WE'RE ALL IN THIS TOGETHER: A FAIR SHARE APPROACH TO RENEWABLE ENERGY

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I. INTRODUCTION

The United States is on the verge of a major shift to clean, renewable energy.[1] According to President Barack Obama, the development of renewable energy and energy efficiency marks "a new era of energy exploration" in the U.S.[2] In a joint address to Congress on February 24, 2009, President Obama called for

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1. *See Clean Tech Now,* DEP'T OF ENERGY, http://energy.gov/clean-tech-now (last visited Nov. 27, 2016) (explaining that the falling costs of clean energy technologies is creating an increase in demand and deployment of land-based wind power, solar panels, electric cars, and LED lighting).

2. *President Obama Touts Clean Energy on Earth Day*, DEP'T OF ENERGY, (Apr. 29, 2009, 11:04 AM), http://energy.gov/eere/geothermal/articles/president-obama-touts-clean-energy-earth-day.

doubling the renewable energy generation capacity within the next three years.[3] Since taking office, the President has made the largest investment to clean energy of any administration, which increased solar generation thirty-fold and tripled electricity production from wind power.[4] In 2013, the President restated his commitment to renewable energy and expanded his plan for a clean energy economy.[5] With expansive policy in place, the U.S. is committed to leading the renewable energy expansion at the federal level. States, too, have incentivized the construction of large quantities of renewable energy infrastructure through policies that require minimum amounts of electricity to come from renewable sources or that guarantee a certain minimum payment for electricity from renewable sources that is sold to utilities.[6] However, even with federal and state support, local opposition continues to frustrate renewable energy development.

Currently, one of the greatest barriers to renewable energy is local opposition.[7] Landowners view renewable developments as threats to local aesthetics and property values.[8] As a result,

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3. The White House, *Remarks of President Barack Obama – Address to Joint Session of Congress,* WHITEHOUSE.GOV (Feb. 24, 2009), https://www.whitehouse.gov/the-press-office/remarks-president-barack-obama-address-joint-session-congress.

4. *See A Historic Commitment to Protecting the Environment and Reversing Climate Change*, WHITEHOUSE.GOV, https://www.whitehouse.gov/climate-change#section-impacts (last visited Nov. 27, 2016) (explaining how the Obama administration increased solar and wind generation in order to combat climate change).

5. *Id.*

6. Brannon P. Denning, *Environmental Federalism and State Renewable Portfolio Standards*, 64 CASE W. RES. L. REV. 1519, 1529-31 (2014).

7. *See generally* Hannah Wiseman, Lindsay Grisamer & E. Nichole Saunders, *Formulating A Law of Sustainable Energy: The Renewables Component*, 28 PACE ENVTL. L. REV. 827 (2011) (explaining that environmental reviews, property rights, and transmission infrastructure are barriers to renewable energy); *See also* Hannah Wiseman, *Expanding Regional Renewable Governance*, 35 HARV. ENVTL. L. REV. 477, 502-03 (2011) (describing how a wind developer had to get zoning approval from four different New York towns to construct wind turbines).

8. *See* ENVINT CONSULTING & ONTARIO SUSTAINABLE ENERGY ASS'N, GUIDE TO DEVELOPING A COMMUNITY RENEWABLE ENERGY PROJECT IN NORTH AMERICA 10 (2010), http://www.communityplanning.net/pub-film/pdf/GuideToDevelopingACREProject.pdf (noting that common local concerns with renewable energy include wildlife, noise, and visual impacts); *See* Evan Hendershot, *Wind farm denied in Davison County,* THE DAILY REPUBLIC (Feb. 9, 2016), http://www.mitchellrepublic.com/news/local/3943832-wind-farm-denied-davison-county (describing a town commission's decision to deny a permit for a wind farm because local residents expressed concerns with the projects effect on their properties); *See also* Tony Davis, *Solar farm fails to get support from neighbors*, ARIZONA DAILY STAR (Apr. 9, 2011), http://tucson.com/business/local/solar-farm-fails-to-get-support-from-neighbors/article_e9b81880-42f0-5fe2-9fad-8c1ec583df11.html (describing how a solar developer struggled to get local approval because homeowners were concerned about property values and the visual impact of the solar panels).

local governments have enacted zoning ordinances throughout the country to restrict or prohibit the development of renewable infrastructure.[9]

Local reluctance to aid in the expansion of renewable infrastructure raises the difficult issue of how to best allocate land use regulatory authority between states and local governments. Some states have overcome community opposition by broadly invalidating local land use controls that prevent renewable infrastructure.[10] Such legislation is successful at promoting renewable development, but ignores local expertise about the unique conditions affecting the area. Other states have taken a "hands off" approach to local land use control with respect to renewable energy, thereby frustrating renewable energy development.[11] With such inconsistency surrounding renewable energy land use authority, developers are apprehensive about moving forward with renewable energy projects.[12] Therefore, a uniform structure is necessary to promote the growth of renewable energy, as encouraged by the President and by a growing number of state laws. This structure must balance local concerns surrounding renewable development with the public need to expand the clean energy economy.

Similar to renewable energy, affordable housing faces local opposition when developers propose such housing in the neighborhoods of residents.[13] Local residents and business owners believe that affordable housing will decrease property values, reduce public health and safety, and ruin the aesthetics of the area.[14] However, unlike renewable energy, states have successfully encouraged affordable housing development by using Fair Share Plans to

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9. *See generally Zimmerman v. Bd. Of Cty. Comm'rs*, 218 P.3d 400 (Kan. 2009) (where a Kansas municipality was allowed to ban wind development); *See*, *e.g.*, *Ecogen, LLC v. Town of Italy*, 438 F. Supp. 2d 149 (W.D.N.Y 2006) (affirming the validity of a town moratorium prohibiting the construction of windmills).

10. *See* Minn. Stat. § 216F.07 (2015) ("The site permit [for wind conversion systems] supersedes and preempts all zoning, building, or land use rules, regulations, or ordinances adopted by regional, county, local, and special purpose governments."); FLA. STAT. § 163.04(1) (2016) (prohibiting the "adoption of an ordinance by a governing body . . . which prohibits or has the effect of prohibiting . . . solar collectors.").

11. Patricia E. Salkin & Ashira Pelman Ostrow, *Cooperative Federalism and Wind: A New Framework for Achieving Sustainability*, 37 HOFSTRA L. REV. 1049, 1065 (2009) (explaining that wind turbine siting is under the "aegis of local governments" in Iowa, New York, Texas, Idaho, Utah, and Illinois).

12. *See* Jaron L. Hudgins, *Alternative Energy in the U.S. Energy Supply: Current Trends and Recommendations for the Future*, 8 TEX. J. OIL GAS & ENERGY L. 383, 405-06 (2013) (explaining that marketability is "by far the greatest challenge for alternative energy projects").

13. Tim Iglesias, *Managing Local Opposition to Affordable Housing: A New Approach to NIMBY*, 12 J. AFFORDABLE HOUSING & COMMUNITY DEV. L. 78 (2002).

14. Justin D. Cummins, *Housing Matters: Why Our Communities Must Have Affordable Housing*, 28 WM. MITCHELL L. REV. 197, 212 (2001).

balance local concerns with the public need for affordable housing.[15] Fair Share Plans accomplish this by allocating a proportionate share of the needed affordable housing in the state to each municipality, county, and city located within the state's jurisdiction.[16] By allocating the need to each locality, Fair Share Plans further the state goal of developing affordable housing while simultaneously allowing municipalities to control the growth and development of affordable housing according to its unique area characteristics.

This Note seeks to reconcile the uncertainty surrounding land use authority in renewable energy by implementing a Fair Share Plan similar to Fair Share Affordable Housing Plans. Section II expands on the power of local governments to zone out renewable energy and articulates the concerns local communities have with renewable energy development. Section III outlines the various approaches to renewable energy zoning practices in the U.S., concluding that none of them effectively balance renewable energy and community-based goals without substantially curtailing valuable local land use decision making authority. Section IV describes Affordable Housing and Fair Share Plans. Section V analyzes fair share affordable housing plans throughout the country and extracts the essential elements for renewable energy. Section VI combines and modifies those elements and proposes a fair share plan for renewable energy. This "Fair Share Renewable Energy Plan" would allow communities to weigh their unique local costs and decide how to accommodate renewable energy development within their state.

II. RENEWABLE ENERGY DEVELOPMENTS

In response to climate change, Americans have become increasingly aware of the potential of renewable energy to decrease emission of greenhouse gases and reduce the nation's dependence on fossil fuels. With continuing cost-efficient improvements to renewable energy technologies, there has been an increase in renewable energy development throughout the country. As a result, solar and wind power are the fastest growing sources of electric generation in the U.S.[17] Yet, renewable energy developments can be

15. *Infra* section V describing New Jersey, Massachusetts, and Connecticut's Fair Share Affordable Housing Plans.

16. *Adopt fair-share requirements for affordable housing*, SMART GROWTH AMERICA, http://old.smartgrowthamerica.org/guides/smart-growth-at-the-state-and-local-level/housing-policy/adopt-fair-share-requirements-for-affordable-housing/ (last visited Nov. 27, 2016).

17. Chris Mooney, *Here's how much faster wind and solar are growing than fossil fuels*, WASH. POST (Mar. 9, 2015), https://www.washingtonpost.com/news/energy-environment/wp/2015/03/09/heres-how-much-faster-wind-and-solar-are-growing-than-fossil-fuels/.

impeded by local opposition because such developments intrude into neighborhoods, raising various concerns about the aesthetics, the environment, and property values.[18]

A. Solar and Wind Energy Developments

Renewable energy is generally defined as energy collected from resources that are rapidly replaced by natural processes.[19] In 2014, solar and wind energy generation constituted 22% of the total energy generation for renewables.[20] Furthermore, the U.S. Energy Information Administration projects that solar and wind generation will make up the most electricity generation additions in 2016.[21] To understand the impact of such renewable energy projects, one must understand the major types of wind and solar generation developments. Typically, wind and solar generation are broken down into three major types: utility-scale generation, distributed generation, and community-scale generation.[22]

Utility-scale generation is a wind facility (wind farm) or solar facility (solar farm) that generates a large quantity of electricity from a single location and transmits the electricity to users through a transmission system.[23] At the utility scale, wind farms consist of many large industrial wind turbines.[24] Industrial wind turbines can reach sizes well over 400 feet high.[25] These turbines have blades that are between 112 and 176 feet long and sit atop towers with heights ranging between 197 feet and 443 feet.[26] On average, wind farms require eighty-five acres of land in order to produce one

18. *See supra* note 8. *See also* Salkin & Ostrow, *supra*, at 1069-77.

