

SYMPOSIUM: THE POPE’S ENCYCLICAL AND CLIMATE CHANGE POLICY  
ENERGY, CONSUMPTION, AND THE AMORALITY OF ENERGY LAW

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As the world turns its attention to Paris this December, all eyes will be on international decisionmakers, including those from the United States, to see if meaningful progress on climate change can finally be made. Climate change, of course, is the great environmental challenge of our time, a challenge that is irrevocably bound up with energy production and consumption. This “super wicked” problem long has been seen as a political, economic, ecological, and social one.<sup>1</sup> However, as Pope Francis’ encyclical makes clear, it is a moral problem as well.

Every law embodies moral value. Law is not just prescriptive or deterrent, but also has symbolic effect and communicates the ethics and ideals of society. It is a profound statement, then, to assert that the laws and policies of the United States when it comes to energy are effectively amoral.

The amorality of U.S. energy law and policy is no accident. Quite the contrary, U.S. energy law and policy are amoral by careful design. Their core objective is to ensure the wide availability of plentiful energy supplies at low cost.<sup>2</sup> These goals are intrinsically intertwined with a core assumption of many modern industrial nations—that growth is needed, and that increased energy use necessarily fuels growth.<sup>3</sup> Those goals have little to do, however, with morality, with right and wrong. Thus, in the literal sense of the term, U.S. energy law is amoral.

Growth itself, of course, is neither moral nor immoral, just as consumption itself is neither good nor evil. The real question is what kind of growth, and what type of consumption, is being pursued. However, by hitching our wagon to the ever-receding star of ever-increasing growth, the amorality of U.S. energy law and policy is assured. By definition, our relentless pursuit of this aim facilitates and drives the provision of more and more energy, simply for the sake of more and more energy, irrespective of whether that energy is put to good or not.

This amorality, moreover, has important consequences. U.S. energy law and policy favor consumption. And while consumption per se is neither good nor evil, the consumption enabled by the energy transition of the past two centuries has proven particularly problematic. “The pace of consumption, waste and environmental change,” Pope Francis recently observed in his pathmarking encyclical “has so stretched the planet that our contemporary lifestyle, unsustainable as it is, can only precipitate catastrophes . . . .”<sup>4</sup>

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<sup>1</sup> See, e.g., Richard J. Lazarus, *Super Wicked Problems and Climate Change: Restraining the Present to Liberate the Future*, 94 CORNELL L. REV. 1153 (2009).

<sup>2</sup> Joseph P. Tomain, *The Dominant Model of United States Energy Policy*, 61 U. COLO. L. REV. 355 (1990). On the use of fossil fuels to do so, see, for example, Uma Outka, *Environmental Law and Fossil Fuels: Barriers to Renewable Energy*, 65 VAND. L. REV. 1679 (2012).

<sup>3</sup> POPE FRANCIS, *ENCYCLICAL LETTER LAUDATO SI’ OF THE HOLY FATHER FRANCIS ON CARE FOR OUR COMMON HOME*, para. 106 (2015).

<sup>4</sup> *Id.* at para. 161.

Nonetheless, in their pursuit of cheap and abundant energy supplies, law- and policy-makers in the United States have erected and embedded legal structures that ensure energy decisionmaking occurs with a sharp bent toward the twin aims of abundant and inexpensive power. To do so, these structures largely divorce the consequences of energy use from consumers. As a result, the system encourages not just consumption but blind consumption. Energy consumers' choices are partial choices at best. They do not feel or even see the effects of their decisions. They do not always know, or think about, whether the energy they are consuming is for good, and even when they do, the local, regional, and global impacts of that use are rarely clear. U.S. energy law and policy, then, are not just amoral themselves. They breed amorality into society as well.

### *Energy Consumption and Amorality*

It is undeniable that the energy revolution of the last centuries has created a fundamentally different society than those of earlier eras.<sup>5</sup> In the twenty-first century, super tankers move trillions of gallons of oil across tumultuous seas to distant ports,<sup>6</sup> we store vast amounts of information in “clouds” made possible by extensive electricity and information networks, and both hipsters and grandparents send instantaneous messages using smartphones, which are hardly phones at all but rather massively powerful personal-computers-cum-twenty-first-century-technological-Swiss-Army-knives that fit in the palm of your hand. This is a far cry from the early days of our early energy system, when petroleum was stored in whiskey barrels, moved by horse and buggy, and used to replace whale oil for lighting.<sup>7</sup> Those days are long gone, as the transformation of the energy system has helped extend life expectancy, improve quality of life, and enable the globalization of the world economy to the point that it is increasingly flat.

