

# REDUCING TRANSPORTATION CARBON EMISSIONS: THE LATENT POTENTIAL FOR NEW ENGLAND

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## TABLE OF CONTENTS

Introduction.....	169
I. Background: Global Warming & Land Use That Leads to Increased Carbon Emissions.....	171
II. The Existing Framework in New England and the Current Approach for Addressing Climate Change.....	175
III. California’s Anti-Sprawl Legislation: Senate Bill 375.....	179
A. How Is SB 375 Structured, and What Will it Do? .....	180
B. Why Is SB 375 Significant? .....	182
IV. New England Moving Forward .....	183
A. New England’s Present Paradigm .....	185
B. Mechanisms for Reducing Regional Carbon Emissions .....	186
Conclusion .....	191

## INTRODUCTION

There is no doubt that there is increasing awareness and concern about global climate change and all of its impending consequences.<sup>1</sup> Widely accepted research indicates that climate change results from a buildup of carbon dioxide in our atmosphere, which humans have precipitated through various aspects of modern living.<sup>2</sup> Science suggests that we are at a crucial

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1. *See generally* INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2007: SYNTHESIS REPORT SUMMARY FOR POLICY MAKERS (2007) [hereinafter IPCC REPORT], available at [http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4\\_syr\\_spm.pdf](http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf) (reporting on the most recent scientific findings of anticipated global effects of climate change).

2. *See* OFFICE OF TRANSP. & AIR QUALITY, U.S. ENVTL. PROT. AGENCY, PUB. NO. EPA 420 R 06 003, GREENHOUSE GAS EMISSIONS FROM THE U.S. TRANSPORTATION SECTOR 1990–2003, at 3 (2006) [hereinafter TRANSPORTATION GHG EMISSIONS REPORT] (describing how human contributions to atmospheric concentrations of carbon dioxide (CO<sub>2</sub>) result in global warming by creating positive

point in time at which we can still cut carbon emissions to alleviate the impending consequences of climate change. However, if we do not act soon, it may well be too late.<sup>3</sup>

The information dispersed about climate change and its multifaceted impacts has prompted action at various levels of government.<sup>4</sup> Unfortunately, the federal government has neglected to act and the states have been first to implement instrumental legislation.<sup>5</sup> State, local, and regional governments have legislatively set carbon-reduction goals and implemented comprehensive and unique state and regional plans designed to address climate change. Further, these governments have taken steps to establish emissions inventories, develop mitigation action plans, enact sector-specific policies, and partner with other governments.<sup>6</sup>

Because of the magnitude and complexity of human-induced climate change, there is no single, quick fix to reverse the impending threat. Instead, for humans to combat global warming, we must take action to address the various sectors of carbon emissions.<sup>7</sup> One recent stride in legislation is California's Senate Bill (SB) 375, a new anti-sprawl law that aims to reduce carbon emissions from the transportation sector.<sup>8</sup>

This Note suggests that New England must also seek to reduce transportation carbon emissions and that it should do so as a region. Part I briefly describes the problem. Part II explains the existing framework in which New England works collectively to address climate change. Part III discusses the approach California has taken with SB 375. Part IV explores

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radiative forcing); *see also* IPCC REPORT, *supra* note 1, at 5 (noting that concentrations of certain greenhouse gases in the atmosphere "far exceed pre-industrial values" because of human activity).

3. *See* IPCC REPORT, *supra* note 1, at 19 ("Delayed emission reductions significantly constrain the opportunities to achieve lower stabilisation levels and increase the risk of more severe climate change impacts.").

4. U.S. CLIMATE ACTION NETWORK, TURNING THE TIDE: ESTABLISHING MANDATORY CLIMATE POLICY IN THE UNITED STATES 5 (2005), *available at* <http://www.usclimatenetwork.org/resource-database/turningtidefull.pdf> (noting the proliferation of municipal, state, and regional governmental policies aimed at reducing greenhouse gas emissions).

5. *Id.*; WILLIAM ANDREEN ET AL., CENTER FOR PROGRESSIVE REFORM, COOPERATIVE FEDERALISM AND CLIMATE CHANGE: WHY FEDERAL, STATE, AND LOCAL GOVERNMENTS MUST CONTINUE TO PARTNER 3 (2008).

6. *See* U.S. CLIMATE ACTION NETWORK, *supra* note 4, at 5–12 (discussing various approaches that state, regional, and municipal governments have taken to address climate change); *see also* ANDREEN ET AL., *supra* note 5, at 4.

7. UNITED STATES CLIMATE ACTION P'SHIP, A CALL FOR ACTION 9, [http://docs.nrdc.org/globalwarming/files/glo\\_07012201A.pdf](http://docs.nrdc.org/globalwarming/files/glo_07012201A.pdf) (last visited Nov. 23, 2009) (suggesting sector-specific policies and measures).

8. S. 375, 2007–2008 Leg. Sess. (Cal. 2008), *available at* [http://leginfo.ca.gov/pub/07-08/bill/sen/sb\\_0351-0400/sb\\_375\\_bill\\_20080930\\_chaptered.pdf](http://leginfo.ca.gov/pub/07-08/bill/sen/sb_0351-0400/sb_375_bill_20080930_chaptered.pdf); *see* Kevin Yamamura, *Governor Signs Anti-Sprawl Bill*, SACRAMENTO BEE, Oct. 1, 2008, at 1A, *available at* <http://postcarboncities.net/node/3681>.

how New England could use existing mechanisms to address the issue of transportation emissions, including how the California legislation could be a component of that process.

## I. BACKGROUND: GLOBAL WARMING & LAND USE THAT LEADS TO INCREASED CARBON EMISSIONS

Science has established that human-induced climate change is a reality. Scientists agree that various human activities release greenhouse gas (GHG) emissions, and that the quality and quantity of human activity has resulted in increasing concentrations of GHGs in the atmosphere.<sup>9</sup> In 2007, the Intergovernmental Panel on Climate Change (IPCC) stated that the “[w]arming of the climate system is unequivocal.”<sup>10</sup> The IPCC reports that global GHG emissions from human activities have increased 70% from pre-industrial times.<sup>11</sup> IPCC also reports a very high confidence that the overall net effect of human activities has been one of warming.<sup>12</sup>

While there are multiple forms of GHG emissions, carbon dioxide (CO<sub>2</sub>) is the predominant GHG emitted by human sources.<sup>13</sup> One of the leading sources of CO<sub>2</sub> emissions fostering climate change is emissions from the transportation sector. The Environmental Protection Agency (EPA) attributes the overall rise of GHGs in the U.S. to increased CO<sub>2</sub> emissions from increasing fossil fuel combustion.<sup>14</sup> The EPA notes that land-use patterns that are heavily car dependent have developed across the country, such that “transportation is the second largest contributor of GHG emissions, in part due to dispersed land-use patterns that create high levels of vehicle miles traveled (VMT).”<sup>15</sup> The EPA reported in 2006 that “transportation is a vital part of the economy and is essential for everyday activities, [but] it is also a significant source of [GHG] emissions.”<sup>16</sup> “In 2003, the transportation sector accounted for about 27 percent of total U.S.

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9. TRANSPORTATION GHG EMISSIONS REPORT, *supra* note 2, at 3.

10. IPCC REPORT, *supra* note 1, at 2.

11. *Id.*

12. *Id.* at 5.

