

# What Can the Abolition of Slavery Teach Us About Climate Change? Local Action in the Liquefied Natural Gas Controversy

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*Are you an idiot deceiver or just plain [sic] stupid? I have news for you. There is no such thing as man-made global warming!!!! It's quite possibly the largest fraud in human history!!!! CO<sub>2</sub> is plant*

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*food! I'm leaving now to increase my carbon footprint which I know will HELP society. If you're still worried, then please by all means, just kill yourself!*

- Email sent to Professor Andrew J. Hoffman, after he compared climate change mitigation to the abolition of slavery<sup>1</sup>

## I. INTRODUCTION: WHAT WOULD JON VAN DYKE DO?

If I learned one thing from Professor Jon Van Dyke, it was the value of using polite, persistent, and persuasive<sup>2</sup> dialogue as a tool to untangle difficult problems. He taught me that even the most zealously opposed advocates can use constructive analysis to understand their respective positions, and move closer to practical solutions.

Disappointingly, today's climate crisis too often invokes dialogue that deviates from Van Dyke's proven recipe; the email quoted at the beginning of this article is but one example. That email arose after the management journal *Organizational Dynamics* published a paper by Professor Andrew Hoffman.<sup>3</sup> Hoffman argued that climate change is an issue with cultural roots, and that despite this, we tend to overlook social and behavioral dimensions in favor of technological and economic ones.<sup>4</sup> Hoffman analogized his thesis to the example of cigarette smoking: "For years, the scientific community recognized that the preponderance of epidemiological and mechanistic data pointed to a link between cigarette smoking and cancer. And for years, the general public consciousness ignored that fact."<sup>5</sup>

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<sup>1</sup> Professor Hoffman is the Holcim Professor of Sustainable Enterprise at the University of Michigan, a joint appointment at the Stephen M. Ross School of Business and the School of Natural Resources & Environment. This and other email responses to Professor Hoffman are available at <http://beccconference.org/wp-content/uploads/2012/11/BECC-November-2012b-Hoffman.pdf>.

<sup>2</sup> "Polite, persistent, persuasive." Those are the words Professor Denise Antolini used to memorialize Professor Van Dyke. *Obituary: Jon Markham Van Dyke*, WILLIAM S. RICHARDSON SCHOOL OF LAW (Dec. 9, 2011), <https://www.law.hawaii.edu/news/2011/12/09-0>.

<sup>3</sup> Andrew J. Hoffman, *Climate Change as a Cultural and Behavioral Issue: Addressing Barriers and Implementing Solutions*, 39 ORGANIZATIONAL DYNAMICS 295 (2010).

<sup>4</sup> *Id.*

<sup>5</sup> *Id.* at 296.

In this, Hoffman found an illustration of the importance of turning anthropogenic climate change into a “social fact,” rather than a “scientific fact,” if we hope to alter the behavioral patterns that created and prolong the climate crisis.<sup>6</sup>

For a second illustration, Hoffman asserted that “the magnitude of the cultural and moral shift around climate change is as large as that which accompanied the abolition of slavery.”<sup>7</sup> Perhaps not surprisingly, Hoffman’s comparison to slavery sparked attention in circles outside the traditional readership of management journals. On October 27, 2010, the New York Times Green Blog<sup>8</sup> picked up Hoffman’s slavery analogy, followed by various other internet sites. In telling the story of what happened next, Hoffman uses a collection of inane and offensive emails that found their way to his inbox.<sup>9</sup> He was accused of being a “racist,” a “sonabitch green terrorist,” and a “falsifying sh-thead[.]”<sup>10</sup> Interestingly, the author of the email reprinted at the beginning of this paper chose to describe climate change as “possibly the largest fraud in human history”—even in the context of discussing the indescribably immense fraud of relegating human beings to property status based on nothing more than skin pigmentation.

Upon learning about Hoffman’s experience, I began to wonder, what would Jon Van Dyke do—or in shorthand, WWJVDD? I am certain that he would have demanded more. Expletive-laden diatribe does not move us closer to a workable consensus on climate change and its solutions.

Following Van Dyke’s example, I examine the abolition/climate change analogy more closely, and conclude that the history of abolition teaches us to recognize both sides of the dichotomy that separates global climate mitigation strategies from local ones. In short, the world needs local climate solutions just as urgently as it needs global ones. Neither strategy is likely to work without the other.

I then apply this “local action” paradigm to Hawai‘i, a place that Van Dyke cared for deeply. Despite Hawaii’s geographic isolation, we must ensure that local climate responses are incorporating an appropriately broad

<sup>6</sup> *Id.* at 295-96.

<sup>7</sup> *Id.* at 296.

<sup>8</sup> See John M. Broder, *A Cultural Barrier to Action on Climate Change*, N.Y. TIMES GREEN BLOG (October 27, 2010, 12:33 pm), <http://green.blogs.nytimes.com/2010/10/27/a-cultural-barrier-to-action-on-climate-change>.

<sup>9</sup> See Andrew Hoffman, *Culture, Ideology and a Social Consensus on Climate Change*, Address at the 2012 Conference on Behavior, Energy and Climate Change 45 (November 12, 2102), available at <http://becccconference.org/wp-content/uploads/2012/11/BECC-2012-2012b-Hoffman.pdf> (last visited Apr. 5, 2013).

<sup>10</sup> *Id.*

view of how those decisions have global impacts. In Hawai'i, that reality is easy to see in the current debate surrounding the importation of liquefied natural gas ("LNG" or more appropriately, "industrialized methane")—a greenhouse gas 21 times stronger than carbon dioxide. In the midst of that debate, a marketing blitz by the gas utility is sadly blurring the lines between scientific and social facts. But analysis of those facts reveals several opportunities reminiscent of the abolitionists' local action toolbox. With appropriate regulation, taxation, and litigation, we can ensure that if Hawai'i chooses to expand its fossil fuel portfolio and import industrialized methane, the decision is made with a full accounting of the costs and benefits.

## II. THE SLAVERY/CLIMATE ANALOGY

### A. Testing the Analogy's Boundaries

Hoffman's slavery analogy<sup>11</sup> is constructed from several valid observations:

[I]n the 18th century more than 75% of the world's population was in slavery or serfdom. Humans were a primary source of energy and wealth, particularly for the dominant world power, Great Britain. . . . '[I]f you stood on a London street corner and insisted that slavery was morally wrong and should be stopped, nine out of 10 listeners would have laughed you off as a crackpot.' . . . Now, flash forward to today. We live in a fossil fuel-based economy. Fossil fuels are our primary source of energy and support our entire way of life. . . . Just as few people saw a moral problem with slavery in the 18th century, few people in the 21st century see a moral problem with the burning of fossil fuels.<sup>12</sup>

Thus, the analogy certainly appears to capture some of the economic and ethical<sup>13</sup> dimensions that frame the current climate crisis.

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<sup>11</sup> Hoffman is not the only scholar to utilize this analogy. See, e.g., Albert C. Lin, *Evangelizing Climate Change*, 17 N.Y.U. ENVTL. L.J. 1135, 1169 (2009); Craig Segall, *Darkness, Visible: Global Warming and British Anti-Slavery*, 36 ENVTL. L. REP. 10845 (2006); Marc D. Davidson, *Parallels in Reactionary Argumentation in the US Congressional Debates on the Abolition of Slavery and the Kyoto Protocol*, 86 CLIMATIC CHANGE 67 (2008).

<sup>12</sup> Hoffman, *supra* note 3, at 296 (quoting ADAM HOCHSCHILD, *BURY THE CHAINS: PROPHETS AND REBELS IN THE FIGHT TO FREE AN EMPIRE'S SLAVES* 7 (2005)).

<sup>13</sup> See, e.g., Maxine Burkett, *Rethinking the North-South Divide: Climate Reparations*, 10 MELB. J. INT'L L. 509, 510 (2009).

The impacts of climate change are experienced unevenly, with the most vulnerable—the 'climate vulnerable'—set to suffer first and worst. The current and anticipated impacts demonstrate a grand irony: those who will suffer most acutely are also those

But what are the boundaries of Hoffman's argument? To start, no analogy can perfectly capture the depth and breadth of human suffering and inequality borne directly from slavery. Similarly, it is difficult to draw climate analogies that properly illustrate the scope of human activities that impact every corner of the globe. For Hoffman and others this highlights a "new cultural reality": "humankind has grown to such numbers and our technologies have grown to such a capacity that we can, and do, alter the Earth's ecological systems on a planetary scale. It is a fundamental shift in the physical order—one never before seen."<sup>14</sup> From a physical perspective, climate change is being driven by atmospheric greenhouse gas concentrations that are higher today than at any other time in the human experience.<sup>15</sup> Some experts have thus dubbed this a no-analogue situation.<sup>16</sup>

### *B. Local Response as a Precursor to Wider Cooperation on Abolition*

The second piece of Hoffman's new "reality is that we share a collective responsibility and require global cooperation to solve [the climate crisis]." He argues that "[t]he coal burned in Ann Arbor, Shanghai or Moscow has an equal impact on the environment we all share. The kind of cooperation

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who are least responsible for the crisis to date. That irony introduces a great ethical dilemma, one that our systems of law and governance are ill-equipped to accommodate.

*Id.*; see also Ved P. Nanda, *Climate Change and the Developing Country: The International Law Perspective*, 16 ILSA J. INT'L & COMP. L. 539, 543 (2010) ("All indications are that the brunt of the adverse impacts of global climate change will be felt hardest by some of the poorest and most vulnerable communities, which have already begun to suffer from its effects.").