Much, if not all, of this is good. But not all consumption is good, and the energy revolution also has made possible new brands of—and much greater—consumption than ever before. Consumption, including energy consumption, can improve individuals' quality of life, but it also can perpetuate waste, heighten individualism, and create inequality, as the Pope notes.<sup>8</sup>

Throughout society, and thus throughout our energy system, these problems persist in a multitude of ways. On a daily basis, energy is wasted, whether directly through lights that are left on, or diffusely when millions of people drive SUVs or other gas guzzlers rather than more efficient vehicles, or invisibly from “vampire” devices that draw power from the grid even when they are not in use. The energy law and policy system also highly values individualism, as single occupancy vehicles prevail over car pools, personal cars and trucks dominate rather than mass transit, and homes are cooled well below 72 degrees in the summer and heated well above that in the winter. The ability of individuals to make these choices perpetuates and exacerbates inequality, both locally as the rich and middle class consume immense sums of energy in mansions and McMansions while the poor struggle, and globally as the North sucks up energy at a withering pace while the South goes hungry in its wake.<sup>9</sup>

Those using power in this way, of course, do not necessarily wish this result. The market system, the political system, and the geosocial system make it possible, and the option is too tempting to turn away.<sup>10</sup> Moreover, that choice, often, is not a choice at all. We don't think about electricity, or oil, or energy, much at all. And we

<sup>5</sup> *Id.* at para. 53.

<sup>6</sup> See LINCOLN L. DAVIES ET AL., ENERGY LAW AND POLICY 609 (2014) (noting that in the first decade of this century, tankers moved 46 trillion barrels of oil).

<sup>7</sup> See generally DANIEL YERGIN, THE PRIZE: THE EPIC QUEST FOR OIL, MONEY AND POWER (2008).

<sup>8</sup> POPE FRANCIS, supra note 3, at paras. 22, 162, 204, 222.

<sup>9</sup> *Id.* at paras. 52-53.

<sup>10</sup> *Id.* at paras. 55-56.

certainly do not always, or usually, know the full consequences of our choices. Without such knowledge, one can hardly say that those who use energy in this way are acting immorally. Their use of energy, rather, is all too often simply amoral—based on a presumption, an assumption, a given, really—that energy will always be there for the taking.

The lack of a real choice persists, in part, because those who use energy do not know what it really means to throw a light switch or start a car. Those actions are far removed from the immense processes they actually initiate: the moving of bulldozers, for instance, and the detonation of explosives, to extract coal, which is processed, and transported, and processed again, and burned, and used to create heat to turn a turbine to spin a generator to put electrons onto the grid to deliver them vast distances to my home and your business, in constant instantaneous balance each time demand goes up or down. Nor does the individual starting the car feel the full consequences of that decision. They do not breathe the exhaust, or taste the water contaminated by the oil spill, or feel the pain of the sage grouse displaced by the extraction well pad, even though that chain of events is put in motion every time they push the gas pedal.

In economic terms, these are market failures. Imperfect information means market participants make imperfect decisions. The failure of law to internalize negative externalities means that pollution persists, the climate changes, and human health suffers. Clear consequences, true, but clearer still when put in terms of morality. In moral terms, delivering energy in this way means that the decisions energy consumers make are typically amoral, if they are decisions at all rather than merely a perpetuation of the biases the system puts in place.

### *Energy Consumption and Energy Law*

A key role of law is to correct market failures. A typical reaction of the law to information asymmetries is to mandate information disclosure, such as securities law does for decisions that create material risk for investors.<sup>11</sup> The standard response to negative externalities is to regulate, to force those imposing the externality to feel the full effect of their actions, that is, to internalize the cost.

A problem with energy law is that it only sometimes does this, and typically then only in ways that center on questions of dollars and cents. The Federal Power Act and the Natural Gas Act require jurisdictional sellers to file rate schedules with the Federal Energy Regulatory Commission,<sup>12</sup> but they do nothing to tell home and business owners how the electricity or natural gas they are using affects their neighbors, the fish, or the sea. The Atomic Energy Act mandates safe nuclear reactor operation,<sup>13</sup> and the Price-Anderson Act creates a nuclear energy liability fund,<sup>14</sup> but neither guarantees against a disaster like Fukushima.<sup>15</sup> Energy law, instead, focuses heavily on restricting utility market power, and ensuring maximum yield of oil and gas fields, and to some degree encouraging technological innovation.<sup>16</sup>

To be sure, modern environmental law has sought (and in many cases succeeded) to internalize some of the external costs of energy production and consumption. The Clean Air Act,<sup>17</sup> perhaps most notably, has forced

<sup>11</sup> See, e.g., Vijay Sekhona, *Enforcement of Material Non-Disclosure Under the Federal Securities Laws*, 16 STAN. J.L. BUS. & FIN. 273 (2011).