19. *Renewable Energy Explained,* U.S. ENERGY INFO. ADMIN., http://www.eia.gov/energyexplained/index.cfm?page=renewable_home (last visited Nov. 27, 2016).

20. *Total Energy Review,* U.S. ENERGY INFO. ADMIN., http://www.eia.gov/totalenergy/data/monthly/ (last visited Nov. 27, 2016).

21. *Today In Energy,* U.S. ENERGY INFO. ADMIN., http://www.eia.gov/todayinenergy/detail.cfm?id=25172 (last visited Nov. 27, 2016).

22. Office of Indian Energy and Economic Dev., *Utility-Scale and Distributed Solar Energy Generation*, TRIBAL ENERGY & ENVTL. INFO. CLEARINGHOUSE, http://teeic.indianaffairs.gov/er/solar/restech/tech/index.htm (last visited Nov. 27, 2016); Office of Indian Energy and Economic Dev., *Utility-Scale and Distributed Wind Energy Generation*, TRIBAL ENERGY & ENVTL. INFO. CLEARINGHOUSE, http://teeic.indianaffairs.gov/er/wind/restech/scale/index.htm (last visited Oct. 12, 2016); Hannah J. Wiseman & Sara C. Bronin, *Community-Scale Renewable Energy*, 14 SAN DIEGO J. CLIMATE & ENERGY L. 165 (2013).

23. *Utility-Scale and Distributed Solar Energy Generation*, *supra* note 22; *Utility-Scale and Distributed Wind Energy Generation*, *supra* note 22.

24. *Utility-Scale and Distributed Wind Energy Generation*, *supra* note 22.

25. *Size specifications of common industrial wind turbines*, AWEO.ORG, http://www.aweo.org/windmodels.html (last visited Nov. 27, 2016).

26. *Id.*

megawatt of energy.[27] For reference, a single megawatt wind turbine can provide enough electricity to power between 225 and 300 households.[28] Utility-scale solar farms consist of hundreds to thousands of solar collectors.[29] Solar farms can use one of several technologies to generate electricity: concentrating solar power (CSP), photovoltaics (PV), or concentrating photovoltaics (CPV).[30] CSP solar farms use mirrors that concentrate energy from the sun to heat water in order to turn traditional steam turbines to produce electricity.[31] PV solar farms convert sunlight directly into electricity through the release of electrons in certain types of materials, such as semiconductors.[32] CPV solar farms use mirrors to concentrate sunlight into high-efficiency solar cells.[33] Regardless of the solar collector used, utility-scale solar farms use an average of 2.7 to 2.9 acres to produce 1000 megawatts of energy.[34] For solar energy, one megawatt powers an average of 164 homes.[35]

Distributed generation is the generation of small-scale wind or solar energy at the individual level that is transmitted over a local area.[36] For wind or solar energy, individual homes, farms, or businesses may have their own wind turbine or solar units to generate electricity for personal or business use.[37] The wind turbines and solar units used for distributed generation are much smaller than their utility-scale facilities, typically generating enough energy to power a single home.[38] Unlike utility-scale generation, the excess electricity not used by the landowner can be sold

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27. *Areas of industrial wind facilities*, AWEO.ORG, http://www.aweo.org/windarea.html, (last visited Nov. 27, 2016).

28. *Wind Energy: Facts*, MASS. OFFICE OF ENERGY & ENVTL. AFFAIRS, http://www.mass.gov/eea/energy-utilities-clean-tech/renewable-energy/wind/wind-energy-facts.html#c, (last visited Nov. 27, 2016).

29. *Utility-Scale and Distributed Wind Energy Generation*, *supra* note 22.

30. *Utility–Scale Solar Power,* SOLAR ENERGY INDUSTRIES ASS'N, http://www.seia.org/policy/power-plant-development/utility-scale-solar-power (last visited Nov. 27, 2016).

31. *Concentrating Solar Power,* SOLAR ENERGY INDUSTRIES ASS'N, http://www.seia.org/policy/solar-technology/concentrating-solar-power (last visited Nov. 27, 2016).

32. *Photovoltaic (Solar Electric)*, SOLAR ENERGY INDUSTRIES ASS'N, http://www.seia.org/policy/solar-technology/photovoltaic-solar-electric (last visited Nov. 27, 2016).

33. *Concentrating Photovoltaic Technology*, NAT'L RENEWABLE ENERGY LABORATORY, http://www.seia.org/policy/solar-technology/concentrating-solar-power (last visited Nov. 27, 2016).

34. SEAN ONG, CLINTON CAMPBELL, PAUL DENHOLM, ROBERT MARGOLIS & GARVIN HEATH, NAT'L RENEWABLE ENERGY LABORATORY, LAND-USE REQUIREMENTS FOR SOLAR POWER PLANTS IN THE UNITED STATES (2009), http://www.nrel.gov/docs/fy13osti/56290.pdf.

35. *How Many Homes Can Be Powered by 1 Megawatt of Solar Energy*?, SOLAR ENERGY INDUSTRIES ASS'N, http://www.seia.org/about/solar-energy/solar-faq/how-many-homes-can-be-powered-1-megawatt-solar-energy (last visited Nov. 27, 2016).

36. *Utility-Scale and Distributed Solar Energy Generation*, *supra* note 22; *Utility-Scale and Distributed Wind Energy Generation*, *supra* note 22.

37. *Id.*

38. *Id.*

to the local utility company and transmitted around the local area for use.[39] Additionally, distributed energy generation can be more readily utilized in any geographic location because of the smaller size and reduced requirement for land.[40]

Community-scale generation refers to mid-sized wind and solar sources in close geographic proximity supported by several private parties.[41] To be community-scale energy, the generation must be managed by an organized group of residents and/or business owners.[42] Typically, community-scale generation produces between five kilowatts to one megawatt of energy, which is enough to offset between 82 and 164 households.[43] Community-scale generation produces less energy than utility-scale, but more energy than distributed generation.[44] Unlike the other types of generation, community-scale generation needs a common source of generation wherein the solar panels or small-to medium-sized wind turbines are installed on separate properties, but the generation is sent to a common transformer or the equipment is constructed within a common area.[45]

Since renewable energy developments require intensive land use, developers need local government land use approvals to construct renewable energy generation. It is through the land use approval process that local government officials and would-be neighbors hinder renewable developments by forcing developers to seek other sites, revise proposals, or block proposals entirely. The next subsection will discuss the common local concerns with renewable energy developments.

B. Local Barriers to Renewable Energy Development

Utility-scale, distributed, and community-scale renewable energy projects provide an opportunity to reduce the United States'

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39. *Id.*
40. *Id.*
41. *See generally* Wiseman & Bronin, *supra* note 22.
42. *Id.* at 168.
43. KEVIN BREHM, ET AL., ROCKY MOUNTAIN INSTITUTE, COMMUNITY-SCALE SOLAR: WHY DEVELOPERS AND BUYERS SHOULD FOCUS ON THIS HIGH-POTENTIAL MARKET SEGMENT, http://www.rmi.org/Content/Files/RMI-Shine-Report-CommunityScaleSolarMarketPotential-201603-Final.pdf (last visited Nov. 21, 2016); *How many homes can be powered by 1 megawatt of solar energy?*, SOLAR ENERGY INDUSTRIES ASS'N, http://www.seia.org/about/solar-energy/solar-faq/how-many-homes-can-be-powered-1-megawatt-solar-energy (last visited Nov. 27, 2016).
44. Wiseman & Bronin, *supra* note 22, at 168.
45. *Id.* at 168-69.

carbon footprint and bring clean energy to the public.[46] Furthermore, renewable energy provides other benefits, such as reducing dependence on foreign energy resources, reducing individuals' energy-related expenses, and creating jobs.[47] Recognizing such benefits, federal efforts to incentivize renewables have increased.[48] For example, the Emergency Economic Stabilization Act of 2008 provides a 30% tax credit on the cost of installing solar electric systems and certain wind systems.[49] In addition to federal incentives, states also offer a diverse arrangement of incentives and financial mechanisms for energy efficiency such as revolving loan funds, energy performance contracting, tax incentives, rebates, and grants.[50] The goal of such incentives is to encourage the development of renewables throughout the country. Furthermore, as noted in the introduction, many states indirectly require the construction of renewable infrastructure by mandating that a certain percentage of electricity come from renewable sources.[51] However, even with strong support on the federal and state level, local residents, businesses, and citizens' groups continue to oppose renewable energy projects.[52] With such opposition, renewable energy regulation lacks uniformity and consistency throughout the country.

Local opposition to renewable energy projects is a form of NIMBY ("not in my backyard") syndrome.[53] NIMBYs are nearby homeowners who object to further development within their community because the greater density will adversely affect where they live.[54] In the U.S., developers need to obtain permits and approvals from zoning authorities in order to begin construction of non-minor projects.[55] NIMBYs can oppose such developments

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46. Sara C. Bronin, *Building-Related Renewable Energy and the Case of 360 State Street*, 65 VAND. L. REV. 1875, 1880 (2012).

47. *Id.*

48. *Id.*

49. *See* Jaron L. Hudgins, *Alternative Energy in the U.S. Energy Supply: Current Trends and Recommendations for the Future*, 8 TEX. J. OIL GAS & ENERGY L. 383, 406 (2013).

50. *Incentives and Finance Mechanisms for Energy Efficiency*, ENVTL. PROT. AGENCY, https://www.epa.gov/sites/production/files/2016-03/documents/7-incentives_and_finance_mechanisms_for_energy_efficiency.pdf (last visited Nov. 9, 2016) (providing a detailed description of state incentives and financial mechanisms to encourage renewable energy).

51. *U.S. Dep't of Energy, Renewable Portfolio Standard Policies,* NC CLEAN ENERGY TECHNOLOGY CENTER (Oct. 2015), http://ncsolarcen-prod.s3.amazonaws.com/wp-content/uploads/2014/11/Renewable-Portfolio-Standards.pdf.

52. *See* Troy A. Rule, *Renewable Energy and the Neighbors*, 2010 UTAH L. REV. 1223, 1223 (2010) (discussing how neighbors are the greatest opposition to distributed renewable energy projects).

53. *See generally* William A. Fischel, *Voting, Risk Aversion, and the NIMBY Syndrome: A Comment on Robert Nelson's "Privatizing the Neighborhood"*, 7 GEO. MASON L. REV. 881 (1999).

54. *Id.* at 801-803.

