

# Hydraulic Fracturing: State Regulation and Sustainable Economic Development

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## I. Introduction

### a. Hypothetical

The small town of Shaleville,<sup>1</sup> nestled in idyllic Western Pennsylvania, lies upon the Marcellus Shale that extends throughout much of the Appalachian Basin. A sprawling layer of sedimentary rock, geologists estimate that the Marcellus Shale could contain 500 trillion cubic feet of natural gas.<sup>2</sup> Advances in drilling technology have transformed this once economically unviable resource into Pennsylvania's veritable "gas rush."<sup>3</sup> From 2008 to 2010, Pennsylvania alone had seen 2469 wells drilled within its borders.<sup>4</sup> Reports of groundwater contamination and earthquake-like reverberations have kept some Shalevillians guarded against this burgeoning industry. But faced with a fading tourism industry—largely due to the proliferation of drill pads throughout the region—many people in town would welcome a new source of well-paying jobs and tax revenue.

Bleak economic prospects finally convince Shaleville officials to attract drillers to the area (highlighting the adequate infrastructure and "drill friendly" environment), yet a cautious citizenry nonetheless wishes to exert some control over the industry to limit any externalities. For example, Shalevillians want to limit the location and size of drilling operations and to impose fees on drill operators for infrastructure repair and cleanup. They certainly wish to not see their town lose its aesthetic charm. Furthermore, they plan to tax the natural gas extracted

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<sup>1</sup> Shaleville is a fictitious town. The circumstances detailed in the hypothetical are intended to provide a simplified, yet somewhat accurate depiction of the experience in Appalachian communities.

<sup>2</sup> Kristen Allen, *The Big Fracking Deal: Marcellus Shale—Pennsylvania's Untapped Resource*, 23 VILL. ENVTL. L.J. 51, 55 (2012) (noting that just 10% of the suspected gas deposits could satisfy the United States' fuel demands for more than two years at a market value of approximately one trillion dollars).

<sup>3</sup> *See id.* at 53 (comparing the recent boom in natural gas extraction to the devastating legacy of Pennsylvania's once unregulated coal mining industry).

<sup>4</sup> Jennifer Hayes, *Protecting Pennsylvania's Three Rivers' Water Resources From Shale Gas Development Impacts*, 22 DUKE ENVTL. L. & POL'Y F. 385, 386 (2012).

from local wells to help fund local schools and community initiatives. Conflict arises, however, when town officials, pursuant to citizen demands, enact zoning ordinances to regulate the areas in which operators may drill, the discharge of wastewater, the construction and restoration of drill sites, and operators' use of municipal roads. Operators have no shortage of private landowners eager to earn royalties on gas extracted from their land, much of which falls outside of the designated zones. Nor do the operators accept local authority to regulate their operations. Rather, they point to a provision in the recently enacted Act 13 of 2012 ("Act 13"):

Notwithstanding any other law to the contrary, environmental acts are of Statewide concern and, to the extent that they regulate oil and gas operations, occupy the entire field of regulation, *to the exclusion of all local ordinances*. The Commonwealth by this section, *preempts and supersedes the local regulation* of oil and gas operations regulated by the environmental acts, as provided in this chapter.<sup>5</sup>

This provision provides that Shaleville may not assert control over drill site construction, the storage or disposal of wastewater used in the drilling process, or well site restoration.<sup>6</sup> Moreover, the state—not the locality—exact "impact fees" from operators.<sup>7</sup> Rather than reflect the measured impact that drilling operations have on communities, fee rates instead depend upon a well's "years in operation" and the "average annual price of natural gas."<sup>8</sup> Shaleville may only regulate, via zoning ordinances, the location in which operators construct drill sites.<sup>9</sup> Notably,

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<sup>5</sup> Act 13 of 2012, 58 PA. CONS. STAT. ANN. § 3303 (West 2012) (emphasis added).

<sup>6</sup> *See id.* § 3301 (defining the various aspects of "Oil and Gas Operations" that are preempted by § 3303).

<sup>7</sup> *See id.* § 2302 (stating that counties may only elect whether or not to impose impact fees, but only the state has discretion to set the amounts of the fees).

<sup>8</sup> *See id.* §2302(b) (outlining the schedule for impact fee rates).

<sup>9</sup> *See Huntley & Huntley, Inc. v. Borough Council of Oakmont*, 964 A.2d 855, 866 (Pa. 2009) (holding that municipalities may regulate "where" drilling occurs within its jurisdiction, but not "how").

Shaleville’s ability to exclude drilling from a specific zoning district does not extend to ancillary structures such as pipelines and access roads.<sup>10</sup>

### **b. The Issue**

For the past century, the resource-rich region of Appalachia has remained one of the poorest in the nation.<sup>11</sup> Much of the poverty in Appalachia today arises from a history of economic and political exploitation in which outside actors own or control much of the land.<sup>12</sup> Legacies of coal and timber extraction in the region have left populations suspicious of outside interests and local power structures.<sup>13</sup> Yet because the issue of resource exploitation in poor communities often centers on survival, the debate pits resource exploitation and job creation against concerns for sustainable economic development and community self-determination.<sup>14</sup> In essence, communities throughout Appalachia face “Shaleville-type” cost-benefit predicaments: the economic benefits of resource extraction might lure communities into welcoming capital investment, yet they remain vulnerable to outside forces that fail to represent the interests of the communities. This vulnerability implicates not only the extent to which poor communities may promote community economic development (discussed below) but also environmental stewardship and public health.<sup>15</sup>

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<sup>10</sup> See *Range Resources-Appalachia. L.L.C. v. Salem Twp.*, 964 A.2d 869, 877 (Pa. 2009) (explaining that because a challenged ordinance aimed to promote the development of natural gas industry by regulating the construction of access roads and pipelines, it encroached upon the state’s regulatory domain and was thus preempted).

<sup>11</sup> Jude L. Fernando, *Poverty, Sustainability, and the Culture of Despair: Can Sustainable Development Strategies Support Poverty Alleviation in America’s Most Environmentally Challenged Communities?*, 590 ANNALS AM. ACAD. POL. & SOC. SCI. 131, 134 (2003).

<sup>12</sup> *Id.*

<sup>13</sup> See *id.* at 139 (noting a history in which local elites would direct harsh treatment at those who attempted to organize politically).

<sup>14</sup> See *id.* at 132–33 (highlighting the tension that poor yet resource rich communities experience when making decisions about resource extraction).

<sup>15</sup> See *id.* at 131–34 (noting the common experience of Appalachian communities that occupy, but do not own, resource-rich land, and yet they ultimately have to suffer the environmental and social externalities of resource exploitation); Allen, *supra* note 1, at 53, 58–60 (arguing that a severance tax in

This paper explores the natural gas plays currently under way in New York and Pennsylvania. Communities in both states have protested vociferously to the unrestrained exploitation of the Marcellus Shale, yet New Yorkers have enjoyed more success than Pennsylvanians at preserving local control over economic activity.<sup>16</sup> This paper presumes that, generally, greater flexibility afforded to communities to manage the negative externalities of drilling empowers those who must endure its side effects. For the least well off in Appalachian communities, more empowerment improves their position to benefit from the burgeoning industry. First, the paper explores some of the costs and benefits of natural gas drilling for communities. Second, it outlines the regulatory frameworks in each state and the role that courts have played in demarcating the rights of localities relative to state regulatory authority. Finally, this paper makes certain recommendations that, if implemented, would cede more power to local communities in Pennsylvania, according them the flexibility to manage the “gas rush” responsibly and derive the greatest benefit for local citizens.

