to fulfill its duty and obligation under state mandates. Utilities act because they are obligated to serve and protect their customers, including all state-legal entities, by statutes enacted long before any state legalized marijuana for medicinal or recreational purposes. Utilities do not act because they specifically intend to facilitate the commission of the federal crime of marijuana cultivation, even if they know that the entity they are providing electric energy to intends to violate the CSA. Rather, they specifically intend to protect the other customers within their service area, by reducing energy consumption and theft from these marijuana grows. Utilities accomplish this by providing service and offering incentives for more efficient use of energy.

It is hard to conceive that a public utility would intend to cultivate marijuana in violation of the CSA under the second element. Public utilities do not set out to cultivate marijuana, but they do intend to serve and protect their customer base per statutory mandates. Simply providing electricity to a grower does not inherently demonstrate intent to further the crime. In this instance, public utilities would be equally liable in aiding and abetting the cultivation of marijuana. Utilities provide electricity

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158 Id. at 8-9.
160 Id.
161 Conant v. Walters, 309 F.3d 629, 635 (9th Cir. 2002).
and incentives to those growers. That action facilitates the substantive crime of the states and the growers. Since the federal government usually leaves the states to experiment and serve as laboratories for future policy making ideas, this is not likely an effective way to prove these two elements.

The third element of assistance or participation presents the same dual interpretation problem. Federal prosecutors would likely consider utilities to be assisting or participating in the commission of the underlying substantive crime, should they provide service and incentives to marijuana grows. Once again, the same argument works in reverse; for utilities to comply with state laws and statutory mandates, they must service state-legal businesses and protect the other customers in their territory. Utilities accomplish this in part by offering incentives to grows to encourage the use of energy-efficient methods of operating.

The fourth element is likely to be uncontested. Marijuana growers intend to cultivate, distribute, and possess marijuana, committing the underlying substantive crime. Like the previous RICO analysis, this analysis demonstrates that by simply fulfilling their duties and obligations under state mandates, there is a possibility that utilities could be found culpable for aiding and abetting in the cultivation, distribution, and possession of marijuana without much slanting. Where the argument in this analysis fails under elements one, two, and possibly three, a little imagination on the part of a prosecutor could be used to prove otherwise. Therefore, Congressional action is needed to decriminalize or legalize marijuana, allowing public utilities to operate within their state mandates to service and protect all the customers within their territory without the threat of federal prosecution.

IV. WHERE DOES THIS LEAVE PUBLIC UTILITIES?

While unlikely, public utilities could face criminal prosecution for providing service to marijuana grows. If the utilities are merely operating within the normal framework of duties and obligations under state mandates, their actions likely do not meet the elements required for federal prosecution. Public utilities can therefore provide electric service and efficiency incentives to marijuana grows. Additionally, policy concerns may necessitate that utilities provide service to marijuana grows to address high-energy consumption, power theft, and other issues.
A. SERVICING MARIJUANA GROWS

The language of 16 U.S.C. § 824(b) specifies that FERC does not have jurisdiction over facilities that generate electricity, distribute electricity locally, transmit electricity only for intrastate use, or transmit electricity which is “consumed wholly by the transmitter.”162 As the Court in FERC v. Mississippi found, Congress could have preempted the field of electric regulation entirely, if it chose to do so.163 However, Congress decided on a less intrusive course of action by establishing a “cooperative federalism” approach, which showed deference to state authority.164 Justice O’Connor opined that this approach facilitates the frequently recognized idea that “the 50 States serve as laboratories for the development of new social, economic, and political ideas.”165 It allows the States to enact and administer their own regulations to meet their own particular needs within the limits of established minimum standards set by the federal government.166

Today, nearly all states have established a regulatory structure that expects each utility in an identifiable area to provide retail electric service.167 State laws impose an obligation on each utility to plan for and acquire the facilities needed to provide adequate and reliable service to all the customers located in its service territory.168 This obligation applies universally whether it is stated explicitly in statutes or fleshed out in case precedent.169 Therefore, public utilities have a responsibility under state law to provide electric service to customers. As Puget Sound Energy said in a statement, it “has a duty and obligation to serve customers under Washington state law. If there’s a legal business in our service territory that needs our services, we welcome them as a customer.”170

