

# INTO THE FRACKING FRAY: ADVOCATING FOR A BALANCED APPROACH TO HYDRAULIC FRACTURING REGULATION IN TENNESSEE

W. McDONALD PLOSSER

## I. Introduction\*

For decades in the United States, the unrelenting norm in energy consumption has been the heavy use of crude oil amidst volatility in the nations that comprise the Organization of the Petroleum Exporting Countries,<sup>1</sup> compounded by the harmful environmental and economic effects of coal production and emissions.<sup>2</sup> In the midst of this uncertainty, a method of drilling for oil and natural gas has become one of the cleanest, most profitable yet controversial solutions. Hydraulic fracturing (“fracking”) has been in use for many years in states like New York and Pennsylvania.<sup>3</sup> The process involves new techniques in drilling for oil and natural gas that penetrate deep into the Earth’s crust and release pressurized water and chemicals in order to

---

\* The full version of this essay appears as a Note in *The University of Memphis Law Review*, at 44 U. Mem. L. Rev. 667 (2014).

1. *The Availability and Price of Petroleum and Petroleum Products Produced in Countries Other than Iran*, U.S. ENERGY INFORMATION ADMINISTRATION 2 (Oct. 31, 2013), <http://www.eia.gov/analysis/requests/ndaa/pdf/ndaa.pdf> (“The decrease in world oil supply [compared to immediately previous report] reflects a 0.8-million-bbld/d decline in total production from members of [OPEC], namely Iraq, Libya, and Saudi Arabia . . . . Crude oil output declines from Iraq and Libya reflect unplanned supply disruptions . . .”).

2. *Coal*, CTR. FOR CLIMATE AND ENERGY SOLUTIONS, <http://www.c2es.org/energy/source/coal#Resources> (last visited Dec. 14, 2013) (“Carbon dioxide emissions from coal combustion for electric power and industry were responsible for 28.3 percent of total U.S. greenhouse gas emissions in 2010. Moreover, combustion emits common air pollutants . . . [which] have adverse effects on both public health and the environment.”).

3. Sorell E. Negro, *Fracking Wars: Federal, State and Local Conflicts over the Regulation of Natural Gas Activities*, 35 ZONING & PLAN. L. REP., Feb. 2012, at 1.

break up large underground rock formations rich in natural gas,<sup>4</sup> known as shale deposits.<sup>5</sup>

In Tennessee, increasing investment in fracking has triggered a need for corresponding regulation. However, the debate between state and municipal governments as to who should regulate the fracking industry will likely surface with the advent of regulations provided by the Tennessee Department of Environment and Conservation (“TDEC”).<sup>6</sup> While these regulations pave the way for state control, local governments, through zoning ordinances and specific local knowledge, will also influence how fracking is regulated in the years to come. This essay traces the regulatory landscape of fracking nationwide and will show how collaboration between state and local governments in Tennessee would accomplish the goals of efficiency, safety, and profitability.

## II. Background of Fracking

Fracking finds its beginnings in the 1940s; however, the technology needed to capture a profitable amount of oil and gas was not developed until much later.<sup>7</sup> These methods have faced close scrutiny by environmental organizations regarding their potentially harmful drawbacks. As

---

4. *Id.*

5. *See, e.g.,* OKON OBO, HYDRAULIC FRACTURING (FRACKING): PROCEDURES, ISSUES, AND BENEFITS, 10 (2013) (referring to these impervious rock formations as “shale deposits”).

6. *See generally* TENN. COMP. R. & REGS. 0400-51-01 to 0400-58-01 (2012), available at [http://www.tn.gov/environment/water/docs/wpc/fracking\\_rules\\_2012.pdf](http://www.tn.gov/environment/water/docs/wpc/fracking_rules_2012.pdf) (detailing regulations applicable to, *inter alia*, drilling requirements, waste prevention, equipment specifications, and production limitations).