<sup>14</sup> Hoffman, *supra* note 3, at 296; see also Burkett, *supra* note 13, at 509 ("The climate crisis introduces an existential and moral dilemma of unparalleled proportions.").

<sup>15</sup> See, e.g., Intergovernmental Panel on Climate Change, CLIMATE CHANGE 2007: THE PHYSICAL SCIENCE BASIS: CONTRIBUTION OF WORKING GROUP I TO THE FOURTH ASSESSMENT REPORT OF THE IPCC § 6.4.1.1 Fig. 6.3 (2007) (reporting atmospheric carbon dioxide concentration through the last 600,000 years, ranging from approximately 180 to 300 parts per million); *Trends in Atmospheric Carbon Dioxide Concentration*, U.S. DEP'T OF COMMERCE NAT'L OCEANIC & ATMOSPHERIC ADMIN., <http://www.esrl.noaa.gov/gmd/ccgg/trends> (last visited Apr. 6, 2013) (reporting Feb. 2013 atmospheric carbon dioxide concentration of more than 396 parts per million).

<sup>16</sup> See, e.g., J.B. Ruhl, *Climate Change and the Endangered Species Act: Building Bridges to the No-Analog Future*, 88 B.U. L. REV. 1, 11 (2008) (citing Douglas Fox, *Back to the No-Analog Future?*, 316 SCIENCE 823, 823 (2007)) (describing the "no-analog" problem in the context of climate change and ecosystem management).

necessary to solve this problem is far beyond anything we, as a species, have ever accomplished before.”<sup>17</sup>

Similar assertions about the need for global cooperation have been made in the legal context, with astute analyses of the tools, opportunities, and challenges associated with addressing climate change in the international realm.<sup>18</sup> Here again, we see the abolition analogy fitting the facts; one early success of the abolitionist movement was the 1815 Declaration Relative to the Universal Abolition of the Slave Trade, the “first international instrument to condemn [the slave trade].”<sup>19</sup>

However, analogizing to the abolition of slavery also allows room for another perspective. International cooperation did not act alone to abolish slavery.<sup>20</sup> For example, the United States acted unilaterally to outlaw slavery in 1865 with the 13th amendment.<sup>21</sup> In the British colonies, slavery was outlawed by the Slavery Abolition Act of 1833.<sup>22</sup> Furthermore, by 1808 the United States and Great Britain<sup>23</sup> had each independently attacked the slave trade by outlawing the importation of slaves (although the institution of slavery remained in place).<sup>24</sup> In perhaps the clearest example

<sup>17</sup> Hoffman, *supra* note 3, at 296.

<sup>18</sup> See, e.g., Nanda, *supra* note 13.

<sup>19</sup> Kevin Bales & Peter T. Robbins, *No One Shall Be Held in Slavery or Servitude: A critical analysis of international slavery conventions*, HUMAN RIGHTS REV., Jan.—Mar. 2001, at 18-19, available at [http://oro.open.ac.uk/5033/1/Bales\\_and\\_Robbins.pdf](http://oro.open.ac.uk/5033/1/Bales_and_Robbins.pdf) (“The 1815 Declaration Relative to the Universal Abolition of the Slave Trade . . . was the first international instrument to condemn [the slave trade], and one of the abolitionist movement’s first clear achievements.” (internal citations omitted)).

<sup>20</sup> Undoubtedly, some readers will find additional parallels between slavery and climate change, and some will find discordances. Also, huge portions of the world population still live in an economic state akin to serfdom, and the impacts of pre-19th century slavery are still being suffered today. An active modern slave trade is evidenced by intolerably numerous human rights violations, such as human trafficking. Thus, it is incorrect to suggest that the problem of slavery has been solved. *Cf. id.* at 18:

Slavery as a social and economic relationship has never ceased to exist during recorded history, but the form that it takes and its definition have evolved and changed. . . . [N]one of the more than 300 laws and agreements written since 1815 to combat it has been totally effective.

<sup>21</sup> See U.S. CONST. amend. XIII, § 1 (“Neither slavery nor involuntary servitude, except as a punishment for crime whereof the party shall have been duly convicted, shall exist within the United States, or any place subject to their jurisdiction.”).

<sup>22</sup> The Slavery Abolition Act 1833, 3 & 4 Will. 4, c. 73 (Eng.) (repealed 1998), available at [http://www.pdavis.nl/Legis\\_07.htm](http://www.pdavis.nl/Legis_07.htm) (with troubling exceptions for “Territories in the Possession of the east India Company,” the “Island of Ceylon [Sri Lanka],” and the Island of Saint Helena,” eliminated in 1843).

<sup>23</sup> This brief historical review is limited to the United States and Great Britain, but the abolitionist movement grew in many different places.

<sup>24</sup> See Slave Trade Act, 1807, 47 Geo. 3, c. 36 (Eng.), available at <http://www.pdavis.nl/>

of unilateral action, Great Britain's Royal Navy tasked its West Africa Squadron with enforcing the 1807 Act by patrolling the coast of West Africa for ships carrying slaves—essentially using military force to interfere with international shipping.<sup>25</sup> Even earlier, Great Britain's 1788 Dolben's Act imposed regulations on shipping conditions for slaves to chip away at the slave trade.<sup>26</sup> In the United States, some members of Congress apparently attempted to levy a tax on the importation of slaves as punishment for South Carolina lifting its ban on importation in 1804.<sup>27</sup>

Other early legal responses were focused even more locally. For example, in the *Quock Walker* cases, Chief Justice William Cushing of the Massachusetts Supreme Court<sup>28</sup> declared in 1788 that slavery was incompatible with the rights guaranteed in the 1780 Massachusetts constitution.<sup>29</sup> By 1804, New Hampshire, Vermont, Pennsylvania,

Legis\_06.htm; Slave Trade Prohibition Act, ch. 22, 2 Stat. 426 (1807).

<sup>25</sup> See generally Tara Helfman, Note: *The Court of Vice Admiralty at Sierra Leone and the Abolition of the West African Slave Trade*, 115 *Yale L.J.* 1122, 1132 (2006); Jo Loosemore, *Sailing Against Slavery*, BBC DEVON, [http://www.bbc.co.uk/devon/content/articles/2007/03/20/abolition\\_navy\\_feature.shtml](http://www.bbc.co.uk/devon/content/articles/2007/03/20/abolition_navy_feature.shtml) (last visited Apr. 6, 2013).

<sup>26</sup> See, e.g., Benjamin N. Lawrance & Ruby P. Andrew, A "Neo-Abolitionist Trend" in Sub-Saharan Africa? *Regional Anti-Trafficking Patterns and a Preliminary Legislative Taxonomy*, 9 SEATTLE J. SOC. JUST. 599, 617 (2011) (explaining that the Dolben Act "limited the number of slaves carried by British vessels, thus raising transportation costs and diminishing the incentive for slavers to ship low-value slaves such as children"); see also *The Dolben's Act of 1788*, CHILDREN & YOUTH IN HISTORY, <http://chnm.gmu.edu/cyh/primary-sources/146> (last visited Apr. 6, 2013) (reprinting portions of the Act's text).

<sup>27</sup> See Joel S. Newman, *Slave Tax as Sin Tax: 18th and 19th Century Perspectives*, 101 TAX NOTES 1019, 1021-25 (2003). Newman argues that in the absence of constitutional authority to ban the importation of slaves, some congressional abolitionists attempted to levy a "sin tax" instead:

In 1804, South Carolina, which had previously banned the importation of slaves, lifted its ban. Apparently, they could not enforce it, nor could they afford to try any longer.

Nonetheless, the federal Congress was outraged, and debated a 10 dollar tax on the importation of slaves, largely with a view to punishing South Carolina.

*Id.* But see Paul Finkelman, *The Founders and Slavery: Little Ventured, Little Gained*, 13 *YALE J.L. & HUMAN.* 413, 419 (2001) (arguing that taxation on slaves was a function of economic value rather than a sin tax: "We must assume that tax collectors and investors in slaves were fundamentally rational economic actors, who understood that slavery was profitable.").

<sup>28</sup> Chief Justice William Cushing, a short time later, became a Justice of the United States Supreme Court.

<sup>29</sup> The *Quock Walker* cases were not published, but Chief Justice Cushing's jury charge is reprinted in John D. Cushing, *The Cushing Court and the Abolition of Slavery in Massachusetts: More Notes on the "Quock Walker Case,"* 5 *AM. J. LEGAL HIST.* 118, 133 (1961):

In short, without resorting to implication in constructing the constitution, slavery is in my judgment as effectively abolished as it can be by the granting of rights and

Connecticut, Rhode Island, New York, and New Jersey had each individually enacted gradual emancipation statutes or constitutional provisions similar to Massachusetts'.<sup>30</sup>

These responses to slavery—whether by military force, legislation, or litigation—exemplify a unilateral approach that is the antithesis of international cooperation. Thus if the abolition analogy is to apply to the climate crisis, it can counsel for intensely local action, just as much as it can counsel for international cooperation.