<sup>12</sup> See, e.g., *Montana-Dakota Utils. Co. v. Northwestern Pub. Serv. Co.*, 341 U.S. 246 (1951); *United Gas Pipe Line Co. v. Mobile Gas Serv. Corp.*, 350 U.S. 332 (1956); *FPC v. Sierra Pac. Power Co.*, 350 U.S. 348 (1956).

<sup>13</sup> 42 U.S.C. §§ 2001 *et seq.*

<sup>14</sup> 42 U.S.C. §§ 2210 *et seq.*

<sup>15</sup> For more on the disaster at Fukushima, see, for example, Lincoln L. Davies, *Beyond Fukushima: Disasters, Nuclear Energy, and Energy Law*, 2011 B.Y.U. L. REV. 1937; THE NATIONAL DIET OF JAPAN, THE OFFICIAL REPORT OF THE FUKUSHIMA NUCLEAR ACCIDENT INDEPENDENT INVESTIGATION COMMISSION (2012); Evan Osnos, *The Fallout: Letter from Fukushima: Seven Months Later: Japan's Nuclear Predicament*, NEW YORKER, Oct. 17, 2011, at 46.

<sup>16</sup> DAVIES ET AL., *supra* note 6, at 165-96.

<sup>17</sup> 42 U.S.C. §§ 7401 *et seq.*

power plants to install scrubbers and other technology, vehicles to reduce their emissions, and states to plan how to protect the health of their citizens. Other laws, like RCRA,<sup>18</sup> Superfund,<sup>19</sup> the Clean Water Act,<sup>20</sup> and the Migratory Bird Treaty Act,<sup>21</sup> have ensured that energy processes function more cleanly, pollute less, and are remediated when they do contaminate. And to be sure, environmental law and energy law have in some ways begun to function together,<sup>22</sup> as seen in the example of Corporate Average Fuel Economy (CAFE) standards, which seek to achieve both the environmental objective of cleaner air and the energy aims of efficient consumption and energy security.

The more complete truth, however, is that energy law and environmental law long have functioned as separate bodies, implemented by different administrators, while working toward divergent aims.<sup>23</sup> Environmental law fundamentally is about protecting health and ecosystems. Energy law ultimately is about ensuring ample supplies of power at low cost. The disconnect between these fields necessarily means that energy decisionmaking never functions with full information, or in the context of a full internalization of the energy system's external effects on society.

This is in part because the overarching aim of U.S. energy law and policy is to promote abundant supplies of energy at the lowest cost. That pursuit, in turn, feeds the ability of individuals—and society in general—to consume more and more power. The Natural Gas Act, for example, seeks to ensure “just and reasonable” rates for natural gas in the wholesale market,<sup>24</sup> just as state public utility and service commissions seek to guarantee low prices for retail customers. State conservation regulations attempt to ensure maximum production from oil and gas fields,<sup>25</sup> just as government investment in energy research and development aims to promote the ongoing availability of energy at the levels it is demanded by society for any purpose. Energy law's nearly singular focus on cheap and abundant supplies, then, does not just encourage consumption. It virtually guarantees it.

Energy law, moreover, does not simply promote consumption. By creating structures that divorce energy consumers from complete information about the full effects of their choices, the law perpetuates and reinforces the structure of the energy system itself, which delivers a convenient end product to consumers, who are insulated from the complexity and immensity of the system they are using. Thus energy law embraces a kind of gospel of the infinity while clinging to a dogma of invisibility. By seeking to make sure the lights never go out and that transport fuel is never again rationed, the law creates an illusion for consumers that energy supplies are essentially limitless—or ought to be. By minimizing prices and treating energy as much a public good as an economic commodity, the law dampens and hides economic signals, making energy and energy use virtually imperceptible.

The nation built its two basic energy systems, electricity and transport, precisely to encourage these outcomes. Electricity and gasoline arrive magically to the consumer through vast systems that get built, often, underground or out of sight. The resources they deliver are always there and can be used with little or no thought. And then, energy law does not push back against this method of functioning. It enables it.

<sup>18</sup> 42 U.S.C. §§ 6901 *et seq.*

<sup>19</sup> 42 U.S.C. §§ 9601 *et seq.*

<sup>20</sup> 33 U.S.C. §§ 1251 *et seq.*

<sup>21</sup> 16 U.S.C. § 703-12.

<sup>22</sup> Amy J. Wildermuth, *The Next Step: The Integration of Energy Law and Environmental Law*, 31 UTAH ENVTL. L. REV. 369 (2011).

<sup>23</sup> Lincoln L. Davies, *Alternative Energy and the Energy-Environment Disconnect*, 46 IDAHO L. REV. 473 (2010); Amy J. Wildermuth, *Environmental Law: A Barrier to Emerging Alternative Energy Sources?*, 46 IDAHO L. REV. 509 (2010).

<sup>24</sup> See, e.g., *FPC v. Hope Natural Gas Co.*, 320 U.S. 591 (1944).