7. *Hydraulic Fracturing on the Cumberland Plateau*, WUOT KNOXVILLE (Aug. 12, 2011), [hereinafter Fracking Podcast] <http://sunsite.utk.edu/wuot/mt/podcast/20110812frackingWEB.mp3>.

the practice continues to grow and the demand for oil and natural gas rises,<sup>8</sup> the battle between fracking's proponents and opponents has increasingly captured the political spotlight.<sup>9</sup> As a result, regulation of the industry will be closely scrutinized going forward.

Fracking has allowed the energy industry to dramatically increase the amount of natural gas it can produce.<sup>10</sup> Indeed, production of shale gas is expected to jump from 5 trillion cubic feet in 2010 to 13.6 trillion cubic feet by 2035.<sup>11</sup> With increased production comes a number of benefits.<sup>12</sup> These include high-dollar lease agreements between residents and fracking companies that may also be accompanied by signing bonuses and other incentives.<sup>13</sup> On a larger scale, states can also capitalize on the fracking boom by allowing the practice on public lands

---

8. See Jacquelyn Pless, *Natural Gas Development and Hydraulic Fracturing: A Policymaker's Guide*, NAT'L CONFERENCE OF STATE LEGISLATURES 1 (June 2012), [http://www.ncsl.org/documents/energy/frackingguide\\_060512.pdf](http://www.ncsl.org/documents/energy/frackingguide_060512.pdf) (observing the exponential growth in natural gas resulting from technological advances in hydraulic fracturing procedures).

9. See, e.g., Joseph De Avila, *'Fracking' Goes Local*, WALL ST. J., (Aug. 29, 2012, 12:01 PM), <http://online.wsj.com/article/SB10000872396390444327204577617793552508470.html?KEYWORDS=joseph+de+avila#articleTabs%3Darticle> (examining this political dispute in Pennsylvania and New York).

10. See Pless, *supra* note 8.

11. *Id.* at 2 (noting that production is estimated to grow by 7% between 2010 and 2035).

12. Emily C. Powers, Note, *Fracking and Federalism: Support for an Adaptive Approach that Avoids the Tragedy of the Regulatory Commons*, 19 J.L. & POL'Y 913, 927 (2011) ("Gas production is enormously profitable and brings hard-to-resist economic benefits to landowners and depressed areas.").

13. *Id.* ("[In New York], royalties from just one acre of leased land can total about \$180,000 a year, in addition to a signing bonus of several hundred to several thousand dollars. Multiply that amount by the many acres that a lessor might own and it becomes clear why, for many individual landowners, the incentives to permit drilling outweigh the costs.").

and levying taxes on it.<sup>14</sup> Additionally, fracking creates new job opportunities as drilling typically occurs in more rural parts of the country where jobs are scarcer.<sup>15</sup> While many see natural gas as a viable oil substitute capable of bringing the country closer to energy independence, its prevalence has also paved the way for other important benefits.<sup>16</sup>

While there are many economic and environmental benefits to fracking, some express concern as to the potential harms posed by the technique, though others associate such fears with pre-existing conditions unrelated to fracking.<sup>17</sup> Perhaps the most pervasive concern is the fear that the chemicals and gas-contaminated water used in the fracking process will seep into the groundwater, poisoning local residents.<sup>18</sup> A popular documentary shocked its viewers when several people in Colorado turned on their sinks and lit the flowing water ablaze.<sup>19</sup> But many urge that the prevalence of natural gas in drinking water is not a recent phenomenon. Scenes like the one in this documentary can be explained by demonstrating that “places that have a lot of gas in the ground *have a lot of gas in the ground*. And sometimes that gas is in the water, too, as a

---

14. *Id.* at 926–28.

15. Powers, *supra* note 12, at 927–28.

16. *Id.* (citing “feedstock for fertilizers, chemicals and pharmaceuticals, waste treatment, food processing, [and] fueling industrial boilers” as examples).