This is essentially the same lesson that Henry David Thoreau described in *Civil Disobedience* in 1849:

Practically speaking, the opponents to a reform in Massachusetts are not a hundred thousand politicians at the South, but a hundred thousand merchants and farmers here, who are more interested in commerce and agriculture than they are in humanity, and are not prepared to do justice to the slave and to Mexico, cost what it may. *I quarrel not with far-off foes, but with those who, near at home, co-operate with, and do the bidding of, those far away, and without whom the latter would be harmless.* We are accustomed to say, that the mass of men are unprepared; but improvement is slow, because the few are not as materially wiser or better than the many. It is not so important that many should be good as you, as that there be some absolute goodness somewhere; for that will leaven the whole lump. There are thousands who are in opinion opposed to slavery and to the war, who yet in effect do nothing to put an end to them; who, esteeming themselves children of Washington and Franklin, sit down with their hands in their pockets, and say that they know not what to do, and do nothing; who even postpone the question of freedom to the question of free trade . . . . They hesitate, and they regret, and sometimes they petition; but they do nothing in earnest and with effect. *They will wait, well disposed, for others to remedy the evil, that they may no longer have it to regret.* At most, they give up only a cheap vote, and a feeble countenance and Godspeed, to the right, as it goes by them. . . . I know this well, that if one thousand, if one hundred, if ten men whom I could name,—if the, honest men only,—ay, if any one man, in this State of Massachusetts, ceasing to hold

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privileges wholly incompatible and repugnant to its existence. The court are therefore fully of the opinion that perpetual servitude can no longer be tolerated in our government, and that liberty can only be forfeited by some criminal conduct or relinquished by personal consent or contract.

(emphasis in reprinted version omitted) (internal quotation omitted).

<sup>30</sup> See, e.g., Paul Finkelman, *Introduction: "Let Justice Be Done, Though the Heavens May Fall": The Law of Freedom*, 70 CHI.-KENT L. REV. 325, 334-35 (1994). The 1772 Somerset case had a similar impact in Great Britain. *Somerset v. Stewart*, (1772) 98 Eng. Rep. 499, 510 (K.B.).



slaves, were actually to withdraw from this co-partnership, and be locked up in the county jail therefor, it would be the abolition of slavery in America.<sup>31</sup>

Thoreau's next line perfectly summarizes the thrust of the local action paradigm: "*For it matters not how small the beginning may seem to be: what was once well done is done forever.*"<sup>32</sup>

### III. HAWAII'S OPPORTUNITIES FOR LOCAL ACTION ON CLIMATE CHANGE, ILLUSTRATED BY THE DEBATE OVER INDUSTRIALIZED METHANE (LNG)

Armed with the conclusions drawn from the abolitionist "local response" paradigm, WWJVDD? Professor Van Dyke cared deeply for Hawai'i and its people. After testing the boundaries of the abolition analogy, he very likely would have searched for lessons applicable to his home. Hawai'i finds itself embroiled in a broad policy debate about how to remake its local energy infrastructure, for interrelated reasons stretching from economic security to climate change mitigation. Van Dyke would not have needed to search far to find opportunities to apply the local action lesson.

In particular, a proposal to import industrialized methane (LNG) has recently ignited debate on whether Hawai'i should expand its fossil fuel portfolio. This hotly contested issue provides a blank canvas for Hawai'i to take immediate local action on climate mitigation. And this is especially important in light of recent scientific findings that despite its "clean" reputation, greenhouse gas emissions from the LNG supply chain can render it *worse* for the climate than other fossil fuels.<sup>33</sup> Much like the early, localized abolitionist actions, opportunities for local action on this issue can include trade regulation (like the 1788 Dolben's Act), taxation (like attempts to tax the importation of slaves), or litigation (like the *Quock Walker* cases).

#### *A. The Proposal to Import Industrialized Methane (LNG) to Hawai'i*

Natural gas is a fossil fuel composed primarily of methane (CH<sub>4</sub>).<sup>34</sup> Liquefaction is the industrial process of cooling the gas to approximately -256 °F, "at which point it liquefies and occupies 1/600th of the volume

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<sup>31</sup> HENRY DAVID THOREAU, *Civil Disobedience*, in WALDEN AND CIVIL DISOBEDIENCE 390-97 (Jonathan Levin ed., Barnes and Noble Classics 2003) (1849) (emphasis added and emphasis removed).

<sup>32</sup> *Id.* (emphasis added).

<sup>33</sup> See, e.g., *infra* note 52.

<sup>34</sup> See, e.g., *Background*, NATURAL GAS ORG., <http://www.naturalgas.org/overview/background.asp> (last visited Apr. 6, 2013).

that it does in its gaseous state.”<sup>35</sup> The basic LNG supply chain is: (1) well drilling/extraction;(2) processing/liquefaction; (3) shipping; (4) regasification; and (5) distribution.

Although much of Hawaii’s energy arrives in the form of imported fossil fuels, the State has not historically imported LNG. In August 2012, The Gas Company (Hawaii’s gas utility) sparked an explosive debate by submitting an application to the Federal Energy Regulatory Commission (“FERC”) and describing a “comprehensive, multi-phased LNG strategic plan” to import large quantities of LNG to Hawai‘i.<sup>36</sup> The Company reported that it would “implement its strategic LNG plan in three, mostly parallel, phases.”<sup>37</sup> Phase three would include the construction of “larger, permanent storage and receiving facilities in Hawaii” with “a storage capacity of up to 10 million gallons,” along with the regasification facilities required to convert LNG back to its gaseous form.<sup>38</sup> This new supply would supplant much of the company’s existing feedstock, and additionally “provide fuel for up to 400 MW of both existing and new conventional and/or combined cycle power generation facilities, as well as for industrial and other commercial applications” in the state.<sup>39</sup>

Historically, gas sold by The Gas Company has been produced from oil refinery byproducts, along with a small renewable component.<sup>40</sup> The Gas Company has proclaimed that the gas it sells “doesn’t require us to import one drop of additional oil.”<sup>41</sup> Thus, its request to import large quantities of LNG has the potential to dramatically expand Hawaii’s fossil fuel portfolio. The Company’s application sought FERC approval “in order to expeditiously commence with” this plan.<sup>42</sup> Ultimately, FERC declined to exercise jurisdiction over The Gas Company’s phase 1 application, ensuring

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<sup>35</sup> See, e.g., *FGE FACTS Global Energy, Evaluating Natural Gas Import Options for the State of Hawaii E-1* (April 2007), available at <http://www.hawaiienergypolicy.hawaii.edu/PDF/FGEREvised.pdf>.

<sup>36</sup> Application of the Gas Co., LLC for Authorization Under Section 3 of the Natural Gas Act at 2 (F.E.R.C. No. CP12-498), <http://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=13043701> [hereinafter *FERC Application*].

<sup>37</sup> *Id.*

<sup>38</sup> *Id.* at 22-23.

<sup>39</sup> *Id.* at 23.

<sup>40</sup> *Relating to Renewable Energy: Hearing on H.B. 1464 H.D. 2 Before H. Comm. On Finance, 23d Leg., Reg. Sess. 2* (Haw. 2009) (testimony by The Gas Co., LLC), available at [http://www.capitol.hawaii.gov/session2009/testimony/HB1464\\_HD2\\_TESTIMONY\\_FIN\\_02-27-09\\_4\\_.pdf](http://www.capitol.hawaii.gov/session2009/testimony/HB1464_HD2_TESTIMONY_FIN_02-27-09_4_.pdf) [hereinafter *Hearing on H.B. 1464*].

<sup>41</sup> *Id.*

<sup>42</sup> *FERC Application, supra* note 37, at 3 (describing The Gas Company’s desire “for the regulatory certainty afforded by the issuance of a Commission order authorizing the operation of the Phase 1 Facilities pursuant to NGA Section 3 in order to expeditiously commence with the implementation of its overall LNG strategy”).

that the issue will be addressed via local decision-making.<sup>43</sup> Cutting-edge science demands that these local decisions must examine the global impacts of LNG greenhouse gas emissions.

### *B. LNG—A Greenhouse Gas Wolf in Sheep's Clothing?*

In late 2012, the Hawai'i Natural Energy Institute ("HNEI") commissioned a report on Hawai'i LNG imports.<sup>44</sup> Curiously, HNEI selected The Gas Company's own consultant to prepare the report, raising obvious questions about potential conflicts of interest.<sup>45</sup>

In that report, LNG is touted as "the cleanest of the fossil fuels."<sup>46</sup> Typically, this claim is based on an assumption that LNG can emit less carbon dioxide when burned to generate power, in comparison to other fossil fuels.<sup>47</sup> While this may be true, carbon dioxide emissions from burning are only one part of the greenhouse gas emissions story.<sup>48</sup>

Methane, the primary component of LNG, is itself a potent greenhouse gas. According to the U.S. Environmental Protection Agency ("EPA"), "[d]irect methane emissions released to the atmosphere (without burning) are about 21 times more powerful than CO<sub>2</sub> in terms of their warming effect on the atmosphere."<sup>49</sup> Before gas ever reaches a power plant for burning,

<sup>43</sup> See Order Dismissing Request for Section 3 Authorization, No. CP12-498 (F.E.R.C. Jan. 17, 2013), available at <http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13155176>.

The Gas Company's described facilities and operations would be exempt from our section 7 jurisdiction by either NGA section 1(b), which exempts a company that provides only local distribution services, or section 1(c) (known as the 'Hinshaw' exemption), which exempts a company if it receives all of its interstate gas supplies within its own state, all of the gas it receives is consumed in that state, and the company is subject to regulation by a state commission.