Accordingly, because the states regulate local distribution of electricity, public utilities can provide service to state-legal marijuana busi-

163 Schmidt, supra note 88, at 587.
164 Id.
166 Id.
168 Id.
169 Id.
nesses, as they are the type of state-legal entities that state mandates oblige them to serve. Failing to do so would violate state regulatory commission mandates, which could lead to penalties imposed by the state utility commission. It is important to note that while public utilities involved in local distribution are not regulated under the FERC, they could still provoke federal criminal prosecution. However, utilities are obligated to protect their customers and should do so even in the face of conflict between state and federal governments.

B. **Offering Incentives to Marijuana Grows**

Utilities can protect customers by taking the necessary steps to reduce instances of power theft, and promote efficiency in the marijuana industry to curb high energy consumption. With the decriminalization or legalization of marijuana cultivation in more states, growers will increasingly divest themselves from theft and off-grid power sources; instead, growers will simply plug into the grid for electricity.\(^{171}\) In turn, this burgeoning industry’s energy consumption will grow exponentially.\(^{172}\)

Some utilities, like Snohomish County Public Utilities District, fear that providing incentives like cash rebates to marijuana grows would cause them to clash with the Bonneville Power Administration (BPA). A conflict with BPA could jeopardize millions of dollars in federal grants for other projects unrelated to marijuana, such as tidal and geothermal energy or smart-grid and energy-efficiency programs.\(^{173}\) BPA, the largest power marketer in the Pacific Northwest and the supplier of one-half of the funding for the Northwest Energy Efficiency Alliance, stated that it will not reimburse the 140 public utilities that are its customers due to the federal ban on marijuana.\(^{174}\)

Even though federal law prohibits marijuana cultivation, state populations continue to decriminalize or legalize marijuana. Individual states continue to act as laboratories for marijuana policy development, prompting local governments, utilities, and others to take their own measures. For instance, Colorado’s Boulder County enacted a cannabis car-

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\(^{172}\) *Id.* at 403.


Investor-owned Xcel Energy Inc., the major electricity provider in Colorado, admitted to giving rebates to marijuana growers, though it refused to disclose the amounts. Both Puget Sound Energy and Avista, investor-owned utilities in Washington State, provided growers with significant rebates funded by fees on their own customers instead of the government. Energy Trust of Oregon, a non-profit organization, coordinates efficiency programs for customers of Portland General Electric and PacifiCorp, conducting technical studies and providing rebates for lighting upgrades to medical marijuana growers.

In providing for the economic welfare and safety of their residents, states have traditionally had the authority to regulate public utilities and determine state energy policies. Because electric energy is an essential service that is “affected with the public interest,” states and utilities must take steps to ensure reliable electric energy service at a reasonable price to all consumers. Therefore, states and public utilities can incentivize marijuana grows in the effort to promote energy efficiency and reduce the average energy consumption of marijuana cultivation. When federal agencies such as BPA are not willing to reimburse public utilities for energy efficiency incentives, states should levy a tax like the cannabis carbon tax enacted by Boulder County. States could also allow public utilities to tax all electric energy customers to fund a rebate program until Congress can be swayed to change the law. Without a change allowing for the decriminalization or legalization of marijuana, grows will continue to negatively impact the energy industry, placing other customers at risk and consuming energy at a rate that will inevitably strain the power grid.

V. Negative Effects of Marijuana Grows on the Energy Industry

Without legislation for the legalization or decriminalization of marijuana that allows public utilities to serve and incentivize growers free and clear of federal enforcement, marijuana grows will increasingly have a negative impact on the energy industry due to high energy consumption with little or no incentive to become more efficient. The high-energy

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176 Ferris, supra note 173.
177 Id.
178 Sickinger, supra note 174.
179 Schmidt, supra note 88, at 618.
180 Id. at 575.
consumption of marijuana grows inevitably causes cultivators to evade steep power bills and avoid detection from enforcement agencies. These problems will continue to plague both industries in all states, whether marijuana is decriminalized or not.