17. Powers, *supra* note 12, at 924 (“Specific concerns include: the threat that gas or fracking fluid can pollute groundwater; toxic air emissions from gas leaks, processing, gas ‘flaring’ and truck exhaust; erosion from construction and pipeline siting; degradation of surface waterways from leaks, accidental chemical spills, and stormwater runoff; noise and light pollution; increased truck traffic and roadway deterioration; and destruction of ecologically sensitive habitat and the landscape.”).

18. Eric Lewis, *Fracking Rules Usurp Property Rights*, TENNESSEAN, Oct. 30, 2012, at 6A.

19. GASLAND (Josh Fox 2010).

result of natural geological processes,” not by fracking.<sup>20</sup> The more common and potentially detrimental side effects of the procedure are associated with increased traffic flow, well-siting, and waste disposal, all of which may be handled more effectively at the local level.<sup>21</sup>

In Tennessee, the majority of fracking currently takes place in the Cumberland Plateau and Knox formations that stretch across fifteen to seventeen counties between Nashville and Knoxville.<sup>22</sup> These deposits are part of a larger shale deposit known as the Chattanooga Shale.<sup>23</sup> Only 39 well permits were issued from August 2011 to August 2012, in contrast to the 3,314 permits issued by the Commonwealth of Pennsylvania for drilling in its Marcellus Shale.<sup>24</sup> Tennessee’s topography is quite different; “shale formations aren’t as thick, meaning large amounts of water and chemicals are not needed. . . . The petroleum geology and recovery methods in Tennessee are very different from that seen in the Marcellus Shale and other areas of the country where fracking has caused controversy.”<sup>25</sup> Despite these statistics, the state and environmental groups share the belief that a boom is in Tennessee’s future; a spokesman for the Sierra Club estimated that two-thirds of the state would eventually be targeted for fracking

---

20. Kevin D. Williamson, *The Truth about Fracking*, NATIONAL REVIEW ONLINE (Mar. 12, 2012, 1:00 AM), <http://www.nationalreview.com/articles/293086/truth-about-fracking-kevin-d-williamson> (emphasis in original).

21. *See infra* Part IV.; Powers, *supra* note 12.

22. *See* Lewis, *supra* note 18.

23. *Id.*

24. Duane W. Gang, *State Works on Fracking Rules: Environmentalists Say Drilling Limits Don’t Go Far Enough*, TENNESSEAN, Aug. 2, 2012, at 1A.

25. *Id.*

operations.<sup>26</sup> As a result, policy-makers need to ask and answer important questions as new wells are drilled and more regulations are considered and adopted.

### III. Other States' Regulatory Schemes

In order for Tennessee to employ its own balanced regulatory scheme, it must consider both the failures and successes of others. States are largely in charge of current fracking regulation. While some share common regulatory themes, different states' regulations are often tailored to their unique needs and topography.<sup>27</sup> Tennessee has an opportunity to examine and learn from the experiences of other states. By looking to states with a larger fracking industry, Tennessee can observe the ways in which it implements a comprehensive regulatory scheme designed to have far-reaching effects. While these states have experienced their fair share of struggles as local governments express their disdain for exclusive state control, these conflicts provide a warning that lawmakers in Tennessee ought to heed going forward.<sup>28</sup>

In New York, for example, much of the state's regulations focus on permitting and disclosure requirements designed to encourage "natural gas development" and protect landowners in their respective groundwater rights.<sup>29</sup> While New York's regulatory scheme is considered one of the more advanced and comprehensive,<sup>30</sup> it is not without criticism. First, critics argue that allowing the state to take control of all fracking regulation would leave the

---

26. *Id.*

27. Francis Gradijan, *State Regulations, Litigation, and Hydraulic Fracturing*, 7 ENVTL. & ENERGY L. & POL'Y J. 47, 63 (2012). For example, Alabama's regulations are tailored to regulate fracking in coalbeds, a unique feature of fracking operations in that state. *Id.* at 66.

28. *See infra* Part V.