## II. Costs and Benefits of Fracking

Few aspects of the fracking debate generate more contention than whether the economic benefits exceed the costs.<sup>17</sup> Despite the industry’s protestations about the economic blessings that natural gas offers, some researchers argue that the evidence does not fully support such claims.<sup>18</sup> Industry proponents point to job creation, increased tax revenue, and long-term

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Pennsylvania would fund the oversight necessary to limit the negative consequences of fracking on the environment and public health).

<sup>16</sup> See *infra* Part III.B.

<sup>17</sup> See John R. Nolon and Victoria Polidoro, *Hydrofracking: Disturbances Both Geological and Political: Who Decides?*, 44 URB. LAW. 507, 508–09 (2012) (highlighting the nature of the fractious and escalating debate in New York about whether to allow, in light of costs and benefits, horizontal HVHF).

<sup>18</sup> See Susan Christopherson & Ned Rightor, *A Comprehensive Economic Impact Analysis of Natural Gas Extraction in the Marcellus Shale: How Should we Think About the Economic Consequences of Shale Gas Drilling?* at 5 (noting that evidence for economic booms, as the industry describes, involves dubious assumptions about ancillary employment and the true costs of fracking). See also JEFFREY

economic development as reasons for exploiting the Marcellus Shale.<sup>19</sup> Critics cite environmental and public health concerns, and the disparate distribution of the economic benefits as reasons to reevaluate how states should regulate the natural gas industry.<sup>20</sup>

**a. Environmental Issues**

Thanks to advanced technologies in high volume hydraulic fracturing (“HVHF” or “fracking”), drillers can economically exploit the Marcellus Shale.<sup>21</sup> The majority of activity occurs on well pads from which operators can drill up to ten wells horizontally through the shale.<sup>22</sup> Well pads typically require several acres of flattened property where drilling rigs, massive diesel pumps, and “fracking ponds” are constructed.<sup>23</sup> The fracking process involves injecting millions of gallons of fracking fluid, which consists of water, various chemicals, and sand, into the well with immense pressure.<sup>24</sup> Diesel pumps inject the fluid from fracking ponds into the wells to fracture the shale, releasing the natural gas.<sup>25</sup>

Opponents of fracking argue against the unchecked exploitation of the Marcellus Shale because local communities suffer its environmental footprint without sufficient means to ameliorate the effects.<sup>26</sup> As with any industrial process, fracking generates immense truck traffic

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JACQUET, NORTHEAST REGIONAL CTR. FOR RURAL DEV., ENERGY BOOMTOWNS & NATURAL GAS: IMPLICATIONS FOR MARCELLUS SHALE LOCAL GOVERNMENTS & RURAL COMMUNITIES 2–3 (2009) (arguing that many of the problems that have historically plagued communities dependent upon resource extraction are evident in the Marcellus Shale region, and that they arguably outweigh the benefits).

<sup>19</sup> See Nolon, *supra* note 17, at 514 (citing the common arguments for fracking in New York).

<sup>20</sup> See *id.* at 515–16 (noting the arguments opponents make against fracking).

<sup>21</sup> See John M. Smith, *The Prodigal Son Returns: Oil and Gas Drillers Return to Pennsylvania with a Vengeance Are Municipalities Prepared?*, 49 Duq. L. Rev. 1, 4 (2011) (explaining that the new technology, among other things, explains the resurgence in Pennsylvania’s gas industry).

<sup>22</sup> See *id.* at 6 (describing a typical well pad designed for fracking).

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

<sup>24</sup> *Id.* at 6–7.

<sup>25</sup> *Id.*

<sup>26</sup> See *id.* at 8–9, 18–20 (citing the environmental consequences of fracking and the need for more local control over its regulation as a means of managing the negative externalities).

and light and noise pollution.<sup>27</sup> But opponents especially worry about ground and surface water contamination.<sup>28</sup> Although drillers case the wells with concrete, concern lies with the potential release of fracking fluid into ground water sources through cracks in well casings, as well as its ultimate treatment and disposal.<sup>29</sup> The industry and its opponents vigorously debate the safety and environmental records of drillers in Appalachia, but neither the EPA nor the New York Department of Environmental Conservation (“DEC”) have released comprehensive evaluations of the risks of fracking.<sup>30</sup> Regardless of what future research reveals about the extent environmental and health risks, any cost-benefit analysis should account for such risks, as well as local nuisances associated with fracking.

#### **b. Benefits for Whom?**

Little doubt exists as to whether a resource boom period, such as the “gas rush,” has a positive economic impact on local economies in the short-term.<sup>31</sup> Rather, proponents and critics of fracking debate whether, in the long-term, the benefits outweigh the societal costs.<sup>32</sup> Such an inquiry must evaluate precisely who benefits from fracking and at what expense to others.

Job creation, especially during an economic recession, enjoys particularly strong appeal.

Industry supporters, with the help of Pennsylvania media outlets, have certainly made bold

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<sup>27</sup> *Id.* at 9.

<sup>28</sup> See Danny Hakim, *Shift by Cuomo on Gas Drilling Prompts Both Anger and Praise*, N.Y. TIMES (Sept. 30, 2012), <http://www.nytimes.com/2012/10/01/nyregion> (noting a primary concern of opponents is the risk of ground water contamination).

<sup>29</sup> See James Conca, *The Fracking Solution is a Good Cement Job*, FORBES (Sept. 10, 2012, 1:12 AM), <http://www.forbes.com/sites/jamesconca/2012/09/10/the-fracking-solution-is-a-good-cement-job/> (suggesting that problems with subsurface drilling often stem from poor cement well casings).

<sup>30</sup> See Kevin Begos, *EPA’s Fracking Study May Dodge Water Contamination Frequency Issue*, HUFFINGTON POST (Jan. 6, 2013, 11:19 AM), [http://www.huffingtonpost.com/2013/01/06/epa-fracking-study-water-contamination\\_n\\_2420786.html](http://www.huffingtonpost.com/2013/01/06/epa-fracking-study-water-contamination_n_2420786.html) (noting the ongoing EPA study); Hakim, *supra* note 28 (noting that the DEC has yet to complete its impact study).

<sup>31</sup> See Christopherson, *supra* note 18, at 2–3 (noting that resource booms—periods when there is an abundance of an extractable resource to sell at favorable prices—correlate with increased economic activity).

