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Fighting Oil Addiction

Ranking States' Oil Vulnerability and Solutions for Change

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Executive Summary

The summer driving season is upon us again, and gasoline prices are through the roof, reminding us that America's addiction to oil continues to threaten our national security, our economic viability, and global environmental health. To curb this perilous addiction, we need effective government policies that will increase the availability and use of efficient vehicles and clean fuels and that will promote smart growth and public transit. This report updates NRDC's 2007 research identifying the states that are most vulnerable to spikes in oil prices—and those states that are doing the most to break their addiction to oil.¹

Like the 2007 edition, this report again ranks states in two critical areas related to our nation's continuing addiction to oil. First, it calculates oil vulnerability—how heavily each state's drivers are affected by increases in oil prices. Second, it ranks states on their adoption of solutions to reduce their oil dependence: measures they are taking to lessen their vulnerability and to bolster America's security. The data yield two clear conclusions:

- Oil dependence affects all states, but some are hit harder economically than others.
- While some states are pioneering solutions and many are taking some action, a fair number of states are still taking few (if any) of the steps listed in this report to reduce their oil dependence.

Which States' Drivers Are Most at Risk?

NRDC research shows that the 10 states with the highest degree of oil vulnerability are:

- | | |
|---------------------------------------|------------------------------|
| 1) Mississippi (also #1 last year) | 6) New Mexico (down from #5) |
| 2) South Carolina (also #2 last year) | 7) Indiana (up from #12) |
| 3) Georgia (also #3 last year) | 8) Arkansas (up from #9) |
| 4) Louisiana (up from #8) | 9) Oklahoma (down from #6) |
| 5) Kentucky (down from #4) | 10) Iowa (up from #17) |

Our oil vulnerability ranking is based on the average percentage of income that states' drivers spend on gasoline. Generally, the most vulnerable states are in the South and the least vulnerable are in the Northeast and Mid-Atlantic region. And the differences are significant. Average drivers in the most vulnerable state, Mississippi, spend almost 8 percent of their income on gasoline, while average drivers in the least vulnerable state, Connecticut, spend about 3 percent of theirs. As oil prices go up, drivers in the vulnerable states are feeling the pinch more.

State Action on Oil Dependence: The Best and the Worst

Although some states are adopting strong measures to reduce their oil dependence, too many others are still taking little or no action.

The solutions rankings in this report are based on the range of key actions that states can take to reduce oil dependence, with particular focus on policies that can have substantial impact and can be replicated by other states.

NRDC research shows that the 10 states doing the most to wean themselves from oil are:

- | | |
|-----------------|-----------------|
| 1) California | 6) New Jersey |
| 2) New York | 7) Rhode Island |
| 3) Connecticut | 8) New Mexico |
| 4) Washington | 9) Colorado |
| 5) Pennsylvania | 10) Maryland |

In contrast, the 10 states doing the least to reduce their oil dependence are:

- | | |
|-----------------|------------------|
| 1) Alaska | 6) Montana |
| 2) Mississippi | 7) West Virginia |
| 3) Alabama | 8) Arkansas |
| 4) South Dakota | 9) Missouri |
| 5) Wyoming | 10) Delaware |

The failure of these states to take meaningful action to reduce oil dependence exacerbates the national security and environmental harms associated with our current transportation habits. These and other states need to be drivers of change.

The Benefits of Reducing Oil Dependence

Especially with gasoline and diesel prices in the United States at record levels, reducing oil dependence can yield significant benefits. These can include lowering the economic vulnerability that many residents face and creating new income from the sale of sustainable biofuels. Decreasing oil consumption also enhances America's national security by reducing dependence on sources of oil that are politically unstable or controlled by unfriendly national governments. In addition, reduced oil consumption decreases both air pollution and the greenhouse gas (GHG) emissions that cause global warming.

State Policies for Reducing Oil Dependence

In the absence of strong national policies on issues like oil independence and global warming, states have begun assuming responsibility for promoting less oil-intensive transportation habits. Strategies include:

- **Clean cars (and efficient use).** Vehicles that cut global warming pollution also reduce oil consumption considerably. Eighteen states have or are adopting vehicle GHG emission standards based on California's "clean cars" program, which places increasingly stringent limits on global warming pollution from new vehicles. And 14 states offer incentives for the purchase of new hybrid-electric and plug-in hybrid cars and trucks. Several states are also taking action to encourage cars already on the road to use less gasoline, for example by placing restrictions on idling.
- **Clean fuels.** Biofuels—from sustainably grown sources—can make a significant dent in our oil dependence and greenhouse gas emissions. Twenty-nine states offer incentives for fueling stations selling biofuels. As was the case last year, California stands alone in having a low carbon fuel standard, which seeks to reduce the greenhouse gas intensity of motor vehicle fuel by 10 percent by 2020, although other states are considering adopting such a standard.
- **Research and development.** States are sponsoring grants to support research and development on clean fuels and clean vehicles, looking to foster the technologies that will help reduce oil dependence in the near future.
- **Smart growth and public transit.** States can reduce oil dependence by integrating land use and transportation policies and designing them to provide alternatives to driving. Twelve states, including Hawaii, Georgia, Tennessee, and Maine, have adopted smart-growth measures intended to curb sprawl and reduce the associated traffic and vehicle-miles traveled. Eight states have created mechanisms to develop and coordinate land use policies, and three states have set targets for reducing vehicle miles traveled. In addition, some states—led again this year by New York and Maryland—have prioritized the funding of public transit through the allocation of state funds and/or by transferring portions of their federal highway dollars.

As policies to reduce oil dependence take root, states that adopt cutting-edge plans will be making the nation more secure, protecting drivers' wallets, and enhancing global environmental health. These states' policies can serve as examples for the many states that have thus far taken little or no such action—and can lead the way for federal policies as well.

Federal Recommendations for Reducing Oil Vulnerability

Confronting the twin challenges of global warming and oil dependence is a tall order. That is why the federal government must enact strong energy policies that complement and support state actions. Specifically, the federal government must:

- Set stringent fuel economy standards for autos and heavy trucks, as required by the Energy Independence and Security Act of 2007. The law set a floor for autos of at least 35 miles per gallon by 2020 but did not specify a heavy-truck standard. Given the dramatic oil price increases of the past year, the secretary of transportation should raise the bar high, and fast, for both of these fuel efficiency categories.
- Adopt an economy-wide climate strategy that caps and cuts carbon dioxide emissions and includes a low-carbon fuel standard. This would diversify our transportation fuels over the coming decades.
- Fundamentally reform federal transportation policy. Since the Interstate Highway System was completed, there has been no compelling, binding vision for federal transportation policy. The time to put a new program in place is coming fast, with the current federal transportation law due for renewal by Congress in 2009. The new law must include incentives for smart, transit-oriented development and ample funding for energy-efficient transportation alternatives including rail and bus lines, bike paths, and sidewalks.

CHAPTER 1

Oil Vulnerability Rankings: Who Is Hardest-Hit?

Gasoline prices are at record levels, and Americans are increasingly concerned about the problem of oil dependence and its consequences.

America's dependence on oil creates several serious problems. For example:

- The United States has less than 2 percent of the world's oil supplies but is responsible for about a quarter of the world's oil consumption.² We currently import almost two-thirds (66.25%) of our crude oil supply from foreign countries,³ and more and more of the world's future supply will come from regions that are either politically unstable or unfriendly to U.S. interests.
- Our unstable supply of oil threatens our national economy, particularly since about 96 percent of our transportation system is reliant on oil.⁴
- Our current oil dependence is a huge factor in the U.S. trade deficit. The deficit was running at an annualized pace of about \$717 billion in the first quarter of 2008. Imports of petroleum accounted for \$449 billion of that—almost 63 percent.⁵
- Oil consumption is a leading contributor to greenhouse gas (GHG) emissions, which cause global warming. In the United States, the oil-based transportation system is responsible for roughly one third of our global warming pollution.⁶

Our national addiction to oil affects every American in every state. However, the rankings in Table 1 (mapped in Figure 1) clearly show that oil dependence hits the drivers of certain states harder than it does others. These rankings reflect the proportion of the average driver's income spent on motor gasoline last year in each state.⁷

As was the case last year, the hardest-hit states are in the South. And again, the least vulnerable are generally in the Northeast and Mid-Atlantic region. The top three and bottom three are unchanged from last year. Drivers in the most vulnerable state, Mississippi, spend almost 8 percent of their income on gasoline, while drivers in the least vulnerable state, Connecticut, spend about 3 percent of theirs. As oil prices go up, citizens in the vulnerable states feel the pinch more. Vulnerable states should regard this as an added incentive to take action to reduce oil dependence.