29. Powers, *supra* note 12, at 942–43.

30. Negro, *supra* note 3, at 4.

effort underfunded and understaffed.<sup>31</sup> Second, there is some concern that the regulations do not address fracking in its details, leaving drilling companies and local governments unable to accurately comply with the requirements placed upon them.<sup>32</sup> Lastly, many residents are unsure if the state will fully and consistently disclose the chemicals used in fracking operations to the public, and as a result, whether more groundwater will be contaminated unbeknownst to the landowners leasing their property to drilling companies.<sup>33</sup>

Similar to New York, Pennsylvania has regulations in place that involve disclosure, permitting, and the like, designed to comprehensively regulate fracking solely at the state level.<sup>34</sup> But unlike New York, Pennsylvania has arguably been more effective in putting specific requirements in place as to disclosure of chemicals used in each of the wells it grants permits for, a move designed to quell public fear that drinking water will be contaminated.<sup>35</sup> Specifically, a landowner who suspects that his groundwater has been contaminated “may request the [Department of Environmental Protection] to conduct an investigation. The investigation must take place within ten days, and the DEP must determine within forty-five days whether drilling caused the pollution.”<sup>36</sup> The comprehensive nature of such provisions are a testament to the

---

31. Powers, *supra* note 12 (“For instance, as of 2009, the Division of Mineral Resources had only sixteen enforcement staff members to oversee more than thirteen thousand conventional wells.”).

32. *Id.* at 944 (“For example, small-scale chemical spills, accidents, and incremental burdens on surface waters and infrastructure are difficult for localities to anticipate without more information about how extensive drilling will be.”).

33. *Id.*

34. Gradijan, *supra* note 27, at 73.

35. *Id.* at 73–75.

36. *Id.* at 75.

historical presence of fracking in the state.

#### IV. Local Governments

The extent of local governments' authority is determined by state law, "including the extent to which they may enact ordinances or regulations regarding gas drilling."<sup>37</sup> Most likely, the municipalities, through these zoning ordinances, will be able to regulate specific aspects of the drilling process such as where fracking may occur, traffic-flow regulations, and building permits.<sup>38</sup> It appears, however, that local regulation has only taken root in gaps left by the federal and state governments, rather than being implemented intentionally and cooperatively with those latter entities.<sup>39</sup> In New Mexico, for example, local governments have begun to play a minor role in fracking regulation, but that regulation only covers the times during which fracking companies can drill.<sup>40</sup> Thus, while local governments are ill-equipped to regulate fracking on their own, they can provide a stable and comprehensive means of regulation when used collaboratively with the states.

Perhaps the most potent weapon in the local governments' arsenals come in the form of zoning ordinances. Zoning ordinances allow local governments to regulate fracking in a number of ways. The first is by regulating "siting," or where fracking companies may drill. For example, in Collier Township, Pennsylvania, the town has forced drilling companies to keep

---

37. Negro, *supra* note 3, at 4.

38. Shaun A. Goho, *Municipalities and Hydraulic Fracturing: Trends in State Preemption*, 64 PLAN. & ENVTL. L. 1, July 2012, at 4–5.

39. Gradijan, *supra* note 27, at 70–71.

40. *Id.* at 70 ("Santa Fe County's oil and gas ordinance limits fracking activities to 8:00 a.m. and 5:00 p.m. and forbids the activities from exceeding eighty decibels at 300 feet from the source.").

their operations at least 300 feet away from most private and publicly held property unless the company obtains the owner's consent.<sup>41</sup> These regulations ensure that fracking operations do not encroach upon certain types of properties the municipality wishes to protect. Siting, in particular, may prove to be one of the most important tools when staving off the threat of contamination by keeping the wells away from where the city draws its water supply.<sup>42</sup>