<sup>32</sup> See *id.* at 3 (outlining the appropriate questions to address when developing a full-picture view of the costs and benefits of fracking).

claims of job creation.<sup>33</sup> But such claims have not materialized.<sup>34</sup> Moreover, official figures of net “new hires” do not indicate whether people living in communities where fracking occurs actually obtain fracking-related jobs.<sup>35</sup> Indeed, some Pennsylvania towns have experienced rapid population growth due to the influx of temporary, out-of-town workers.<sup>36</sup> Because gas wells do not have long production lives, many industry workers simply follow the wells.<sup>37</sup> Therefore, the communities that must absorb the larger populations, educate their children, jail their criminals, and manage the negative externalities of fracking, do not necessarily enjoy the employment boosts that the industry allegedly offers.<sup>38</sup>

### III. A Tale of Two States

The natural gas booms in Pennsylvania and New York have forced each state to wrestle with the political challenges attendant to fracking. The two states, however, have handled the gas booms very differently.<sup>39</sup> Responding to widespread environmental and public health concerns, New York has imposed moratoria on HVHF since 2008, providing ample time for officials to study the negative externalities.<sup>40</sup> Second, New York courts have recently interpreted

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<sup>33</sup> See Stephen Herzenberg, KEYSTONE RESEARCH CENTER, DRILLING DEEPER INTO JOB CLAIMS: THE ACTUAL CONTRIBUTION OF MARCELLUS SHALE TO PENNSYLVANIA JOB GROWTH 1 (2011) (challenging inflated jobs figures released by media outlets and industry supporters).

<sup>34</sup> See *id.* at 1 (arguing that despite the erroneous claim of 48,000 “new hires,” the net growth of jobs in Pennsylvania attributable to the natural gas industry was below 10,000).

<sup>35</sup> See *id.* at 4 (using numbers from the Pennsylvania Department of Labor and Industry to show that out of 85,467 jobs created in the state from 2009 and 2011, fracking jobs and those considered “ancillary” to the industry only contributed a net of 5,669 new jobs during the period).

<sup>36</sup> See Scott Detrow, *Boomtown: How Drilling has Changed Towanda, PA*, STATEIMPACT (Dec. 10, 2012, 1:00 AM), <http://stateimpact.npr.org/pennsylvania/2012/12/10/boomtown-how-drilling-has-changed-towanda-pa/> (describing the “boomtown” conditions in Towanda, Pennsylvania).

<sup>37</sup> See *id.* (stating that temporary workers are very open and honest about their intentions: that they were in Towanda solely for the employment).

<sup>38</sup> See *id.* (acknowledging the consequences of population growth that dramatically outpaces the town).

<sup>39</sup> See *infra* Part III.A–B.

<sup>40</sup> Freeman Klopott, *New York Assembly Approves Two-Year Moratorium on Fracking*, BLOOMBERG, Mar. 6, 2013, <http://www.bloomberg.com/news/2013-03-06/new-york-assembly-approves-two-year-moratorium-on-fracking.html>.



the Oil, Gas and Solution Mining Law (“OGSML”) in a way that preserves a relatively high degree of local control over the practice of fracking.<sup>41</sup>

Pennsylvania, on the other hand, has embraced fracking with relatively “open arms.” Even prior to the passage of Act 13 (quoted above), the Pennsylvania legislature and courts have limited the extent to which local governments can exert control over fracking within their jurisdictions.<sup>42</sup> Act 13 arguably promotes the natural gas industry to a greater extent than the law it replaced due to its generous tax provisions; its absolute preemption of local laws that regulate the industry or land use that limits its activity; and its channeling of revenue to fund infrastructure projects that promote drilling.<sup>43</sup> Although one Pennsylvania appellate court has struck down part of Act 13, the bulk of the law remains intact.<sup>44</sup>

This section outlines the evolution of Pennsylvania and New York law governing the natural gas industry, and the implications of each for affected communities.

#### **a. Pennsylvania is Open for Business**

Pennsylvania enacted Act 13, replacing the Pennsylvania Oil and Gas Act of 1984 (“Old Law”), to address the natural gas boom.<sup>45</sup> But Pennsylvania courts helped to establish the current power structure between the state and localities well before the passage of Act 13.<sup>46</sup>

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<sup>41</sup> See Charles Gottlieb, *Regulating Natural Gas Development Through Local Planning and Land Use Controls*, 12 No. 6 NEW YORK ZONING LAW & PRACTICE REPORT 1 (May/June 2012) (citing to New York cases that uphold the authority of municipalities to ban fracking from within their jurisdictions).

<sup>42</sup> See *Huntley & Huntley*, 964 A.2d at 863–64 (holding that the Pennsylvania Oil and Gas Act of 1984 preempted any ordinance that imposed conditions, limitations, or requirements on oil and gas activities).

<sup>43</sup> See § 2302 (specifying the impact fee schedule for gas wells); § 3302 (stating that Act 13 preempts all local ordinances purporting to regulate oil and gas operations); § 2314 (specifying the allocation and procedures for distribution of impact fee revenues).

<sup>44</sup> See *Robinson Twp. v. Pennsylvania*, 52 A.3d 463, 494 (striking down only two provisions in Act 13).

<sup>45</sup> Smith, *supra* note 21, at 9–10.

<sup>46</sup> See *Huntley & Huntley*, 964 A.2d 863–64 (upholding the Old Law’s preemption statute). See also *Range Resources-Appalachia. L.L.C. v. Salem Twp.*, 964 A.2d 869, 877 (Pa. 2009) (holding that because the challenged ordinance attempted to “ensure the orderly development of property through the

Most notably, the Pennsylvania Supreme Court upheld the Old Law’s preemption provision to preempt all municipal regulations relating to the oil and gas industry.<sup>47</sup> The provision, which Act 13 adopts, stated, “All local ordinances and enactments purporting to regulate oil and gas well operations regulated by this [Old Law] are hereby *superseded*.”<sup>48</sup> The court principally agreed with the state in that it may exercise its police powers—the power to protect the health, safety, and welfare of Pennsylvanians—to regulate a key industry.<sup>49</sup> Because the state has an interest in the efficient production and utilization of its natural resources, the legislature determined, and the court agreed, that a state agency with suitable expertise could more appropriately regulate the industry.<sup>50</sup> Accordingly, the law preempted local ordinances that imposed any “conditions, requirements, or limitations on the *same features of oil and gas well operations* regulated by [the Old Law].”<sup>51</sup> This included any law purporting to establish “local permitting procedures, provide for criminal penalties, impose bonding requirements, regulate well heads, or require [drill] site restoration.”<sup>52</sup>

The court refused to extend the law’s preemption provision to local zoning laws, hewing to the principle that local communities may generally designate areas for land use as they see fit.<sup>53</sup> This principle recognizes the unique suitability of the local community to designate land

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location of access ways, transportation lines and treatment facilities . . . and [the protection of] natural resources,” it encroached on the state’s regulatory domain).

<sup>47</sup> See *Range Resources-Appalachia*, 964 A.2d at 875 (affirming that the Old Law preempts any ordinance that attempts to regulate *any aspect* of gas operations that it addresses (emphasis added)).

<sup>48</sup> 58 PA. CONS. STAT. ANN. § 3303.

<sup>49</sup> See *Range Resources-Appalachia*, 964 A.2d at 875–76 (finding the ordinance to invade the regulatory scheme established by the state to fulfill its legitimate state interests).

<sup>50</sup> *Robinson Twp.*, 52 A.3d at 483 (citing with approval the state’s legitimate interests justifying its regulatory scheme, but differentiating them from the legitimate interests of a locality).