Figure 1: U.S. Oil Vulnerability

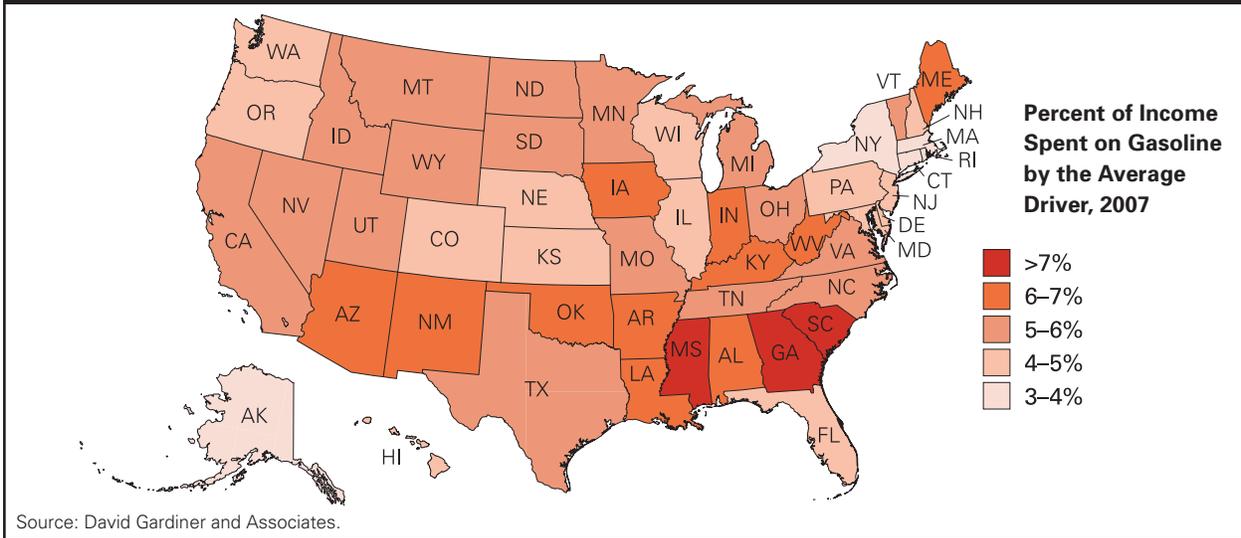


Table 1: Oil Vulnerability Rankings

Rank	State	Percent of Income (and \$ Amount) Spent on Gasoline by the Average Driver, 2007
1	Mississippi	7.87% (\$2268.82)
2	South Carolina	7.21% (\$2235.57)
3	Georgia	7.08% (\$2369.23)
4	Louisiana	6.83% (\$2374.37)
5	Kentucky	6.69% (\$2080.49)
6	New Mexico	6.55% (\$2061.69)
7	Indiana	6.46% (\$2170.35)
8	Arkansas	6.28% (\$1887.41)
9	Oklahoma	6.28% (\$2143.59)
10	Iowa	6.20% (\$2169.91)
11	West Virginia	6.17% (\$1822.74)
12	Maine	6.09% (\$2053.40)
13	Arizona	6.06% (\$2002.42)
14	Alabama	6.01% (\$1947.62)
15	Missouri	6.00% (\$2064.16)
16	Texas	5.85% (\$2174.03)
17	Tennessee	5.82% (\$1937.06)
18	North Dakota	5.81% (\$2023.05)
19	Utah	5.81% (\$1810.63)
20	Montana	5.80% (\$1882.45)
21	Minnesota	5.79% (\$2376.56)
22	Michigan	5.78% (\$2028.93)
23	South Dakota	5.72% (\$1940.07)
24	North Carolina	5.70% (\$1917.32)
25	Idaho	5.70% (\$1776.54)

Table 1: Oil Vulnerability Rankings (Continued)

Rank	State	% of Income (and \$ Amount) Spent on Gasoline by the Average Driver, 2007
26	Ohio	5.41% (\$1886.04)
27	California	5.38% (\$2234.33)
28	Nevada	5.37% (\$2171.79)
29	Wyoming	5.21% (\$2251.74)
30	Virginia	5.13% (\$2121.26)
31	Vermont	5.06% (\$1855.61)
32	Wisconsin	4.95% (\$1784.63)
33	Delaware	4.89% (\$1986.83)
34	Kansas	4.85% (\$1784.43)
35	Oregon	4.83% (\$1681.51)
36	Illinois	4.80% (\$1933.79)
37	New Hampshire	4.65% (\$1928.61)
38	Nebraska	4.64% (\$1691.91)
39	Florida	4.63% (\$1781.13)
40	Hawaii	4.58% (\$1798.14)
41	Maryland	4.52% (\$2080.41)
42	Colorado	4.47% (\$1835.95)
43	Pennsylvania	4.41% (\$1710.54)
44	Washington	4.26% (\$1720.27)
45	New Jersey	4.01% (\$2016.20)
46	Rhode Island	3.97% (\$1565.91)
47	Alaska	3.87% (\$1562.77)
48	Massachusetts	3.51% (\$1720.28)
49	New York	3.28% (\$1552.33)
50	Connecticut	3.17% (\$1714.53)

CHAPTER 2

Breaking Our Addiction: Solutions to Oil Dependence

Identifying the problem of oil addiction is only the beginning; the next step is to adopt workable solutions. The record gas prices this year only make it more obvious than ever that this country needs to reduce its dependence on oil. By promoting more efficient vehicles, clean fuels, smart growth, and public transit, governments can put an end to an unhealthy addiction that threatens our citizens' wallets and our national security, economy, and environment.