13. TRANSPORTATION GHG EMISSIONS REPORT, *supra* note 2.

14. *Id.* at 6.

15. Alice Kaswan, *Environmental Justice and Domestic Climate Change Policy*, 38 ENVTL. L. REP. NEWS & ANALYSIS 10,287, 10,311 (2008), available at <http://www.elr.info/articles/vol38/38.10287.pdf> (citing U.S. ENVTL. PROT. AGENCY, INVENTORY OF U.S. GREENHOUSE GAS EMISSIONS AND SINKS: 1990–2005 ES-14 (2007), available at [www.epa.gov/climatechange/emissions/downloads06/07ES.pdf](http://www.epa.gov/climatechange/emissions/downloads06/07ES.pdf)).

16. TRANSPORTATION GHG EMISSIONS REPORT, *supra* note 2, at 1.

GHG emissions.”<sup>17</sup> Specifically, 81% of those emissions were released from “on-road” vehicles like cars, trucks, buses, and motorcycles.<sup>18</sup> Moreover, this massive sector of emissions “increased more in absolute terms than any other sector . . . from 1990 to 2003.”<sup>19</sup>

Transportation-sector emissions are a major aspect of human-induced climate change whether you live in California or New England. In California, “the transportation sector is the single largest category of California’s GHG emissions, producing 41 percent of the state’s total emissions in 2004.”<sup>20</sup> Likewise, the transportation sector is the single largest source of GHG emissions in New England.<sup>21</sup> According to the Vermont Agency of Transportation, the transportation sector represents the single largest source of GHG emissions (44%) in Vermont.<sup>22</sup> According to the Vermont Agency of Natural Resources, the transportation sector is the “fastest growing source of carbon dioxide (CO<sub>2</sub>) emissions.”<sup>23</sup> It appears that the situation is only worsening, as “[t]he increase in vehicle miles traveled (VMT) in Vermont was over 30 percent between 1991 and 2001.”<sup>24</sup>

Furthermore, in New Hampshire, transportation is the largest contributor to GHG emissions among state energy sectors (41%), and is the fastest growing sector.<sup>25</sup> Evidenced by citizens’ travel habits in New Hampshire, only 1% of the commuting population uses public transportation; 91% of the population commutes by car, truck, or van; 8% carpool; and 83% of the population drives alone.<sup>26</sup> “Long distance drives to

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17. *Id.*

18. *Id.* at 7.

19. *Id.* at 6.

20. CAL. ENERGY COMM’N, INVENTORY OF CALIFORNIA GREENHOUSE GAS EMISSIONS AND SINKS: 1990 TO 2004, at ii (2006), *available at* <http://www.energy.ca.gov/2006publications/CEC-600-2006-013/CEC-600-2006-013-SF.PDF>.

21. CONSERVATION LAW FOUND., NEW ENGLAND’S DOWN PAYMENT ON THE FUTURE, at 1 [hereinafter CLF REPORT], *available at* <http://www.clf.org/resources/reports/docs/5steps5years.pdf>.

22. CENTER FOR CLIMATE STRATEGIES, FINAL VERMONT GREENHOUSE GAS INVENTORY & REFERENCE CASE PROJECTIONS, 1990–2030, at C-1 (2007), *available at* <http://www.anr.state.vt.us/air/Planning/docs/Final%20VT%20GHG%20Inventory%20%20Projection.pdf>.

23. VT. AGENCY OF NATURAL RES., AIR POLLUTION CONTROL DIVISION, STATE FILINGS FOR RECENTLY ADOPTED AND PROPOSED REGULATIONS — LOW EMISSION VEHICLES, SUBCHAPTER XI, SCIENTIFIC INFORMATION STATEMENT ATTACHMENT A, at 1 (2008), *available at* <http://www.anr.state.vt.us/air/docs/Scientific%20Statement%20Attachment%20A.pdf>.

24. *Id.*

25. New Hampshire Public Interest Research Group (NHPIRG) News Room, *Long Commutes, Sprawling Development, Lack of Transportation Options Are “Driving Global Warming”*, Feb. 7, 2006, <http://www.nhpirg.org/NH.asp?id2=21827> [hereinafter NHPIRG News Room].

26. New Hampshire State Transportation Energy Statistics, <http://www.eredux.com/states/transportation.php?id=1151&state=NEW%20HAMPSHIRE&PHPSESSID=574n4glho3toudioc6bf9g52q0> (last visited Jan. 5, 2010).

and from work, growing 'ex-urban' sprawl development, and a lack of alternative transportation options for commuters are among the leading causes of this troubling statewide trend."<sup>27</sup>

The nature of the problem is pervasive because, throughout the country, the existing sprawl-like land-use patterns are heavily car-dependent.<sup>28</sup> While the exact nature of the sprawl in New England may be different from the sprawl in California, the problem remains the same: existing development patterns are not designed to be carbon-efficient, and have instead resulted in increasing VMT.<sup>29</sup>

Scientists anticipate that the undesirable consequences of climate change will be felt throughout the world, with such diverse effects as: increased mortalities from floods, droughts, and heat waves; increased damage from storms; increased disturbance of ecosystems with greater numbers of extinction; loss of coastal wetlands; additional stress on water resources; and increased burdens from malnutrition and infectious diseases.<sup>30</sup>

Likewise, New England is not sheltered from the effects of global warming. Scientists expect that New England will suffer unique, regionally relevant consequences of climate change, such as the depletion of natural resources that define the region, rising sea levels, and rising temperatures that will alter the seasons.<sup>31</sup> More specifically, consequences may include "significant warming, deteriorating air quality . . . a combination of droughts and flooding, changes in the character of forests, and the probable spread of Lyme Disease and toxic algal blooms."<sup>32</sup> Climate change could also "produce a shorter ski season, allow incursion of warmer climate tree species which would replace the current mix of hardwoods that produce [New England's] spectacular fall foliage, and result in a dramatic change in the quality and quantity of maple sap."<sup>33</sup>

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27. NHPIRG News Room, *supra* note 25.

28. Kaswan, *supra* note 15.

29. *Id.*; see ANDREEN ET AL., *supra* note 5, at 13 (identifying urban sprawl as contributing to CO<sub>2</sub> emissions by creating inefficient traffic patterns).

30. See IPCC REPORT, *supra* note 1, at 10 (outlining various anticipated impacts of climate change).

31. CLF REPORT, *supra* note 21.

32. VT. AGENCY OF NATURAL RES., *supra* note 23 (citing Eric Barron, *Chapter Four: Potential Consequences of Climate Variability and Change for the Northeastern United States*, in CLIMATE CHANGE IMPACTS ON THE UNITED STATES: THE POTENTIAL CONSEQUENCES OF CLIMATE VARIABILITY AND CHANGE 109, 111, 113, 125, 128 (2001)).

33. *Id.* (citing OFFICE OF POLICY, U.S. ENVTL. PROT. AGENCY, PUB. NO. EPA 236-F-98-007AA, CLIMATE CHANGE AND VERMONT 3-4 (1998)).