55. *Id.*

by voicing their concerns at the zoning and planning board review.[56] The zoning and planning board review determines whether a development project will receive the permits and approval necessary to begin construction.[57] Such reviews evaluate the proposed development in light of the site's characteristics, comprehensive plan, and local opinion.[58] Even if NIMBYs fail to stop the development at the review stage, they can use alternative regulatory tools, such as requirements for preparing environmental impact statements and protecting of endangered species, to stop the project.[59]

In order to stop the development of renewable energy projects, NIMBYs often voice concerns regarding the impacts of solar panels and wind turbines on property values, aesthetics, health and safety, and the environment. A prime example of local opposition frustrating a renewable energy project through zoning regulations occurred in *Zimmerman v. Board of County Commissioners*.[60]

In *Zimmerman*, landowners in Wabaunsee County, Kansas, contracted with developers in order to construct a commercial wind farm on their properties.[61] Before constructing the wind farm, the developers applied to the county zoning board administrator in order to receive permitting and approval.[62] At the time, Wabaunsee County did not have any zoning regulations relating specifically to wind farms in the county.[63] As such, the County officials placed a temporary moratorium on all applications for permits for wind farm projects until the zoning regulations could be reviewed.[64] Afterwards, the planning commission conducted public meetings, county-wide surveys, and focus groups about amending zoning regulations for commercial wind farms.[65] The planning commission proposed zoning amendments to the Board of County Commissioners (the "Board") which would allow commercial wind farms as a conditional use, subject to certain conditions.[66] The Board adopted the amendments permitting small wind farms, but it rejected the planning commission's amendments regulating commercial wind farms and prohibited commercial wind farms in the county.[67] The landowners sued the Board in district court seeking a judicial

56. *Id.*
57. *Id.*
58. *Id.*
59. *Id.*
60. Zimmerman v. Bd. of Cty. Comm'rs, 218 P.3d 400 (Kan. 2009).
61. *Id.* at 405.
62. *Id.*
63. *Id.*
64. *Id.*
65. *Id.* at 406.
66. *Id.* at 406-07.
67. *Id.*

declaration that the Board's actions be null and void.[68] The district court dismissed the landowners' claims reasoning that the zoning actions taken by the Board were reasonable.[69] The Supreme Court of Kansas affirmed the lower court's decision.[70]

In finding that the Board's zoning actions were reasonable, the Court looked at the evidence presented showing that the conclusion reached by the Board was reasonably supported by legitimate land use-based concerns.[71] For supporting evidence the Board provided transcripts of its decision to prohibit commercial wind farms.[72] Specifically, the statements in the transcript demonstrated concerns that wind farms were "incompatible with the rural, agricultural, and scenic character of the County" and that "[wind farms] would not conform to the . . . goals and objectives that were identified by the citizens of the County and incorporated as part of the [comprehensive] [p]lan."[73] Additionally, the Board provided eleven reasons, accompanied by a representative sampling of evidence attached as exhibits, to support its findings in the decision.[74] The listed reasons were: "[1] general welfare; [2] zoning regulations; [3] quality of life; [4] history and culture; [5] environment, wildlife, tallgrass ecosystem; [6] surface and subsurface water; [7] infrastructure, roads and bridges; [8] aesthetics; [9] 2004 Comprehensive Plan; [10] property values in the county; and [11] tourism."[75] The Court ruled from this evidence "that the County [had] taken into account the benefit or harm involved to the community at large and has exercised a decision on that basis."[76] The Court therefore held that the zoning regulation prohibiting wind farms was reasonable.[77]

Zimmerman provides an example of how renewable energy projects can be stopped by local opposition during the siting and approval process. However, the concerns that nearby landowners bring to the table should not be disregarded. The permitting process used to approve renewable developments exists to ensure that the negative impacts of turbines and solar panels are taken into account before projects may proceed.[78] As stated earlier, the

68. *Id.* at 408-09.
69. *Id.* at 409.
70. *Id.* at 432.
71. *Id.* at 412-15.
72. *Id.*
73. *Id.* at 406-07.
74. *Id.* at 408.
75. *Id.* at 408-09.
76. *Id.* at 409.
77. *Id.* at 432.
78. *See* Fischel, supra note 53, at 881.

most prominent concerns regarding renewable developments are property values, aesthetics, health and safety, and the environment.

The local concerns regarding renewable developments are supported by early experiences and studies in wind and solar siting. For example, the effect of wind turbines on property values has been studied by multiple groups.[79] Two of these studies indicate that there is little to no evidence that a wind facility affects property values.[80] However, these studies are not definitive and require additional findings because property values are the "composite of many factors" making it difficult to isolate the effects of wind turbines.[81]

Additionally, communities are concerned about the aesthetic impacts of wind and solar farms.[82] Wind and solar farms are typically sited in rural locations which tend to have lower population densities.[83] Even though fewer people are affected by a renewable energy project in a rural area, residents of less populated areas typically value the tranquility and open space.[84] When renewable energy developments are proposed in their area, their reactions are subjective and varied.[85] For example, the U.S. Department of Energy (DOE) reports that some local landowners view wind turbines as "elegant and interesting," while others feel that wind turbines are "intrusive."[86] Either way, the visual impact of renewable projects is a concern to local landowners.

Relatedly, communities have opposed wind turbines and solar panels because of the negative impacts on public health and safety. For example, the visual burdens of wind turbines can cause "annoyance, stress and sleep disturbances."[87] Furthermore, there are concerns related to the "shadow flicker," which is the rotation of the turbine blades and its effects on health, as well as safety concerns related to ice throw, whereby ice that builds up on the

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79. U.S. DEP'T OF ENERGY, 20% WIND ENERGY BY 2030: INCREASING WIND ENERGY'S CONTRIBUTION TO U.S. ELECTRICITY SUPPLY 118 (2008), http://www.nrel.gov/docs/fy08osti/41869.pdf.

80. *Id.*

81. *Id.*

82. Avi Brisman, *The Aesthetics of Wind Energy Systems*, 13 N.Y.U. ENVTL. L.J. 1, 74-80 (2005) (describing aesthetic opposition to wind turbines); *See, e.g., Ecogen, LLC v. Town of Italy*, 438 F. Supp. 2d 149, 153 (W.D.N.Y. 2006) (describing how residents expressed concern that wind turbines would negatively impact the aesthetics of the town).

83. U.S. DEP'T OF ENERGY, *supra* note 79, at 116.

84. *Id.*

85. *Id.*

86. *Id.*

87. *Visual Health Effects and Wind Turbines,* THE SOCIETY FOR WIND VIGILANCE, http://www.windvigilance.com/about-adverse-health-effects/visual-health-effects-and-wind-turbines (last visited Nov. 27, 2016).

turbine blades during the winter is thrown to the ground.[88] Health concerns with solar panels relate to the emission of radio frequency electromagnetic radiation, which may cause headaches and restlessness in residents living nearby.[89]

Finally, environmental concerns are focused on the preservation of wildlife and the land use impact of renewable energy projects. For example, in 2009, the U.S. Fish and Wildlife Service (FWS) estimated that "between 58,000 and 440,000 birds [were] killed each year by wind turbines in the U.S., with that number growing based on at least 23,000 commercially operating wind turbines".[90] Also, new models of solar thermal have been found to cause bird deaths through "solar flux."[91] Solar flux occurs when the concentrated light from solar thermal technology singes the feathers of birds during flight.[92] The loss of feathers causes the bird to lose control mid-flight and impact the ground or other objects, causing death.[93] In addition to the bird deaths, the large land requirement of solar and wind farms significantly affects the habitats around them.[94] Because solar farms and wind farms require so much land[95], there are increased chances of affecting the local environment.

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88. U.S. DEP'T OF THE INTERIOR BUREAU OF LAND MGMT., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT ON WIND ENERGY DEVELOPMENT ON BLM-ADMINISTERED LANDS IN THE WESTERN UNITED STATES, VOL. 1: MAIN TEXT 1-1, 3-17, 3-20 (2005), http://windeis.anl.gov/documents/fpeis/maintext/Vol1/Vol1Complete.pdf.

89. *Solar Energy Can Be a Health Hazard,* THE EI WELLSPRING, http://www.eiwellspring.org/solaremfhazard.pdf, 1 (last visited Nov. 27, 2016).

90. *Guidelines for the Development of a Project Specific Avian and Bat Protection Plan for Wind Energy Facilities*, U.S. FISH & WILDLIFE SERVICE, https://www.fws.gov/southwest/es/TexasCoastal/docs/Interim_Guidelines_Avian_and_Bat_Protection_Plan.pdf (last visited Nov. 27, 2016); *see* Patricia E. Salkin & Ashira Pelman Ostrow, *Cooperative Federalism and Wind: A New Framework for Achieving Sustainability*, 37 HOFSTRA L. REV. 1049, 1072-73 (2009) (asserting that the turbines of California's Altamont Pass wind farm were responsible for killing a significant number of birds).

91. Joe Desmond, *Setting the Record Straight: Solar Flux and Impact to Avian Species*, BRIGHTSOURCE ENERGY (Aug. 19, 2014, 3:00 PM), http://www.brightsourceenergy.com/setting-the-record-straight-solar-flux-and-impact-to-avian-species#.VwzphPkrJpg; Phil Taylor, *Bird deaths at Calif. power plant a PR nightmare for industry*, ENVIRONMENT & ENERGY PUBLISHING (Jan. 19, 2015), http://www.eenews.net/stories/1060011853.

92. Taylor, *supra* note 91.

93. Rebecca A. Kagan, et al., *Avian Mortality at Solar Energy Facilities in Southern California: A Preliminary Analysis,* NATIONAL FISH AND WILDLIFE FORENSICS LABORATORY 1 (2014), http://alternativeenergy.procon.org/sourcefiles/avian-mortality-solar-energy-ivanpah-apr-2014.pdf.

94. *See* PAUL DENHOLM & ROBERT M. MARGOLIS, IMPACTS OF ARRAY CONFIGURATION ON LAND-USE REQUIREMENTS FOR LARGE-SCALE PHOTOVOLTAIC DEPLOYMENT IN THE UNITED STATES 2-3 (2008), http://www.nrel.gov/docs/fy08osti/42971.pdf.

95. *See* NATHAN F. JONES, LIBA PEJCHAR, & JOSEPH M. KIESECKER, THE ENERGY FOOTPRINT: HOW OIL, NATURAL GAS, AND WIND ENERGY AFFECT LAND FOR BIODIVERSITY AND THE FLOW OF ECOSYSTEM SERVICES (2015), http://bioscience.oxfordjournals.org/content/65/3/290.full.pdf+html (explaining that coal mining, oil extraction, and natural gas extraction also require a lot of land when considering the life-cycle land-based impacts).

Even though local objections to the installation of wind turbines and solar panels are valid, they must be weighed against the public interest in developing renewable energy. Given the importance of renewable energy, it seems conflicting to allow zealous local opposition to stop renewable development. In light of such dissonance, the next section analyzes the existing governmental models used to regulate renewable energy developments and concludes that none of them effectively balance local concerns with the state objective to facilitate renewable energy development.