<sup>51</sup> Smith, *supra* note 18, at 16 (quoting repealed Old Law §§ 601.101–601.605).

<sup>52</sup> *Id.* at 18.

<sup>53</sup> *Huntley & Huntley*, 964 A.2d at 866 (recognizing the different interests at stake between the state’s regulation of a key industry and the municipality’s determination of proper land use).

uses in ways that accord with its local development objectives.<sup>54</sup> Such deference to local authority met its limit in *Huntley & Huntley v. Borough Council of Oakmont*, where a gas well operator challenged a municipal council’s denial of a conditional land use permit.<sup>55</sup> The council initially determined that drilling for natural gas constituted “extraction of minerals” within the meaning of the zoning ordinance.<sup>56</sup> Subsequent to a public hearing where citizens strongly opposed the conditional use permit, the council reversed its interpretation to exclude natural gas from the definition of a “mineral.”<sup>57</sup> The council failed not only to explain how the extraction of natural gas meaningfully differed from the extraction of solids but also to adequately justify its *post-hoc* change of interpretation.<sup>58</sup> The Pennsylvania Supreme Court reasoned that the council’s shortcomings undermined the traditional application of deference to local land use regulation because, rather than apply a consistent reading of the ordinance, it buckled beneath political pressure.<sup>59</sup> In essence, the court rejected the municipality’s ungraceful attempt to respond democratically to the citizens within its jurisdiction.<sup>60</sup>

With respect to the conditional use permit, the holding in *Huntley* accords with statutory mandates that the Pennsylvania Municipalities Planning Code (“MPC”) imposes upon local governments. Although the *Huntley* court objected to the denial of the permit on different grounds, MPC requires municipalities to enact comprehensive development plans that, among

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<sup>54</sup>

*Id.*

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*See id.* at 866–68 (rejecting a municipality’s attempt to alter, *post hoc* and without rational explanation, its meaning of “extraction of minerals” as it is defined in the Pennsylvania Municipalities Planning Code).

<sup>56</sup>

*Id.* at 857.

<sup>57</sup>

*Id.*

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*Id.*

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*Id.* at 867.

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*See id.* at 868 (holding that the Council improperly denied the conditional use permit, which the Council ostensibly denied due to local opposition to fracking).

other things, “provide for the reasonable development of minerals.”<sup>61</sup> Such plans also articulate a statement of community development objectives and, pursuant thereto, permissible land uses in each designated area.<sup>62</sup> Therefore, municipalities determine the best course of development for their jurisdictions and enact zoning ordinances accordingly. But the future of local development, pursuant to MPC, must save room for the extraction of minerals.<sup>63</sup>

*i. Act 13’s “state-heavy” approach*

To the extent that Pennsylvania law already disfavored local regulation of oil and gas extraction, the enactment of Act 13 magnified that bias. Act 13 aims to promote economic development and energy independence in Pennsylvania, generate tax revenue to benefit municipalities affected by oil and gas operations, and create statewide uniformity with respect to development and operation of oil and gas operations.<sup>64</sup> Like the Old Law, Act 13 explicitly preempts local ordinances that impose limitations or conditions on oil and gas operations regulated by the act.<sup>65</sup> But Act 13 further limits local authority to regulate by prohibiting ordinances that impose any conditions, requirements, or limitations that are more stringent than those imposed on other industrial uses.<sup>66</sup> Thus, even where Act 13 does not directly address a matter relating to oil and gas operations, municipalities are effectively precluded from imposing

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<sup>61</sup> Pennsylvania Municipalities Planning Code, 53 PA. CONS. STAT. § 10603(i) (West 2008).

<sup>62</sup> *Id.* § 10301.

<sup>63</sup> *See* § 10301 (mandating that municipalities adopt comprehensive plans detailing permissible land uses in various areas); § 10302 (requiring that comprehensive development plans derive from a planning process that incorporates public input and hearings; thus, despite the relatively democratic process of developing the plan, and in light of §10603(i), the MPC nonetheless limits the extent to which citizens can bar mineral extraction within their jurisdictions); § 10107(a) (defining “minerals” to include natural gas).

<sup>64</sup> Brief for Appellants at 9, *Robinson Twp. v. Pennsylvania*, No. 64 MAP 2012, 2012 WL 3875604 (Pa.).

<sup>65</sup> 58 PA. CONS. STAT. ANN. § 3302.

<sup>66</sup> *See id.* § 3304(b) (prohibiting municipalities from imposing more stringent regulations on construction of oil and gas operations, the heights of structures, or interfering with pipeline development, than those imposed on other industrial uses of land).

tighter regulations than they might impose on other, perhaps less hazardous, industrial uses of land.

Act 13's controversial § 3304 requires municipalities to amend zoning ordinances to permit oil and gas operations in all zoning districts—even residential districts.<sup>67</sup> In *Robinson Township v. Pennsylvania*, the Commonwealth Court of Pennsylvania, in a 4–3 decision, held that § 3304(b)(5) violates substantive due process of landowners and is therefore unconstitutional.<sup>68</sup> The court first looked to the standard for determining the constitutionality of a zoning ordinance: “[It] must be directed toward the community as a whole, concerned with the public interest generally, and justified by a *balancing* of community costs and benefits. These considerations have been summarized as requiring that *zoning be in conformance with a comprehensive plan* for growth and development of the community.”<sup>69</sup> Although the interests of the state and municipality might overlap in some respects, the court reasoned that the state’s interest in promoting the oil and gas industry fails to adequately encompass the interests of local property owners.<sup>70</sup> For example, property owners have an interest in maintaining neighborhood character and preserving the use and enjoyment of their property.<sup>71</sup> This typically demands that zoning ordinances keep heavy industry districts separate from residential and commercial districts.<sup>72</sup> Because § 3304 requires municipalities to align zoning ordinances with state interests

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<sup>67</sup> *Id.* § 3304(b)(5).

<sup>68</sup> 52 A.3d 463, 485 (Pa. Commw. Ct. 2012).

<sup>69</sup> *Id.* at 483 (quoting *In re Realen Valley Forge Greenes Assocs.*, 576 Pa. 115, 131 (2003)).

<sup>70</sup> *Id.*

<sup>71</sup> *See id.* at 481 (quoting *City of Edmunds v. Oxford House, Inc.*, 514 U.S. 725, 732–33 (1995) for the proposition that land use restrictions, such as zoning ordinances, aim to “prevent problems caused by the ‘pig in the parlor instead of the barnyard’”).

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

rather than the interests of neighboring property owners, the court deemed it violated substantive due process.<sup>73</sup>

Although the *Robinson Township* court rolled back the extent to which Act 13 usurps municipal control over oil and gas operations, the Pennsylvania Supreme Court has not yet released a ruling.<sup>74</sup> But whether or not the state can require municipalities to permit oil and gas operations in every zoning district, although significant, would not substantively alter the general power imbalance. If the court affirms the holding, local governments would still lack the means to manage the effects of oil and gas operations or ancillary activities within their jurisdictions. For example, municipalities may not regulate the use of local thoroughfares so as to limit damage to roads and maintain safe traffic conditions.<sup>75</sup> They may not regulate where gas companies build infrastructure, such as pipelines, water treatment facilities, and access roads.<sup>76</sup>

Nor can they impose stricter regulations with respect to drilling near surface and ground water or restoring unused gas wells.<sup>77</sup> That Act 13 constrains the ability to regulate matters that implicate public health and safety would seem to render people—especially the least well off—more vulnerable to an industry whose interests do not necessarily align with those of the community.

