Looking Ahead

The Cornell Roosevelt Institute Policy Journal

Center for Energy and Environmental Policy

Issue No. 3, Fall 2012

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Letter from the Policy Director

Dear Readers,

We are very pleased to present the third issue of *Looking Ahead*: *The Cornell Roosevelt Institute Policy Journal* from the Center For Energy and Environment. This publication comprises the work of seven Roosevelt Institute members from the Fall 2012 semester and covers topics related to energy and environmental policy. Each writer chose a topic of interest, carefully researched the relevant issues, and developed an innovative policy proposal. We are excited to share our work with you and hope you find it to be enjoyable and thought-provoking!

Sincerely,

Janisa Mahaparn
Psychology '15 (A&S)
Policy Director
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Eliminating Restrictions to Indigenous Development of Wind and Solar Power

By Alex Fields-Lefkovic '16, Major: Government (A&S), Email: af395@cornell.edu

Indigenous people throughout the US want to develop renewable energy, particularly wind and solar power, to ensure stable electricity access for their lands. These forms of power generation would rejuvenate their economies, which are currently marred by high poverty and a heavy reliance on casinos for revenue. They are also consistent with their cultural values, characterized by living sustainably and maintaining a close connection to nature. Currently, nations operate in a trust relationship with the United States federal government, while maintaining a degree of sovereignty as independent entities. Although the United States federal government has attempted energy development partnerships with indigenous groups, they have not been widely adopted.

Background:

By 25 U.S.C 415, all leasing of indigenous lands must be reviewed and be approved by the Secretary of the Interior and Bureau of Indian Affairs (BIA) through a process of intense regulation.[1] In 2005, the Secretary of the Interior enacted the Tribal Energy Resource Agreement (TERA) to incentivize indigenous development of alternative energy. However, it created a double standard by which indigenous energy companies must undergo additional federally enforced environmental reviews, modeled off of the National Environmental Policy Act (NEPA), that are not required for non-indigenous energy companies at the local, state, or federal level.[2] This is puzzling, especially since TERA removes all federal liability for any risks resulting from new energy development.

Key Facts:

- Indigenous economies are currently stagnating and have high levels of unemployment.
- Indigenous people have a 40% increase in timber output through sustainable development when granted greater control over their resources.

History:

In recent years, the federal government and private corporations have cooperated with indigenous people on energy projects, but have forced the indigenous to shoulder an overwhelming cost burden. Unsurprisingly, these efforts have been met with widespread resistance. In August 2012, Congress passed the Helping Expedite and Advance Responsible Tribal Homeownership (HEARTH) Act, allowing indigenous people to lease their own land without prior approval by the Secretary of the Interior. Although incentivizing new uses of indigenous land, the Act doesn't eliminate BIA oversight and ex-

tensive environmental reviews. The reviews are especially problematic because many nations have neither the resources nor the specific experts, such as geologists and hydrologists, to conduct them.[3]

Analysis:

Eliminating regulations on indigenous energy development is crucial to improving indigenous economies and to allowing increased electricity access.[4] Instead of encouraging wind and solar energy production, the regulations serve as the paternalistic manifestation of federal domination over indigenous people that have prevented their self-determination.[5] By not ensuring their self-determination, the government is continually denying indigenous nations the right to produce energy as they see fit and is suppressing their cultural practices. The status quo approach must be rejected for promoting a reprehensible form of energy and economic neocolonialism that subjugates and forcibly assimilates indigenous people into American society.

Talking Points:

- TERA and BIA land leasing have failed and result in too many regulations for energy development.
- The inability for indigenous people to develop wind and solar power limits their economic activity.
- There are disproportionate effects from global warming that are a form of environmental racism against indigenous people.

Furthermore, these regulations prevent cleaner wind and solar power generation that would prevent greenhouse gas emissions. Scientific consensus has proven that runaway global warming is real and anthropogenic, with increasingly negative effects on the land, air, and oceans.[6] Now, global warming has emerged as an environmental justice issue as indigenous people are unevenly targeted because of their close ties to their land for many tasks, such as fishing and agricultural cultivation. This is especially detrimental because their deep connection to nature defines their identities and sense of community.[7] Allowing unrestricted development of wind and solar power is imperative to confronting the environmental injustices affecting indigenous people by increasing their access to electricity and preventing the most malignant destruction of their surroundings. This would resonate with other ethnic and national groups, who have endured similar environmental injustices such as pollution, and would encourage them to address inequity by adopting similar measures.[8]

Next Steps:

Given the current inability to promote indigenous production of wind and solar power, the United States federal government should remove all federal mandates and regulations on indigenous energy development.[9] There are some concerns that these energy

projects would still be co-opted and dominated by outside corporations, who would take advantage of the lack of federal oversight.[10] Others insist that abiding by the trust doctrine, which entails keeping a strong connection between the federal government and indigenous nations, would be the best way to ensure renewable energy production.[11] Nevertheless, removing restrictions would allow nations to generate the maximum possible amount of energy and to optimize their self-determination of nations. This process would allow them to secure a stable energy supply and ensure self-sufficiency, especially for currently unconnected rural areas. Past joint projects prove that indigenous people have the technological capacity to produce wind and solar power, but are far too encumbered and disincentivized by extensive federal regulations. They would produce electricity in a way that would avoid overproduction and overconsumption, comporting to their traditional values.[12] Additionally, there is empirical evidence that indigenous people can flourish when granted increased authority to manage their resources.[13] An exemplar of this success was when Public Law No. 638 was passed, which allowed them to assume control of federal forestry programs on indigenous lands and to sustainably increase timber production by more than 40%. If the federal government does not remove these restrictions, then it would reify the colonial legacy that indigenous people need to be guided and instructed when making crucial decisions for themselves.[14]

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Redistributing Federal Energy Subsidies: Making Cleaner and More Sustainable Investments

By Jatin Khanna '14, Major: Material Science and Engineering (ENGR), Email: jk857@cornell.edu

Ending subsidies to the heavily polluting and hugely profitable fossil fuel industry and redistributing them to the newer and rapidly growing renewable energy industry would lower emissions, stabilize energy prices, and create jobs in America.

Background:

According to the Environmental Law Institute's study on federal energy subsidies, fossil fuel companies received $72 billion from 2002-2008. On the other hand, renewables received only $29 billion in the same period. Out of this $29 billion, corn ethanol received $16.8 billion dollars while the remaining sum was split between solar, wind, geothermal, and hydroelectric.[1]

Key Facts:

- From 2002-2008, fossil fuel companies received $72 billion and renewable energy companies received $29 billion.
- The average cost of electricity per kwH is $0.074-$0.088 for coal, $0.087-$0.346 for natural gas, $0.116-$0.312 for solar, and $0.06 for wind.
- Germany's aggressive pursuit of alternative energy usage has led to the creation of nearly 500,000 jobs in renewable energy and 900,000 jobs in retrofitting homes and buildings.

Fossil fuels played a crucial role in the development of the modern world, but now humanity has the capacity to transition to cleaner and more sustainable sources of energy. We are already seeing some signs of anthropogenic climate change, with hotter summers and more cases of extreme weather. Experts believe that the worst is yet to come and we have barely experienced the results of a century of carbon emissions. Furthermore, the most optimistic estimates state that there is only enough coal, oil, and natural gas to last humanity 150 years; if population expansion and urbanization of third and second-world countries such as Brazil, China, and India is factored in, that number becomes even lower.

No one disagrees that carbon dioxide emissions form fossil fuel consumption is bad for the environment; but the US federal government seems content with providing billions of dollars in subsidies and tax breaks to the most profitable industry in the world that is coincidentally doing the most harm to the Earth's environment. This may be partly due to the enormous spending power of the fossil fuel lobbies and their desire to prevent any legislation from passing that would lower their profits. For example, the oil and coal industry spent over $75 million in the first quarter of 2009 on advertisements that portrayed them as green and environmentally friendly. They also gave donations

of at least $100,000 to several Democrats, presumably in order to prevent them from voting yes on Obama's cap-and-trade legislation[2].

History:

The subsidies and tax breaks provided to fossil fuel companies are written into the permanent tax code, while subsidies for renewables are usually temporary time-limited initiatives. While fossil fuels enjoy consistent funds, on top of their massive profits and monopolized control over the industry, the renewable industry relies on benefits with expiration dates than can drastically effect their production. For example, the Wind Energy Production Tax Credit (PTC) of 1992 provided a 1.9-cent per kilowatt-hour tax credit on the production of wind energy. However, since 1999, the credit has gone through one-to-two year swings of expiration and extension. The government allowed it to expire on three separate occasions since 1999, and each of those expirations translated to a very significant drop in wind energy production. For example, when the credit expired in 2004, installed capacity dropped from 6,500 megawatts in 2003 to 1,700 megawatts.[7] This up-and-down nature of the industry makes it undesirable for new producers to join and also for current producers to develop long-term large-scale projects for fear that the credit will expire and their projects will no longer be economically viable. By creating a stable and permanent subsidy or tax credit for the wind industry, the government could enable long-term rapid growth of an industry that provides clean power while simultaneously creating local jobs.