Some municipalities have employed their zoning ordinances to ban fracking altogether within their borders, moving beyond mere regulation into a standoff with the states.<sup>43</sup> The states have approached total bans in different ways, some allowing the municipalities to keep fracking out, and others challenging local authority to do so.<sup>44</sup> The validity of fracking bans turn on the extent to which authority has been given to the municipalities and how each state's regulations are constructed.<sup>45</sup> Municipalities that attempt to justify their bans in court argue that the state carved out an exception for the municipalities when it granted them the ability to craft zoning ordinances for the welfare of their citizens.<sup>46</sup> The future of these challenges is uncertain, but currently there are fracking bans and moratoria in many states such as New York and

---

41. Negro, *supra* note 3, at 7–8 (“Drilling is also prohibited within 1,000 feet of a school or day care center without the property owner's consent, or within 300 feet of these uses with consent.”).

42. *See* Goho, *supra* note 38, at 4.

43. Negro, *supra* note 3, at 9–10. Several municipalities in New York and Pennsylvania have placed moratoria on fracking, “including Buffalo, Ithaca, and Geneva in New York, and Pittsburgh, Cresson, and Washington Township in Pennsylvania.” *Id.* at 10.

44. Goho, *supra* note 38, at 4.

45. Negro, *supra* note 3, at 10 (referencing an example in Morgantown, West Virginia).

46. *Id.* at 9–10.

Pennsylvania, the effects of which will be discussed below.<sup>47</sup>

#### V. Tension & Preemption: The Clash Between State and Local Governments

As municipalities ramp up efforts to regulate or eliminate fracking through their zoning ordinances, they are increasingly facing the problem of state preemption. State preemption occurs when a state legislature passes legislation effectively barring municipal regulation or action in a given field.<sup>48</sup> In some extreme circumstances, states have passed moratoria on municipal regulation, effectively allowing the states to become the sole regulators.<sup>49</sup> Since municipalities are “creations of the state,” their authority is limited, but there are many instances in which local governments have used what authority they have to step into “contested area[s],” and subsequently draw scrutiny from the states.<sup>50</sup>

Meanwhile, municipalities are pushing back against states’ attempts to effectively shut them out of the regulatory game. The most vivid example of this clash occurred in Pennsylvania where state courts heard a case directly between a municipality and the state. There, the Commonwealth of Pennsylvania enacted a statute expressly preempting any and all local regulation of the oil and gas industry.<sup>51</sup> Included in the statute was the state’s ability to determine where drilling was to occur, how it was to occur, and the ability of a corporation to

---

47. *Id.*; *see infra* Part V.

48. *See Goho, supra* note 38, at 5.

49. *Id.*; *see, e.g.,* Negro, *supra* note 43 and accompanying text.

50. Goho, *supra* note 38, at 5.

51. *Robinson Twp., Washington Cnty. v. Commonwealth*, 52 A.3d 463, 468–69 (Pa. Commw. Ct. 2012).

exercise powers of eminent domain.<sup>52</sup> Robinson Township challenged the constitutionality of the Act, arguing that “[the municipality] could not constitutionally enact a zoning ordinance if they wanted to, and it does not make any ordinance any less infirm because the General Assembly required it to be passed.”<sup>53</sup> The lower court eventually ruled in the Township’s favor, holding that the Act violated substantive due process by making an “irrational classification” that forced municipalities to allow fracking irrespective of their zoning ordinances, essentially rendering them useless.<sup>54</sup> On appeal to the Supreme Court of Pennsylvania, the Court affirmed, holding that the state’s attempt to preempt local zoning ordinances was unconstitutional.<sup>55</sup> It seems apparent, then, that state courts are willing to allow local governments to take some responsibility for the regulation of fracking apart from the state’s interference.

#### VI. A Balanced Approach for Tennessee

In order to avoid the mistakes that other states have made, Tennessee will need to incorporate a deferential attitude toward local governments, avoiding the preemption battle and accomplishing goals at both levels of government. Doing so would also allow for a more balanced approach to regulation, wherein the state and local governments work cooperatively with and complementary to each other, effectively providing a more predictable, sustainable, and efficient model of regulation that is fair to the public, the environment, and to drilling companies.