A. **HIGH-ENERGY CONSUMPTION OF GROWS**

According to the preeminent researcher, Evan Mills, an expert on the energy use of marijuana grows, the budding industry of indoor marijuana cultivation is a highly energy intensive process in which cultivators attempt to control environmental conditions throughout the life-cycle of the plants.\(^1\) The criminalization of marijuana pushes cultivators to grow indoors in an effort to conceal their actions.\(^2\) Criminalization is also responsible for energy inefficiencies of the marijuana cultivation process. Transporting small volumes of product over long distances and taking measures that undercut ventilation efficiencies to suppress noise and odor leads to the use of diesel generators for off-grid power production.\(^3\) These generators produce more greenhouse-gas emissions and are far less efficient than many electric grids.\(^4\) It currently takes approximately 4,600 kg of carbon dioxide emissions to produce about one kilogram of processed marijuana buds; when cumulated across all national production, this equals the emissions of 3 million average cars in the U.S.\(^5\) Mills explains that energy is used in many aspects of the indoor growing process and cites high-intensity lighting, dehumidification to rid grow rooms of water vapor and to prevent mold formation, heating or cooling grow rooms and drying rooms, pre-heating water used for irrigation, and air-conditioning and ventilation for removing waste heat.\(^6\)

With lighting levels equivalent to those in hospital operating rooms and hourlly air changes greater than 60 times the rate of the modern home, Mills estimates that the power densities of indoor marijuana grows are equal to modern data centers.\(^7\) His research approximates that indoor marijuana grows use about 20 terawatt hours of energy annually,

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3. Id.
4. Id.
5. Id.
6. Id. at 58.
7. Id. at 59.
including off-grid production.\textsuperscript{188} This consumption matches the output of seven large electric power plants, or the consumption of 2 million average American homes.\textsuperscript{189} He estimates that indoor marijuana grows account for more than $6 billion or more than one percent of annual electricity consumption nationally.\textsuperscript{190} Indoor cultivation is responsible for approximately three percent of all electricity used in California, the top-producing state of marijuana grown indoors.\textsuperscript{191} This is the equivalent of the energy used in 1 million average Californian homes and expenditures on energy equating to $3 billion per year.\textsuperscript{192} In the U.S., indoor marijuana cultivation uses six times as much energy as the pharmaceutical sector, approximately eight times more energy per foot than the standard commercial building, four times more than the average hospital, and eighteen times more than the average home.\textsuperscript{193}

\section{Illegal Grows Stealing Electricity}

The darker side of the narrative is the increased instances of power theft due to the high-energy consumption of marijuana grows. Canadian based BC Hydro declared that between 2006 and 2010, there were more than 2,600 thefts of electricity, the majority allegedly from marijuana growers. BC Hydro reported that electricity losses increased from around 500 gigawatt-hours to at least 850 gigawatt-hours, costing the company approximately $100 million a year.\textsuperscript{194} This is not an isolated event. Ontario, Canada also estimates that power theft for all purposes, including a good portion of theft for the cultivation of marijuana, results in $500 million in losses.\textsuperscript{195} While U.S. estimates are hard to obtain, theft is thought to account for up to $6 billion in losses nationally.\textsuperscript{196}

Like other electric utilities, BC Hydro cites several problems with marijuana grow operations, including: electricity theft by cultivators that wish to avoid detection from officials; safety risks created for utility employees, first responders, and the public; damage to the grid, such as power surges and electrical failure that can damage a utility’s equipment and cause power outages; and the waste of electricity, which the com-

\begin{flushleft}
\textsuperscript{188} Id.  \\
\textsuperscript{189} Id.  \\
\textsuperscript{190} Id. at 60.  \\
\textsuperscript{191} Id. at 59.  \\
\textsuperscript{192} Id. at 59-60.  \\
\textsuperscript{193} Id. at 62.  \\
\textsuperscript{195} Id.  \\
\textsuperscript{196} Id.
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pany says is an “affront to the conservation efforts of legitimate customers.”197 Theft of electricity is a concern for utility customers as well, because it increases electricity prices for legitimate consumers.198 While theft of electricity is a significant and persistent concern, BC Hydro and other utilities reduce losses with a number of different strategies, such as setting up anonymous tip lines, implementing new technology such as theft-detecting system meters and smart meters, and creating revenue protection units that visit suspect locations and inspect them for electrical theft.199