Some solutions to oil dependence boast broad support that spans party lines, geographic boundaries, and policy interests (e.g., national security, energy security, economic stability, public health, and the environment). The public firmly backs efforts to reduce our nation's oil dependence that also benefit the environment; public opinion polling shows that 9 out of 10 Americans favor requiring tougher fuel efficiency standards, while sizable majorities support increased funding for alternative energy (81 percent) and mass transit (72 percent).⁸

State Solutions Rankings: Who's Getting It Right?

NRDC rankings of states' adoption of solutions are based on the range of key actions that states can take to reduce oil dependence, particularly those that can have a substantial impact on oil dependence and can be replicated by other states. The rankings also take into account the level of priority being given to public transit as compared with highways.⁹ As Table 2 shows, some states have already adopted significant measures to promote clean vehicles, clean fuels, and smart growth, but far too many states are not taking adequate action.

CLEAN VEHICLES & EFFICIENT USE

More and more states are enacting policies to promote vehicles that use less gasoline and policies to encourage more efficient use of existing vehicles. For example:

- **Eighteen states have or are adopting "clean car" standards.** California led the way in 2002, passing the nation's first law to require that all new cars, pickup trucks, sport-utility vehicles, and minivans sold in the state meet global warming pollution limits, starting with the 2009 model year. Under the federal Clean Air Act, states have the option of adopting California's pollution standards if the Environmental Protection Agency grants California a waiver; EPA denied California's waiver request, but that denial has been widely criticized and is being challenged. Despite the waiver denial, Arizona, Colorado, Connecticut, Florida, Iowa, Maine, Maryland, Massachusetts, New Jersey, New Mexico, New York, Oregon, Pennsylvania, Rhode Island, Utah, Vermont, and Washington have adopted or are in the process of adopting the California program and Delaware, Illinois and Minnesota are considering it. These states represent well more than one third of the U.S. car market. The "clean car" laws will require automobile manufacturers to cut global warming pollution by about 30 percent once the

Table 2: Solutions Rankings #1 Through #25

Rank	State	CLEAN VEHICLES & EFFICIENT USE				R&D	CLEAN FUELS		SMART GROWTH & TRANSIT			
		Hybrid & Plug-In Hybrid Incentives	Vehicle GHG Emissions Standards	State Fleet Efficiency	Idling Restrictions		State-Sponsored Grants for R&D on Cars/Fuels	Low-Carbon Fuel Standard	Clean Fuels Fueling Station Incentives	Vehicle-Miles Traveled Reduction Target	State Mechanism for Coordinated Development	Growth Management Act
1	California	✓	✓	✓	✓	✓	✓	✓				20 (3.95%)
2	New York		✓	✓	✓	✓		✓	✓			1 (50.31%)
3	Connecticut	✓	✓	✓	✓	✓		✓				4 (29.38%)
4	Washington	✓	✓	✓		✓		✓	✓		✓	29 (1.89%)
5	Pennsylvania	✓	✓	✓		✓		✓			✓	6 (14.82%)
6	New Jersey	✓	✓	✓	✓			✓		✓		7 (14.27%)
7	Rhode Island	✓	✓	✓	✓				✓	✓		10 (10.86%)
8	New Mexico	✓	✓	✓		✓		✓				5 (15.69%)
9	Colorado	✓	✓	✓		✓		✓				8 (13.50%)
10	Maryland	✓	✓	✓	✓						✓	2 (38.08%)
11	Oregon	✓	✓	✓				✓			✓	21 (3.54%)
12	Florida		✓	✓				✓			✓	23 (3.20%)
13	Maine		✓	✓	✓			✓			✓	28 (1.89%)
14	Utah		✓	✓	✓			✓				50 (0.04%)
15	Massachusetts		✓	✓	✓					✓		3 (34.21%)
16	Vermont		✓	✓	✓						✓	18 (4.58%)
17	Iowa		✓	✓		✓		✓				26 (2.04%)
18	Arizona		✓	✓				✓		✓		33 (1.27%)
19	Illinois	✓		✓	✓			✓				11 (8.42%)
20	North Carolina			✓	✓			✓			✓	19 (4.12%)
21	Tennessee			✓		✓		✓				22 (3.22%)
22	Michigan			✓		✓		✓				13 (8.15%)
23	Georgia			✓				✓			✓	17 (5.99%)
24	South Carolina	✓						✓				34 (1.24%)
25	Kansas			✓	✓			✓				35 (1.18%)

* Ranking based on the percentage of transit spending to highway spending in 2006.