Prior to the Tennessee Department of Environment and Conservation’s (“TDEC”) recently-approved fracking regulations, the state had no scheme for regulating fracking

---

52. *Id.*

53. *Id.* at 481.

54. *Id.* at 484.

55. *Robinson Twp., Washington Cnty. v. Commonwealth*, 83 A.3d 901 (Pa. 2013).

operations. While this is Tennessee’s first attempt, the regulations’ breadth will likely afford the Water Quality Control Board (“WQCB”)—the entity charged with enforcing the new regulations—some leeway in adapting them down the road. Some critics have observed that the rules do not take into account the successes and failures of other fracking states.<sup>56</sup> It is likely that these rules will need some adaptations as they are tried and tested in the field; but for now, they provide the foundation from which the state and the local governments can begin to regulate the fracking industry. The Tennessee rules contain many of the usual provisions found in other states’ regulations such as permitting and notice requirements.<sup>57</sup> However, the Tennessee rules also contain siting requirements that may prove to be a point of contention with local governments going forward.<sup>58</sup> In short, the rules provide a basic framework for regulating the practice, but their breadth gives way to gaps that must be filled by local governments. Three potential flaws in the rules include the permitting, public notification, and siting requirements.

Under the regulations, drillers must acquire permits prior to the commencement of fracking operations.<sup>59</sup> The requirements are extensive and specific. A drilling permit is valid for a full year, “unless the applicant has commenced operations and reasonably continues said operations pursuant to the permitted objective.”<sup>60</sup> Thus, if drilling operations continue as originally permitted beyond the first year, the permit does not need to be renewed in each

---

56. Gang, *supra* note 24 (“We feel like the current regulations fail to recognize the lessons learned in other states,” said Mark Quarles, an environmental consultant working on the fracking rules for [a number of environmental groups].”).

57. *Id.*

58. TENN. COMP. R. & REGS. 0400-53-03-.01(10) (2012).

59. *Id.* 0400-52-02-.01 to 0400-52-02-.02.

60. *Id.*

subsequent year.<sup>61</sup> While no environmental groups have challenged this provision, the potential exists for drilling companies to feel as though they have the ability to alter their operations after the first year. For example, the rules require that companies submit proposals and get approval for “access roads, surface disturbances, and pollution control structures” prior to obtaining a permit.<sup>62</sup> After the first year, drilling companies would no longer have to apply for a renewed permit according to the rules, and altered roads, wastewater disposal, and the like would not be inspected again. Additionally, it is unclear who—if anyone—is responsible for determining whether the applicant is indeed reasonably continuing permitted operations. As there is no provision regarding follow-ups, it is quite possible that the drilling companies will have the ability to make this determination themselves. This highlights a noticeable gap in regulation that could potentially be filled by local governments who have local influence as well as more frequent access to well sites.

The public-notification provision is more controversial than the permitting provision due to its threshold requirement for publication.<sup>63</sup> The rules state that “[i]n the case of any well that is proposed to be fractured *using a cumulative total of more than 200,000 gallons* of water-based fluids,” the Supervisor will be required to give public notification of the specifics of the operation.<sup>64</sup> In Tennessee, however, environmentalists argue that this requirement will never be triggered since “most fracking occurs with much smaller amounts. To date, state officials said . .

---

151. *Id.* 0400-52-02-.01(1).

62. *Id.* 0400-52-02-.01(7).

63. The Supervisor is the administrative head of the department overseeing the new fracking regulations. *See id.* 0400-51-01-.01(89) (“Supervisor” shall mean the State Oil and Gas Supervisor as designated by the Commissioner of Environment and Conservation.”).

64. *Id.* 0400-52-02-.01(10) (emphasis added).