*Id.*

<sup>44</sup> See FGE-FACTS Global Energy, *Liquefied Natural Gas for Hawaii: Policy, Economic, and Technical Questions Evaluating Liquefied Natural Gas for Hawai'i and the Corresponding Policy, Economical, and Technical Questions Associated with Potential Imports* 9 (Dec. 20, 2012), FACTS GLOBAL ENERGY, <http://www.hnei.hawaii.edu/sites/web41.its.hawaii.edu/www.hnei.hawaii.edu/files/story/2013/01/Liquefied%20Natural%20Gas%20for%20Hawaii%20Policy%20Economic%20and%20Technical%20Questions-FINAL.pdf>.

<sup>45</sup> *Id.* at 1.

<sup>46</sup> *Id.* at 164 (asserting that "LNG is not a zero- CO<sub>2</sub> fuel. It is simply the lowest CO<sub>2</sub> fossil fuel.")

<sup>47</sup> In addition, non-methane hydrocarbons, sulfur, and other contaminants can be removed during the processing/liquefaction stage of the LNG supply chain. Burning natural gas also yields little particulate matter.

<sup>48</sup> See *infra* note 50.

<sup>49</sup> EPA CALCULATIONS AND REFERENCES, <http://www.epa.gov/cleanenergy/energy-resources/refs.html> (emphasis added) (last visited Apr. 6, 2013).

methane leakage at various points in the supply chain can therefore have a powerful impact on climate forcing.

To quantify the relative impact of these fugitive methane emissions, in comparison to carbon dioxide emissions, scientists balance methane's higher warming potential against its atmospheric half-life (which is shorter than the atmospheric half-life of carbon dioxide).<sup>50</sup> Combined, these effects are estimated to create a "3.2% threshold beyond which gas becomes worse for the climate than coal" in the near term.<sup>51</sup> In other words, if total methane leakage along the supply chain exceeds this 3.2% tipping point, LNG must be stripped of its "clean" reputation, from a climate change perspective.

Attempts to assess fugitive emissions typically utilize various assumptions about leakage at each stage of the supply chain. Such methods have yielded a wide range of estimated leakage rates (e.g. 1.7% to 7.9% of total well production),<sup>52</sup> spanning both sides of the 3.2% threshold. There is little surprise in the fact that it has been difficult to quantify fugitive methane emissions on an industry-wide scale—the U.S. natural gas system comprises "hundreds of thousands of wells, hundreds of processing

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<sup>50</sup> See, e.g., Ramon A. Alvarez et al., *Greater focus needed on methane leakage from natural gas infrastructure*, 109 PROC. NAT'L ACAD. SCI. 6435 (2012).

Comparing the climate implications of CH<sub>4</sub> and CO<sub>2</sub> emissions is complicated because of the much shorter atmospheric lifetime of CH<sub>4</sub> relative to CO<sub>2</sub>. On a molar basis, CH<sub>4</sub> produces 37 times more radiative forcing than CO<sub>2</sub>. However, because CH<sub>4</sub> is oxidized to CO<sub>2</sub> with an effective lifetime of 12 yr, the integrated, or cumulative, radiative forcings from equi-molar releases of CO<sub>2</sub> and CH<sub>4</sub> eventually converge toward the same value. Determining whether a unit emission of CH<sub>4</sub> is worse for the climate than a unit of CO<sub>2</sub> depends on the time frame considered. Because accelerated rates of warming mean ecosystems and humans have less time to adapt, increased CH<sub>4</sub> emissions due to substitution of natural gas for coal and oil may produce undesirable climate outcomes in the near-term.

*Id.*

<sup>51</sup> *Id.* at 6437.

Much work needs to be done to determine actual emissions with certainty and to accurately characterize the site-to-site variability in emissions. However, given limited current evidence, it is likely that leakage at individual natural gas well sites is high enough, when combined with leakage from downstream operations, to make the total leakage exceed the 3.2% threshold beyond which gas becomes worse for the climate than coal for at least some period of time.

*Id.*

<sup>52</sup> See Robert W. Howarth et al., *Methane and the greenhouse-gas footprint of natural gas from shale formations*, 106 CLIMATIC CHANGE 679, 684 tbl. 2 (2011), available at <http://link.springer.com/article/10.1007/s10584-011-0061-5>. A recent EPA estimate pegged emissions at 2.4%. See Jeff Tollefson, *Methane leaks erode green credentials of natural gas*, 493 NATURE 12 (2013).

facilities, and over a million miles of transmission and distribution pipelines.”<sup>53</sup>

To untangle this issue, scientists from the National Oceanic and Atmospheric Administration and elsewhere have taken a more direct approach. Using sensors mounted on a tower, automobiles, and airplanes to sample the atmosphere, they are directly measuring methane vented from well fields.<sup>54</sup> Applied in and around a well field in Colorado, this methodology found that 4% of well production was being vented into the atmosphere, exceeding the 3.2% threshold.<sup>55</sup>

More recently, the same authors reported that emissions from a well field in Utah are “an eye-popping 9% of the total production.” Their findings sparked this headline in the respected journal *Nature*: “*Methane leaks erode green credentials of natural gas.*”<sup>56</sup> Admittedly, it remains unclear whether these results from Colorado and Utah are typical of other well fields in the United States. However, similar atmospheric sampling studies over oil and gas regions in Texas, Oklahoma, and Kansas have “revealed substantial regional atmospheric [methane] and non-methane hydrocarbon . . . pollution.”<sup>57</sup> Furthermore, there is mounting evidence of worrisome methane leakage elsewhere in the gas supply chain; researchers recently surveyed 735 miles of Boston roadways, and identified an alarming 3356 leaks associated with natural gas pipelines.<sup>58</sup>

Proponents of importing LNG to Hawai‘i tout it as a “clean” fuel that can help Hawai‘i reduce its greenhouse gas emissions, while simultaneously lowering the cost of energy. But this recent science on methane emissions

<sup>53</sup> EPA, DRAFT INVENTORY OF U.S. GREENHOUSE GAS EMISSIONS AND SINKS: 1990–2011 3-56 (Feb. 11, 2013), available at <http://www.epa.gov/climatechange/Downloads/ghgemissions/US-GHG-Inventory-2011-Chapter-3-Energy.pdf>

<sup>54</sup> Gabrielle Pétron et al., *Hydrocarbon emissions characterization in the Colorado Front Range: A pilot study*, 117 J. GEOPHYS. RES. D04304-15 tbl. 4 (2012) (reporting that 4.0% of well production was being vented, with a minimum value of 2.3% and a maximum value of 7.9%).

<sup>55</sup> *Id.*

<sup>56</sup> Tollefson, *supra* note 52. As proof of the vigorous scientific inquiry being made into the issue of methane emissions, even these direct measurements are the subject to ongoing scientific analysis and discussion. See Michael A. Levi, Comment on “Hydrocarbon emissions characterization in the Colorado Front Range: A pilot study” by Gabrielle Pétron et al., 117 J. GEOPHYSICAL RESEARCH: ATMOSPHERES D21203 (2012); see also Gabrielle Pétron et al., *Reply to comment on “Hydrocarbon emissions characterization in the Colorado Front Range—A pilot study” by Michael A. Levi*, 118 J. GEOPHYSICAL RESEARCH: ATMOSPHERES 236 (2013).

<sup>57</sup> Pétron, *supra* note 54, at D04304-2.

<sup>58</sup> See Nathan G. Phillips et al., *Mapping urban pipeline leaks: Methane leaks across Boston*, 173 ENVTL. POLLUTION 1, 2 (2013), available at <http://www.bz.duke.edu/jackson/ep2013.pdf>.

reduces the credibility of such claims—unless or until a specific source of Hawai'i-bound LNG is identified, and leakage from the supply chain specific to that source is accurately quantified.

Notably, the HNEI/Gas Company consultant concluded that gambling on LNG imports for Hawai'i would make sense only if the LNG is sourced from the United States mainland via the West Coast or Gulf Coast; the “large investments and long-term commitments” required for bulk LNG imports would be too risky under price forecasts for LNG sourced from Alaska, Canada, or Australia.<sup>59</sup> This heightens the need to understand the true emissions profile of Hawai'i-bound LNG, because LNG sourced from the mainland is increasingly likely to come from wells drilled using hydraulic fracturing, or “fracking” techniques.<sup>60</sup> On top of the serious water quality<sup>61</sup> and other environmental concerns about fracking being raised in communities across the mainland, fracked wells are also

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<sup>59</sup> FGE-FACTS Global Energy *supra* note 44, at 12 (stating that “[e]xpected savings of, say, 10-15% [relative to the cost of fuel oil], are probably not enough to warrant the large investments and long-term commitments required for bulk LNG imports; such savings could easily be wiped away by market fluctuations,” and forecasting that of the sources analyzed, only LNG sourced from the U.S. West Coast or Gulf Coast can meet this threshold).

<sup>60</sup> See, e.g., Howarth, *supra* note 52 at 680 (“Domestic production in the U.S. was predominantly from conventional [non-fracked] reservoirs through the 1990s, but by 2009 U.S. unconventional [fracked] production exceeded that of conventional gas. The Department of Energy predicts that by 2035 total domestic production will grow by 20%, with unconventional gas providing 75% of the total.”) (citation omitted).

<sup>61</sup> See, e.g., Shale gas: Hydraulic fracturing and environmental issues, U.S. ENERGY INFO. ADMIN., <http://www.eia.gov/forecasts/ieo/hei.cfm> (last visited Apr. 7, 2013).