<sup>25</sup> Bruce M. Kramer & Owen L. Anderson, *The Rule of Capture—An Oil and Gas Perspective*, 35 ENVTL. L. 899, 899 (2005).

*Toward a New Energy Future?*

For the world to grapple with the massive dilemma of climate change, it also must face head on the challenge of transforming, again, the global energy system. Some, possibly much, of this may be done by changing the way we produce energy. A transition to renewables and other low carbon resources, rather than our current reliance on greenhouse gas emitting fossil fuels, would both better internalize the full cost of energy use and allow consumers to use energy in a less deleterious way.<sup>26</sup> Calls for a revolution in how we produce energy, then, are hardly surprising—and certainly needed.

Indeed, the importance of this possibility and the potential it holds for the global energy system cannot be overstated. A clean energy transition would not just render energy production and consumption more sustainably, ecologically sound, and beneficial.<sup>27</sup> It would also mark a move to a more just energy world. Indeed, some initial steps in this vein are already being taken. The vast majority of states across the nation have adopted laws to change the composition of their electricity portfolios.<sup>28</sup> The Obama administration's issuance of its Clean Power Plan may help finish that job,<sup>29</sup> just as CAFE standards aimed at limiting greenhouse gas emissions from cars already have made some strides.<sup>30</sup>

Still, even efforts as bold as these do not add up to an energy revolution. They are, indeed, beginnings at best, and moreover do little to transform the way individuals interface with our energy systems, including to ensure that they begin to understand the way energy is produced and consumed. To truly move energy consumption from the amoral to the moral, then, systematic change alone will not be enough. Even a cleaner energy system will have some environmental and social justice consequences, just as greater reliance on sustainable energy sources cannot actually make energy supplies limitless.

Thus, critical organizational changes to our energy systems and the way we govern them must be combined with more incisive adjustments that connect individuals more directly to those systems and the way they use them. Consumers deserve more information and more accurate information. They need more signals and clearer signals. They require a greater understanding of what it actually means when they use the energy system, including how it affects others.

As is the case for climate change, some such efforts are already underway. Many, too, will have climate benefits. This is the very idea of the smart grid, for instance, which is beginning to connect utilities to consumers, and consumers to utilities, more integrally.<sup>31</sup> This will foster a more efficient system in which less energy is wasted and consumers have both more information and more power to control how they use that information on a moment-to-moment basis. Homeowners and business operators who want to achieve greater energy morality could, for example, decrease energy use, opt to receive power only from clean energy sources, or help make the system more efficient and reliable by producing or storing power onsite. Myriad other options are on the horizon, some already emerging, many yet unseen.

<sup>26</sup> Stephen Pacala & Robert Socolow, *Stabilization Wedges: Solving the Climate Problem for the Next 50 Years with Current Technologies*, SCIENCE, Aug. 13, 2004, at 968; see also POPE FRANCIS, *supra* note 3, at para. 23 (“The problem is aggravated by a model of development based on the intensive use of fossil fuels, which is at the heart of the worldwide energy system.”).

<sup>27</sup> See generally JOSEPH P. TOMAIN, *ENDING DIRTY ENERGY POLICY: PRELUDE TO CLIMATE CHANGE* (2011).

<sup>28</sup> See, e.g., Lincoln L. Davies, *Power Forward: The Argument for A National RPS*, 42 CONN. L. REV. 1339 (2010); see also Database of State Incentives for Renewables & Efficiency, *Renewable Portfolio Standard Policies* (Sept. 2014).

<sup>29</sup> *Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units*, 80 Fed. Reg. 64,662 (Oct. 23, 2015).

<sup>30</sup> 40 C.F.R. Parts 85, 86, 600, 1033, 1036, 1037, 1039, 1065, 1066, and 1068 (2015); 49 C.F.R. Parts 523, 534, and 535 (2015).

<sup>31</sup> For more on the smart grid, see, for example, Joel B. Eisen, *Smart Regulation and Federalism for the Smart Grid*, 37 HARV. ENVTL. L. REV. 1 (2013).

Paris this December is thus a momentous gathering not just for climate change per se but, potentially, for the future of the planet itself. A result that the United States—or any nation whose laws promote the same ideals of cheap and abundant energy—commits to real efforts on climate change will necessarily mean infusing into the energy law and policy system a new and different set of values.

A result that also spurs the world along a path where energy consumers begin to see—and face—the consequences of their energy decisions would be a greater improvement still. Only then might we start to “no longer view reality in a purely utilitarian way, in which efficiency and productivity are entirely geared to our individual benefit,” as Pope Francis has urged.<sup>32</sup> Only then can the possibility of true energy morality begin to emerge.

<sup>32</sup> POPE FRANCIS, *supra* note 3, at para. 159.