These impacts will have significant and extensive effects on New Englanders' quality of life and cost of living.<sup>34</sup> Not only will these impacts affect New England residents' enjoyment of their home environment, but the implications for New England's tourism revenue are enormous. In Vermont, tourism is the state's largest industry, employing 23% of the population,<sup>35</sup> and it generates \$1.4 billion in personal income and \$267 million in indirect business tax.<sup>36</sup> Dr. Kenneth D. Kimball, director of research for the Appalachian Mountain Club, reports that climate change could affect various aspects of recreational tourism in New England, ranging from fishing, skiing, hiking, and camping, to general sight-seeing.<sup>37</sup> He further notes that "the recreation and tourism industry . . . is very dependent on a highly mobile public using the automobile as its primary source of transportation to travel long distances."<sup>38</sup>

Thus, there are environmental and economic incentives for New England to address the issues of transportation planning and transportation emissions resulting from sprawling land-use patterns that result in high VMT. In its 2007 report, the IPCC described key mitigation technologies, policies, and potential mitigating measures that, if implemented, could alleviate the effects of climate change.<sup>39</sup> In addition to switching to more fuel-efficient cars, the IPCC suggested shifting from a road-transport system to a public-transport system and developing other alternative modes of transportation.<sup>40</sup> The IPCC also suggested influencing community mobility needs through land-use and transportation planning has proven to be environmentally effective.<sup>41</sup> Planning for transportation at the local, state, and regional level will help New England give its citizens greater access to the region while successfully striving to meet carbon reduction goals.

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34. COMM. ON THE ENV'T & THE NE. INT'L COMM. ON ENERGY OF THE CONFERENCE OF NEW ENGLAND GOVERNORS & E. CANADIAN PREMIERS, CLIMATE CHANGE ACTION PLAN 2001, at 3 (2001) [hereinafter CCAP], available at <http://www.necg.org/documents/NEG-ECP%20CCAP.PDF>.

35. TUN LIN ET AL., THE IMPACT OF THE TOURISM SECTOR ON THE VERMONT ECONOMY: THE INPUT-OUTPUT ANALYSIS 6 (1999), available at <http://purl.umn.edu/21618>; Vermont Economy: Agriculture and Industry in Vermont, <http://www.e-referencedesk.com/resources/state-economy/vermont.html> (last visited Dec. 25, 2009).

36. LIN ET AL., *supra* note 35.

37. KENNETH D. KIMBALL, *New England Regional Climate Change Impacts on Recreation and Tourism*, in NEW ENGLAND REGIONAL CLIMATE CHANGE IMPACTS WORKSHOP SUMMARY REPORT, SEPTEMBER 3-5, at 129-31 (1997), available at <http://www.necci.sr.unh.edu/necci-report/kimball.pdf>.

38. *Id.* at 131.

39. IPCC REPORT, *supra* note 1, at 17 tbl.4.2.

40. *Id.*

41. *Id.*

## II. THE EXISTING FRAMEWORK IN NEW ENGLAND AND THE CURRENT APPROACH FOR ADDRESSING CLIMATE CHANGE

More and more cities, states, and citizens are aware of the impending consequences of human-induced climate change and are committed to making carbon-emissions reductions.<sup>42</sup> Despite clear acknowledgment of financial and environmental costs associated with high VMT, the New England states have not effectively reduced VMT, and by extension, transportation emissions. Structurally, New England citizens are, in essence, without the means to reduce this aspect of their carbon footprint. However, the foundation does exist for New England to make strides, as a region, in addressing this formidable source of emissions. Governors of the New England states have successfully collaborated in forming a Climate Change Action Plan (CCAP), and have implemented a Regional Greenhouse Gas Initiative (RGGI).<sup>43</sup> Both the CCAP and RGGI demonstrate cooperative capabilities to address climate change issues as a region.

In 2001, New England Governors took initial steps by joining with the Eastern Canadian Premiers (NEG/ECP) in committing to a CCAP.<sup>44</sup> The Plan stated the following:

[C]limate science indicates that aggressive action is needed to reduce [GHG] emissions . . . [and that] due to the uncertainty of corresponding actions on a worldwide basis, and the lengthy response time necessary for climate actions to have an impact, it is also prudent for our jurisdictions to undertake adaptive measures to mitigate the impacts of climate change.<sup>45</sup>

The NEG/ECP anticipated a “30% increase in CO<sub>2</sub> emissions from New England between 2000 and 2020 in the absence of mitigating action.”<sup>46</sup> They also listed specific ways that the regional plan could tackle various

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42. GREAT LAKES INST. FOR ENVTL. RESEARCH, STATE OF THE STRAIT: STATUS AND TRENDS OF KEY INDICATORS 76 (John H. Harting et al. eds., 2007), available at [http://www.epa.gov/med/grosseile\\_site/indicators/sos/carbon.pdf](http://www.epa.gov/med/grosseile_site/indicators/sos/carbon.pdf) (“[M]any cities and states across the country have prepared greenhouse gas inventories; and many are actively pursuing programs and policies that will result in greenhouse gas emission reductions.”).

43. CLF REPORT, *supra* note 21, at 2. RGGI is a cooperative effort to address emissions from participating states’ electricity power plants. Note that RGGI includes more than just the New England states. See Regional Greenhouse Gas Initiative, <http://www.rggi.org/states> (last visited Jan. 5, 2010).

44. CCAP, *supra* note 34, at 1 (agreeing to the CCAP).

45. *Id.* at 1–2.

46. *Id.* at 2.

aspects of global warming that were within their control.<sup>47</sup> They called for formulating: (1) a coordinated regional plan for reducing GHGs; (2) a commitment from the region as a whole to a specific reduction target; and (3) a commitment from each state to maintain its own plan for GHG reductions.<sup>48</sup>

The CCAP created a basis for action and set forth guiding principles and regional goals while also providing for variability among the states and provinces. Under the agreement, each state and province will initiate “a coordinated set of policies and actions aimed at advancing [the] common goals . . . [and] each jurisdiction will choose additional measures to contribute towards the regional target.”<sup>49</sup> The plan set forth: (1) a short-term goal to reduce GHG emissions to 1990 levels by 2010; (2) a mid-term goal to reduce GHG emissions by at least 10% below 1990 levels by 2020; and (3) a long-term goal to eliminate any dangerous threat to the climate, which they approximated would require reductions of 75–85% below current levels.<sup>50</sup>

The Plan included nine “action items” crafted to guide the New England states and Eastern Canadian provinces in reaching the designated goals. Action item number eight, entitled “A Decrease in the Transportation Sector’s Growth in GHG Emissions,” was based on the NEG/ECP recognition that “transportation is the single largest source of primary energy consumption and [GHGs].”<sup>51</sup> The specific recommendations for accomplishing a decrease in emissions included the promotion of compact development, transit/pedestrian development, “smart growth” measures, initiation of programs designed to manage and reduce transportation demand, and enhancement of mass-transit infrastructure.<sup>52</sup>

The NEG/ECP charged the Committee on the Environment and the Northeast International Committee on Energy (NICE) with implementing the plan, and established the Climate Change Steering Committee for implementation of climate change projects.<sup>53</sup> The Steering Committee then established focused work groups for each of the items identified in the plan, and each group was responsible for formulating recommendations for

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47. *Id.*

48. *See id.* (accomplishing these goals through a coordinated process that entails disclosing progress and sharing information among the states).

49. *Id.* at 5.

50. *Id.* at 7.

51. *Id.* at 17.