In May of 2012, Senator Bernie Sanders and Representative Keith Ellison introduced the End Polluter Welfare Act, which is intended to repeal $113 billion in the form of subsidies, loopholes, and tax breaks to fossil fuel companies over ten years. It has been almost six months, and Congress has yet to pass the law. In this time period, Congress' inability to act has already cost the American taxpayers over $4.5 billion.[8] If the government can get serious about reducing our environmental impact and establishing an energy-secure future, we can move forward as a nation and leave fossil fuels behind.

Analysis:

So why does the federal government continue providing massive subsides and tax breaks to fossil fuel companies? The industry is well established and already hugely profitable. On the other hand, renewable energy is a relatively new industry, and it has not yet reached the technological potential that it is capable of.

According to the International Energy Agency, eliminating subsidies for fossil fuels by 2020 would cut global energy demand by 3.9%, which is the equivalent of reducing oil use by 600 million tons. This massive reduction would cut CO_2 emissions by 1.7 gigatons, which is equivalent to the current total emissions of Germany, France, Italy, and

the UK. By the year 2030, the savings would equal 2.5 gigatons of CO_2.[3] It will reduce demand because subsidies artificially lower prices and encourage wasteful consumption and production of fossil fuels. Removing or lowering subsidies would decrease this wasteful consumption. Furthermore, redistribution of subsidies to clean alternative energy technologies would aid them in becoming as cost-effective as fossil fuel energy. This would allow for a gradual transition from fossil fuels to alternative energy without sacrificing economic gain.

Talking Points:

- Fossil fuel subsidies artificially lower prices and lead to wasteful consumption and production of highly-polluting energy sources.
- Current prices of fossil fuels do not reflect the environmental impact of harvesting and using it for energy production. If they did, alternative sources of energy such as solar, wind, and hydroelectric would be much more price-competitive due to their much lower environmental impact.
- By reducing ages-old subsidies and tax breaks for fossil fuel companies and redistributing them to cleaner, renewable sources of energy, these sources could begin to be price-competitive and slowly increase their portion of total US energy production. This would greatly lower our carbon emissions and reduce our addition to anthropogenic climate change. Furthermore, it would allow us to leave an energy-secure country for future generations.

From a report by the California Energy Commission, the average cost of electricity per kwH is is $0.074-$0.088 for coal, $0.087-$0.346 for natural gas, $0.116-$0.312 for solar, and $0.06 for wind.[4] Wind is already a cheaper option than coal and natural gas, and while fossil fuel energy prices are projected to increase going into the century as supplies decrease, prices for solar and wind are projected to decrease. In addition, fossil fuel prices are more likely to fluctuate based on political tensions and discoveries of new supplies, whereas alternative energy prices are either stable or lowering at a predictable rate. Studies performed by the Brookhaven National Lab project solar energy to reach economic competitiveness by 2020, at a price of $0.10 per kilowatt-hour.[5] Furthermore, the prices of energy do not currently reflect the environmental damage associated with the energy source. The entire process of harvesting and generating oil, coal, and natural gas releases many harmful toxins and carbon into the atmosphere and environment, yet all of this harmful activity does not translate into the cost of the energy. On the other hand, solar and wind energy provide power without negative environmental side-effects, and this should play a role in its pricing. The combination of widespread research and development and increased subsidies for alternative energy would allow solar and wind energy to become both the economically and environmentally sensible options.

Economically speaking, subsidizing renewable energy is a smarter choice as well. Fossil fuels already provide over 90 percent of electricity in the US, so giving them more

money is not actually helping in creating jobs or innovative new technologies. On the other hand, there remains much to be discovered in the areas of wind and solar energy. Solar panel efficiencies have been steadily rising over the past few decades, and the wind energy industry has been growing rapidly as well. By changing our legislation to favor these types of energies, the United States stands a chance at a clean and sustainable future. There is also the important factor of job creation. The growing wind and solar industries will create thousands of American jobs, and these jobs will be long lasting. According to a study by What Works Collaborative, Germany's aggressive pursuit of alternative energy usage has led to the creation of nearly 500,000 jobs in renewable energy and 900,000 jobs in retrofitting homes and buildings. It is clear that green energy policy is a win-win for America.[6]

Next Steps:

The current use of taxpayer money to subsidize the massively profitable and polluting fossil fuel industry is unacceptable. It increases their monopoly power while preventing cleaner energy sources from gaining a foothold in the market. America needs to take away subsidies and loopholes for fossil fuels and redistribute them to support the growing clean energy industries that have so much potential. Not only will this cause our carbon footprint to go down, but also it will create thousands of American jobs, stabilize energy prices, and make us pioneers in a rapidly growing and necessary industry. Most importantly, it will allow us to reduce our dependence on dwindling fossil fuel supplies and get us on track to run our nation on completely renewable sources of energy.