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<sup>73</sup> *Robinson Twp.*, 82 A.3d at 485.

<sup>74</sup> Jason Yearout, *Pennsylvania Supreme Court Hears Argument on Two Hydraulic Fracturing Cases*, NORTH AMERICA SHALE BLOG, BAKERHOSTETLER (Oct. 23, 2012), <http://www.northamericashaleblogger.com/2012/10/23/2-cases-before-pennsylvania-supreme-court/>.

<sup>75</sup> *See Range Resources*, 964 A.2d at n.6 (“The [Old Law] does not indicate that preemption is only accomplished if the regulated activity is unique to the oil and gas industry and flows directly from the operation of a well. Rather, it states more generally that no feature of oil and gas well operations may be subject to any further conditions, requirements, or limitations by MPC-enabled local legislation.”).

<sup>76</sup> *See id.* at 877 (holding that because the state has resolved to regulate the entire industry, “even to the extent [ordinance] provisions pertain to items that are not specifically addressed in the [Old Law] . . . they plainly constitute an impermissible form of regulation”).

<sup>77</sup> *Id.* §§ 3215, 3216. *Robinson Twp.* struck down provision allowing the DEP, in its discretion, to waive set-back requirements—the minimum allowable distance of well sites from other structures/residences. 52 A.3d at 493. This issue is also pending appeal.

*ii. Act 13's answer to the issue of revenue*

Pennsylvania has also established a comprehensive procedure for the exaction of “impact fees” on oil and gas operations. Two possible criticisms stem from the way in which Act 13 generates tax revenue: (1) that Act 13 limits the discretion of municipalities to use the funds, and (2) it generates too little revenue compared to other states that impose impact fees.<sup>78</sup> These criticisms highlight the trend in Pennsylvania to promote oil and gas extraction at the expense of local control over potentially hazardous economic activities.

Sections 2302 and 2314 regulate the imposition of impact fees and the manners in which municipalities may ultimately employ the funds disbursed to them.<sup>79</sup> After distributions are made for environmental conservation projects, natural gas energy development, and the costs of administering Act 13, municipalities will receive 60 percent of the remaining funds in any given year.<sup>80</sup> But the law caps the amount of funds a municipality may receive at the greater of \$500,000 or 50 percent of the total budget for the prior fiscal year; and any remaining funds will be deposited in the state Housing Affordability and Rehabilitation Enhancement Fund.<sup>81</sup> Section 2314(g) prescribes for municipalities the only acceptable uses of the disbursed funds. Such uses include the funding of construction and reparation of public infrastructure, environmental or public space conservation projects, the delivery of social services, and career and technical centers tailored to the oil and gas industry.<sup>82</sup>

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<sup>78</sup> See *id.* § 2302 (requiring each affected county or municipality to pass an ordinance that imposes an impact fee, which the Public Utility Commission collects and disburses among all qualifying municipalities pursuant to § 2302); Michael Wood, *Pennsylvania's Natural Gas Tax Giveaway Exceeds \$500 Million Mark*, THIRD AND STATE BLOG (Aug. 22, 2012, 3:33 PM), <http://thirdandstate.org/2012>.

<sup>79</sup> 58 §§ 2302, 2314.

<sup>80</sup> *Id.* §§ 2314(c), (c.1), (c.2), (d).

<sup>81</sup> *Id.* §§ 2314(d), (e).

<sup>82</sup> *Id.* § 2314(g). Other uses of funding include the protection of water resources, funding of public safety services, local tax reductions, and promoting safe and affordable housing to residents. *Id.*

Notwithstanding the second criticism, Act 13's distribution provisions seem to align with the narrative advocated by industry proponents: natural gas extraction not only promotes energy independence, but it also brings much needed economic stimulus and tax revenue to poor communities in Pennsylvania.<sup>83</sup> Where Act 13 arguably falls short relates to the concept of community economic development ("CED"). Generally, CED embraces "(1) efforts to develop housing, jobs, or business opportunities for low-income people, (2) in which a leading role is played by nonprofit, nongovernmental organizations (3) that are accountable to residentially defined communities."<sup>84</sup> Because CED favors community control over and accountability in local decision-making, it encourages the allocation of resources for programs and social services at the local level. This helps to ensure that the needs unique to local communities are more efficiently and effectively met.<sup>85</sup> For example, pockets throughout Western Pennsylvania might have a demand for various types of skilled labor unrelated to the oil and gas industry. To meet such demand, communities and nonprofit organizations might wish to initiate career and job training centers tailored to those industries. Yet Act 13 mandates that the use of impact fee revenues to fund education and job training programs ultimately serve the oil and gas industry.<sup>86</sup> The CED movement counsels against such top-down frameworks for local development.

The second criticism of Act 13's impact fee highlights a common dilemma in political economy: to what extent can the state derive tax revenue from an activity without driving that

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<sup>83</sup> See Herzenberg, *supra* note 33, at 1 (challenging jobs figures released by media outlets and industry supporters indicating that natural gas drilling created 48,000 jobs from 2009 to 2011); *The Marcellus Shale: A Local Workforce with a National Impact*, FACT SHEET (Marcellus Shale Coalition, Pittsburgh, Pa.), Feb. 21, 2013, at 1 (outlining the alleged positive economic impact that natural gas drilling has had on Pennsylvanians).

<sup>84</sup> WILLIAM H. SIMON, *THE COMMUNITY ECONOMIC DEVELOPMENT MOVEMENT: LAW, BUSINESS, & THE NEW SOCIAL POLICY* 3 (2001).

<sup>85</sup> See *id.* at 41–5 (explaining the rationales underlying CED).

<sup>86</sup> See 58 § 2314(g)(12) (listing "[c]areer and technical centers for training of workers in the oil and gas industry" as a permissible use of impact fee funds).



activity out of the state? Pennsylvania erred on the side of low taxes.<sup>87</sup> Act 13 exacts flat impact fees on a “per well, per annum” basis that decrease in every year of production.<sup>88</sup> Most other states impose severance taxes—excise taxes on natural resources “severed” from the earth.<sup>89</sup> Neighboring West Virginia, for example, exacts a 5 percent tax on the gross value of natural gas extracted (amount produced times average price paid).<sup>90</sup> Opponents of Pennsylvania’s impact fee schedule assert that under West Virginia’s severance tax, Pennsylvania could have collected approximately double the revenues it collected with impact fees.<sup>91</sup> Proponents of the generous fees argue that imposing more burdensome severance taxes could deter drilling operations from investing in Pennsylvania.<sup>92</sup>

Whether or not a drilling tax would place Pennsylvania at comparative disadvantage demands a closer look at the effective tax burden on drilling operators. Accordingly, one must consider the production taxes (impact fees or severance taxes) as well as corporate income and property taxes.<sup>93</sup> First, although Pennsylvania has the second highest state corporate income tax

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<sup>87</sup> See *PA Enacts Among the Lowest Natural Gas Drilling Fees in the Nation*, THE PA. BUDGET AND POLICY CTR. (Apr. 13, 2012) [hereinafter *Lowest Drilling Fee*], <http://pennbpc.org/gas-drilling-tax> (noting the impact fee’s relatively light burden compared to other natural gas producing states).