52. *Id.*

53. CONFERENCE OF NEW ENGLAND GOVERNORS & E. CANADIAN PREMIERS, REPORT TO NEW ENGLAND EASTERN CANADIAN PREMIERS ON CLIMATE CHANGE PROJECTS 1 (2002), available at <http://www.negc.org/documents/850088026.pdf>.

action.<sup>54</sup> The Transportation Work Group created two work items: (1) developing mechanisms to promote cleaner and more efficient vehicles; and (2) exploring land-use and development models “that could contribute to the design of potential incentives and performance-based practices to encourage a reduction in [VMT].”<sup>55</sup>

Despite the CCAP’s acknowledgement of the problem of transportation emissions and their link to climate change and the nature of possible solutions, the region has failed to meet the targets established by the plan and GHG emissions for the region have actually increased over the past seven years.<sup>56</sup> While some of the states’ emissions have leveled off, not a single state is on track to meet their emissions-reduction goals.<sup>57</sup> According to the 2007 Climate Change Action Report Card “[GHG] emissions from transportation are both the largest and fastest rising.”<sup>58</sup> The report also notes that the major cause of this rise is the increased consumption of gas and diesel from escalating VMT.<sup>59</sup>

In 2007, the NEG and ECP each affirmed their commitment to the goals set forth in the 2001 CCAP.<sup>60</sup> It was a hollow affirmation though, considering that the agreement has not successfully tackled the problem of transportation emissions thus far. Reaffirming the agreement likely will not change the problem. The Climate Change Action Report Card highlights failures of the states to reach their designated goals and notes, that while some effective policies are in place, no state or province is doing enough.<sup>61</sup> The Report Card states that it is imperative that the region implement policies that reduce sprawl and encourage clean public transit.<sup>62</sup> Specifically, VMT must decrease (something no state or province has done) and “policies must be implemented that encourage smart growth that connects housing, jobs and transit, thereby reducing sprawl.”<sup>63</sup> The Conservation Law Foundation agrees and states that “New England can meet the significant challenges posed by the climate change crisis only if it stops and ultimately reverses the troubling trend of increased VMT.”<sup>64</sup>

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54. *Id.*

55. *Id.* at 2.

56. CLF REPORT, *supra* note 21, at 2.

57. KATY KROTTINGER ET AL., NEW ENGLAND AND EASTERN CANADA CLIMATE CHANGE ACTION REPORT CARD 2007: FOURTH ASSESSMENT OF THE REGION’S PROGRESS TOWARDS GHG EMISSION REDUCTION TARGETS 3 (2007).

58. *Id.* at 6.

59. *Id.*

60. *Id.* at 9.

61. *Id.* at 7.

62. *Id.* at 6.

63. *Id.* at 7.

64. CLF REPORT, *supra* note 21, at 6.

The clear directive to reduce overall GHG emissions is in sharp contrast to the grades the states received for their progress toward their 2010 targets. Maine, New Hampshire, Rhode Island, and Vermont all received “F’s.” Connecticut earned a “D,” while Massachusetts got the highest grade, a “C.”<sup>65</sup> In their respective efforts to reduce GHG emissions specifically from the transportation sector, no state earned higher than a “C-.”<sup>66</sup> By these measures, the voluntary commitment made by the NEG/ECP has been ineffective at best. The 2007 Report Card shows that, six years after signing the plan, the states are not on track: “The necessary policies are not in place, and global warming emissions are far from under control. To get back on track, it is going to take real leadership and mandatory policies.”<sup>67</sup>

On this existing platform of cooperation, New England must embark on mandatory emissions-reduction goals, accompanied with structural solutions for reducing transportation emissions. The lack of success of the CCAP thus far indicates that real obstacles stand in the way of formulating fast and efficient solutions for transportation-emissions reductions. A regional approach would allow New England to make meaningful carbon reductions and would allow for variation, flexibility, and adaptability.<sup>68</sup> Nicholas Lutsey and Daniel Sperling of the Institute of Transportation Studies state that “[i]f the 17 states that have set their own GHG emission-reduction targets . . . in fact were to achieve those targets, nationwide U.S. GHG emissions would be stabilized at 2010 levels by 2020.”<sup>69</sup>

With a binding commitment to an emissions-reduction target and the use of an anti-sprawl approach, the states could plan at local, state, and regional levels to alter existing land-use patterns to ease the existing dependence on cars for transportation. This Note assumes that the threat of climate change is significant enough to motivate the New England States to conjure up the necessary political will to expand existing cooperative efforts. When and if that becomes the case, California has paved the way for New England.

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65. KROTTER, *supra* note 57, at 10.

66. *Id.* at 13–18.

67. *Id.* at 8.

68. ANDREEN ET AL., *supra* note 5, at 6–7.

69. *Id.* at 3–4 (quoting Nicholas Lutsey & Daniel Sperling, *America’s Bottom-up Climate Change Mitigation Policy*, 36 ENERGY POL’Y 673, 683 (2008)).

## III. CALIFORNIA'S ANTI-SPRAWL LEGISLATION: SENATE BILL 375

California continues to be a groundbreaker in addressing global warming at the state level. On September 30, 2008, Governor Arnold Schwarzenegger signed into law Senate Bill (SB) 375,<sup>70</sup> a bill described as “anti-sprawl legislation” because it aims to address the link between sprawl and GHG emissions.<sup>71</sup> Using its predecessor landmark bill, Assembly Bill (AB) 32,<sup>72</sup> the California Global Warming Solutions Act of 2006, as a springboard, the legislature adopted SB 375 to reduce carbon emissions by recognizing and addressing the connection between land-use development and transportation.<sup>73</sup> The bill will accomplish this reduction by channeling billions of dollars in state and federal transportation subsidies toward projects that are in accordance with planning efforts to reduce transportation.<sup>74</sup> The legislation will “tie tens of billions of dollars to state and federal transportation funding based on compliance with efforts to reduce sprawl, and by extension, commutes.”<sup>75</sup>

In 2006, California passed AB 32,<sup>76</sup> legislation that set a statewide cap on carbon emissions with the goal of reducing carbon emissions to 1990 levels by 2020.<sup>77</sup> AB 32 was a clear, affirmative stance on global warming that spawned a forum for SB 375 to become law. Senate Bill 375 was pushed forward and eventually adopted in large part because the state had determined that it would not be able to meet its GHG-emissions-reduction goals under AB 32 without making significant changes in the state’s land-use and transportation policies.<sup>78</sup> The state formally acknowledged that “[s]pending less time on the road is the single-most powerful way for California to reduce its carbon footprint.”<sup>79</sup> Senator Darrell Steinberg from

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70. S. 375, 2007–2008 Leg. Sess. (Cal. 2008), available at [http://leginfo.ca.gov/pub/07-08/bill/sen/sb\\_0351-0400/sb\\_375\\_bill\\_20080930\\_chaptered.pdf](http://leginfo.ca.gov/pub/07-08/bill/sen/sb_0351-0400/sb_375_bill_20080930_chaptered.pdf); see Yamamura, *supra* note 8.

71. Aurelio Rojas, *Foes Back Anti-Sprawl Measure: Builders, Environmentalists Unite Behind Steinberg's Bill*, SACRAMENTO BEE, Aug. 7, 2008, at A3.