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Modifying the Concept of Food Miles for Widespread Implementation

By Erin Noonan '14, Major: Natural Resources (CALS), Email: een8@cornell.edu

Food miles are the measurement of the distance a particular item of food travels from the producer to the consumer. Today food miles are used to help consumers gauge the carbon footprint and environmental impact of their goods; however, food miles fail to represent many other factors that contribute to the item's overall global impact. For example, means of transportation, agricultural methods utilized, storage methods, and packaging all contribute equally, if not more so to the overall carbon footprint. Reorganizing the concept of food miles would provide the consumer with a quick and easy way to make environmentally conscious choices.

Background:

The concept of Food Miles was first introduced in 2005 as an indicator of how far a particular food item had traveled from the producer to the consumer. At the time, the concept seemed a transparent and relatable measurement of carbon dioxide emissions associated with an individual product. British packaged foods began utilizing this idea in packaging through the use of unified symbols, indicating how far the food had traveled and through what methods.

Key Facts:

- Today's concept of food miles measures the miles a specific product has traveled to where it is purchased.
- Food miles fail to properly represent the energy and carbon emission that were involved with the product's production.
- In the United States, food energy produces 15% of the total energy consumed.
- Food miles fail to represent the how the food was prepared, stored, and grown. These attribute more the product's energy consumption than transportation.

History:

After scientific research was conducted by the United Kingdom, food miles were found to be a misleading and unreflective label to communicate the product's energy consumption.[1] Today in the United States, food energy consumption attributes to 15% of total energy use in the country, and of that 15%, less than half is related to physical transportation, giving the recent locavore or eating local campaign less of a credible impact on consumption.[2] Despite the existing problems with the food miles concept, the idea of a uniform labeling method that would communicate with consumers about

the total emissions of a product should not to be counted out. Creating a single metric that accounts not only for transportation but also for methods used, storing techniques, and preparation would better serve consumers and attribute more attention to personal energy consumption.

Analysis:

Requiring all processed foods and packaging to include a uniform measurement of food miles would benefit not only the consumer's health and energy consumption but also help incentivize the advancement and improvement of agricultural technology as well as the sustainability of food production companies.

Talking Points:

- Creating a labeling system for packaged foods would allow consumers to quickly assess the environmental impact of their purchase.
- The visibility of labels creates incentive for manufacturers and agriculturalists to utilize more environmentally friendly techniques.

The reconstruction of Food Miles would be similar to nutrition fact labels, providing numbers and figures of specific needs to the readers. Consumers would be equipped with the necessary information to make environmentally friendly choices that would allow them to reduce their carbon footprint and overall energy use.

Some argue that implementing a universal food metric would be unrealistic and difficult to uniformly implement due to the amount of information that would be broken down into a simple measurement. For example, in England it may contribute to less carbon emissions to fly in tomatoes during season from Kenya instead of providing power to a year-round greenhouse simply to consume locally grown items. In instances such as these, consumers would be able to quickly and visually use the new labeling system to distinguish the two options and make an environmentally conscious decision without having to take the time and research the product themselves. Finally, it is imperative that this label be quick, condensed, and able to summarize all information being represented.

Next Steps:

In order to implement a more representative and useful food labeling system, a unit of measure must be introduced to portray the emissions of a product. Calculating specific numbers for each product would be difficult to implement due to the lack of a global measurement system. Instead, categorization techniques may work to the same extent, similar to the LEED building certification levels. The LEED certification acts as a point system to internationally recognize a green building, with silver, gold, and plati-

num ratings. Displaying a sustainability rating on an item's packaging would not only reflect the environmental impact of the product but also would be able to factor in ethical concerns, similar to fair trade symbols due to the inclusivity of the point system.

Economic costs of the project would put no extra weight on the producers of the goods if it were a government-implemented action; however, some major distributors, including Wal-Mart are already attempting to implement a Sustainability Index that has many similar goals and attributes. The majority of the costs will fall on the FDA or other widespread governmental institutions, but would create benefits for both social and environmental sectors through the ability to purchase safe and clean food.

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Improving Efficiency in Buildings

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The building sector accounts for the majority of energy use, CO_2 emissions, and living costs in the United States. Better codes should be created in order to lower energy usage and emissions reducing the impact of buildings on the environment as well as living expenses.