<sup>88</sup> See *id.* § 2302(b)(1) (requiring, for example, a fee of \$40,000 for an “unconventional gas well” in its first year of production, assuming that the average annual price of gas for that year does not exceed \$2.25; but should the average annual price of gas exceed \$5.99, the fee in the first year is \$60,000); § 2302(b)(2) (employing a similar metric as § 2302(b)(1) for the second year of production, but the rates at each price tier are reduced by amounts ranging from \$5,000 to \$10,000).

<sup>89</sup> See Judy Zelio & Lisa Houlihan, *State Energy Revenues Update*, NATIONAL CONFERENCE OF STATE LEGISLATURES (June 2008) (specifying the types of taxes each state imposes on natural resource extraction), <http://www.ncsl.org/issues-research/budget/state-energy-revenues-update.aspx>.

<sup>90</sup> See CALVIN KENT, MARSHALL UNIV. CENTER FOR BUSINESS AND ECONOMIC RESEARCH, *TAXATION OF NATURAL GAS: A COMPARATIVE ANALYSIS 3* (Oct. 12, 2011) (describing West Virginia’s severance tax).

<sup>91</sup> *Natural Gas Impact Fees Through 2011 About Half of What a Drilling Tax Would Have Raised*, THE PA. BUDGET AND POLICY CTR. (Sept. 11, 2012) [hereinafter *Impact Fee Half of Drilling Tax*], <http://pennbpc.org/natural-gas-impact-fees-through-2011-about-half-what-drilling-tax-would-have-raised>.

<sup>92</sup> See *Lowest Drilling Fee*, *supra* note 57 (describing policymakers’ aversion to drilling tax).

<sup>93</sup> See REPRESENTATION WITHOUT TAXATION: HOW NATURAL GAS PRODUCERS ESCAPE TAXES IN PENNSYLVANIA, THE PA. BUDGET AND POLICY CTR. 1 (Apr. 25, 2011) [hereinafter *Representation*] (illustrating the relatively low tax burden natural gas drillers bear in Pennsylvania once one accounts for

rate at 9.9 percent (exceeded only by Iowa, at 12 percent), many corporations benefit from the exemption of drilling equipment—the largest expense—from the state sales tax.<sup>94</sup> In tax year 2008, for example, one think tank estimates that only 15 percent of the 783 companies that filed corporate net income tax returns owed any tax.<sup>95</sup> Furthermore, the Pennsylvania Supreme Court has determined that state law does not permit localities to impose *ad valorem* taxes, or real estate taxes, on oil and gas interests tied to particular tracts of land.<sup>96</sup> By comparison, West Virginia assesses property at 60 of market value.<sup>97</sup>

It appears, therefore, that drilling companies enjoy favorable tax treatment in Pennsylvania relative to other natural gas producing states. Studies of Wyoming and Utah suggest that Pennsylvania could collect more tax revenue without significantly deterring companies from drilling within its borders.<sup>98</sup> And notwithstanding the shortcomings of

Pennsylvania's top-down approach to revenue disbursement, a severance tax on the volumes

Washington and Lee University

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the entire effective tax burden). Other taxes also factor in the effective tax rate, such as sales tax on inputs (equipment, materials, business services) and capital stock and franchise tax. *Id.*

<sup>94</sup> See Kent, *supra* note 61, at 3 (explaining that although some state impose corporate income taxes on drillers, most take advantage of capital exemptions and various forms of organization to avoid taxes).

<sup>95</sup> See Representation, *supra* note 69, at 1 (explaining how little drilling companies pay in corporate income taxes). Note that the Pennsylvania Budget and Policy Center has admitted error in this report when it asserted that drilling companies avoid corporate income taxes by filing as LLCs and LPs. Although it contends that its mistake did not affect its bottom line numbers, industry proponents and the state Revenue Department argue that the taxes paid for 2008 were exponentially higher. See Angelea Coulombis, *Think Tanks Battle on Marcellus Shale Tax Policy*, PHILLY.COM (Apr. 11, 2011) (suggesting that the debate over the Center's study is a matter of metrics).

<sup>96</sup> See *Indep. Oil & Gas Ass'n of Pa. v. Board of Assessment Appeals of Fayette Cnty.*, 572 Pa. 240, 241 (2002) (holding that municipal authority to exact property taxes on “[a]ll real estate” or “lands” as these terms are used in the statute does not extend to fugacious materials, such as oil and gas, that are not “quantifiable or identifiable as part of a particular tract of land”).

<sup>97</sup> See Kent, *supra* note 60, at 2 (comparing the ways in which natural gas producing states exact property taxes on drillers).

<sup>98</sup> See *Lowest Drilling Fee*, *supra* note 57 (highlighting the finding in studies of Wyoming and Utah that, counter to common belief, tax rates have little effect on natural gas production; rather, location and the expected price of natural gas are the strongest determinants for drillers in deciding whether to produce).

extracted could generate more funds to benefit the poor communities of rural Pennsylvania.<sup>99</sup> Pennsylvanians would also benefit from a statutory revision allowing for the collection of property taxes on oil and gas interests. Because local governments currently have no taxing authority with respect to oil and gas operations, studies have shown mixed impacts on the finances of school districts and municipalities.<sup>100</sup>

### **b. New York Treads Cautiously**

Many municipalities in New York face similar predicaments as those in Pennsylvania: how do economically distressed communities balance the need for stimulus with the risk of “post-boom hangovers” and environmental degradation associated with fracking?<sup>101</sup> So far, New York has taken a dramatically different path. First, concerned New Yorkers have applied sufficient pressure to convince their elected officials to halt HVHF until the DEC completes a study of the risks to the environment and public health.<sup>102</sup> Pennsylvania did not exhibit such apprehension.<sup>103</sup> Second, notwithstanding a preemption provision nearly identical to that in Act 13, New York courts have upheld the authority of municipalities to completely ban fracking from within their jurisdictions.<sup>104</sup>

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<sup>99</sup> See *Impact Fee Half of Drilling Tax*, *supra* note 67 (arguing that local communities have inadequate resources to deal with the long and short-term issues to address, and that a drilling tax could help remedy the funding problems).

<sup>100</sup> See CHARLES COSTANZO AND TIMOTHY W. KELSEY, PENN STATE CENTER FOR ECONOMIC AND COMMUNITY DEVELOPMENT, MARCELLUS SHALE AND LOCAL COLLECTION OF STATE TAXES: WHAT THE 2011 PENNSYLVANIA TAX DATA SAY 2 (2012) (noting that studies have shown tepid results on local tax revenues resulting from drilling because Pennsylvania prohibits such taxes).