72. A.B. 32, 2005–2006 Leg. Sess. (Cal. 2006), available at [http://leginfo.ca.gov/pub/05-06/bill/asm/ab\\_0001-0050/ab\\_32\\_bill\\_20060927\\_chaptered.pdf](http://leginfo.ca.gov/pub/05-06/bill/asm/ab_0001-0050/ab_32_bill_20060927_chaptered.pdf).

73. S. 375.

74. Felicity Barringer, *California Moves on Bill to Curb Sprawl and Emissions*, N.Y. TIMES, Aug. 29, 2008, at A12, available at <http://www.nytimes.com/2008/08/29/us/29sprawl.html>.

75. *California Weighs Anti-Sprawl Legislation*, HYBRID CARS, Sept. 1, 2008, <http://www.hybridcars.com/incentives-laws/california-weighing-anti-sprawl-legislation-24924.html>.

76. A.B. 32.

77. Press Release, State of Cal., Office of the Governor, Governor Schwarzenegger Signs Sweeping Legislation to Reduce Greenhouse Gas Emissions through Land-Use (Sept. 30, 2008), available at <http://gov.ca.gov/press-release/10697>.

78. *Id.*

79. Office of the Governor, State of Cal., Senate Bill 375: Redesigning Communities to Reduce Greenhouse Gases (2008), <http://gov.ca.gov/index.php?text/fact-sheet/10707>.

Sacramento spent two years reworking and perfecting SB 375, and it is the first piece of legislation in the U.S. to try to derive GHG reductions from the transportation sector by channeling funding for regional land-use planning.<sup>80</sup> The hope is that the bill will help to transform the state's communities and provide a wider range of alternative transportation options that are sustainable.<sup>81</sup>

*A. How Is SB 375 Structured, and What Will it Do?*

The new California law addresses transportation emissions using a cluster or multimedia approach.<sup>82</sup> Three regulatory and permit processes are brought together under the bill and are synchronized to achieve carbon reductions.<sup>83</sup> “One focuses on regional planning: how land use should be split among industry, agriculture, homes, open space and commercial centers. Another governs where roads and bridges are built. A third sets out housing needs and responsibilities—for instance, how much affordable housing a community must allow.”<sup>84</sup> The bill seeks to do this by directing the seventeen metropolitan planning organizations in California to meet targets set by state air regulators to reduce GHG emissions.<sup>85</sup> The metropolitan planning organizations are then required to draw up transportation and land-use plans to show how they will meet the designated target.<sup>86</sup>

William Fulton, the founder of the California Planning and Development Report, provides an analysis of the bill that focuses on five key aspects: (1) the creation of regional targets for GHG emissions tied to land use; (2) the requirement that regional planning agencies create a plan to meet the designated targets; (3) the requirement that regional transportation funding decisions be consistent with the plan; (4) the linking of housing efforts and transportation planning; and (5) the exemptions from the California Environmental Quality Act (CEQA) for projects that are in line with the regional plan.<sup>87</sup> For the purposes of this Note, the most

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80. Editorial, *California Bill Attacks Sprawl*, L.A. TIMES, Aug. 28, 2008, available at <http://www.latimes.com/news/opinion/la-ed-planning28-2008aug28,0,165826,print.story>.

81. OFFICE OF THE GOVERNOR, *supra* note 79.

82. See DAVID FIRESTONE & FRANK REED, ENVIRONMENTAL LAW FOR NON-LAWYERS 72–75 (4th ed. 2008) (describing the multimedia or cluster approach).

83. Barringer, *supra* note 74.

84. *Id.*

85. *California Bill Attacks Sprawl*, *supra* note 80.

86. *Id.*

87. Bill Fulton, *SB 375 Is Now Law—But What Will It Do?*, CAL. PLANNING & DEV. REPORT, Oct. 1, 2008, <http://www.cp-dr.com/node/2140>.

important aspects are the first, second, and third (the fourth and fifth are mentioned below because they were instrumental in the success of the bill).

Regarding the establishment of targets, the law calls for the California Air Resources Board (CARB) to set emissions targets for each of the eighteen metropolitan planning organizations (MPO).<sup>88</sup> Each MPO is then required to prepare a “sustainable communities strategy” to reduce VMT to reach the designated target.<sup>89</sup> If the strategy fails to demonstrate how the target will be reached, then the MPO must also include an alternative planning strategy that will demonstrate how the reductions will be achieved by alternative development patterns, infrastructure, or additional transportation policy measures.<sup>90</sup> Once the sustainable communities strategy is developed it becomes part of the Regional Transportation Plan (RTP) and “tethers the sustainable strategy to federal transportation planning law.”<sup>91</sup> The complying local governments will be eligible to receive funds from the state’s \$5 billion dollar annual transportation fund, and developers of these projects will benefit from a streamlined permitting process and relief from certain CEQA reviews.<sup>92</sup>

Fulton’s analysis notes, however, that the bill does not actually alter the existing regional planning structure that delegates decision-making authority to local officials sitting as MPO board members.<sup>93</sup> He reports that local government lobbyists were successful in having language put into SB 375 stating that the sustainable communities strategy is not a land-use plan and does not confer any land-use authority to the MPOs.<sup>94</sup> The author of SB 375, Senator Steinberg, has stated that the bill’s requirement is in fact that the MPOs show that their plans will result in a reduction in carbon emissions by engaging regions in a process of regional planning.<sup>95</sup> In actuality, under the law, “[n]either a sustainable communities strategy nor an alternative planning strategy regulates the use of land, nor . . . shall either one be subject to any state approval.”<sup>96</sup> According to Fulton, this

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88. OFFICE OF THE GOVERNOR, *supra* note 79.

89. *Id.*

90. Fulton, *supra* note 87; S. 375 § 4(b)(2)(H), 2007–2008 Leg. Sess. (Cal. 2008) Cal. Stat. ch. 728, available at [http://leginfo.ca.gov/pub/07-08/bill/sen/sb\\_0351-0400/sb\\_375\\_bill\\_20080930\\_chaptered.pdf](http://leginfo.ca.gov/pub/07-08/bill/sen/sb_0351-0400/sb_375_bill_20080930_chaptered.pdf).

91. Fulton, *supra* note 87.

92. Rojas, *supra* note 71.

93. Fulton, *supra* note 87.

94. *Id.*

95. *SB 375 Connects Land Use and AB 32 Implementation*, THE PLANNING REPORT (July 2007) [hereinafter THE PLANNING REPORT], available at [http://www.planningreport.com/tpr/?module=displaystory&story\\_id=1257&format=html](http://www.planningreport.com/tpr/?module=displaystory&story_id=1257&format=html).