Table 2: Solutions Rankings #26 Through #50

Rank	State	CLEAN VEHICLES & EFFICIENT USE					R&D		CLEAN FUELS			SMART GROWTH & TRANSIT				
		Hybrid & Plug-In Hybrid Incentives	Vehicle GHG Emissions Standards	State Fleet Efficiency	Idling Restrictions	State-Sponsored Grants for R&D on Cars/Fuels	Low-Carbon Fuel Standard	Clean Fuels Fueling Station Incentives	Vehicle-Miles Traveled Reduction Target	State Mechanism for Coordinated Development	Growth Management Act	Transit Spending Prioritization (Ranking & Percentage)*				
26	Ohio			✓		✓			✓						40 (0.77%)	
27	Oklahoma	✓							✓						41 (0.74%)	
28	Louisiana	✓							✓						47 (0.37%)	
29	Indiana			✓		✓		✓	✓						49 (0.15%)	
30	Minnesota			✓		✓			✓						9 (11.64%)	
31	Virginia			✓		✓	✓				✓				14 (7.90%)	
32	Hawaii			✓		✓		✓					✓		38 (0.89%)	
33	Idaho						✓		✓						39 (0.86%)	
34	Nebraska			✓		✓			✓						45 (0.56%)	
35	Wisconsin			✓		✓							✓		16 (6.76%)	
36	Texas			✓		✓		✓							30 (1.66%)	
37	North Dakota									✓					31 (1.40%)	
38	Kentucky			✓		✓		✓							32 (1.36%)	
39	New Hampshire			✓		✓									44 (0.66%)	
40	Nevada			✓		✓		✓							48 (0.25%)	
41	Delaware												✓		12 (8.32%)	
42	Missouri			✓		✓									24 (2.36%)	
43	Arkansas			✓		✓									27 (1.97%)	
44	West Virginia			✓		✓									36 (1.11%)	
45	Montana			✓		✓									42 (0.67%)	
46	Wyoming														15 (7.14%)	
47	South Dakota														25 (2.07%)	
48	Alabama														37 (1.06%)	
49	Mississippi														43 (0.67%)	
50	Alaska														46 (0.53%)	

* Ranking based on the percentage of transit spending to highway spending in 2006.

standards are fully phased in by 2016.¹⁰ Cars that meet this pollution standard will have the additional benefit of using less gasoline.

- **Several states are promoting cleaner vehicles through financial incentives to consumers.**¹¹ Fourteen states offer financial incentives for the purchase of new hybrid electric cars and trucks. Hybrids emit less global warming pollution and use less gasoline than conventional vehicles. Since the U.S. mass-market introduction of the two-door Honda Insight in 1999, major carmakers have increased dramatically their offerings of hybrid cars. Plug-in hybrids offer even greater potential for fuel savings, and some states, such as South Carolina, are offering financial incentives specifically for plug-ins.
- **Many states are taking action to promote greater efficiency in the use of vehicles.** Thirty-nine states, for instance, have policies mandating stronger fuel efficiency standards for the state fleet. While state fleets are usually fairly small relative to the overall number of vehicles in a state, state fleet efficiency standards can provide a good model and represent a positive step forward. As another example, 17 states have policies restricting vehicle idling. Again, the amount of oil saved is generally not very substantial, but such policies do have some effect and promote an important ethic of efficiency.

CLEAN FUELS

Given the uncertainty surrounding biofuel right now, this year's report focuses the Clean Fuels section on states' efforts to create an infrastructure for, and drive the development of sustainable alternative fuels. For example:

- **California is the only state that has adopted a low-carbon fuel standard.** In 2007, Gov. Arnold Schwarzenegger announced an executive order calling for the adoption of a low-carbon fuel standard (LCFS) for fuels sold in the state. This measure seeks to reduce the global warming pollution "intensity" of motor vehicle fuel by 10 percent by 2020.¹² Similar standards have not yet been adopted by any other state, although other states are signaling interest. In April 2008 for instance, Massachusetts Governor Patrick and state congressional leadership called for adoption of an LCFS. Promoting low-carbon fuels supports the growth of oil alternatives, since sustainably produced biofuels (especially those derived with cellulosic technology), plug-in hybrid-electric vehicles, and the like can yield tremendous greenhouse gas emission reductions. California estimates that achieving the 10 percent reduction goal will reduce motor vehicle petroleum consumption by about 20 percent.¹³ Such a big effect makes the LCFS one of the most important policies a state can adopt to reduce oil dependence.
- **Twenty-nine states offer incentives for fueling stations selling biofuels.** These states offer various incentives for biofuel stations and for stations wishing to add capacity to sell renewable fuels. State incentives provide important financial support for building the infrastructure that will make sustainably grown renewable fuels more readily available to consumers.
- **Twenty states sponsor grants to support research and development on clean fuels and clean vehicles.** These states are looking to foster the technologies that will help reduce oil dependence in the near future. For example, Illinois has a Renewable Fuels Research, Development, and Demonstration Program to promote, expand the use of, and accelerate commercialization of clean, renewable transportation fuels.