<sup>101</sup> See Christopherson, *supra* note 16, at 8 (Cornell Univ. Dep’t of City and Regional Planning, 2011) (explaining the typical “boom-bust” cycle that attends the extraction of non-renewable resources in communities where extraction is the primary industry).

<sup>102</sup> *NY Health Commissioner Will Make Recommendation on Gas Drilling in Weeks*, THE POST-STANDARD (Mar. 11, 2013, 3:30 PM), [http://www.syracuse.com/news/index.ssf/2013/03/ny\\_health](http://www.syracuse.com/news/index.ssf/2013/03/ny_health).

<sup>103</sup> See Christopherson, *supra* note 70, at 4 (noting how no state environmental impact process was required before HVHF commenced in Pennsylvania).

<sup>104</sup> See Gottlieb, *supra* note 15, at 1 (referring to New York case law interpreting the OGSML).

*i. Political Tug of War*

The Marcellus Shale “gas rush” caught state officials off guard and quickly divided New Yorkers between those supporting the industry and environmentalists who oppose.<sup>105</sup> As investors raced to buy up land leases and opponents mounted an anti-fracking movement, then Democratic Governor Paterson in 2008 issued an effective moratorium on HVHF while the DEC studied its environmental impacts.<sup>106</sup> In 2010, the New York Senate, with overwhelming bipartisan support, passed a one-year moratorium on a wide range of gas drilling.<sup>107</sup> But in an attempt to dodge confrontation with industry proponents while also placating environmentalists, Paterson vetoed the moratorium and instead banned only HVHF to avoid disrupting existing projects.<sup>108</sup> Whether by executive order or moratorium, New York has effectively halted HVHF since 2008, highlighting the success of the anti-fracking coalitions to stave off drilling until more is understood about its impact on the environment.<sup>109</sup>

The opposition and pro-fracking forces have increased pressure on Governor Cuomo, who took office in 2011 on a “let-the-science-decide” platform.<sup>110</sup> Like Paterson, Cuomo has had to balance the economic plight of New York’s “Southern Tier” and the potential hazard that

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<sup>105</sup> See Shannon Ayala, *The Story of NYS’s Fracking Moratorium*, EXAMINER.COM (Nov. 29, 2011), <http://www.examiner.com/article/the-story-of-nys-s-fracking-moratorium> (chronicling the fracking debate in New York between industry supporters and landowners and environmentalist groups).

<sup>106</sup> See *id.* (explaining that in response to environmental concerns and the influx of investors, Governor Paterson effectively banned fracking by requiring drillers to produce costly environmental impact statements (EIS) prior to using HVHF, which resulted in no drilling).

<sup>107</sup> See Peter Mantius, *Gov. Paterson Vetoes NY Drilling Moratorium, but bans High-Volume Hydrofracking Until July 2011*, THE BULLDOG BLOG (Dec. 1, 2010), <http://www.dcbureau.org/20101201349/bulldog-blog> (noting that after solid support in the New York Assembly, the Senate passed the measure with a 48–9 vote before Paterson’s veto).

<sup>108</sup> See *id.* (explaining how Paterson faced intense lobbying by industry proponents and campaign contributors, urging him to veto the moratorium).

<sup>109</sup> See Michael Gormley, *New York Fracking Held as Cuomo, RFK Jr. Reportedly Talk Health*, HUFFINGTON POST (Mar. 2, 2013, 12:07 PM), [http://www.huffingtonpost.com/2013/03/02/new-york-fracking\\_n\\_2797039.html](http://www.huffingtonpost.com/2013/03/02/new-york-fracking_n_2797039.html) (noting concerns of landowners and industry advocates that Pennsylvania has enjoyed a boom period while New York has banned the practice).

<sup>110</sup> See Hakim, *supra* note 28 (recalling Cuomo’s insistence that the decision whether to allow fracking in New York be based on an objective, scientific evaluation of the costs, and not politics).

HVHF poses to public safety.<sup>111</sup> Cuomo indicated that he would support HVHF in distressed areas if scientific studies reveal that it can be done safely and without unreasonable risks to public health.<sup>112</sup> Although environmental impact inextricably connects to public health, Cuomo has now framed the decision in terms of public health.<sup>113</sup> He illustrated this in February 2013 when, because the DEC missed its deadline to produce a much-anticipated environmental impact study, he commissioned a new study to determine the risks to public health.<sup>114</sup> His calculated and prolonged decision-making ostensibly reflects the delicate reality of the debate: two highly organized coalitions that supported Governor Cuomo’s campaign now fiercely vie for a favorable determination for New York’s future as a Marcellus Shale state.<sup>115</sup> But whether or not HVHF proceeds in New York, the statewide debate and legislative process stands markedly distinct from that which occurred in Pennsylvania.

*ii. Affirmation of Local Control over Land Use*

Two trial courts have recently tackled whether Environmental Conservation Law (“ECL”) § 23-0303(2) preempts municipalities from enacting ordinances that expressly ban fracking within their jurisdictions.<sup>116</sup> In *Anschutz Exploration Corp. v. Town of Dryden*<sup>117</sup> and *Cooperstown Holstein Corp. v. Town of Middlefield*,<sup>118</sup> the courts answered in the negative. Section 23-0303(2) provides that “the provisions of [the ECL] shall supersede all local laws or

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<sup>111</sup> See *id.* (noting the debate’s political complexity for Cuomo, who appealed to liberals during his campaign but also empathizes with the plight of those who plead for the stimulus drilling provides).

<sup>112</sup> See Gormley, *supra* note 86 (reporting that sources close to Cuomo state that the issue is simple for the governor: if it causes health problems, NY should keep it out; if it does not cause health problems, NY should find a way to drill).

<sup>113</sup> See *id.* (reporting that, to the chagrin of landowners and industry advocates because of the added delay, Cuomo’s newly commissioned health study is his way of ultimately deciding the state’s position on HVHF).

<sup>114</sup> See *id.* (explaining the new health study).

<sup>115</sup> See Hakim, *supra* note 87 (noting the politically perilous position Cuomo occupies in which arguably any decision he makes risks alienating a substantial faction of his supporters).

<sup>116</sup> Environmental Conservation Law § 23-0303(2) (1981).

<sup>117</sup> 940 N.Y.S.2d 458, 474 (Sup 2012).

<sup>118</sup> 943 N.Y.S.2d 722, 780 (Sup 2012).

ordinances relating to the regulation of the oil, gas and solution mining industries.”<sup>119</sup> Notably, it deviates from Act 13 in that it also states that the ECL “shall not supersede local government jurisdiction over . . . the rights of local governments under the real property tax law.”<sup>120</sup>

Therefore, unlike Pennsylvania, where towns may not tax drilling operations, New York municipalities retain the authority to exact property taxes on leaseholders within their jurisdictions. From the CED perspective, communities in New York seem better positioned to secure the benefits of the fracking industry insofar as they can keep revenues local and exercise spending discretion.<sup>121</sup> But whether or not tax revenues of any type will materialize for New Yorkers depends on whether the state will allow the industry to exploit the Marcellus Shale beneath them.