96. S. 375 § 4(b)(2)(J), 2007–2008 Leg. Sess. (Cal. 2008) Cal. Stat. ch. 728, available at [http://leginfo.ca.gov/pub/07-08/bill/sen/sb\\_0351-0400/sb\\_375\\_bill\\_20080930\\_chaptered.pdf](http://leginfo.ca.gov/pub/07-08/bill/sen/sb_0351-0400/sb_375_bill_20080930_chaptered.pdf).

means that “the only thing SB 375 says is that the Regional Transportation Plan has to be internally consistent—meaning the action items and financing decisions called for in the RTP must be consistent with the Sustainable Communities Strategy.”<sup>97</sup>

### *B. Why Is SB 375 Significant?*

As the first in the nation, SB 375 is potentially the most far-reaching anti-sprawl legislation to date.<sup>98</sup> Despite any shortcomings the bill may have, it is a commendable first attempt at addressing transportation sector emissions, and California has been a true pioneer in trying to address this uncharted topic. At the very least, the bill provides a model that any willing state or region could use to create its own legislative effort to employ land-use planning to bring about carbon reductions from transportation. In reference to the bill, Senator Steinberg stated that SB 375 engages “regions in a process . . . which essentially says that we need to plan as a region, not just as individual cities and counties. Air quality, traffic congestion, and carbon know no artificial boundaries. These issues must be tackled regionally.”<sup>99</sup>

SB 375 took years to develop and Senator Steinberg had to work hard to get the support necessary to get it passed, rewriting the bill five times to quiet opposition from builders and municipal governments.<sup>100</sup> The building industry feared that their projects would suffer delays, and local officials were uncomfortable with giving any of their zoning powers and transportation planning authority to the state.<sup>101</sup> The bill now specifically contains provisions that preserve local governments’ land-use authority,<sup>102</sup> and provide certain breaks for complying builders.<sup>103</sup> The local planning bodies can approve any new development they want, but the plans that are in accordance with the regional sustainable communities strategy are the

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97. Fulton, *supra* note 87.

98. Cary Lowe, *Redefining Growth*, SAN DIEGO UNION TRIB., Oct. 17, 2008, available at [http://legacy.signonsandiego.com/uniontrib/20081017/news\\_lz1e17lowe.html](http://legacy.signonsandiego.com/uniontrib/20081017/news_lz1e17lowe.html); OFFICE OF THE GOVERNOR, *supra* note 79.

99. THE PLANNING REPORT, *supra* note 95.

100. *California Bill Attacks Sprawl*, *supra* note 80.

101. Margot Roosevelt, *Legislature Takes Aim at Urban Sprawl*, L.A. TIMES, Aug. 21, 2008, at B1, available at <http://articles.latimes.com/2008/aug/21/local/me-sprawl21>.

102. TOM ADAMS, AMANDA EAKEN & ANN NOTTHOFF, COMMUNITIES TACKLE GLOBAL WARMING: A GUIDE TO CALIFORNIA’S SB 375, at 16 (2009), available at <http://www.nrdc.org/globalwarming/sb375/files/sb375.pdf>.

103. Rojas, *supra* note 71.

first to receive transportation funds and are permitted to bypass certain regulatory requirements.<sup>104</sup>

Still, there are various opponents to the bill. The California Chamber of Commerce and some commercial builders are critical of SB 375, arguing that it creates two separate GHG-reduction processes that require compliance (AB 32 as well as specific regional targets).<sup>105</sup> Others argue that commercial developments should also be able to benefit from relaxed CEQA requirements,<sup>106</sup> and some local officials take issue with the bill for fear that they may lose their transportation funding, while others simply don't like the idea of state-issued regional targets.<sup>107</sup>

#### IV. NEW ENGLAND MOVING FORWARD

Despite various differences between California and New England, the focal commonality is that both have acknowledged that the transportation sector is a major source of GHG emissions. Aside from the fact that New England is a collection of independent states, the key difference is that the New England region has not made an effective attempt to reduce transportation emissions. In contrast, Senator Steinberg carefully crafted California's SB 375 to curb transportation emissions by acknowledging the direct connection between VMT and land-use patterns, and it is the first bill in the nation to tackle the relationship between land-use planning and GHG emissions.<sup>108</sup> New England has failed to formulate any policies or legislation recognizing this clear relationship, but now it has the benefit of learning from California's model as it searches for a regionally tailored solution of its own.

This Note suggests that New England could follow California's lead by setting mandatory regional and state-specific emissions targets, including regional targets within the states, and by collectively agreeing to channel both state and federal funding towards areas that have designed sustainable communities strategies aimed at achieving those targets. Using SB 375 as a starting point, New England could break new ground by not only agreeing to propose a bill similar to SB 375 at the state level, but also by agreeing to create transportation plans that coordinate and plan for the region as a

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104. *California Bill Attacks Sprawl*, *supra* note 80.

105. S. 375, 2007–2008 Leg. Sess. (Cal. 2008), *available at* [http://leginfo.ca.gov/pub/07-08/bill/sen/sb\\_0351-0400/sb\\_375\\_bill\\_20080930\\_chaptered.pdf](http://leginfo.ca.gov/pub/07-08/bill/sen/sb_0351-0400/sb_375_bill_20080930_chaptered.pdf); *see* Yamamura, *supra* note 8.

106. S. 375; *see* Yamamura, *supra* note 8.

107. S. 375; *see* Yamamura, *supra* note 8.

108. OFFICE OF THE GOVERNOR, *supra* note 79.

whole. This Note lays out two frameworks under which New England could accomplish these regional transportation reductions at both the state and regional level.

This Note suggests a coordinated regional approach to addressing transportation emissions for four main reasons. First, the New England states collectively form a region that could implement a meaningful plan to reduce carbon emissions from transportation. With a total area only approximately half the size of California,<sup>109</sup> the region is small enough to be manageable but still large enough to accomplish measurable carbon reductions.<sup>110</sup> Second, the New England states demonstrated their cooperative capabilities when they joined together in implementing the RGGI and voluntarily committed to goals under the CCAP. These two cooperative initiatives demonstrate that there is potential for this kind of comprehensive, New England-wide, land-use planning approach.

Third, the borders of many of the New England states are often permeated to satisfy citizens' transportation needs. For example, in New Hampshire "Massachusetts-bound commuters produced about one-quarter of the carbon dioxide emissions from all New Hampshire commuters, and two to three times as much carbon dioxide as a commuter traveling within New Hampshire."<sup>111</sup> It is common in New England for people to live in one state and work in another or to have transportation needs that frequently involve crossing state borders. In this way, the New England states are inextricably linked, and coordinating planning efforts as a region will only help to reduce GHG emissions from transportation. Lastly, "[b]ecause the effects of climate change will not be uniform, strategies for dealing with and adapting to the effects of climate change will differ from region to region."<sup>112</sup> Thus, cooperating and planning on a regional level will allow the states to collectively deal with climate change adaptation and mitigation in a flexible, localized fashion (as opposed to nationwide).

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109. See generally U.S. States: Area and Ranking, <http://enchantedlearning.com/usa/states/area.shtml> (last visited Dec. 25, 2009) (providing the surface area of each state in the Union).

110. See generally *The State of New England: A Fact Sheet*, CONNECTION: NEW ENGLAND'S J. OF HIGHER EDUC. & DEV., Spring 1999, at 47, available at [http://www.nebhe.org/info/pdf/nejhe/Connection\\_Spring99.pdf](http://www.nebhe.org/info/pdf/nejhe/Connection_Spring99.pdf) (last visited Dec. 25, 2009) (reporting that New England has a total population of over 13 million people and a surface area of over 66,000 square miles).

111. NHPIRG News Room, *supra* note 25.

112. ANDREEN ET AL., *supra* note 5, at 2.

### A. New England's Present Paradigm

As a region, New England has various land-use patterns comprised of many different kinds of sprawl: urban, suburban, and rural. Living in the quaint old towns that dot the New England region requires a great deal of driving, thereby resulting in high VMT. According to the Conservation Law Foundation (CLF), New England has utterly failed to make public-transportation funding a priority and has instead poured the states' limited resources into subsidies for the highway system.<sup>113</sup> This has left New England residents virtually car-dependent.