Concerns about the extensive use of hydraulic fracturing have been raised by the public in the United States and elsewhere in the world because of the large volumes of water required, the chemicals added to fracturing fluids, and the need to dispose of the fluids after wells have been completed. A principal concern is the potential for contamination of aquifers and ground water, either from wells passing through aquifers or from surface spills.

*Id.*;

EPA’s analysis of samples taken from the Agency’s deep monitoring wells in the aquifer indicates detection of synthetic chemicals, like glycols and alcohols consistent with gas production and hydraulic fracturing fluids, benzene concentrations well above Safe Drinking Water Act standards and high methane levels. Given the area’s complex geology and the proximity of drinking water wells to ground water contamination, *EPA is concerned about the movement of contaminants within the aquifer and the safety of drinking water wells over time.*

Press Release, EPA, EPA Releases Draft Findings of Pavillion, Wyoming Ground Water Investigation for Public Comment and Independent Scientific Review (Jan. 8, 2011), available at <http://yosemite.epa.gov/opa/admpress.nsf/0/EF35BD26A80D6CE3852579600065C94E> (emphasis added).

associated with higher rates of methane leakage.<sup>62</sup> Plainly, Hawai‘i must ready itself to deal with local policy questions related to the proposed LNG imports.

### C. Four Local Strategies For Managing the Climate Risks of LNG

#### 1. Lifecycle emissions analysis under Hawaii’s Act 234—following in the regulatory footsteps of the 1788 Dolben’s Act?

In 2007, Hawaii’s Act 234 directed the Hawai‘i Department of Health to adopt rules “[e]stablishing greenhouse gas emission limits . . . and establishing emission reduction measures to achieve the maximum practically and technically feasible and cost-effective reductions in greenhouse gas emissions.”<sup>63</sup> The Act also required that the “emission reductions [must be] real, permanent, quantifiable, verifiable, and enforceable.”<sup>64</sup>

Although Act 234 mandated that these greenhouse gas (“GHG”) rules would be adopted before December 31, 2011, as of March 2013 the rules are not yet finalized. Proposed rules were published in October 2012, with public comments due in January 2013.<sup>65</sup> The proposed rules adopted an initial strategy of identifying the twenty-five largest stationary GHG emitters in the state, and generally requiring each of those facilities to submit a plan to reduce emissions by 25%.<sup>66</sup> As part of each plan, the facilities are required to “[i]dentify all available control measures,” including a list of minimally acceptable measures that includes strategies such as “direct GHG capture and control,” “[e]nergy efficiency upgrades,” “operational improvements,” and “[f]uel switching,” among others.<sup>67</sup>

At a public hearing held on O‘ahu,<sup>68</sup> much of the testimony highlighted the need to assess total “lifecycle” emissions associated with each plan—including direct GHG emissions from each facility, and also the upstream emissions associated with the fuels or other inputs for the facility’s

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<sup>62</sup> Howarth, *supra* note 52, at 683 tbl. 2.

<sup>63</sup> See HAW. REV. STAT. § 342B-72(a)(1) (LEXIS through 2012 Regular Session).

<sup>64</sup> *Id.* § 342B-72(c)(1).

<sup>65</sup> *Extension of Public Comment Period on Proposed Revisions to the Hawaii Administrative Rules (HAR) Chapter 11-60.1, Air Pollution Control*, STATE OF HAW. DEP’T OF HEALTH, available at [http://hawaii.gov/health/about/proposed/cab/proposed\\_PDF/2012\\_extension.pdf](http://hawaii.gov/health/about/proposed/cab/proposed_PDF/2012_extension.pdf).

<sup>66</sup> Air Pollution Control (proposed October 7, 2012) (to be codified at Haw. Admin. R. Ch. 11-60.1).

<sup>67</sup> *Id.* § 11-60.1-204(d)(3).

<sup>68</sup> Public hearing on proposed rule attended by the author on Nov. 28, 2012.

operation. Promisingly, this testimony illustrated public support for a regulatory approach that will recognize the global impact of Hawaii's local use of imported fossil fuels.

The climate impacts of LNG leakage are a perfect illustration of why a lifecycle approach is necessary. Many of the twenty-five facilities (especially power generating facilities) are likely to look closely at fuel-switching strategies to reduce emissions. If a facility switches its fuel source to LNG from another fossil fuel, it is likely that direct GHG emissions in Hawai'i would be reduced. Yet the science on upstream fugitive methane emissions suggests that a significant portion of such reductions would be illusory, or that emissions would actually *increase*. Recall that Act 234 mandates that the GHG emissions reductions must be "real." To satisfy this statutory mandate, the final emissions rules *must* account for lifecycle emissions of methane and other GHGs.

Act 234 is a classic example of the abolitionist's local action paradigm at work in Hawai'i. As only the third state in the United States to enact a GHG emissions limit, Hawai'i acted in the absence of major federal legislation to address climate change (and also in the absence of congressional ratification of the GHG emissions reductions outlined in the Kyoto Protocol).<sup>69</sup> A short-sighted analysis of climate change would have waited for comprehensive cooperation.<sup>70</sup> Yet like the 1788 Dolben's Act (which addressed the immense moral problems associated with the slave trade by first addressing the narrower problems associated with shipping conditions), Act 234 adopted a visionary approach that recognized the incremental power of locally regulating a global trade. To satisfy that vision, the rules implementing Act 234 must address the global lifecycle emissions associated with Hawaii's local energy choices.

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<sup>69</sup> See Douglas A. Codiga, *Act 234: Hawaii's Climate Change Law*, HAW. BAR J., May 2008, at 4.

<sup>70</sup> See, e.g., Lee H. Endress, *The Hawai'i Clean Energy Initiative (HCEI): Watt, Me Worry?*, ECON. CURRENTS BLOG (March 7, 2013) (arguing that because "Hawaii's contribution to global carbon dioxide emissions is on the order of 0.01% . . . [adopting a clean energy future] will not meaningfully prevent climate change nor save the planet."). This argument is nonsensical. Irrespective of the substantive topic, if everyone adopted this position, no problem would ever get solved. Furthermore, the abolitionist analogy shows that incremental local action can be a precursor to large-scale solutions, even for the most intractable problems.



2. *Fracking regulations under Senate Bill 375 and House Bill 93—  
akin to the 1807 acts banning the importation of slaves?*

Like Act 234, a recent legislative proposal has the potential for local, unilateral action on LNG impacts. In 2013, a group of state senators and representatives introduced a pair of companion bills (Senate Bill 375 and House Bill 93) to regulate fracking in Hawai'i: "It shall be unlawful for any person, corporation, or other business entity to engage in hydraulic fracturing [for the purpose of producing or recovering oil or gas] within the state without first obtaining a permit to do so."<sup>71</sup> At the first Senate committee hearing, it became clear that the bills missed their mark because Hawai'i has no known oil or gas reserves. Subsequent explanation revealed that the reference to "oil and gas" was a mistake and that the bills were intended to address potential "enhanced" geothermal development. This is a technique for accessing hard-to-reach geothermal energy resources via fracking techniques like those used for many mainland gas wells.

The bills died shortly after introduction, but they nonetheless highlight an issue that is likely to arise again in the future. Hawai'i residents are well aware of the sharp controversy over fracking on the mainland and elsewhere. At the same time, enhanced geothermal energy is a potential source of renewable firm power that could help in meeting the state's clean energy goals. In the future, this fracking debate could end up pitting Hawai'i environmentalists against one another. But more immediately, the same issue is relevant to fossil fuel imports.

By importing fossil fuels, and then exporting the associated GHG emissions to the atmosphere, the state has an embarrassing history of outsourcing many of the environmental impacts of its energy choices. If fracking will be regulated within the state, yet fracked oil and gas will be imported from places that do not adhere to equally stringent standards, it will further cement that embarrassing history. For LNG, this is especially true in light of the higher fugitive emissions associated with fracked wells in comparison to conventional wells.

This is not an intractable problem. Much like the United States and Great Britain banning the importation of slaves in 1807,<sup>72</sup> Hawai'i could choose to ban the importation of fracked fuels. Or at a minimum, Hawai'i

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<sup>71</sup> See S.B. 375, 27th Leg. § 1 (Haw. 2013); H.B. 93, 27th Leg. § 1 (Haw. 2013) (defining "hydraulic fracturing to mean "the process of pumping a fluid into or under the surface of the ground in order to create fractures in rock for the purpose of producing or recovering oil or gas").

<sup>72</sup> See, e.g., Andrew Glass, *Congress Votes to Ban Slave Trade: March 2, 1807*, POLITICO, available at <http://www.politico.com/news/stories/0309/19465.html>.

could choose to import such fuels only if they are sourced from jurisdictions with an acceptably protective regulatory scheme.