III. MODELS OF RENEWABLE ENERGY REGULATION

In order for renewable energy developments to expand, efficient and consistent zoning regulations are required. However, throughout the U.S., there is inconsistency as to how best to allocate land use regulatory authority between states and local governments. Based on the amount of deference given to local governments, legal scholars have identified three common governance structures currently being utilized for the zoning of renewable energy developments.[96] These structures are (1) Deference to Local Governments, (2) Preemption of Local Governments, and (3) Dual Authority.[97] The following is a discussion of the benefits and shortfalls of the three approaches, none of which satisfactorily balances local concerns with the public need for clean energy.

A. Deference to Local Government

In the renewable energy regulatory model of deference to local government, local governments have the ultimate power to establish renewable energy ordinances. Local governments are not restricted by state laws and the state maintains a "hands-off approach" in order to preserve the local government autonomy.[98]

Deference to local governments is desirable because the decisions regarding the use of land greatly impact those living

96. Troy A. Rule, *Renewable Energy and The Neighbors*, UTAH L. REV. 1223, 1242-45, 1248-54 (2010) (illustrating the collective action problem that can arise in areas with deferential community governments as it relates to building height restrictions and small wind turbines and discussing the powers of states to preempt private covenants for public policy reasons); *See* JAMES M. MCELFISH, JR. & SARA GERSEN, STATE ENABLING LEGISLATION FOR COMMERCIAL-SCALE WIND POWER SITING AND THE LOCAL GOVERNMENT ROLE 1, 9-11 (2011), http://www.eli.org/sites/default/files/eli-pubs/d21-02.pdf.

97. *See generally id*.

98. *See* Rule, *supra* note 96, at 1242.

nearby.[99] Allowing communal decisions regarding land use is essential to creating and expressing community character and preferences because each local government has different geographic, topographic, cultural, and socioeconomic characteristics.[100] In other words, "[l]ocal control allows county or municipal officials to create zoning ordinances that fit that locality's need."[101] Additionally, the local officials are better situated to make local land use decisions because they typically live within the county and are familiar with the local characteristics.[102]

Furthermore, local control can facilitate rapid approval of renewable energy development when there is strong support.[103] For example, Saskatoon, Canada is regarded as one of the top ten areas in the world with the highest potential for solar energy because of its abundance of year-round sunshine.[104] In 2014, Saskatoon developed a solar city initiative calling for $200,000 in order to retrofit municipal buildings with solar panels and to incentivize homeowners to convert to solar energy.[105] However, in 2015 the city's environmental committee denied funding for the project.[106] In order to approve the development of solar generation, local officials have since been voicing their support.[107] The city's mayor, Don Atchison, voiced his approval of the solar city initiative during the city's environment, utilities, and corporate services committee meeting stating that he "think[s] solar is the way to the future."[108]

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99. Salkin & Ostrow, supra note 90, at 1086 (explaining that "a cooperative federalist regime capitalizes on the ability of sub-national governments to serve as 'laboratories' by leaving room for state and local governments to experiment with regulatory design").

100. *See* Rule, *supra* note 96, at 1251; *See also* Jerrold A. Long, *Sustainability Starts Locally: Untying the Hands of Local Governments to Create Sustainable Communities*, 10 WYO. L. REV. 1, 21 (2010) ("[L]and-use authority allows each community to make its own determinations about what it should look like, what types of land uses it will prefer, and how it should develop over time.").

101. ALISSA DOERR, ZONED OUT: AN ANALYSIS OF WIND ENERGY ZONING IN FOUR MIDWEST STATES 15 (2014), http://www.cfra.org/sites/www.cfra.org/files/publications/Zoned-Out-An-Analysis-of-Wind-Energy-Zoning-in-Four-Midwest-States.pdf.

102. *See* Rule, *supra* note 96, at 1251.

103. DOERR, *supra* note 101, at 5-6.

104. Daniel Rosenbloom & James Meadowcroft, *Harnessing the Sun: Reviewing the potential of solar photovoltaics in Canada*, 40 RENEWABLE & SUSTAINABLE ENERGY REV. 488, 490 (ranking Saskatoon, Canada as having the fourth highest potential for solar energy); Phil Tank, *Mayor Voices Support for Solar Power*, SASKATOON STARPHOENIX (Mar. 9, 2016, 4:00 AM), http://thestarphoenix.com/news/local-news/mayor-voices-support-for-solar-power ("Saskatoon was regarded as an ideal community . . . due to its abundance of year-round sunshine.").

105. Tank, *supra* note 104.

106. *Id.*

107. *See* Tank, *supra* note 104; *See also* Charlie Clark, *Ward 6 City Council: Saskatoon as a Solar City? We are well positioned*, (Jan. 25, 2016), https://web.archive.org/web/20160409184757/http://www.charlieclark.ca/.

108. Tank, *supra* note 104.

Additionally, City Council members are supporting the solar project by providing information to locals through their web-sites.[109] With such strong support for the solar city initiative, it is almost guaranteed that Saskatoon will have solar generation within the foreseeable future.

Despite its benefits, local deference creates a variety of problems for renewable energy development. Allowing each county, city, and municipality to create its own requirements creates a "piecemeal" system that results in unpredictability and inconsistency.[110] For example, County A could have a stringent zoning regulation, County B a lax zoning standard, and County C could have a zoning regulation different from the other two. This is burdensome for renewable energy developers because developers have to get approval from each locality and ensure that the renewable project conforms to each locality's regulations, which is costly and time-consuming.[111]

Furthermore, getting approval for a renewable energy project under each ordinance can prove to be difficult. First off, it is hard to persuade local communities to revise their land use controls because this would require landowners to relinquish valuable rights.[112] Additionally, the ordinances adopted by local officials typically
reflect the voice of the community.[113] Also, local opposition can delay or block renewable developments. The NIMBY theory often explains opposition by residents when they do not want to deal with the effects of having a wind turbine or solar panel in their neighborhood.[114] Renewable energy developers must overcome community opposition and local ordinances in order to construct a renewable facility in a specific area.

Altogether, there are several benefits and consequences to deferring renewable energy regulation to the local government. There are convincing grounds for local interests to be taken into

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109. *See* Clark, *supra* note 1077.

110. Sara C. Bronin, *The Quiet Revolution Revived: Sustainable Design, Land Use Regulation, and the States*, 93 MINN. L. REV. 231, 255 (2008) ("[T]his type of piecemeal decision making tends to ignore extralocal effects, exclude low-income outsiders, shift environmental problems to neighbors, and thwart orderly and predictable development.").

111. *See* DOERR, *supra* note 101, at 5; *See also* Hannah Wiseman, *Expanding Regional Renewable Governance*, 35 HARV. ENVTL. L. REV. 477, 502-03 (2011) (explaining how conflicting regulations and complex zoning can act as barriers to entry for wind energy development).

112. *See* Rule, supra note 96, at 1242-45 ("Zoning ordinances and subdivision covenants give landowners exclusion rights in common airspace, rooftops, and other areas . . . protecting against countless risks by restricting activities on nearby parcels.").

113. *See* DOERR, *supra* note 101, at 17 ("[I]ntense local opposition to wind energy facilities is reflected in ordinances adopted by local leaders.").

114. *Id.*

account in renewable energy zoning, especially since the local officials and residents understand the nature of their community best. However, the danger of local opinion being intolerant of renewable energy development should not be disregarded because state and federal initiatives to expand renewable energy development can be frustrated by such local opposition. Thus, local deference is an inefficient means for promoting clean energy development.

B. Preemption of Local Governments

In contrast to the local deference regulatory model for renewable development, through a preemption model, states supersede (displace) local government land use authority in order to advance statewide objectives.[115] Under this model local governments retain some land use authority because state legislatures historically adopted statutes that delegated authority to local governments to regulate private land use.[116] But the local government's powers are limited to those powers delegated to it by the state and can be revoked by passage of new legislation or amendments to the planning and zoning enabling laws.[117]

Preemption of local government land use regulation by states provides a variety of benefits. First, broad preemption of municipal restrictions allows the state to issue uniform standards that apply throughout the state.[118] This results in efficient and predictable regulation for renewable energy development,[119] thus solving the piecemeal inefficiency created by solely local deference.[120] Furthermore, broad preemption serves the state's interest because it ensures that legislative intent to increase renewable energy development within the state will be fulfilled.[121] Another benefit of preemption of local renewable energy law is that it limits the

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115. Rule, *supra* note 96, at 1248-54.

116. John R. Nolon, *Historical Overview of the American Land Use System: A Diagnostic Approach to Evaluating Governmental Land Use Control*, 23 PACE ENVTL. L. REV. 821, 830-31 (2006) (discussing Euclidian Zoning and how it "relied on local governments to make land use decisions" and that "[t]he role of the state was to establish the scope of local land use authority.").

117. *See id.* at 830.

118. Rule, *supra* note 96, at 1251.

119. *Id.* (stating that preemption "creates greater regulatory consistency among local jurisdictions" by amending all ordinances at once).

120. *Id.* at 1250-51 (stating that "[e]ven if it were somehow feasible to separately convince each municipality to amend its ordinances, the resulting patchwork of local regulations could create uncertainty and confusion for turbine and solar panel installers.").

121. DOERR, *supra* note 101, at 18 (asserting that "state control of wind energy zoning assures that legislative intent of increasing wind power . . . will more likely be fulfilled.").

NIMBY influence from local officials by moving the land use decision to the state level.[122] State regulation provides for uniform energy guidelines and creates a level playing field where the developer and local opposition have an equal chance to succeed.

Florida provides an example of legislation that preempts local land use authority over distributed energy, in which "the adoption of an ordinance by a governing body . . . which prohibits . . . the installation of solar collectors, clotheslines, or other energy devices based on renewable resources is expressly prohibited."[123] Many other states have implemented similar laws that invalidate local land use ordinances that hinder both distributed and utility-scale renewable energy.[124]

Additionally, in *Residents Opposed to Kittitas Turbines v. State Energy Facility Site Evaluation Council*, the Supreme Court of Washington upheld the preemption of a county's land use and zoning laws regulating wind turbine siting.[125] In *Kittitas Turbines*, the state passed the Energy Facilities Site Locations Act (EFSLA) which governs the construction and location of energy facilities in Washington, in addition to their operation conditions.[126] "EFSLA expressly preempts energy facility certification decisions by other governmental entities."[127] In 2003, Horizon Wind Energy, LLC (Horizon) filed an application with the Energy Facility Site Evaluation Commission (EFSEC) for site certification of the Kittitas Valley Power Project (the "Project").[128] The Project proposed the construction of 121 wind turbine generators.[129] However, Kittitas County (the "County") had enacted a Wind Farm Resource Overlay Zone ordinance, which required developers to apply for rezoning and amendments to the comprehensive plan in order to construct a wind farm.[130] Horizon and the County attempted to site the

122. *Id.*

123. FLA. STAT. § 163.04 (2015).

124. *See* CAL. HEALTH & SAFETY Code § 17959.1 (LexisNexis 2015); DEL. CODE ANN. tit. 29, § 8060 (2015); IND. CODE ANN. § 36-7-2-8(b) (LexisNexis 2016); NEV. REV. STAT. ANN. § 278.0208 (LexisNexis 2013); N.H. REV. STAT. ANN. § 674:63 (LexisNexis 2015); VT. STAT. ANN. tit. 27, § 544 (2015); WIS. STAT. ANN. § 66.0401 (West 2015).