There is increasing awareness of the threat of climate change and the urgency of reducing carbon emissions.<sup>114</sup> Currently, the options are limited for New Englanders who desire to reduce their carbon footprint. A recent report from CLF states that “[a]s a region, New England spends approximately 75 percent of transportation funding on highways and highway-related projects, leaving only 25 percent for public transportation projects that give people the opportunity to drive less.”<sup>115</sup> They further note that the problem is even more pronounced in the rural areas of northern New England.<sup>116</sup> It is apparent that planning needs to change so that residents will have the means to reduce their transportation emissions. CLF asserts that “the New England states must stop subsidizing the highway-centric, sprawl-inducing transportation system that dominates the region,”<sup>117</sup> and notes that creating and increasing the availability of and access to public transportation is one of the most effective ways to reduce VMT.<sup>118</sup>

Based on the 2007 Climate Change Action Report Card, it is evident that reducing transportation-sector emissions, like SB 375 recognizes, is a key component for New England in striving to meet the designated emissions-reduction goals set by the NEG/ECP. CLF explains that such changes are possible because “[a]s a region, New England was already substantially developed long before the automobile, and many of our cities and towns are well suited to transit.”<sup>119</sup> However, emissions have risen since the 2001 NEG/ECP voluntary agreement to reduce GHG emissions in

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113. CLF REPORT, *supra* note 21, at 7.

114. *See generally* World Public Opinion.org, International Polling on Climate Change , [http://www.worldpublicopinion.org/pipa/pdf/dec07/CCDigest\\_Dec07\\_rpt.pdf](http://www.worldpublicopinion.org/pipa/pdf/dec07/CCDigest_Dec07_rpt.pdf) (last visited Nov. 19, 2008) (reporting on public opinion by compiling different polls).

115. CLF REPORT, *supra* note 21, at 7.

116. *Id.*

117. *Id.*

118. *Id.* at 6.

119. *Id.*

the region by 75–85% in the long-term and specifically to 1990 levels by 2010.<sup>120</sup> It is time to discover ways to actually reduce transportation emissions and VMT.

Structurally, planning takes place in New England in a fashion similar to California. In northern New England, MPOs already exist in towns with more than 50,000 people,<sup>121</sup> and funding for MPOs comes primarily from the Federal Highway and Transit funds, with states and municipalities contributing or matching where they can.<sup>122</sup> In more rural areas, regional planning bodies undertake the bulk of transportation planning.<sup>123</sup> Thus, implementing a bill similar to California's SB 375 in New England would not require extensive reworking of existing planning structures to use sustainable community strategies as a way of allocating funding.

### *B. Mechanisms for Reducing Regional Carbon Emissions*

The NEG/ECP and the CAP provided a foundation for addressing climate change and transportation emissions in particular. To move forward as a region on this issue, the New England states should cooperate as a region and make an effort to reduce carbon emissions from transportation by examining, assessing, and learning from SB 375. While the states could each simply use SB 375 as a model and agree to adopt similar legislation in their respective states, this Note suggests two specific ways that the New England states could collectively address transportation-emissions reductions through regional planning as well. New England could use this rare piece of legislation to formulate and implement its own tailored approach by either creating a memorandum of understanding (MOU), which was the model used for the RGGI, or by entering into an interstate compact. Under either of these approaches, it would be invaluable for the joining states to learn from SB 375 as the states collectively attempt to reduce these emissions throughout New England.

Under either of these approaches, New England would face decisions that California did not face, such as how and to what extent it wishes to coordinate the various state needs into an overarching regional transportation plan that meets the needs of the region as a whole. Further, New England states will need to consider to what extent the overarching

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120. KROTINGER, *supra* note 57.

121. DEFENDERS OF WILDLIFE, TRANSPORTATION PLANNING 101, at 1, [http://www.defenders.org/resources/publications/programs\\_and\\_policy/habitat\\_conservation/habitat\\_and\\_highways/6001/ne/transportation\\_planning\\_101.pdf](http://www.defenders.org/resources/publications/programs_and_policy/habitat_conservation/habitat_and_highways/6001/ne/transportation_planning_101.pdf).

122. *Id.* at 8.

123. *Id.*

program will be entitled to state funds and whether any funds would be pooled. At the very least, the New England states could cooperate in one of these two ways to collectively adopt the principles established in SB 375 as a means for transforming the goals set forth by the states in the 2001 CCAP into mandatory targets and to effectively strive to meet targets at local, state and regional levels.

Building off the ideas established in the CCAP and the structure provided in SB 375, the states could use one of these two avenues to agree to hold their respective state planning organizations responsible for establishing plans capable of reaching the designated local, state, and regional targets. They could then agree that those who formulate such plans will be the first to receive state and federal transportation grants and funding. To accomplish this regional cooperation, states could create a model MOU or interstate compact to design a regional plan aimed at meeting the regional-reduction target. On the regional and state levels, the New England states could commit to tying both state and federal funding to sustainable transportation projects. It is worth noting that by forming a New England regional plan, the states may be eligible for certain additional funds from the Federal Highway Trust Fund.<sup>124</sup> Moreover, instituting regional cooperation may allow the states to more easily develop and establish an emissions inventory and use their partnership to leverage reductions.<sup>125</sup>

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124. See U.S. DEPT. OF TRANSP., THE SAFE, ACCOUNTABLE, FLEXIBLE, AND EFFICIENT TRANSPORTATION EQUITY ACT OF 2003: SECTION-BY-SECTION ANALYSIS 8–9 (2003), [hereinafter SAFETEA], available at [http://www.fhwa.dot.gov/reauthorization/safetea\\_analysis.pdf](http://www.fhwa.dot.gov/reauthorization/safetea_analysis.pdf) (creating special incentives and allocating funds under sections 1701 and 1703, Subtitle G—Program Efficiencies and Improvements—Operations for improvements to regional transportation systems). More specifically, SAFETEA similarly creates incentives and allocates funds under the section 1806 Multi-state Corridor Planning Program and the section 1816 transportation, community, and system preservation program to do the following:

[F]acilitate the planning, development, and implementation of strategies by States, Metropolitan Planning Organizations, Federally recognized tribes, and local governments to integrate transportation, community, and system preservation plans and practices that improve the efficiency of the transportation system; reduce the impacts of transportation on the environment; reduce the need for costly future investments in public infrastructure; provide efficient access to jobs, services, and centers of trade; and examine development patterns and identify strategies to encourage private sector development patterns which achieve these goals.

*Id.* at 49–50, 56–57.

125. ANDREEN ET AL., *supra* note 5, at 4.

### 1. Using RGGI As a Model

One way that New England could collectively achieve transportation-emissions reductions is to use a RGGI-like approach. This would entail: constructing a MOU stating the overall environmental goal; instituting a regional transportation-emissions cap as well as individual state-emissions caps; setting a compliance period; and creating a regional organization for ongoing administration.<sup>126</sup> To reach the individual and/or collective targets, each signatory state could commit to proposing for legislative and/or regulatory approval a program plan aimed at stabilizing and reducing CO<sub>2</sub> emissions from transportation.<sup>127</sup> SB 375 would serve states seeking to implement regional transportation plans by acting as a template for a Model Rule that could be proposed to state legislative and regulatory bodies.