SMART GROWTH AND PUBLIC TRANSIT

States can lower oil dependence through smart growth policies that reduce sprawl and promote accessible public transit systems. In order to reduce sprawl, smart growth strategies focus on issues such as transportation, land use, zoning, and building codes. By concentrating growth and redevelopment within already existing urban areas and communities, states can reduce the need to develop further outside cities and towns, where entirely new infrastructure (roads, buildings, etc.) must be built. New development in suburban and rural areas also increases the distance that citizens must travel for work and other activities, increasing inconvenience and pollution.

- **Twelve states have growth management acts.** Among the most comprehensive ways of promoting smart growth is growth management legislation, such as Washington's Growth Management Act (GMA). This GMA affects 29 counties (95 percent of Washington's population) and requires, among other things, policies covering sprawl reduction, affordable housing, open space and recreation, environmental protection, natural resource industries, permit processing, concentrated urban growth, regional transportation, historic lands and buildings, and public facilities and services.¹⁴
- **Only a few states have performance-based goals.** In April, the state of Washington amended its GMA to make it even more effective at lowering oil consumption, calling for reductions in vehicle-miles traveled of 18 percent by 2020, 30 percent by 2025, and 50 percent by 2050.¹⁵ Washington continues to lead the nation with policies that cut traffic, sparing its citizens some pain at the pump. Two other states recently adopted explicit targets for reducing traffic: New York (10 percent in 10 years) and Rhode Island (15 percent among state employees by 2012).
- **Eight states have a mechanism to coordinate development.** A number of states have recognized that several different state entities influence development, sometimes in potentially contradictory ways, and so have moved toward creation of a mechanism to coordinate public investments that support development (as Massachusetts did in 2003 with the establishment of a powerful Executive Office of Commonwealth Development).¹⁶ Such coordination is an important first step toward smart development, enabling a state to take into account the wide range of relevant influences. States are encouraged to use coordinating mechanisms to promote smart growth.
- **Some states have prioritized the funding of public transit.** Public transit systems, such as bus, commuter rail, subway, and light rail programs, are an important component in state efforts to promote smart growth and reduce oil dependence. By creating or expanding reliable and accessible public transit programs, states can reduce the number of single-passenger cars on the road, consequently lowering average vehicle-miles traveled (VMT). And strong public transit provides an important transportation alternative as gas prices rise. A case in point: Americans drove 1.4 billion fewer highway miles in April 2008 than in April 2007 due to soaring fuel prices many took trains or buses instead, leading to a surge in transit ridership.¹⁷

States have the ability to “flex” certain federal funds that ordinarily would be spent on highway projects and instead use them to pay for public transit programs. States that choose not to transfer federal funds to transit programs are not necessarily neglecting transit funding, however. They may be spending more state dollars on transit. The best way to understand state transit prioritization is to compare the amount of total state spending (including flexed federal funds) on mass transit with the total spent on highway programs, as shown in the last column of Table 2. By this measure, the top five states prioritizing public transit spending are New York, Maryland, Massachusetts, Connecticut, and New Mexico.

CHAPTER 3

Conclusion: States Must Take the Lead in Reducing Oil Dependence

Drivers in all states are dependent on oil for their transportation needs. However, some states are more vulnerable to oil price increases than others, and some are taking significantly more action to curtail oil dependence.

Responsible states are making efforts to promote clean fuels, efficient vehicles, and smart growth and transit. As policies to reduce oil dependence take root, these states will be making the nation more secure in addition to protecting their citizens' wallets and enhancing global environmental health. These states' policies can serve as examples for states that are presently engaged in policy development and implementation aimed at reducing oil dependency, as well for the many states that have thus far taken little or no such action.