On the other hand, *Dryden* and *Middlefield* thus far have resolved the issue of “municipal self-determination.” In each case, plaintiffs challenged municipal ordinances that prohibit fracking within their jurisdictions, arguing that the legislature intended to “occupy the field” of oil, gas, and solution mining by creating a unified body of regulations.<sup>122</sup> The defendant towns countered that § 23-0303(2) does not preempt the right of a municipality to exercise its delegated land use power to protect the health, safety, and welfare of the community.<sup>123</sup> This argument echoes those of the municipalities in *Huntley* and *Robinson Township*. Similar to the

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<sup>119</sup> Environmental Conservation Law § 23-0303(2).

<sup>120</sup> *Id.*; but see 58 PA. CONS. STAT. ANN. § 3302 (no provision extending the authority of municipalities to tax real property or regulate local roads insofar as regulation will impact oil and gas operations).

<sup>121</sup> See discussion *supra* Part III.A.ii.

<sup>122</sup> See Gottlieb, *supra* note 15, at 2 (outlining plaintiffs’ “field preemption” arguments in the two cases).

<sup>123</sup> See *id.* (highlighting the principal arguments made by the defendant towns in each case).

Pennsylvania courts, the *Dryden* and *Middlefield* courts distinguished zoning and land use laws from those regulating the operations of oil, gas, and solution mining.<sup>124</sup>

New York courts, however, have gone further than the Pennsylvania Supreme Court, which has not had occasion to evaluate an ordinance that completely banned fracking from within a municipal jurisdiction.<sup>125</sup> It has invalidated, however, an ordinance that completely banned the quarrying of limestone, holding that such an ordinance “must bear a more substantial relationship to the public health, safety, morals and general welfare” than a mere districting ordinance.<sup>126</sup> The court rejected concerns about increased truck traffic, dust and noise pollution, and community aesthetics as justification for a jurisdiction-wide ban.<sup>127</sup> This case, coupled with language in the MPC and Act 13 supportive of gas development,<sup>128</sup> suggests that Pennsylvania courts would invalidate municipal laws that discriminately ban fracking from all zoning districts.

Between the sheer intensity of New York’s fracking debate and judicial demarcations of municipal rights, New Yorkers should secure a stronger position than neighboring

Pennsylvanians with respect to managing the local impact of fracking. That New York for years has banned HVHF while it awaits comprehensive impact studies suggests that no single interest group or political party has dominated the decision-making process in Albany.<sup>129</sup> Governor

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<sup>124</sup> See *id.* at 4–5 (noting the courts’ distinctions between regulations of *operations* and regulations that incidentally affect operations)

<sup>125</sup> Cite using *compare/with*

<sup>126</sup> See *Exton Quarries, Inc. v. Zoning Bd. of Adjustment of West Whiteland Twp.*, 228 A.2d 169, 179 (Pa. 1967) (finding that private nuisance caused by the banned activity—dust, noise, vibrations, truck traffic—were not sufficient to justify a total ban on a business activity within a township jurisdiction).

<sup>127</sup> See *id.* at 180–81 (rejecting the township’s concerns as justification for an absolute jurisdictional ban on limestone quarrying).

<sup>128</sup> See Pennsylvania Municipalities Planning Code, 53 PA. CONS. STAT. § 10603(i) (West 2008) (requiring municipalities to enact comprehensive development plans that “provide for the reasonable development of minerals”); Act 13, 58 § 3304(b)(2) (prohibiting ordinances from regulating activities incidental to oil and gas operations that are more stringent than those imposed on other industrial uses of land).

<sup>129</sup> See generally, Mantius, *supra* note 84 (highlighting bipartisan support among Democrats and Republicans for the 2010 moratorium); Hakim, *supra* note 87 (suggesting how Democratic Governor



Cuomo's ambivalence over whether to allow fracking illustrates the point.<sup>130</sup> Moreover, recent public opinion studies reveal that suburban voters and voters in Upstate New York split evenly in their support for fracking, while a solid majority of New York City voters oppose it.<sup>131</sup>

Therefore, one might reasonably conclude that even if New York ultimately allows HVHF, it likely would accord communities the discretion to determine whether or not to permit it within their jurisdictions. Comporting with CED's emphasis on local influence over and engagement in economic activity, such discretion would position New Yorkers, not the state, to ultimately decide whether fracking is best for the community.

#### **IV. Recommendations: Keep it Local**

To encourage sustainable economic development, Pennsylvanians would benefit from a mix of policy changes and actions localities can take that equip them to manage the impact of the industry. First, and most importantly, legislators should amend Act 13 to liberalize the extent to which municipalities may regulate the location of drilling pads and ancillary infrastructure.

Clear legislation would resolve any ambiguity in Pennsylvania case law as to whether a municipality may completely ban fracking via zoning ordinances.<sup>132</sup> Additionally, according communities the ability to chart their own economic futures places citizens, not outside corporate influences, in the driver's seat.

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Cuomo's decision whether or not to allow HVHF in New York carries dire political consequences regardless of his decision).

<sup>130</sup> See Gormley, *supra* note 86 (noting Cuomo's last minute change in course in February 2013, from allowing a small number of HVHF wells to holding off completely until the results of impact studies become available).

<sup>131</sup> Polling Inst., Quinnipiac Univ., *Gas Drilling Divides New York by Region, Quinnipiac University Poll finds; Voters Say 3-1 Fracking will Hurt Environment 1* (Apr. 18, 2013), <http://www.quinnipiac.edu/images/polling/ny/ny04182013.pdf>. This report also found that Republican support for drilling stood at 68 percent, with 25 percent opposing; and Democrats opposing at 58 percent, with 29 supporting. *Id.*

<sup>132</sup> See discussion *supra* Part III.B.ii.



Second, Pennsylvania should join the vast majority of other natural gas producing states and adopt a severance tax on gas production.<sup>133</sup> Not only would it generate more revenue but it would also, as a normative matter, appropriately compensate the state for the loss of a non-renewable resource.<sup>134</sup> Combined with a liberalization of Act 13’s limits on the local use of revenues,<sup>135</sup> a severance tax would place municipalities in the position to more adequately remedy the negative externalities associated with fracking. Furthermore, increased revenue and local discretion to use it furthers CED’s conception of local control over economic development.

Third, communities should engage drilling operations directly through the use of Host Community Agreements (“HCA”), which serves as an agreement or understanding between drilling operations and communities.<sup>136</sup> Such agreements presume that a community has leverage to bargain with drilling operations. Thus, their efficacy to communities might require implementing the first recommendation—that legislators amend Act 13 to accord communities authority to regulate the location of drilling pads and related infrastructure. If feasible, however, HCAs might reference the negative externalities that fracking causes and, in exchange for favorable zoning laws, require drilling operations to support community initiatives. Most importantly, HCAs would bring local citizens to the table where they can express concerns and work to remedy the negative impact of fracking on the community.

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<sup>133</sup> See KENT, *supra* note 92, at 3 (noting that only Maryland, Pennsylvania, and New York do not apply severance taxes on natural gas production).

<sup>134</sup> See discussion *supra* Part III.A.ii.

<sup>135</sup> See *id.*

<sup>136</sup> See Nolon, *supra* note 17, at 529–30 (prescribing the use of HCAs for communities in New York).