125. Residents Opposed to Kittitas Turbines v. State Energy Facility Site Evaluation Council, 165 Wash. 2d 275, 322 (2008).

126. *Id.*

127. *Id.* at 285.

128. *Id.* at 285.

129. *Id.* at 286.

130. *Id.* at 287-88.

wind farm in accordance to the County's Code.[131] Despite negotiations, the parties could not reach an agreement and Horizon requested preemption of the County Code.[132]

The County attempted to argue that EFSEC could not exercise its preemption authority because the state's Growth Management Act (GMA) "required EFSEC to comply with the County's comprehensive land use plan and regulations."[133] The GMA requires state agencies to comply with the local comprehensive plans and development regulations and amendments.[134] The Court recognized the contradiction between the GMA and EFSLA in that a "state agency cannot both preempt local laws and comply with such laws at the same time."[135] In order to resolve this tension, the Court applied the general-specific rule, which states a specific statute will always prevail over a general statute.[136] Here EFSLA represented the specific statute and "govern[ed] a discrete and specific function of certifying sites for the construction and operation of energy facilities."[137] On the other hand, GMA represented the general statute, "[applying] to the comprehensive planning and management of land within counties and cities."[138] Therefore, the Court concluded that the GMA did not repeal the preemption power delegated to the EFSEC.[139]

Preemption provides the state with the ability to regulate and promote renewable energy developments consistently and in the face of local opposition. However, preemption has some obvious drawbacks. First, preemption is an aggressive means of countering community resistance by invalidating local restrictions.[140] As Troy A. Rule recognizes, "no two neighborhoods are identical."[141] Consequently, broad preemption or the "one-size-fits-all approach" results in inefficiencies and inadequate consideration of localized circumstances affecting an area—thereby ignoring local issues and concerns.[142] Additionally, state policy makers are unable to address all the effects renewable energy developments will have on an area because they do not have the localized knowledge of officials and townspeople who reside in

131. *Id.* at 288.
132. *Id.*
133. *Id.* at 308.
134. *Id.*
135. *Id.* at 309.
136. *Id.*
137. *Id.* at 309-10.
138. *Id.* at 310.
139. *Id.*
140. Rule, *supra* note 96, at 1248.
141. *Id.* at 1251.
142. *Id.*

the area.[143] Therefore, preemption overlooks local concerns and creates inefficiencies for renewable energy development.

In its entirety, preemption provides an effective means of promoting and encouraging renewable energy. It is prudent for states to preempt local governments in order to ensure clean energy for the future. Yet, local concerns should not be cast away in order to obtain benefits for the public good. More consideration should be given to the concerns of people who will be directly affected by the installation of renewable energy generators. As mentioned earlier, many of the effects from renewable facilities affect only the residents living nearby. Therefore, the preemption model does not adequately balance local concerns with the need for clean energy.

C. Dual Authority

In a dual authority governance structure, state and local governments share authority over the land use regulation of renewable energy projects.[144] This model can vary between states because it is determined by the amount of authority shared between the state and local governments. This section will break down dual authority into three categories: (1) Independent Dual Authority, (2) Defined Scope Local Regulation, and (3) State Regulation Incorporating Local Requirements.

The first type of dual authority shares the land use regulation independently between the state and local government.[145] In this model, state and local regulatory authorities apply separate criteria and developers must satisfy both standards before they build their renewable energy project. South Dakota uses this approach and requires wind facilities to acquire a permit from the state Public Utilities Commission (PUC).[146] The South Dakota Energy Facility Permit Act specifies the factors that shall be considered in any permitting decision and allows for a local committee to issue a report on the proposed project's impacts and any mitigation recommendations.[147] The South Dakota PUC permit for energy generation facilities does not preempt local ordinances unlike a permit for transmission facilities.[148] Therefore, a developer must comply with both the South Dakota PUC permit approval and the local process.

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143. *Id.*

144. DOERR, *supra* note 101, at 18.

145. MCELFISH, JR. & GERSEN, *supra* note 96, at 9.

146. S.D. CODIFIED LAWS § 49-41B-4 (2016).

147. S.D. CODIFIED LAWS § 49-41B-4.2 (2016); S.D. CODIFIED LAWS § 49-41B-7 (2016).

148. MCELFISH, JR. & GERSEN, *supra* note 96, at 9; S.D. CODIFIED LAWS § 49-41B-28 (2016).

This model allows for the state and local government to make their own determinations for the approval of a renewable energy facility.[149] However, requiring approval at both levels can be strenuous and time consuming for developers because local governments may be able to veto a state decision by denying a permit or by imposing conditions that cannot be met.[150]

Defined scope regulation is the second type of dual authority, and it provides local governments with land use authority within a range defined by the state. In this model, the local government regulates renewable energy development, but these regulations are subject to state statutes that restrict the local control.[151] Limitations on local control encourage renewable energy projects and recognize that local governments are not well suited for certain aspects of renewable energy regulation.[152] Defined scope local regulation provides for regulatory predictability and allows for local control; however, this model can suffer from vague state statutes.[153] For example, a Wisconsin statute preempts local governments from promulgating more stringent regulations with regards to wind turbine setbacks and other similar siting considerations.[154] Such broad state directives are good for encouraging renewable energy development.[155] However, they are insufficient to create substantial change at the local level because enforcing such statutes can be difficult and expensive.[156] Enforcement requires proving violations of the state statute, which does not provide specific requirements.[157] Therefore, without more specific requirements, enforcement is unlikely and local governments are likely to regulate in their own self-interest.[158]

In the third model, State Regulation Incorporating Local Requirements, state regulatory agencies create a one-stop process by incorporating local policy requirements into the state approval process.[159] This process requires the state body to implement local ordinances including those local policies that differ from the state's priorities.[160] This model encourages local government officials to

149. MCELFISH, JR. & GERSEN, *supra* note 96, at 9.
150. *Id.*
151. *Id.* at 8-9.
152. *Id.* at 8.
153. *Id.*; Rule, supra note 96, at 1245-46.
154. *See* WISC. STAT. § 66.041 (2016); Wiseman, Grisamer & Saunders, *supra* note 7, at 874-75.
155. Rule, *supra* note 96, at 1246.
156. *Id.*
157. *Id.*
158. *Id.*
159. MCELFISH, JR. & GERSEN, *supra* note 145, at 11-13.
160. *Id.*

pass ordinances with clarity in order to have their concerns adequately reflected in the state approval process.[161] For example, Oregon's Energy Facility Siting Council states the site certificate "shall require both parties to abide by local ordinances and state law."[162] After issuing the site certificate, "the only issue to be decided . . . for which compliance with governing law was considered and determined . . . shall be whether the permit is consistent with the terms of the site certificate."[163] Statutes enacted in Rhode Island[164], Minnesota[165], and North Dakota[166] similarly require states to incorporate local requirements in their renewable energy development approval process.[167] State Regulation Incorporating Local Requirements provides developers with an efficient one-stop process for renewable energy projects.[168] However, local concerns may be overlooked because state officials may not adequately understand the localized factors resulting in the local government's policymaking process.[169]

IV. FAIR SHARE AFFORDABLE HOUSING

The issue concerning which governance body should control land use authority is not exclusive to energy law. It is the principal argument brought forth by local governments whenever state programs encroach on the zoning and land use powers of a municipality. A sector that has faced much of the same debate is affordable housing. Similar to renewable energy developments, affordable housing has to overcome zoning ordinances and local opposition in order to be developed. However, through the use of Fair Share Plans, several states have successfully balanced local concerns regarding affordable housing with the states' goal of providing housing to its citizens. This section will provide a brief background to affordable housing followed by a break-down of various fair share programs used by states.

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161. *Id.*
162. OR. REV. STAT. § 469.401(2) (2015).
163. OR. REV. STAT. § 469.401(3) (2015).
164. R.I. GEN. LAWS § 42-98-7 (2015).
165. MINN. STAT. § 216F.07 (2015).
166. N.D. CENT. CODE § 49-22-16 (2015).
167. MCELFISH, JR. & GERSEN, *supra* note 145, at 11-13 (generally describing the various state models where the state incorporates the local regulatory requirements).
168. Rule, *supra* note 96, at 1251-52.
169. *Id.*

A. Affordable Housing

"Affordable Housing" refers to "dwelling units whose total housing costs are deemed 'affordable' to those that have a medium household income."[170] In the U.S., families who pay more than 30% of their income for housing are considered cost burdened and are therefore unable to afford the local fair-market rent for housing.[171] According to the U.S. Department of Housing and Urban Development (HUD), "[a]n estimated 12 million renter and home-owner households now pay more than 50 percent of their annual incomes for housing. A family with one full-time worker earning the minimum wage cannot afford the local fair-market rent for a two-bedroom apartment anywhere in the United States."[172]

Similar to renewable energy development, affordable housing is a public concern. "Adequate housing is an essential element of human physical and social existence."[173] Currently, affordable housing shortages are causing hardship for families because people must choose between paying for housing and purchasing food.[174] Additionally, access to housing is necessary to maintain healthy neighborhoods and communities.[175] Without affordable housing, businesses are unable to fill vacant positions because a growing number of median income workers are unable to live in the communities because housing costs are too high.[176]

Additionally, affordable housing faces analogous local opposition when it comes to development. Local residents and business owners are concerned about the effects affordable housing will have on property values, public health and safety, and aesthetics.[177] According to Justin D. Cummins, "the greatest worry [of locals] is that affordable housing will drive down the value of nearby homes, apartments, and other real estate."[178] Concurrent with property value concerns are the fears of community members

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170. BASUDEB BHATTA, ANALYSIS OF URBAN GROWTH AND SPRAWL FROM REMOTE SENSING DATA 23 (2010).

171. *Affordable Housing*, U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT, http://portal.hud.gov/hudportal/HUD?src=/program_offices/comm_planning/affordablehousing/ (last visited Nov. 27, 2016).