The states developed a Model Rule under RGGI, and each state committed to release the draft Model Rule for public review and comment in their respective states within ninety days after the MOU was signed.<sup>128</sup> The states agreed that a revised Model Rule would be developed and released no later than forty-five days after the close of the public comment period and consultation among the signatory states.<sup>129</sup> The states developed the Model Rule “to serve as the framework for the creation of necessary statutory and/or regulatory authority to establish the Program.”<sup>130</sup> Armed with the Model Rule, the states committed to establishing the program by statute and/or regulation and to have the state component in place no later than December 31, 2008.<sup>131</sup>

To establish a regional transportation plan, the states could formulate a Model Rule for each state to solicit public notice and comment. Following the RGGI format, each state could commit to establishing—via statute or regulation—the Program Plan, and to implementing the individual state component as soon as practicable but no later than a designated date. As an existing framework, SB 375 may be valued for how it carefully preserves local planning freedom while working toward a common goal of smarter, more deliberate, coordinated, and sustainable communities. Specifically, SB 375 does not mandate any one approach. The bill seeks reductions by

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126. See REGIONAL GREENHOUSE GAS INITIATIVE, MEMORANDUM OF UNDERSTANDING 1, available at [http://rggi.org/cos/mou\\_12\\_20\\_05.pdf](http://rggi.org/cos/mou_12_20_05.pdf) (outlining RGGI’s model MOU between New England states).

127. The states could reach this target by substituting the RGGI trading program for a regional transportation planning program. See *id.* at 2.

128. *Id.* at 7.

129. *Id.*

130. *Id.* at 6–7.

131. *Id.* at 7.

simply encouraging sustainable regional land-use planning practices and channeling funding towards these projects.<sup>132</sup> The bill contains provisions that would reserve local government land-use authority and that would otherwise appear to allow for considerable flexibility.<sup>133</sup> This aspect of the bill may be particularly attractive if the states want to form a program plan that preserves each state's freedom and provides flexibility. Further, an MOU and Model Rule would create a time line to motivate state action.

## 2. Forming an Interstate Compact

An alternative avenue that the states could pursue is entering into an interstate compact, which, if achieved, would likely be a more powerful agreement format. An interstate compact is in effect a contract between two or more states.<sup>134</sup> Once formulated, the compact carries the force of statutory law and allows states to set a standard or cooperate in an important policy area.<sup>135</sup> Compacts are commonly used to “establish a formal, legal relationship among states to attempt to address common problems, or promote a common agenda; create independent multistate governmental authorities (such as commissions); . . . [or] establish uniform guidelines, standards or procedures for agencies in the compact's member states.”<sup>136</sup>

In Article I, Section 10, Clause 3, the United States Constitution gives states the power to enter into interstate compacts, but the compact requires congressional approval if it would encroach on the federal government's power.<sup>137</sup> The National Center for Interstate Compacts (NCIC) states that such compacts “are powerful, durable, flexible tools to promote and ensure cooperation among the states, while avoiding federal intervention and preemption of state powers.”<sup>138</sup> Furthermore, states have created compacts to address the issue of transportation, and there are already more than thirty existing regional interstate compacts involving more than eight states.<sup>139</sup> While perhaps not necessary in this hypothetical case, if Congress approved

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132. Fulton, *supra* note 87.

133. ADAMS, *supra* note 102, at 17.

134. The Nat'l Ctr. for Interstate Compacts, Fact Sheet, <http://www.csg.org/programs/policyprograms/NCIC/default.aspx> (follow “Resources” hyperlink; then follow “Compact Fact Sheet” hyperlink).

135. *Id.*

136. *Id.*

137. *Id.* (citing U.S. CONST. art. I, § 10, cl. 3).

138. *Id.*

139. *Id.*

the compact, the states would be assured that the federal government would honor their efforts.

To enter into an interstate compact, states must cooperate to set forth an agreement and then formulate the compact itself. “The compact should contain the minimum basics upon which the compact needs to operate, both in terms of the agreement between states and the operation of a governing body.”<sup>140</sup> This generally includes setting forth the purpose and the administrative structure of the compact, establishing an intergovernmental agency, designating how funds will be used, and determining personnel needs.<sup>141</sup>

The compact serves as a framework and the rules provide flexibility by allowing the states to make adjustments without having to go back to the individual legislatures for approval for every change.<sup>142</sup> The NCIC notes that to ensure success of a modern compact, the compact should have strong governance and administration to address state regulatory issues. This requires carefully designing and tailoring the governing body to the precise issue and objective.<sup>143</sup> Therefore, if the states determined that a governing body was necessary, the compact itself would establish the governing entity and should describe its powers and duties.<sup>144</sup> Generally, “[n]o two compacts are alike,”<sup>145</sup> and the New England states would have a great deal of freedom and flexibility to construct the compact to suit their needs. The major drawback of an interstate compact is the lengthy amount of time it could take to develop and implement.<sup>146</sup> In the case of climate change, time is of the essence. Further, while congressional approval may not be necessary depending on the precise nature of the compact, it would certainly help to solidify and validate the agreement to protect the compact in the event that the federal government institutes climate change actions or policies in the future.<sup>147</sup>

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140. The Nat'l Ctr. for Interstate Compacts, Developing the Right Structure for Success 1, [hereinafter Developing the Right Structure for Success], <http://www.csg.org/programs/ncic/documents/Success.pdf>.

141. The Nat'l Ctr. for Interstate Compacts, What Makes an Interstate Compact?, [hereinafter What Makes an Interstate Compact?], <http://www.csg.org/programs/ncic/documents/MakesCompact.pdf>.

142. Developing the Right Structure for Success, *supra* note 140.

143. *See generally id.* (laying out the possible components for developing the governing body).

144. *See id.* at 1–3.

145. What Makes an Interstate Compact?, *supra* note 141.

146. The Nat'l Ctr. for Interstate Compacts, Council of State Gov'ts, Ten Frequently Asked Questions 2, <http://www.csg.org/programs/ncic/documents/compactFAQ.pdf>.

147. *See generally id.* (stating that for some regulatory compacts, congressional consent is required for the compact to be effective, and that compacts enable states to act jointly outside of the federal process while respecting Congress's view).

## CONCLUSION

Climate change is by far the most overarching environmental issue of our time. There is no single catch-all solution for how humans can address the problem and reduce human carbon emissions, but one of the key solutions will be finding ways to reduce the carbon emissions from the excessive burning of fossil fuels, of which transportation is a dominant source. One sure way to do that is to reduce VMT by changing the way we develop land. For New England, the potential exists for a collective approach through a commitment to achieving a mandatory carbon-reduction goal. The continued failure to address the correlation between 1) poorly planned, sprawling land development, 2) increased VMT, and 3) transportation emissions, will only hurt our pocketbooks and our collective environmental conscience.

Science indicates that the window of time to act is closing quickly. To achieve its reduction goals, New England needs to take affirmative action to address GHG emissions and actually establish a framework for reducing transportation emissions. By either creating an interstate compact or a MOU, the New England states could cooperatively commit to actually reaching the goals of the 2001 CCAP agreement. Such an agreement or MOU could build off of the CCAP and lay the groundwork for each participating state to adopt the principles embodied in SB 375, thereby reducing transportation emissions by channeling money to development projects that aim to create sustainable communities throughout the region.