At the same time, the federal government has a responsibility to take strong and necessary actions to reduce our oil dependence, and significant progress must be made at this level of government. Leading states' promotion of clean fuels, efficient vehicles, and smart growth and transit presents our nation's leaders with an opportunity to gauge the most effective measures and adopt them. Specifically, supportive policies worthy of rapid federal enactment include:

- Stronger fuel economy standards
- An economy-wide climate policy that caps and cuts greenhouse gas emissions and diversifies fuels through a low-carbon fuel standard
- A reformed federal transportation policy that supports smart growth and boosts investment in public transportation and other alternatives to driving

Solutions to our oil dependence are available today. Policies like clean car standards, the low-carbon fuel standard, and vehicle-miles-of-travel reduction targets demonstrate that we have the ability at both state and federal levels to reduce oil dependence and drive progress toward energy security.

APPENDIX 1

Methodology

OIL VULNERABILITY RANKINGS

The oil vulnerability rankings are based on data from the following sources:

National Motor Gasoline Consumption (2007):

Energy Information Administration (available at <http://tonto.eia.doe.gov/dnav/pet/hist/mgfupus1A.htm>)

States' Percentage of Total U.S. Consumption (2006):

Federal Highway Administration, Highway Statistics 2006 (available at <http://www.fhwa.dot.gov/policy/ohim/hs06/xls/mf21.xls>)

Gasoline Prices by State (2007):

Energy Information Administration (available at http://tonto.eia.doe.gov/dnav/pet/pet_pri_allmg_a_EPM0_PTC_cpgal_a.htm)

Gasoline Taxes by State (January 2008):

American Petroleum Institute (available at http://www.api.org/statistics/fueltaxes/upload/GAS_TAX_MAP_JANUARY_2008-2.pdf)

Licensed Drivers by State (2006):

Federal Highway Administration, Highway Statistics 2002–2006 (available at <http://www.fhwa.dot.gov/policy/ohim/hs06/xls/dl22.xls>)

Per Capita Personal Income by State (2007):

Bureau of Economic Analysis (available at <http://www.bea.gov/regional/spi/drill.cfm?satable=SA05N&clc=30&years=2007&rformat=display>)

The oil vulnerability rankings are based on the percentage of personal income spent on gasoline in each state in 2007. To more accurately reflect the true cost to drivers of gasoline, this year's report includes state and federal taxes, which significantly contribute to the higher figures compared with last year's report (which excluded taxes from fuel costs).

To calculate the amount of gasoline used in each state in 2007, each state's percentage of national gasoline consumption in 2006 was multiplied by the national usage in 2007 (state-level consumption data for 2007 are not yet available). The amount of motor gasoline consumed in each state was then multiplied by the average state price (including taxes) to produce the total amount spent in each state on gasoline. This figure was then divided by the total number of licensed drivers to produce the amount spent on gasoline per driver. Finally, this number was divided by per capita income to produce the average percentage of drivers' income spent on gasoline.

SOLUTIONS RANKINGS

The solutions rankings are based on data from the following sources:

Clean Vehicles & Efficient Use

Hybrid Incentives and Idling Restrictions:

- Department of Energy, Office of Energy Efficiency and Renewable Energy, Alternative Fuels Data Center (available at <http://www.eere.energy.gov/afdc/>)
- StateNet (available at <http://www.statenet.com/leg>)

State Fleet Efficiency:

- Environmental Protection Agency (available at http://www.epa.gov/cleanrgy/energy-programs/state-and-local/state_planning.html#eeaf)

Vehicle GHG Emissions Standards:

- Pew Center on Global Climate Change (available at http://www.pewclimate.org/what_s_being_done/in_the_states/)
- Clean Cars Campaign (available at <http://www.cleancarscampaign.org/web-content/stateaction/stateaction.html>)
- Environmental Defense Fund (available at <http://www.edf.org/page.cfm?tagID=15503>)

Clean Fuels

Clean Fuels Fueling Station Incentives and State-Sponsored R&D Grants:

- Department of Energy, Office of Energy Efficiency and Renewable Energy, Alternative Fuels Data Center (available at <http://www.eere.energy.gov/afdc/>)
- Database of State Incentives for Renewables & Efficiency (DSIRE) (available at <http://www.dsireusa.org/summarytables/>)

Low-Carbon Fuel Standard:

- Pew Center on Global Climate Change (available at http://www.pewclimate.org/what_s_being_done/in_the_states/)

Smart Growth & Transit

Smart Growth Policies (VMT Target, State Mechanisms, GMAs):

- 25x25: (available at http://www.25x25.org/index.php?option=com_content&task=view&id=22&Itemid=51)
- American Planning Association (available at <http://www.planning.org>)
- National Governors Association (available at <http://www.nga.org/portal/site/nga>)
- United States Environmental Protection Agency (available at <http://cfpub.epa.gov/sgpdb/sgdb.cfm>)
- State government Web sites
- In evaluating state mechanisms for coordinated development, NRDC asked whether the mechanism had authority or influence over state infrastructure investments and whether such authority or influence was exercised within the last five years. This approach avoided crediting state models that were ineffectively implemented or otherwise inactive.