172. *Id.*

173. Jessica A. Tober, *Bringing Home, Home: Is There A Home Rule Argument for Affordable Housing?*, 20 S. CAL. REV. L. & SOC. JUST. 91, 91 (2011).

174. Cummins, *supra* note 14, at 201.

175. Tober, *supra* note 173, at 91.

176. Cummins, *supra* note 14, at 202.

177. *Id.* at 212.

178. *Id.*

that affordable housing will cause a rise in crime rates.[179] The reasoning behind the two concerns is that the influx of affordable housing will attract unsavory residents to the neighborhood, increasing crime rates and lowering property values.[180] However, such reasoning is unfounded.[181] Affordable housing is typically occupied by poor, destitute families and does not impact property values or crime rates.[182] The final concern voiced by local residents is that affordable housing is unsightly and ugly.[183] The old concept was that affordable housing units were high density, tall, and not typical of the area.[184] However, by incorporating the architectural and aesthetic standards of the community, new affordable housing is designed to fit into existing communities.[185]

Furthermore, affordable housing is comparable to renewable energy development because local governing bodies can deter and stop the development of affordable housing through zoning ordinances. For example, in New Jersey, the town of Mount Laurel had a zoning ordinance that permitted only single-family residential ("9,375 square feet, minimum lot width of 75 feet…and a minimum dwelling floor area of 1,100 square feet") and one house per lot.[186] Under the ordinance, attached townhouses, apartments, and mobile homes were not allowed anywhere within the township.[187] The

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179. *Id.*; Margery A. Turner, *Affordable housing in safe neighborhoods: Four lessons for success*, URBAN INSTITUTE (May 16, 2014), http://www.urban.org/urban-wire/affordable-housing-safe-neighborhoods-four-lessons-success.

180. Turner, *supra* note 179.

181. *See Affordable Rental Housing Does Not Reduce Property Values: Evidence from the Twin Cities,* FAMILY HOUSING FUND (May 2014), http://www.fhfund.org/wp-content/uploads/2014/11/AH-Does-Not-Reduce-Property-Values_Updated-11.24.14.pdf (finding that affordable rental housing does not reduce property values); *see also* EDWARD G. GOETZ, HIN KIN LAM, & ANNE HEITLINGER, THERE GOES THE NEIGHBORHOOD? THE IMPACT OF SUBSIDIZED MULTI-FAMILY HOUSING ON URBAN NEIGHBORHOODS 2 (1996), http://www.cura.umn.edu/sites/cura.advantagelabs.com/files/publications/H1016.pdf (determining that affordable housing does not cause an increase in crime); *but see* Susan J. Popkin, et al., *Public Housing Transformation and Crime: Making the Case for Responsible Relocation*, 14 CITYSCAPE: J POL'Y DEV. & RES. 137, 151-53 (2012), https://www.huduser.gov/periodicals/cityscpe/vol14num3/Cityscape_Nov2012_pub_house_trans.pdf (finding that subsidized homes may affect crime rates, but only in communities that are already struggling with disinvestment and worsening crime).

182. *Frequently Asked Questions*, AMCAL, http://www.amcalhousing.com/frequently-asked-questions/ (last visited Nov. 27, 2016) ("'[L]ow-income' does not mean 'law breaking.' Most tenants in affordable housing are hard-working families with children or senior citizens who are living on limited incomes.").

183. *Affordable Housing,* CITY OF SAN DIEGO REDEVELOPMENT AGENCY, https://www.sandiego.gov/sites/default/files/legacy/redevelopment-agency/pdf/affhousing/affordablehousingbrochure.pdf (last visited Nov. 27, 2016).

184. AMCAL, *supra* note 182; *see also* CAL. PLANNING ROUNDTABLE, CAL. DEP'T OF HOUSING AND CMTY. DEV., MYTHS AND FACTS ABOUT AFFORDABLE & HIGH DENSITY HOUSING 2 (2002) http://www.hcd.ca.gov/housing-policy-development/mythsnfacts.pdf.

185. CAL. PLANNING ROUNDTABLE, *supra* note 184.

186. S. Burlington Cty. N.A.A.C.P. v. Mount Laurel Twp., 336 A.2d 713, 719-20 (1975).

187. *Id.* at 719.

ordinance, while not as restrictive as those in other municipalities, would realistically only be affordable to persons with middle income.[188] In response to such restrictive zoning, an action was brought against the township attacking the ordinance on the ground that low- and moderate income families were excluded from the municipality.[189] The New Jersey Supreme Court found that a developing municipality may not, by a system of land use regulation, make it physically and economically impossible to provide for low- and moderate-income housing in the municipality for various categories of persons who need and want it.[190] The Court required the trial court to consider "(1) identify the relevant region; (2) determine the present and future housing needs of the region; (3) allocate those needs among the various municipalities in the region; and (4) shape a suitable remedial order."[191] Because of the Court's decision, the New Jersey legislature recognized the need and importance of affordable housing and created a Fair Share Affordable Housing Plan for the state.[192]

As previously discussed, affordable housing and renewable energy development suffer from similar local opposition and regulation, making them difficult to develop and implement. However, affordable housing has seen increased development and approval from the local level because of Fair Share Plans. The next section analyzes Fair Share Affordable Housing Plans throughout the country in order to grasp the necessary components to develop a fair share plan for renewable energy.

V. MODELS OF STATE FAIR SHARE PLANS

Fair Share Plans are programs that determine where low- and moderate-income housing units should be constructed.[193] Such programs place affordable housing within regions according to criteria such as placing housing where it will expand housing opportunity, where housing will be needed most, and where housing will be most suitable.[194] The objective of fair share plans are to change the current housing distribution by allocating units in a rational and equitable manner.[195] Fundamental to all fair share

188. *Id.*
189. *Id.*
190. *See id.* at 724.
191. *Id.* at 746-47.
192. *Mount Laurel Doctrine*, FAIR SHARE HOUSING CENTER, http://fairsharehousing.org/mount-laurel-doctrine/#background (last visited Nov. 27, 2016).
193. DAVID LISTOKIN, FAIR SHARE HOUSING ALLOCATION 1 (1976).
194. *Id.*
195. *Id.*

programs is the proportionality requirement.[196] The proportionality requirement requires all new housing developments occurring within a community to incorporate a portion of affordable units.[197] Typically the proportionality requirement is between 10% to 15% of the new housing development; however, the requirement can vary depending on the characteristics and needs of the community.[198]

Fair share plans originated in the early 1970s and were generally adopted by a public agency or a group associated with a public entity.[199] By 1975, forty jurisdictions had implemented, adopted, proposed, or were considering a fair share plan.[200] Currently, several states, including New Jersey, Massachusetts, and Connecticut, have implemented fair share housing programs. This section provides an overview of the unique characteristics in each state's program in order to evaluate the elements that would be most effective for implementing a fair share plan for renewable energy.

A. New Jersey's Administrative Agency

After two prominent decisions by New Jersey's Supreme Court—the *Mount Laurel I* and *Mount Laurel II* decisions[201]—the New Jersey legislature passed the Fair Housing Act (the "Act") in 1985.[202] Under the Act, an administrative agency, the Council on Affordable Housing (COAH), is "responsible for determining each municipality's fair share of the regional need for housing that is affordable to moderate-income, low-income, and very low-income households."[203]

The COAH establishes the fair share obligations of each municipality by examining the "present and future housing needs, in addition to the municipality's capacity to provide housing, based upon growth area acreage, total employment, recent employment

196. *Adopt fair-share requirements for affordable housing*, SMART GROWTH AMERICA, http://old.smartgrowthamerica.org/guides/smart-growth-at-the-state-and-local-level/housing-policy/adopt-fair-share-requirements-for-affordable-housing/ (last visited Nov. 27, 2016).

197. *Id.*

198. *Id.*

199. LISTOKIN, *supra* note 193, at 1-2.

200. *Id*. at 2.

201. S. Burlington Cty. N.A.A.C.P. v. Mount Laurel Twp., 456 A.2d 390 (1983); South Burlington Count N.A.A.C.P. v. Township of Mount Laurel, 92 N.J. 158 (1983) (declaring that local land use regulations that prevent affordable housing opportunities for the poor are unconstitutional and ordered all New Jersey municipalities to take affirmative actions to provide affordable housing to low- and moderate-income people).

202. 1985 N.J. Sess. Law Serv. ch. 222.

203. Thomas Silverstein, *State Land Use Regulation in the Era of Affirmatively Furthering Fair Housing*, 24 J. AFFORDABLE HOUSING & COMMUNITY DEV. L. 305, 317 (2015).

growth, and income levels relative to the region as a whole."[204] Additionally, COAH is responsible for certifying municipalities that have developed adequate fair share plans.[205] In order to become certified, COAH requires municipalities in New Jersey to submit a fair share housing plan.[206]

Part of compliance with the fair share directives requires that municipalities adopt ordinances that provide for low- and moderate-income housing. Municipalities may provide for their fair share of affordable housing by "any technique or combination of techniques which would provide a realistic opportunity for the provision of the fair-share." Additionally, the Act further enumerates nine techniques for a municipality to make affordable housing realistically possible:

> (1) [r]ezoning for densities necessary to assure the economic viability of any inclusionary developments, either through mandatory set-asides or density bonuses, as may be necessary to meet all or part of the municipality's fair share . . . ; (2) [d]etermination of the total residential zoning necessary to assure that the municipality's fair share is achieved; (3) [d]etermination of measures that the municipality will take to assure that low and moderate income units remain affordable to low and moderate income households for an appropriate period of not less than six years; (4) [a] plan for infrastructure expansion and rehabilitation if necessary to assure the achievement of the municipality's fair share of low and moderate income housing; (5) [d]onation or use of municipally owned land or land condemned by the municipality for purposes of providing low and moderate income housing; (6) [t]ax abatements for purposes of providing low and moderate income housing; (7) [u]tilization of funds obtained from any State or federal subsidy toward the construction of low and moderate income housing; and (8) [u]tilization of municipally generated funds toward the construction of low and moderate income housing; and (9) [t]he purchase of privately owned real property used for residential purposes at the value of all liens secured by the property, excluding any tax liens, notwithstanding that the

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204. Julie M. Solinski, *Affordable Housing Law in New York, New Jersey, and Connecticut: Lessons for Other States*, 8 J. AFFORDABLE HOUSING & COMMUNITY DEV. L. 36, 53 (1998) (quoting Jennifer M. Morgan, *Zoning for All: Using Inclusionary Zoning Techniques to Promote Affordable Housing*, 44 EMORY L.J. 359, 368 (1995)).