. the most water used [has been] 175,000 gallons.”<sup>65</sup> If smaller fracking operations continue in Tennessee, it is likely that the public-notice requirement would not be triggered until much later, leaving concerned citizens in the dark about what is actually going on at these sites. Additionally, there is some concern as to the time period for notification. The rules provide a fifteen-day window in which the public may request a hearing to determine the validity or safety of a proposed well site,<sup>66</sup> but citizens are worried that this may not be enough time to properly analyze the site.<sup>67</sup> Furthermore, they claim that fifteen days is different from other TDEC provisions, and that the rules should be consistent with existing provisions.<sup>68</sup>

Finally, the rules contain certain siting requirements that attempt to regulate where drilling operations may take place.<sup>69</sup> The provisions provide for a limitation of 200 feet from “any water well that is in active use,” 100 feet from “any stream, lake, or other body of water,” and 330 feet from “any water body designated as an Outstanding National Resource Water.”<sup>70</sup> The requirement may be waived by the Supervisor if the owner—whether a private citizen or the State of Tennessee—of the land leased for fracking operations consents to the location of the drilling site and the company submits satisfactory measures preventing pollution and

---

65. Duane W. Gang, *Gas Board Approves New Fracking Rules*, TENNESSEAN, Sept. 29, 2012, at B1.

66. TENN. COMP. R. & REGS. 0400-52-02-.01(6)(f)(1).

67. *See* Gang, *supra* note 24.

68. *Id.* (“It is less time than the 45 days required by the state Division of Solid Waste.”).

69. *See* TENN. COMP. R. & REGS. 0400-53-03-.01(10) to 0400-53-03-.01(12) (2012).

70. *Id.* 0400-53-03-.01(10) to 0400-53-03-.01(12).

contamination.<sup>71</sup> This, too, provides cause for concern. Should the WQCB decide to enforce these siting provisions—or more controversially, grant waivers—contrary to the way in which local governments seek to enforce their zoning ordinances, the latter would likely be able to challenge those provisions as local governments have done in other states.<sup>72</sup> The outcome of such litigation would likely be favorable to the municipalities, as exemplified in Pennsylvania.<sup>73</sup>

## VII. Local Governments as Viable and Necessary Regulators in Tennessee

The most effective way in which to determine a division of responsibility regarding fracking regulation is by allowing the local governments to apply their zoning laws to fracking operations. Generally, zoning ordinances are effective in regulating where fracking may occur, while ordinances that attempt to regulate the processes themselves may run into more resistance.<sup>74</sup> However, ordinances that regulate the “how” are typically upheld when they involve “traditional municipal concern.”<sup>75</sup> Allowing state and local governments to shoulder responsibilities commensurate with their existing practices and current capabilities will afford a more efficient solution to the problem of sole regulation at any one level. Indeed, Tennessee courts have already approved the coexistence and complimentary relationship between zoning

---

71. *Id.*

72. *See supra* Part V.

73. *See, e.g.,* Robinson Twp. v. Commonwealth, 52 A.3d 463, 468–70 (Pa. Commw. Ct. 2012) (“Petitioners allege that . . . Act 13 prevents them from fulfilling their constitutional and statutory obligations to protect the health, safety and welfare of their citizens, as well as public natural resources from the industrial activity of oil and gas drilling. Petitioners allege that Act 13 requires them to modify many of their zoning laws.”).

74. Goho, *supra* note 38, at 4–5.

75. *Id.* at 8 (listing “noise, light, dust, and traffic . . .”).

ordinances and state legislation.<sup>76</sup> In sum, a balanced approach seeks to keep jurisdictional lines in place while also allowing each level of government to operate effectively within its sphere of influence, using what tools they already have to properly regulate the industry and keep fracking profitable for drilling companies and safe for the environment.

---

76. *See* 421 Corp. v. Metro. Gov't of Nashville & Davidson Cnty., 36 S.W.3d 469, 475–76 (Tenn. Ct. App. 2000) (construing ordinances in light of the state statutes that empower local governments to enact those ordinances).