State Transit Prioritization:

- Federal Highway Administration, Highway Statistics 2006 (available at <http://www.fhwa.dot.gov/policy/ohim/hs06/xls/sf21.xls>)

In order to calculate a solutions ranking of the 50 states, NRDC started by assigning a value of either 0.5 point, 1 point, or 2 points to each action in the table that a state currently takes (i.e., for each check mark). Actions with a bigger impact on oil dependence received more points, as follows:

- **2 points:** Low-carbon fuel standard and vehicle GHG emissions standards
- **1 point:** Hybrid incentives, clean fuels fueling station incentives, and VMT reduction targets (a VMT reduction policy that applies only to state-owned vehicles received 0.5 point)
- **0.5 point:** State fleet efficiency requirements, idling restrictions, state-sponsored grants for R&D pertaining to clean fuel or clean cars, coordinating state mechanism for development, and growth management act.

NRDC then added a fraction of a point to states' scores based on how their transit prioritization compared with the highest state's transit percentage (New York: 50.31 percent). In other words, New York's transit prioritization of 50.31 percent was given a value of 1 point, and all other states were given a value proportional to this. (For example, Rhode Island's transit percentage of 10.86 was divided by New York's 50.31; the resulting 0.2159 was added to Rhode Island's 5.5 points, yielding a total score of 5.7159, which was the seventh-highest score of any state.)

Endnotes

- 1 To read NRDC's 2007 state vulnerability ranking, please visit: http://docs.nrdc.org/air/air_07061901a.pdf.
- 2 Energy Information Administration, World Proved Crude Oil Reserves, January 2008, at <http://www.eia.doe.gov/pub/international/iealf/crudeoilreserves.xls>.
- 3 Energy Information Administration, U.S. Crude Oil Supply & Disposition, updated May 23, 2008, at http://tonto.eia.doe.gov/dnav/pet/pet_sum_crdsnd_adc_mbbl_a.htm.
- 4 Energy Information Administration, *Annual Energy Review 2007*, Transportation Sector Energy Consumption, http://www.eia.doe.gov/aer/pdf/pages/sec2_8.pdf.
- 5 Justin Fox, "The Trade Deficit Has Turned Very Oily Lately," Time.com, May 29, 2008, at http://time-blog.com/curious_capitalist/2008/05/the_trade_deficit_has_turned_v.html.
- 6 Energy Information Administration, *Annual Energy Review 2007*, Carbon Dioxide Emissions From Energy Consumption by Sector, http://www.eia.doe.gov/aer/pdf/pages/sec12_5.pdf.
- 7 For more details, see the Methodology section at the end of this report.
- 8 Pew Research Center, "Public Sends Mixed Signals on Energy Policy," March 2008, available at <http://people-press.org/report/400/public-sends-mixed-signals-on-energy-policy>.
- 9 For more details, see the Methodology section at the end of this report.
- 10 California Air Resources Board, *Comparison of Greenhouse Gas Reductions for the United States and Canada under U.S. CAFE Standards and California Air Resource Board Greenhouse Gas Regulations*, February 25, 2008.
- 11 A number of states encourage hybrid-electric vehicles by allowing them to travel in HOV lanes. This is laudable, but the majority of states do not even have HOV facilities, so these rankings focus solely on *financial* incentives that all states have the ability to provide.
- 12 This standard is complementary to the goals set in California's Global Warming Solutions Act of 2006 (Assembly Bill 32). Under this act, California, the world's 12th-largest carbon emitter, will cap GHG emissions at 1990 levels by 2020, which is a reduction in emissions of approximately 25 percent.
- 13 David Crane and Brian Prusnek, *The Role of a Low Carbon Fuel Standard in Reducing Greenhouse Gas Emissions and Protecting Our Economy*, California Office of the Governor. 2007.
- 14 Municipal Research and Services Center of Washington, 2007. Comprehensive Planning/ Growth Management. Available at <http://www.mrsc.org/subjects/planning/compplan.aspx>.
- 15 Bill text, SB 6308, and *Seattle Post-Intelligencer*, April 7, 2008.
- 16 Anthony Flint, "Agencies Working Together," *Boston Globe*, Dec. 19, 2006, at http://www.boston.com/news/globe/editorial_opinion/oped/articles/2006/12/19/agencies_working_together/.
- 17 U.S. Department of Transportation, "Americans Drove 1.4 Billion Fewer Highway Miles in April of 2008 than in April 2007 While Fuel Prices and Transit Ridership Are Both on the Rise," press release, June 18, 2008, at <http://www.dot.gov/affairs/dot8408.htm>.