B. CURBING THE HIGH-ENERGY CONSUMPTION OF GROWS

In addition to minimizing waste through power theft, utilities frequently grapple with the high-energy consumption of marijuana grows.200 According to the Mills study, lighting is responsible for thirty-three percent of the energy used for indoor marijuana grows.201 While lighting is not the only culprit to blame for high-energy use, it is the most prominent piece of equipment and the grower’s largest expense.202 Each bulb of an indoor grow light, whether it is high-pressure sodium, high-intensity discharge, or metal halide, consumes 1,000 watts or more of electricity.203 Besides using large amounts of electricity, the lights produce a large amount of heat that must be vacated from grow rooms with fans and air conditioners, which consume energy as well.204 With no current national standards in place for horticultural lighting, utilities and other energy organizations must take on the risky task of promoting and incentivizing efficient energy use in the marijuana industry.205

Investor-owned utilities currently offer cash incentives in the form of rebates for energy efficient equipment in state-legal marijuana industries in Colorado, Washington, and Oregon.206 While some investor-owned utilities are pressing forward and offering cash rebates, public

197 Id.
198 Id.
199 Id.
200 Ferris, supra note 173.
201 Mills, supra note 181, at 60.
202 Ferris, supra note 173.
203 Id.
204 Id.
205 Id.; see also Lisa Cohn, Addressing the Energy-Intensive Marijuana Industry in Oregon, ENERGY EFFICIENCY MARKETS (Jul. 28, 2015), http://energyefficiencymarkets.com/addressing-energy-intensive-marijuana-industry/ (Energy Trust of Oregon already offers legal medical marijuana facilities that seek to save energy and reduce costs incentives through their Production Efficiency program).
206 Id.
utilities generally refrain from doing so, citing concerns of federal criminal prosecution and the loss of federal grant money to the state. In today’s society, although often overlooked, electricity is a unique and essential element that touches every aspect of modern life. When a shortfall jeopardizes the safety and welfare of a state, that state’s government must act to protect its public interest.

VI. CONCLUSION

While it is unlikely that a utility that simply supplies electricity to a marijuana business would be implicated for racketeering or aiding and abetting, the federal government could take explicit steps to protect utilities that are acting strictly within their state mandates. For instance, FERC could issue an order stating that utilities are protected from prosecution if acting strictly within their state regulatory directives to provide electricity to all state-legal entities within their service territory. Congress could pass legislation authorizing public utilities and other recognized businesses to engage in commerce with marijuana businesses in states that have legalized marijuana, so long as their actions amount to hands-off involvement in providing the types of services that any recognized legal business would require. A third and possibly more promising approach would be for the Supreme Court to create a bright-line rule offering public utilities and other service providers protection from federal prosecution, so long as their involvement amounts to the same type of hands-off service they provide other legally recognized businesses. For utilities, this would essentially amount to an affirmation that electric energy service for grows is to be treated the same as other customers.

Further, full federal decriminalization or legalization would create new possibilities for protecting citizens, because it would allow the marijuana industry to address energy issues through legitimate regulatory measures such as codes, standards, and incentives. These measures would help reduce energy use and its by-products. In addition, decriminalizing or legalizing marijuana would allow state legal marijuana businesses to operate by the same rules as other federally recognized legal businesses, and eliminate the conflict between marijuana businesses and those currently recognized businesses like public utilities. Instead of making federally recognized legal businesses choose between

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207 Id.
209 Id.
210 Mills, supra note 181.
abiding by federal or state law, Congress should observe the voice of the national population and decriminalize or legalize marijuana. Without Congressional action, law-abiding public utilities that are merely fulfilling their state statutory obligations will likely still face uncertainty in business operations and the lingering threat of federal litigation.