

### Approach One: Free the Market to Address the Problem

The United States is founded on the notion of free enterprise: letting the rules of economics determine the fate of issues. The current climate crisis should not be approached any differently. Global warming is an issue where we know few of the answers and where missteps in policy could harm our economic security. The rules of supply and demand will guide toward solutions as long as markets are free to operate and full information on costs (including costs to the environment) are available to everyone. De-regulation and providing full information are the most practical and effective means of solving our climate crisis.

#### A Few Facts

- The market is already responding to the issue. In 2007, for instance, revenue in biofuels, windpower, solar photovoltaic and fuel cells grew by 40% (\$77.3 billion) worldwide; while new investment in clean energy grew by 60% (\$148 billion). Our economy witnessed 10% (\$2.7 billion) of its venture investing go towards clean energy.
- Oil is selling well above \$100 a barrel at present. This will induce people and companies to conserve it and to shift to alternative fuels, many of which have lower impacts on global warming. For example UPS has implemented new software to save three million gallons of fuel a year, while reducing carbon emissions by 31,000 metric tons.
- Currently, national governments, including our own, subsidize domestic fossil fuel production. This keeps these harmful products at lower prices, increasing demand. It also precludes any serious advancement in unproven technologies that could lead to a cleaner environment.
- The federal government's current emphasis on biofuel from corn has driven food prices up, a special burden on the poor; and studies indicate it is not helping with global warming.
- The Chicago Climate Exchange is the world's first voluntary legally binding greenhouse-gas emissions registry, reduction and trading system. The exchange works by monitoring and verifying carbon emissions reports by its member organizations—without government involvement.

#### What Should Be Done?

- Get governments out of the business of picking the solution to global warming. Instead government should break up cartels and facilitate the exchange of information and voluntary arrangements to reduce greenhouse gasses.
- Eliminate federal subsidies for new fossil fuel production, returning the savings to tax payers. Allow development of lower emitting fuels where it doesn't conflict with environmental priorities.
- Remove unnecessary government obstacles to new nuclear power construction, while maintaining a close watch on safety.
- Provide consumers and investors with full information on the global warming impact of their choices.

#### Dangers, Drawbacks, Tradeoffs

- Removing federal subsidy of domestic fossil fuel production would increase the price of gasoline by \$.30 to \$1.50 per gallon and further increase our reliance on foreign oil and gas.
- Leaving the solution to the market does not ensure responses that are fair or satisfactory.

### Approach Two: Encourage and Empower Governments to Reduce Carbon Output

The market has failed to address global warming; in fact it has largely created it. Businesses, whether located in America or abroad, will not voluntarily change their energy habits if it conflicts with short-term profits. Government needs to regulate greenhouse gas emissions. Until the government punishes corporations and individuals that pollute too much, there will not be a sufficient solution to global warming. Governments also need to take the lead in proving the viability of conservation measures and alternative energy technologies.

#### A Few Facts

- Only coordinated efforts within and across governments can address the problem. For example, China, where the market favors cheap and dirty domestic coal, is emerging as the world's primary emitter of greenhouse gas.
- Due to the slow response of the federal government, regionalized carbon-reduction and energy-saving pacts and agreements have become a norm among the major regions of the United States. New Jersey has committed itself to significant reduction in greenhouse gas emissions.
- The Long Hill Environmental Commission has recommended solar panels for their town hall, hybrid municipal cars, and reducing emissions by 50 percent by 2012 and 100 percent by 2020.
- The New Jersey Green Homes Program offers incentives in the form of tax breaks and tax credits for building green, installing solar panels, or installing Energy Star appliances.
- SEPTA already operates 32 hybrid buses and plans to add 400 more by 2011.
- Union county will work to make new construction and renovations conform to the highest green standards in five areas: sustainable development, water savings, energy efficiency, materials selection and indoor environmental quality.

#### What Should Be Done?

- Since we are facing a problem of *global* warming, extensive international cooperation among governments to reduce carbon output is required for a solution.
- The United States must devise a more stringent policy of capping carbon output similar to the EU's, with a system of allowance of carbon emission, trading of permits, and heavy taxation if the allotted allowance is exceeded.
- Based in the recent Supreme Court ruling recognizing its jurisdiction to do so, the EPA must take more stringent steps towards punishing violators of current and future policies concerning carbon emission and global warming. Citizens should use the courts to force action if necessary.
- Fuel efficiency standards should continue to be increased.
- Local governments should adopt purchasing practices and zoning and building codes that favor conservation and alternative energy sources.
- Governments should reinvest in mass transit and give drivers financial incentives to leave their cars at home.

#### Dangers, Drawbacks, Tradeoffs

- The political process often selects policies that are counter-productive, inefficient and overly expensive.
- Commitments to reduce carbon output mean nothing if they are not accompanied by immediate, significant action.

### Approach Three: Create Innovative Public/Private Partnerships to Change our Lifestyles

Global warming is such a big problem that neither the market nor government can solve it alone. A solution will require a new era of cooperation across the public/private divide. We cannot reduce global warming until we fundamentally change our lifestyles to a more sustainable model. Achieving sustainable living will require an assertive program of education in schools, colleges, homes, and workplaces. It will also require strategic and open investments by governments and businesses in research and development in new technologies, processes, and products.

#### A Few Facts

- The FutureGen Alliance, a consortium of 12 US and foreign energy companies working with the U.S Dept. of Energy, is building a clean coal plant that emits little global warming gases. The partners in the Alliance have committed to investing \$400 million (of the est. \$1.9 billion cost).
- The New Jersey Board of Public Utilities is offering a grant of up to \$19 million to start a pilot program of offshore wind energy farms.
- The City of Clifton provides an educational program on global warming to civic groups, schools and businesses.
- In Pequannock school officials are considering installing solar panels at the request of students. The new Radnor Middle School is a national model of green building. The state has provided over \$17 million in rebates to schools in recent years for renewable energy projects.
- TCNJ participates in the New Jersey Higher Education Partnership for Sustainability (NJHEPS), a consortium of 40+ higher education institutions with corporate sponsorship dedicated to sharing best practices on sustainability.

#### What Should Be Done?

- Government should encourage and help to fund industrial consortia to research and develop greenhouse gas reduction technologies. Industry should share basic technology in return.
- Local governing bodies should help schools incorporate learning about sustainable lifestyles across the grades. They should also financially support schools in being models of sustainability themselves.
- Partnerships should be created between local universities/colleges and the surrounding towns on actions that can be taken in the community. Colleges and universities should integrate sustainability into their curriculum and model ways in which a community can go green.
- Companies and organizations should form communities of their members devoted to finding more sustainable practices and empowered to take action.

#### Dangers, Drawbacks, Tradeoffs

- New partnership arrangements, research, and education take a very long time to realize results, with very few direct benefits in the short run.
- Since this approach does not call for regulation by the government, there is no means of enforcement. This approach depends on the public and private sectors taking a vested interest in this issue. If people do not see their personal stake in global warming, nothing will be accomplished.
- This approach will be very expensive, requiring heavy public spending.