3. *Taxing fossil fuel imports—paralleling the congressional abolitionist debate in the antebellum south?*

Many people are surprised to learn that Hawai'i has enacted a form of carbon taxation, albeit a small one: "\$1.05 on each barrel or fractional part of a barrel of petroleum product that is not aviation fuel," payable by the petroleum distributor.<sup>73</sup> In various proportions, these "barrel tax" revenues fund dedicated programs focused on energy security (15 cents) and development (10 cents), environmental response (5 cents), and food security (15 cents).<sup>74</sup> Once again, we see an example of Hawai'i acting locally in the absence of federal legislation on this issue.<sup>75</sup>

However, the tax has several important but solvable flaws. Most fundamentally, it is applied only to barrels of petroleum product. Hawai'i imports more than 700,000 tons of coal each year,<sup>76</sup> and as described above, may begin to import huge quantities of LNG. In the interest of fairness, and to more uniformly account for the externalities imposed by these fossil fuels, the tax should be expanded to apply to coal and gas, along with the liquid petroleum products. This will also have a practical impact. If LNG is used to displace fuel oil burned for electricity power production, taxing LNG will ensure that the programs supported by dedicated barrel tax revenues are not adversely impacted. Finally, a careful reader may have noted that the four dedicated funds sum up to forty-five cents, less than fifty percent of the total tax rate (\$1.05 per barrel). To date, the remaining portion has been funneled into the state's general fund, rather than into the programs with a closer nexus to the tax. That nexus can be important. By funding energy security and development programs, the tax can be self-limiting and help contribute to Hawaii's climate change mitigation efforts.

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<sup>73</sup> HAW. REV. STAT. § 243-3.5(a) (LEXIS through 2012 Regular Session).

<sup>74</sup> See *id.* § 243-3.5(a)(1)-(5).

<sup>75</sup> To date, none of the various federal carbon tax proposals have succeeded; however, on March 12, 2013 Hawai'i Senator Brian Schatz, with Representative Henry A. Waxman, Senator Sheldon Whitehouse, and Representative Earl Blumenauer, released a draft of carbon-pricing legislation. See Press Release, U.S. House Committee on Energy and Commerce, Waxman, Whitehouse, Blumenauer, and Schatz Release Carbon Price Discussion Draft (March 12, 2013), available at <http://democrats.energycommerce.house.gov/index.php?q=news/waxman-whitehouse-blumenauer-and-schatz-release-carbon-price-discussion-draft>.

<sup>76</sup> See U.S. ENERGY INFO. ADMIN., ANN. COAL REP. 2011 tbl. 26, <http://www.eia.gov/coal/annual/pdf/table26.pdf> (last visited Apr. 6, 2013).

Successfully developing secure indigenous energy resources will necessarily reduce the importation of fossil fuels.

Two bills introduced during the 2013 legislative session can address these shortcomings. Senate Bill 17 and House Bill 451 were introduced to fold gaseous fossil fuels (LNG) into the tax.<sup>77</sup> Subsequent drafts have added solid fossil fuels (coal), and changed the proportional dedicated funding to equal one hundred percent of the total tax rate.<sup>78</sup> In addition, the revisions have specified differing tax rates for each category of fuels (solid, liquid, gaseous), with the intent of reflecting their relative carbon emissions.<sup>79</sup> Unfortunately, this amendment presently accounts only for estimated direct carbon emissions, rather than the lifecycle emissions that would more accurately reflect the climate impacts of each fuel.<sup>80</sup>

With further amendment to incorporate this lifecycle emissions approach, all three shortcomings identified above would be addressed. Much as congressional abolitionists sought to impose a tax on the importation of slavery, as one method of incentivizing South Carolina to reinstate and enforce its ban in the slave trade, an effective carbon tax could reduce Hawaii's climate impacts by shifting incentives away from fossil fuels and toward indigenous and sustainable energy sources.

#### 4. *Litigation arising from unfair and deceptive trade practices and unfair methods of competition—Hawaii's "West Africa Squadron"?*

After 1808, Great Britain charged its West Africa Squadron with aggressively attacking the slave trade with military might.<sup>81</sup> This paper's fourth and final example of a local opportunity for climate action suggests

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<sup>77</sup> See S.B. 17, 27th Leg. (Haw. 2013); H.B. 451, 27th Leg. (Haw. 2013) (proposing to amend HAW. REV. STAT. § 243-3.5: "\$1.05 on each barrel equivalent of liquid or gaseous fossil fuels having an energy content of 5,800,000 British Thermal Units or fractional part of a barrel equivalent of [~~petroleum-product~~] liquid or gaseous fossil fuels that is not aviation fuel").

<sup>78</sup> See S.B. 17 S.D. 2, 27th Leg. (Haw. 2013); H.B. 451 H.D. 1, 27th Leg. (Haw. 2013).

<sup>79</sup> See S.B. 17 S.D. 2, 27th Leg. (Haw. 2013); H.B. 451 H.D. 1, 27th Leg. (Haw. 2013). The revised drafts amend HAW. REV. STAT. § 243-3.5 to incorporate a tax rate of \$1.05 per barrel of liquid petroleum, \$0.12 per thousand cubic feet of gas, and \$4.00 per short ton of coal. See *id.* Effectively, these rates provides a tax break for LNG, skewing the market for fossil fuels in favor of LNG.

<sup>80</sup> By the author's calculations, taxing these fuels on the basis of their equivalent energy content would result in gas being taxed at a rate of \$0.19 per thousand cubic foot. Taxing on the basis of relative lifecycle emissions of CO<sub>2(eq)</sub> could make the gas rate higher, depending on upstream emissions of methane and other greenhouse gases.

<sup>81</sup> See, e.g., *How did the Abolition Acts of 1807 and 1833 Affect the Slave Trade?*, THE NAT'L ARCHIVES, <http://www.nationalarchives.gov.uk/education/lesson27.htm> (last visited Apr. 7, 2013).

that Hawai'i law could allow similarly aggressive litigation that would protect Hawai'i consumers from environmental and economic risks associated with LNG imports.

Although litigation is probably not the answer, the *possibility* of litigation can help to ensure that (i) the LNG policy debate is open, honest, and accurate, (ii) economic risks are borne by the same parties who are motivated by potential pecuniary benefits, and (iii) if LNG is imported, it is done with appropriate mechanisms for minimizing climate impacts and ensuring that imports will be steadily scaled back in proportion to growing reliance on indigenous energy resources.

*a. Claims for unfair and deceptive acts or practices as a favored tool for Hawai'i consumer protection*

Hawaii's unfair and deceptive trade practices statute, Haw. Rev. Stat. § 480-2, declares that "unfair or deceptive acts or practices [UDAP] in the conduct of any trade or commerce are unlawful." Several aspects of UDAP claims under section 480-2 make them a powerful tool for consumer protection. First, chapter 480 arms the plaintiff with the specter of treble damages.<sup>82</sup> Second, the statute grants reasonable attorneys' fees and costs to a successful plaintiff.<sup>83</sup> And third, the terms "unfair" and "deceptive" are broadly defined, often rendering UDAP claims unsuitable for disposition upon a motion for summary judgment—and enhancing the likelihood that a plaintiff's claims will be examined on the merits. To wit:

"Deceptive" acts or practices violate HRS § 480-2, but HRS ch. 480 contains no statutory definition of "deceptive." This court has described a deceptive practice as having "the capacity or tendency to mislead or deceive . . . . [Under a more refined test] a deceptive act or practice is (1) a representation, omission, or practice that (2) is likely to mislead consumers acting reasonably under the circumstances where (3) the representation, omission, or practice is material." A representation, omission, or practice is considered "material" if it involves information that is important to consumers and, hence, likely to affect their choice of, or conduct regarding, a product. Moreover, the . . . test is an objective one, turning on whether the act or omission is likely to mislead consumers, as to information important to consumers in making a decision regarding the product or service . . . . The application of an objective "reasonable person" standard, of which [this] test is an example, is ordinarily for the trier of fact, rendering summary judgment often inappropriate.<sup>84</sup>

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<sup>82</sup> See HAW. REV. STAT. § 480-13 (LEXIS through 2012 Regular Session).

<sup>83</sup> See *id.*

<sup>84</sup> Courbat v. Dahana Ranch, Inc., 111 Haw. 254, 261-63, 141 P.3d 427, 434-37 (2006) (internal quotations, alterations, and citations omitted).

“Unfair” acts or practices are distinct from “deceptive” acts or practices, but are defined in similarly broad terms.<sup>85</sup> “Unfairness cases usually involve actual and completed harms, whereas deception cases tend to focus on the likelihood of an injury.”<sup>86</sup> “A practice is unfair when it offends established public policy and when the practice is immoral, unethical, oppressive, unscrupulous or substantially injurious to consumers.”<sup>87</sup> But “[i]t is impossible to frame definitions which embrace all unfair practices.”<sup>88</sup> In this broad framework, unfair practices often fall into four primary categories: “(1) withholding material information; (2) making unsubstantiated advertising claims; (3) using high-pressure sales techniques; and (4) depriving consumers of various post-purchase remedies.”<sup>89</sup> In addition to these broadly defined forms of unfair or deceptive practices under section 480-2, section 481A-3 describes that:

A person [or entity] engages in a deceptive trade practice when, in the course of the person’s business, vocation, or occupation, the person [or entity] . . . [r]epresents that goods or services have . . . characteristics [or] benefits . . . that they do not have [or] [r]epresents that goods or services are of a particular standard, quality, or grade . . . if they are of another

*b. The risk of material omissions and representations in the LNG debate*

Several aspects of the public dialogue on LNG risks invoke these hallmarks of unfair and deceptive acts. For example, in conjunction with its FERC application to import LNG, The Gas Company has embarked on a public relations campaign designed to remake its image. It now does business under the name “Hawai’i Gas The Clean Energy Company.”<sup>90</sup> The Company’s website touts LNG as the “cleanest of all fossil fuels

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<sup>85</sup> Rick J. Eichor, *Updating Unfair or Deceptive Acts and Practices Under Chapter 480-2*, HAW. BAR J., July 2007, at 109 (citing *Bronster v. U.S. Steel Corp.*, 82 Haw. 32, 51, 919 P.2d. 294, 313 (1996)).