205. *Id.*

206. *Id.*

> total amount of debt secured by liens exceeds the appraised value of the property, pursuant to regulations promulgated by the Commissioner of Community Affairs . . . .[207]

Furthermore, municipalities are encouraged to comply with the COAH certification process because it protects the municipality from zoning suits under their fair share ordinance. COAH approval of a municipality's fair share housing element grants the ordinance a presumption of validity that "may be overcome only by clear and convincing evidence that the plan will not meet said municipality's fair share obligation."[208]

Commentators have recognized that the strength of New Jersey's Fair Housing Act is that it delegates power to the COAH "to evaluate housing needs and to formulate a consistent and rational fair-share distribution."[209] The Act's strong encouragement of state-approved fair share plans creates rational planning within a locality, rather than randomly distributing court-ordered builder's remedies[210] or state-granted building permits throughout the state.[211] Although this coordinated planning helps overcome disorganized development, the Act does not empower the COAH to enforce the fair share requirements.[212] COAH acts upon request by a municipality and does not have the power to impose sanctions against municipalities for failing to provide the proper number of housing units.[213] Therefore, even though New Jersey has a strong agency to provide for fair share housing plans, the COAH lack of power to enforce the Act means that all enforcement is left in the hands of individuals.[214]

B. Massachusetts' Developer Benefits

In Massachusetts, the legislature enacted the Massachusetts Anti-Snob Zoning Act ("Anti-Snob Act") in order to provide legal

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207. N.J. STAT. §§ 52:27D-311(a)(1)-(9) (2015).

208. Solinski, *supra* note 204, at 54, 58.

209. *State-Sponsored Growth Management as a Remedy for Exclusionary Zoning*, 108 HARV. L. REV. 1127, 1136 (1995); *see also* Solinski, *supra* note 204.

210. *See generally* DAVID J. FRIZELL & RONALD D. CUCCHIARO, 36 N.J. Prac., Land Use Law § 21.26 (3d ed. 2015) (A builder's remedy is a legal action taken by a property developer in an attempt to force a municipality to permit construction of a large, multi-family housing structure or complex).

211. *State-Sponsored Growth Management as a Remedy for Exclusionary Zoning*, *supra* note 209, at 1136.

212. *Id.*

213. *Id.* at 1135-36.

214. *Id.* at 1136.

recourse against municipalities with zoning ordinances that perpetuated the inability of low- and medium-income families from owning homes.[215] In recognition that local zoning laws create barriers to affordable housing development, the Anti-Snob Act was designed to override local zoning in order to promote affordable housing in communities where there is an inadequate supply.[216]

According to Christopher Baker, the Anti-Snob Act is a "uniform, streamlined system for developers to obtain the building permits necessary to begin construction [of affordable housing]."[217] Under the Act, a developer need only submit a single application for a comprehensive zoning permit to the Zoning Board of Appeals (ZBA).[218] Once the application is submitted, the ZBA will notify all applicable local boards of the filing and request their recommendations and the appearance of representatives deemed necessary to determine whether to grant or deny the permit.[219] Upon making their determination, the ZBA shall take into consideration the recommendations of the local boards and must "adopt rules, not inconsistent with the purposes of [the Anti-Snob Act]."[220]

In addition to the streamlined permitting process, the Anti-Snob Act provides developers with a special appeals process to challenge ZBA permit denials or approvals "with conditions attached that make the project uneconomic."[221] Under the appeal, the housing appeals committee is limited to the issue of whether the decision of the ZBA was reasonable and consistent with the local needs.[222] In the appeals process, the burden falls on the municipality to show "a valid health, safety, environmental, design, open space, or other local concern . . . [which] outweighs the regional housing need. "[223]

The Massachusetts Anti-Snob Zoning Act has proven to be a great asset to developers attempting to create affordable housing within the state. First, the streamlined permitting process allows developers to reduce permitting costs and begin development more quickly, therefore reducing costs.[224] Second, the special developer appeals process reduces legal and delay costs and the HAC regularly

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215. Christopher Baker, *Housing in Crisis--A Call to Reform Massachusetts's Affordable Housing* Law, 32 BOSTON COLLEGE ENVTL AFFAIRS L. REV. 165, 168-69 (2005).

216. *Id.* at 169.

217. *Id.*

218. MASS GEN. LAWS ANN. ch. 40B, § 21 (2015).

219. *Id.*

220. *Id.*

221. Sharon Perlman Krefetz, *The Impact and Evolution of the Massachusetts Comprehensive Permit and Zoning Appeals Act: Thirty Years of Experience with A State Legislative Effort to Overcome Exclusionary Zoning*, 22 W. NEW ENG. L. REV. 381, 386 (2001).

222. MASS. GEN. LAWS ANN. ch. 40B, § 23 (2015).

223. Krefetz, *supra* note 221, at 388.

224. Baker, *supra* note 215, at 170.

overturning ZBA decisions provides developers significant leverage in their negotiations with municipalities.[225] One flaw with these developer benefits, however, is that the benefits only apply to municipalities whose affordable housing stocks fall under minimum percentages as designated by the state statute.[226] Therefore, a community that meets the minimum requirements evades the Anti-Snob Act and limits the ability of the developer to bring a claim against the local zoning ordinances.[227]

C. Connecticut's Negotiations

In contrast to New Jersey and Massachusetts fair share housing programs, Connecticut's Fair Housing Compact Pilot Program ("Connecticut Act") encourages local governments to work together and negotiate a fair share housing agreement that establishes affordable housing principles for the entire region.[228] The Connecticut Act appointed two regions, the Capital Region Council of Governments and the Greater Bridgeport Regional Planning Agency, to participate in the Pilot Program.[229]

The structure of negotiation committee was the most important factor to developing a regional affordable housing agreement in Connecticut. The Connecticut Act called for a diverse negotiation committee including an outside mediator, the Commissioner of Housing, the officers of the regional planning agency, and a representative from each municipality.[230] Connecticut paid for the mediator in order to incentivize the representatives' participation.[231] Furthermore, the Connecticut Act required the principles in the fair share housing agreement to be agreed upon by the members of the negotiating committee and brought back to each local jurisdiction. [232] Finally, after reaching a consensus on the affordable housing principles, the fair share housing agreement had to be ratified by 65% of the participating municipalities. [233] After ratification, the Connecticut Act established a housing

225. *Id.*

226. Baker, *supra* note 215, at 171.

227. *Id.* at 169; MASS. GEN. LAWS ANN. ch. 40B, § 20 (2015).

228. 1988 CONN. ACTS 937 (Reg. Sess.).

229. Charles E. Connerly & Marc Smith, *Developing A Fair Share Housing Policy For Florida*, 12 J. LAND USE & ENVTL L. 63, 94; ROGER L. KEMP, REGIONAL GOVERNMENT INNOVATIONS: A HANDBOOK FOR CITIZENS AND PUBLIC OFFICIALS 282 (2003) (noting the Harford Capitol Region consisted of an area of poverty in the city surrounded by wealthy suburbs).

230. CONN. GEN. STAT. ANN. § 8-386 (2015).

231. 1988 CONN. ACTS 937 (Reg. Sess.); Connerly & Smith, *supra* note 229, at 95.

232. 1988 CONN. ACTS 937 (Reg. Sess.).

233. CONN. GEN. STAT. § 8-386(a) (2016).

fund that set aside infrastructure funds for communities that adopted the agreement. [234]

The Connecticut Act demonstrates that local governments, with competing interests, can negotiate a fair share housing agreement when provided with the proper incentives. [235] First, the diverse committee permitted each representative to voice their localized concerns with fair share housing agreement. [236] As Charles E. Connerly and Marc Smith noted, the diversity of representatives at the negotiations created an environment of mutual learning wherein citizens and politicians learned about the housing and political issues confronting affordable housing.[237] Second, the requirement of near unanimity and ratification by the municipalities provided each municipal representative with the ability to negotiate on behalf of their community. [238] The ability to negotiate ensured that the minority municipalities were protected and assured jurisdictions that municipalities would not be forced into an agreement they did not approve.[239] Finally, the state funded mediator and housing fund provided incentivized the participation of the municipalities and qualified more communities for housing aid. [240]

Therefore, the Connecticut Plan, emphasizing affordable housing allocations negotiated voluntarily by jurisdictions, provides the proper forum for citizens to express their concerns and for the state to expand affordable housing options within the regions.

VI. FAIR SHARE RENEWABLE ENERGY

As noted earlier, the current problem with renewable energy regulation is the lack of uniformity across the country as to whether the state or local government should have the authority to regulate renewable energy. This inconsistency causes developers to view renewable energy projects as risky investments because the possibility of local opposition and litigation can be costly and time consuming. Furthermore, the current models of renewable energy regulation do not properly balance local concerns with state objectives. Instead, the current models prioritize local concern to the point that it frustrates renewable energy development or

234. 1988 CONN. ACTS 937 (Reg. Sess.).
235. Connerly & Smith, *supra* note 229, at 98.
236. *Id.*
237. *Id.* at 95.
238. *Id.*
239. *Id.* at 96.
240. *Id.*

prioritize the state objectives to implement renewable energy projects without taking into consideration the local concerns. Therefore, in order to encourage renewable energy development, there needs to be an effective approach to zoning regulation that reduces the inconsistency and unpredictability caused by the current models.

As seen with affordable housing, a "fair share" plan could provide a framework to solve the problems with the current models of renewable energy regulation. Through the implementation of a proportionality requirement, a renewable energy regulation agency, and a one-stop permitting process, a Fair Share Renewable Energy Plan would create uniformity in the regulation of renewable energy and properly balance state objectives and local concerns.

A. The Proportionality Requirement

The proportionality requirement in affordable housing is the portion of new housing developments that must be affordable to low-medium income families within a community. In affordable housing, the proportionality requirement is between 10- and 15% of all new housing developments in the area. Unlike housing, renewable energy developments are not constructed on a per unit basis. Therefore, the proportionality requirement for renewable energy would be based off of different estimates instead of a percentage of new developments.

For renewable energy, the proportionality requirement should be an amount of kilowatt or megawatt hours consumed in a year allocated equally to each of the localities in the state.[241] The proportionate share means that local governments must allow a certain amount of renewable energy development in their community whether it be through local funding or private developers. The proportionality requirement provides two key benefits. First, it guarantees the state objective of expanding renewable energy development. This occurs because the state requires each locality to meet its renewable energy portion of the kilowatt hours produced in a year. Second, the proportionality requirement distributes the burden of implementing renewable energy equally among the localities in the state. Equal burden is a beneficial effect of the proportionality requirement because

241. In recognition that the proportionate share requirement may not be feasible for all local governments, there should be opportunities to waive the equal share requirement dependent on factors such as economic feasibility, geographic location, and/or special circumstances.

it does not differentiate between localities. Equal burden means that a single locality will not have to bear the burdens of renewable energy development in its area for the good of providing clean energy to all other localities. Therefore, the positive and negative effects of renewable energy development will be felt by all localities within the state.