<sup>86</sup> *Id.* (citing *In re Int’l Harvester Co.*, 104 F.T.C. 949(1984)).

<sup>87</sup> *Haw. Cmty. Fed. Credit Union v. Keka*, 94 Haw. 213, 228, 11 P.3d 1, 16 (2000) (quoting *Rosa v. Johnston*, 3 Haw. App. 420, 427, 65 P.2d 1228, 1234 (1982)).

<sup>88</sup> *Davis v. Four Seasons Hotel Ltd.*, 122 Haw. 423, 439, 228 P.3d 303, 318 (2010) (quoting *Cieri v. Leticia Query Realty*, 80 Haw. 54, 61, 905 P.2d 29, 36 (1995)).

<sup>89</sup> Eichor, *supra* note 85 (citing *Am. Fin. Services v. F.T.C.*, 767 F.2d 957, 979 (D.C. Cir. 1985)). Note that HAW. REV. STAT. § 480-2(b) mandates that when interpreting the statute, courts must give “due consideration to the rules, regulations, and decisions of the Federal Trade Commission and the federal courts interpreting section 5(a)(1) of the Federal Trade Commission Act (15 U.S.C. 45(a)(1)).”

<sup>90</sup> See, e.g., HAWAI’I GAS, <http://www.hawaiiigas.com> (last visited Apr. 7, 2013) (“The Gas Company is now HAWAI’I GAS”).

producing 50% less CO<sub>2</sub> [sic] emissions than coal and 30% less emissions than oil.”<sup>91</sup> As described above, this claim is challenged by scientific findings about the serious impact of fugitive methane emissions from the LNG supply chain, and CO<sub>2(eq)</sub> emissions that can be “worse for the climate than coal.”<sup>92</sup>

At best, the Company risks a claim that its “cleanest of all fossil fuels” assertion amounts to an omission of information about the actual emissions impact of its product, or an unsubstantiated advertising claim. At worst, the Company risks being accused of engaging in a greenwashing campaign that is actively making misleading representations about the emissions associated with LNG.

In either case, the omission or representation is material. The Company has chosen to coordinate its rebranding effort with its push to import LNG. This appears to demonstrate that the Company believes that a “clean” emissions image “is important to consumers and, hence, likely to affect their choice of, or conduct regarding, [the Company’s] product.”<sup>93</sup> Indeed, the website of its parent company states that the Company’s products “are relatively clean-burning fuels that produce lower levels of carbon emissions than other hydrocarbon fuels such as coal or oil. *This is particularly important in Hawai’i where heightened public awareness of environmental impact makes lower emission products attractive to customers.*”<sup>94</sup> In other words, the Company believes that information about emissions is material to consumers. Omission of such information, or presentation of misleading information, can therefore satisfy the definition of an unfair and/or deceptive practice.

Similarly, the Company has focused its rebranding on burnishing its image as a “Hawai’i” company. This is evident in the new “Hawai’i Gas” name and fishhook logo. The Company actively proclaims that: “Our new name better reflects who we are: a Hawai’i company that’s building Hawaii’s energy future . . . . We are proud to be local.”<sup>95</sup> These assertions may also expose the company to potential UDAP claims. “The Gap Company, LLC dba HAWAI’I Gas” is a subsidiary of Macquarie Infrastructure Company, LLC, listed on the New York Stock Exchange

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<sup>91</sup> *Hawai’i Gas LNG*, HAWAI’I GAS, <http://www.hawaiiigas.com/hawaii-gas-lng.aspx> (last visited Apr. 7, 2013).

<sup>92</sup> Alvarez, *supra* note 50, at 6435.

<sup>93</sup> Courbat v. Dahana Ranch, Inc., 111 Haw. 254, 262, 141 P.3d 427, 435 (2006).

<sup>94</sup> *Gas Processing and Distribution*, MACQUARIE INFRASTRUCTURE CO., <http://www.macquarie.com/mgl/com/mic/portfolio/gas-production> (last visited Apr. 7, 2013) (emphasis added).

<sup>95</sup> *About Us*, HAWAI’I GAS, <http://www.hawaiiigas.com/about-us.aspx> (last visited Apr. 7, 2013).

under the symbol MIC.<sup>96</sup> The Gas Company is just one of the businesses that MIC owns, in addition to interests in (i) a large network of airport fueling, terminal, and hangar operations stretching across the United States, (ii) “one of the largest independent bulk liquid storage terminal businesses in the U.S. with storage capacity of more than 43 million barrels” of petroleum and other oil products, and (iii) district energy businesses in Chicago and Las Vegas.<sup>97</sup> In turn, MIC is a subsidiary of the Macquarie Group, a huge multinational that manages over \$350 Billion, with 13,400 employees operating in 28 countries.<sup>98</sup> To many consumers, it may be difficult to reconcile the “we are local” claim with this multinational corporate ownership structure. And like the “cleanest of all fossil fuels” claim, the Company’s rebranding efforts illustrate that a local reputation is important to consumers, confirming that such information is material.

Perhaps the most problematic part of the Company’s aggressive marketing campaign is this claim: “Gas is the most efficient source of heat energy. And it’s getting even greener—we are committed to making 50% of our gas from renewable and sustainable sources by 2015.”<sup>99</sup> This apparent commitment to sustainability has long been a part of the Company’s public image campaign. In 2009, the Company testified to the Hawai‘i legislature that:

We are actively taking the necessary steps to increase the renewable content of our gas to 50 percent for the entire state within five years. Our strategy includes diversifying our feed stock to include gas from renewable resources such as landfill gas and bio-methane, and other renewable sources, including animal fat and plant oils that are locally produced. It is important to point out that all of these activities are being solely financed by our Company, without government subsidy or an added burden on our rate payers. This confirms our Company’s commitment toward investing in Hawaii’s energy future. In fact, we believe that we can successfully replace at least half of our feedstock supply with renewable sources and actually lower our cost of production from present levels.<sup>100</sup>

Locally produced gas from renewable and sustainable resources would no doubt be welcomed by many Hawai‘i consumers, especially at reduced cost. But when compared with the “comprehensive, multi-phased LNG

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<sup>96</sup> *Investor Fact Sheet*, MAQUIRIE INFRASTRUCTURE CO., available at [http://www.macquarie.com/dafiles/Internet/mgl/com/mic/investor-center/faqs/investor\\_factsheet.pdf](http://www.macquarie.com/dafiles/Internet/mgl/com/mic/investor-center/faqs/investor_factsheet.pdf).

<sup>97</sup> *Id.*

<sup>98</sup> MACQUARIE INFRASTRUCTURE CO., <http://www.macquarie.com/mgl/com> (last visited Apr. 7, 2013).

<sup>99</sup> *About Us*, HAWAI‘I GAS, <http://www.hawaiigas.com/about-us.aspx> (last visited Apr. 7, 2013).

<sup>100</sup> *Hearing on H.B. 1464*, *supra* note 40.

strategic plan” detailed in the Company’s FERC application, the numbers do not add up. The Company cannot replace fifty percent of its feedstock with renewable sources, while simultaneously implementing its plan to use LNG to “meet up to 75% of the Company’s customers’ requirements,” and also “provide fuel for up to 400 MW” of power generation.<sup>101</sup> Yet more than six months after the FERC LNG application was filed, the Company continues to broadcast its renewables plan to consumers.<sup>102</sup> This claim veers even nearer to misleading consumers with material misinformation—especially in light of the fact that the same web page touting the renewables plan includes a large link to “Request New Gas Service.”

*c. The filed-rate doctrine as a potential bar to UDAP claims*

Despite these somewhat alarming examples, a UDAP claim against a public gas utility would face some interesting legal hurdles. Foremost, the imprimatur of the Hawai'i Public Utilities Commission (“PUC”) can bar some UDAP claims. In 2005, the Hawai'i Supreme Court ruled in *Balthazar v. Verizon Haw. Inc.*<sup>103</sup> that a UDAP claim against a PUC-regulated telephone company was barred by the filed-rate doctrine. Generally, the filed-rate doctrine prevents courts from making rulings that would impose service or rate discrimination among utility consumers, or “intrud[e] upon the rate-making authority” of utility regulators.<sup>104</sup>

In *Balthazar*, the plaintiffs filed class action UDAP claims under sections 480-2 and 481A-3, alleging that Verizon engaged in unfair and deceptive trade practices by providing identical telephone services to customers, even though some of those customers paid an extra fee for touch tone dialing services.<sup>105</sup> Essentially, the plaintiffs argued that customers who paid the fee could have received the same service without paying the fee but for Verizon’s failure to disclose that option. The court applied the filed-rate doctrine in several ways. First:

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<sup>101</sup> *FERC Application*, *supra* note 36, at 2. Moreover, even without the LNG plan, serious questions abound related to the Company’s use of renewable feedstock. As of 2012, only 2.4% of the Company’s feedstock was non-petroleum based. See THE GAS COMPANY, LLC, REPORT TO THE PUBLIC UTILITIES COMMISSION 3 (2013). In the third quarter of 2013, the Company anticipates that its renewable gas facility will begin inserting renewable-based gas into its pipelines, but comprising only four to six percent of the total gas volume. See *id.* at 5. This will still be far short of the fifty percent promised in 2009.

<sup>102</sup> *About Us*, HAWAII GAS, <http://www.hawaiigas.com/about-us.aspx> (last visited Apr. 7, 2013).