There is a concern with the proportionality requirement in that it does not provide the opportunity for local concerns to be voiced. This concern is addressed in the State Agency portion of the Fair Share Renewable Energy Plan below. However, in recognition of the danger of excluding the local voice, it is recommended that an approach similar to the Connecticut Act be used when determining the proportionality requirement.

When Connecticut wanted to implement its fair share plan to affordable housing, it held a meeting wherein state, regional, and local representatives were invited. At the meeting, each representative was able to voice his or her concerns and comment on the proportionate requirement of affordable housing. Such an approach would be useful for a Fair Share Renewable Energy Plan. By providing a forum to discuss and comment on the renewable energy proportionate share, the state allows local representatives to present their view on the proportionate requirement, including, for example, unique local environmental and social concerns. This provides an initial layer of protection for local concerns to renewable energy development. Additionally, this meeting would provide the state with valuable insight into the feasibility of the proportionality requirement. For example, if a state were to broadly require a proportionate share to be shouldered by each locality, there is a possibility that certain localities may be unable to economically meet the proportionate share requirement. By holding a meeting with representatives, the proportionate share can be tailored so as to be an achievable amount for the entire state and can, in some cases, deviate from requiring full equality among jurisdictions.

B. The Renewable Energy Regulation Agency

After establishing the proportionality requirement, an agency should be implemented to approve and certify each municipality's fair share plan. The agency should be modeled after the New Jersey Council on Affordable Housing (COAH). Analogous to COAH, the Renewable Energy Regulation Agency (RERA) should be responsible for certifying that municipalities have developed adequate fair share plans. In order to have compliant fair share

plans, each municipality should have to meet its proportionate share of renewable energy production. Municipalities can meet their proportionate share by funding their own renewable projects, passing zoning ordinances to facilitate renewable energy projects, or allowing private developers to build a certain amount of renewable energy infrastructure in the municipality's jurisdiction. Similar to the COAH requirements, municipalities would provide for their fair-share of renewable energy production by any technique or combination of techniques which would require a realistic opportunity for the provision of the fair share. Such broad language in the fair share plan allows each municipality to tailor its plans to its local characteristics and needs. For example, if one municipality does not want to provide for siting of renewable developments in its area to preserve the aesthetic environment, then the city can support another city's renewable energy development and use the production from the other city to meet its proportionate requirement.

Understandably, with each locality adopting its own plan to meet the proportionate requirement, there will need to be a consideration of various operating factors such as selling of renewable credits and developing a system for verifying credits. However, the focus of this Note is to provide the foundational framework for fair share renewable energy plans. Considerations involving the operationalization of these plans, such as the purchasing of credits, allocation of credits, and various strategies for meeting the fair share requirement, would have to be explored further before fully implementing a fair share plan.

In addition to approving municipal fair-share plans, the RERA should also enumerate and help localities in developing their renewable fair-share plans. For example, in New Jersey, the Fair Housing Act enumerates nine techniques to make affordable housing realistically possible.[242] Since each locality may not have the expertise to implement intricate fair share plans, the RERA should be able to provide models and options that cities can use to develop their own fair share plans.

Finally, similar to certified plans under COAH, all plans that meet the requirements as established by RERA should be granted a presumption of validity. This presumption of validity provides protection to the municipality from legal challenges. A court would only overturn the fair share plan if the opposing party could show by clear and convincing evidence that the plan will not meet the municipality fair share obligation. By protecting

242. N.J. STAT. §§ 52:27D-311(a)(1)-(8) (2015).

municipalities from legal challenges the presumption of validity would protect the municipality from having to invest extensive resources in litigation.

The RERA established by the fair share plan provides for multiple benefits. First, by adopting broad language for approving and certifying plans, local concerns are taken into account when it comes to developing renewable energy projects. The broad implementation language allows local governments to consider their local characteristics and tailor their plan to meet the needs of the community. Second, the RERA provides support to municipalities and local governments who do not have the expertise to implement renewable energy developments. With support and models provided by the agency, all municipalities will be able to develop and implement a plan that satisfies their proportionate share requirement. Finally, the greatest benefit of the RERA is that all certified plans are provided a presumption of validity. This presumption can save a municipality litigation costs and protect its plans so long as there is a possibility that the plan will meet the municipality's fair share obligation.

C. Developer One-Stop Shops

The final part of the fair share plan should include efficient approval and permitting processes for developers. In the fair share renewable plan, the renewable energy regulation agency would be the sole provider of permits and approve all renewable energy developments. In reviewing the proposed project, the RERA would notify the municipalities where the proposed renewable energy projects would be located and provide a thirty-day comment period for the locality to comment on the specifications of the project. This would provide a third chance for local concerns to be expressed. In granting or denying the developer's permit, the RERA must base its determination off of the comments and recommendation of the municipality, and should implement conditions so long as they do not have the effect of banning or substantially reducing the amount of renewable energy built within the municipality. By requiring notification to the local governments and providing the local government the ability to comment, the permitting process would encourage negotiations and agreements between the developer and local officials. These negotiations would occur because the costs of changing a proposed project during the permitting stages are higher than in the planning stages of a project. Therefore, since the developer knows that localities can comment on the proposed project once submitted, it is in

the best interest to reach out to the locality about the proposed project and make changes to appease local concerns before submitting the project to permitting review.

Furthermore, by requiring localities to submit their fair share plans to RERA and requiring developers to submit their proposed developments for approval at RERA, the agency would be equipped with the resources necessary to make a determination as to whether the proposed project would fit within the requirements of the municipalities, even if the project spanned multiple localities.

D. Hypothetical Example of the Fair Share Renewable Energy Plan

A stylized example provides a good example of how the Fair Share Renewable Energy Plan would operate. Suppose the state of Greenacres wants to implement a renewable energy fair share plan. Greenacres has four localities within its state and a yearly consumption of 1000 megawatt hours. City A is a beach town that values its aesthetically pleasing beaches to attract tourism. City B is a highly urban city with little room for new developments. City C and D are rural areas with average populations.

In order for Green Acres to implement its fair share plan, it would first have to determine what proportion of energy consumption should come from renewable sources within the state. After conferring with local and regional representatives and providing a period for comments and concerns, Greenacres determines that a 10% energy consumption from renewable energy per year is feasible within the state. Therefore, 100 megawatt hours per year (1000 megawatts times 10%) must be produced from wind or solar sources. This 100 megawatt hour requirement would then be divided equally among the four localities. Each locality would be responsible for the production of 25 megawatt hours or attracting development that would result in the construction of 25 megawatts capacity from renewable sources.

After establishing the 25 megawatt hours proportionate requirement, the localities must develop fair share plans in order to meet the requirement. Since each city has different characteristics that must considered when it comes to developing its fair share plan, all the plans can be custom written to meet the local needs. For example, Cities C and D both decide to develop wind farms in their municipality that are able to produce enough energy to meet their 25 megawatt hours. City A, valuing its beaches, may not want to have wind turbines or solar panels developed in the city. Instead, City A could purchase credits in from C or D in order to meet its

renewable energy production requirement. Another option for City A is to help fund and expand C and D's wind farms so that the wind farm produces enough megawatts to cover City A's proportionate share requirement. City D in order to comply with its proportionate share decides to develop rooftop solar over its tall buildings and other structures. Here, the fair share plan shows its strengths. It allows municipalities the authority and voice to develop its community to meet the desired characteristics of its residents without frustrating the state goal of renewable energy development. As stated earlier, there are operational considerations that need to be addressed in the future if a fair share plan is to be implemented. These potential solutions are provided as examples for representation purposes.

The actual development of renewable energy projects poses an interesting issue. The ability of a state to build, develop, and own its own renewable energy generator may be infeasible for smaller localities. Therefore, the requirement on the cities is to implement a fair share plan that would provide for the possibility of meeting the proportionate requirement, not the actual construction of renewable energy developments. This is where the one-stop permitting process works because it attracts developers with efficient approval and local support for development to occur. In the Greenacres example, developers would be interested in developing renewable energy projects in Cities B, C, and D because the cities approved plans to have wind turbines and solar panels.

One of the primary weaknesses for the Fair Share Renewable Energy Plan is that renewable energy resources are not evenly distributed. For example, some areas within a state are much windier or sunnier than other areas throughout the state. Therefore, jurisdictions without access to plentiful wind and solar resources would have a much harder time meeting the proportionate share requirement. Furthermore, it would inefficient to develop wind turbines and solar panels within areas with limited resources because the amount of energy produced would be less efficient than areas with abundant wind and solar resources. However, this problem can be solved through the trading of renewable energy credits produced by other municipalities. For example, if municipality A has abundant wind resources and has a turbine that can exceed the municipalities proportionate renewable energy requirement, then municipality A can sell the excess production to other jurisdictions who are hindered by their limited resources. However, to make such a

credit trading system operational, the issues of double-counting and the effects on impoverished areas need to be resolved.[243]

Overall, this framework for a fair share renewable energy project would be a solution to the current patchwork models of renewable energy regulation. First, the fair share proportionate requirement guarantees that renewable energy projects will be developed satisfying the state objective. Second, providing municipalities great liberty as to how to meet their proportionate share requirement enables local concerns to be voiced thereby satisfying residents within each municipality. Therefore, the fair share renewable plan provides states with an effective and efficient solution to the regulation of renewable energy developments.

VII. CONCLUSION

The expansion of renewable energy development is upon us. The federal and state governments support clean and renewable energy and want to expand its production. However, the disorganized and jumbled state of renewable energy regulation throughout the country will continue to frustrate expansion of renewable energy. Therefore, states should model renewable energy regulation after fair share affordable housing plans because they have successfully balanced a public need with the local concern.

The implementation of a Fair Share Renewable Energy Plan with its proportionate requirement, state agency, and developer benefits provides an alternative that is better than the mixture of various regulation models currently in place. It guarantees the implementation of the state objective for renewable energy development. It provides an appropriate amount of consideration for local concerns and local input throughout the regulation process. Finally, it provides developers with an efficient process to incentivize construction and development. While some of the operational factors need to be discussed further, the foundational framework for fair share renewable energy regulation provides the change needed for renewable energy expansion, changing the topic from "who should regulate" to "what is the best way to produce more clean energy."

243. Ida Martinac, *Considering Environmental Justice in the Decision to Unbundle Renewable Energy Certificates,* 35 GOLDEN GATE U. L. REV. 491, 519-28 (2005) (providing details regarding renewable energy certificate trading and other associated issues).