<sup>103</sup> 109 Haw. 69; 123 P.3d 194 (2005).

<sup>104</sup> *Id.* at 73, 123 P.3d at 198.

<sup>105</sup> *Id.* at 71, 123 P.3d at 196.



Whether Verizon claimed that Touch Calling service would be inaccessible to customers who did not pay the fee is not determinative. Verizon's tariffs make plain that the Touch Calling fees should be paid in exchange for Touch Calling service and knowledge of these tariff provisions is imputed to Plaintiffs under the filed-rate doctrine.<sup>106</sup>

"Plaintiffs can prove neither the injury that is required for recovery under HRS § 480-2 nor the likelihood of damage that is required for recovery under chapter 481A."<sup>107</sup> Second, under the filed-rate doctrine:

Plaintiffs were bound to pay the Touch Calling fees in exchange for the service, irrespective of any statements Verizon may have made. Thus, Plaintiffs were not induced into paying the fees by Verizon's representations. Rather, Plaintiffs were obligated under the tariff to pay the fees inasmuch as they elected to receive the Touch Calling service.<sup>108</sup>

Third, "Plaintiffs' claim for money damages is barred for an additional reason—an award of money damages would compromise the rate structure that was set forth in the tariff filed with the [PUC]."<sup>109</sup>

*d. UDAP claims that may not be subject to the filed-rate doctrine*

At first glance, one might assume that the same rationale would bar litigation based on the gas-related assertions described above. Such a conclusion is premature, and one can envision several ways that a defense based on the filed-rate doctrine is not applicable to the LNG debate.

First, the filed-rate doctrine is applicable in cases involving a public utility "subject to the authority of a state regulatory agency."<sup>110</sup> To the extent that the parent companies of The Gas Company participate in unfair or deceptive trade practices, the PUC arguably plays no regulatory role. This may be particularly important for UDAP claims based on the "we are local" assertion. It is clear that the MIC parent company has directly engaged with Hawai'i consumers. For example, in a January 2013 MIC press release, MIC's Chief Executive Officer asserted that "FERC's decision not to assert jurisdiction over the proposed transportation of LNG to Hawaii is a positive step for both the company and the Hawaiian economy . . . . The decision should hasten implementation of the LNG program at HAWAI'I GAS . . . ."<sup>111</sup>

<sup>106</sup> *Id.* at 79, 123 P.3d at 204.

<sup>107</sup> *Id.* at 78, 123 P.3d at 203.

<sup>108</sup> *Id.* at 80, 123 P.3d at 205.

<sup>109</sup> *Id.*

<sup>110</sup> *Id.* at 77, 123 P.3d at 202.

<sup>111</sup> Press Release, Macquarie Infrastructure Co., Macquarie Infrastructure Company's

Second, the trade practices raised by The Gas Company's assertions are very different than those raised in the *Balthazar* case, insofar as they do not relate to the application of fees disclosed in a tariff.<sup>112</sup> The filed-rate doctrine is not a blanket shield against liability in PUC-regulated industries; it is fundamentally a mechanism for protecting regulated rate structures and preventing discriminatory pricing among customers of regulated utilities.

Third, a filed tariff probably would not include disclosures on LNG lifecycle emissions,<sup>113</sup> again rendering the filed-rate doctrine inapplicable. Similarly, the *Balthazar* decision distinguished a California case on the basis that "there was no discussion in that case of whether the billing practice in question was disclosed in a tariff."<sup>114</sup>

A more definitive fact pattern, and effective lawyering, would undoubtedly reveal other reasons to find that the filed-rate doctrine is inapplicable in the context of Hawaii's LNG debate. One can imagine, for example, UDAP claims against an LNG purveyor made on behalf of electric utility customers, or customers of other industries that use gas, as indirect purchasers of the fuel, rather than customers subject to a tariff.<sup>115</sup> Another permutation might see the UDAP claim transformed into a claim for unfair methods of competition ("UMOC"), expanding the potential pool of plaintiffs beyond consumers to "[a]ny person who is injured in the person's business or property."<sup>116</sup> UMOC claims require the plaintiff to allege the nature of the competition that is harmed.<sup>117</sup> Energy touches every corner of Hawaii's economy, such that it would not be difficult to allege the requisite harm on economic competition.

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HAWAII GAS business clears federal hurdle to transporting containerized LNG (January 18, 2013), available at <http://www.hawaiigas.com/news/press-releases/2013/macquarie-infrastructure-companys-hawaii-gas-business-clears-federal-hurdle-to-transporting-containerized-lng.aspx>.

<sup>112</sup> The filed-rate doctrine is not limited to disputes about rates, nor does it likely extend to the issue of emissions or other environmental impacts. *Cf.* *In re Waikoloa Sanitary Sewer Co.*, 109 Haw. 263, 273, 125 P.3d 484, 494 (2005) (stating that "the filed-rate doctrine applies to more than just rates; it extends to the services, classifications, charges, and practices included in the rate filing").

<sup>113</sup> Generally, tariffs are "public documents setting forth services being offered; rates and charges with respect to services; and governing rules, regulations, and practices relating to those services." *Id.* at 271, 125 P.3d at 492 (internal citations omitted).

<sup>114</sup> *Balthazar v. Verizon Haw. Inc.*, 109 Haw. 69, 81, 123 P.3d 194, 206 (2005) (distinguishing *Cundiff v. GTE Cal.*, 101 Cal. App. 4th 1395 (2002)).

<sup>115</sup> However, under HAW. REV. STAT. § 480-13(a)(1), indirect purchasers are entitled only to compensatory damages, not treble damages.

<sup>116</sup> *Contra* HAW. REV. STAT. § 480-2(e) (LEXIS through 2012 Regular Session).

<sup>117</sup> *See, e.g., Davis v. Four Seasons Hotel Ltd.*, 122 Haw. 423, 437, 228 P.3d 303, 317 (2010).

*e. Potential litigation as a method for more effectively apportioning energy risks*

Like the military force exercised by the West Africa Squadron, litigation often imposes collateral harm and inefficiencies,<sup>118</sup> rendering it a less-than-optimal solution. But the potential for UDAP or UMOC claims related to Hawaii's LNG debate comes with three benefits that help mitigate against the potential harms. First, a public policy decision as important as making large, long-term capital commitments to LNG demands open, honest, and collaborative public discourse. The specter of treble damages—especially at the scale of hundreds of millions of dollars per year that could be applicable to large-scale fuel imports—can help to ensure that Hawaii's debate achieves this benchmark.

Second, the traditional paradigm for utility-scale fuel sales has left Hawai'i ratepayers bearing essentially all the economic risk for fossil fuel imports. When the price of fossil fuels rise, purveyors pass that increase on to the consumer, but continue to earn a profit. In many ways, purveyors are "playing with house money"—especially if the filed-rate doctrine is applied to shield regulated entities from consumer claims. If this paradigm continues indefinitely, it will act as a subsidy for the fossil fuel industry, distorting decisions about Hawaii's energy choices.<sup>119</sup> UDAP or UMOC claims may be able to more appropriately apportion such risk in situations where purveyors engage in acts or practices that misinform consumers.

Third, if LNG is imported, the threat of litigation will help to incentivize acceptance of appropriate regulatory conditions, such as stringent limits on lifecycle methane emissions.

#### IV. CONCLUSION

WWJVDD? In 2005, Professor Van Dyke eloquently and persuasively used principles of international law to show that the Canadian government

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<sup>118</sup> The West Africa Squadron presents a particularly tragic example. Several authors suggest that slave trade ships, when faced with potential capture by the Royal Navy, simply threw the human cargo overboard rather than face confiscation of the ship. *See, e.g.,* Keith Hamilton & Farida Shaikh, *Introduction to SLAVERY, DIPLOMACY AND EMPIRE: BRITAIN AND THE SUPPRESSION OF THE SLAVE TRADE, 1807-1975* 9 (Keith Hamilton & Patrick Salmon eds., 2009).

<sup>119</sup> *Cf.* Jon M. Van Dyke, *Liability and Compensation for Harm Caused by Nuclear Activities*, 35 *DENV. J. INT'L L. & POL'Y* 13, 46 (2006) ("The failure to develop a proper regime that would ensure full restitution and compensation for harm resulting from nuclear facilities constitutes a continuing subsidy to the nuclear industry and distorts decisions regarding energy choices.").

was justified in preventing U.S. LNG ships from passing through environmentally sensitive coastal waters in the Bay of Fundy.<sup>120</sup> In essence, Van Dyke explained that Canada was empowered to take unilateral action “to protect its coastal population and resources.”<sup>121</sup> Given the subsequent boom in U.S. LNG production, and the coming shockwave of export activity, Van Dyke was on the forward-cusp of an emerging and important topic. Perhaps he knew that Hawai'i would one day face similar questions.

No doubt, he would have preferred cooperative solutions based on broad consensus. But I like to think that he would have also seen the opportunity to learn from key human victories, such as the abolition of slavery, when working to shape that consensus.

Hawai'i cannot wait for other people and other places to solve the climate crisis for us. Like Professor Hoffman's hypothetical person on a London street corner, we must start showing the world that fossil fuels are not the answer.

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<sup>120</sup> Jon M. Van Dyke, *Canada's Authority to Prohibit LNG Vessels from Passing Through Head Harbor Passage to U.S. Ports*, 14 OCEAN & COASTAL L.J. 45 (2008).

<sup>121</sup> *Id.* at 72.