Background:

With more Americans living in cities, the last 10 years has seen the increase of energy consumption and emissions in the building sector.[1] The U.S. building sector accounted for 41% of America's primary energy consumption in 2010 representing 7% of global consumption.[2] This sector also accounted for 40% of America's total CO_2 emissions in 2010 representing 7.4% of global emissions.[3]

Key Facts:

- Energy usage has been steadily rising in the U.S.
- The U.S is still producing more CO_2 emissions despite contributing less to total global emissions.
- America has a variety of codes and standards pertaining to energy use and emissions.

Due to their large impact on the environment and importance in our society, there are many codes and regulations buildings must follow regarding construction, energy use, and emissions.[4] Codes and regulations are legislated on a federal, state, and local level so that standards are maintained across the country while the environmental concerns of specific areas are met.

History:

The building sector's share of America's primary energy consumption has increased from 26% in 1980 to 40% in 2010.[5] During this time costs have remained relatively stable.[6] CO_2 emissions from American buildings have gone from 8.5% to 7.4% of global emissions, however, this is due to China's increased production of emissions.[7] Within America, emissions have increased from 33% of total carbon emissions in 1980 to 40% in 2010.[8]

However, these statistics do not reveal the progress made over the last 40 years. In 1975 several policies became legislation creating the first codes and standards. Since then newer codes, such as the International and the Energy Conservation Code in 1998, have become a standard that is frequently improved upon.[9]

Analysis:

However, this progress is inadequate, especially with the environmental and energy issues the nation and world face. Creating greener codes could drastically reduce energy consumption, carbon emissions, and energy costs.

Talking Points:

- Greener codes have already reduced energy usage and emissions while saving consumers billions of dollars.
- Professionals are often unfamiliar with the very codes they must comply with.
- Many cities are already researching local energy problems and solutions.

Implementing and monitoring stricter minimum efficiency standards will reduce energy usage and emissions by making less energy achieve the same purpose. Energy consumption should also be mandatorily monitored so that data can be tracked to see that standards are met.

Improving construction codes will create buildings with better insulation, heating systems, and electrical standards that conserve energy thus reducing emissions.[10] Creating legislation requiring the retrofitting of energy equipment after a regular period of time will lower energy use and emissions and allow new and old buildings to keep meeting rising standards. By retrofitting and investing in better technology, consumers will save money. The direct savings from energy costs accrued over the lifetime of a building are far greater than the cost of improvements. In appliance codes alone from 1990–2000 consumer energy bills were reduced by approximately $50 billion, with benefits being three times more the cost of meeting standards.[11] Stricter codes will also generate jobs by creating a growing and stable market for equipment replacement and repair as well as research jobs that improve green technology. [12]

Additional environmental improvements like cleaner air will create indirect savings by lowering the costs of healthcare keeping more money in the hands of consumers. Also, establishing educational programs to inform the several professions that work together on buildings about codes will prevent confusion and misinformation in the decision-making process. The unfamiliarity of codes among professionals is a barrier to making effective judgments and programs that unite these professions and educate them on green codes, financing, and technology will help them make better decisions. [13]

Next Steps:

Higher national standards should be established so that there is a common goal, but the most important improvements should come locally. Every city has similarities but

each is also unique. Therefore, local governments should examine their own city and decide the improvements necessary while using the federal government to assist them in achieving these solutions. New York City has recently revealed PlaNYC2030, an initiative focused on the city's energy problems with solutions that take into account the city's unique characteristics. Pushing for higher standards and innovation on a national and local level is the most effective way to reduce our energy usage and emissions while saving money.

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Plastic Bag Ban Goes into Effect in Solana Beach

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The City Council's' decision made to ban plastic bags in Solana Beach in May 2012 has undoubtedly reduced short-term plastic consumption. However, further steps need to be taken to reduce plastic consumption in the long run. First, there needs to be stricter legislation to address loopholes and exemptions from the ban. Second, the government has to utilize educational and awareness programs to promote greater acceptance and understanding for the need to ban plastic bags.

Background:

The United States of America is notorious for its high level of plastic production and consumption. Just in 2010, 31 million tons of plastic waste was generated.[1] Recently, however, cities across the nation have attempted to enact policies to reverse this trend, specifically targeting plastic bags. In 2007, San Francisco was the first city to ban single-use plastic bags. More than a dozen cities, including Laguna Beach, Seattle, and Santa Monica, followed after the ban in San Francisco. In 2012, Los Angeles became the largest city in the U.S. to ban plastic bags at supermarkets.

Key Facts:

- For years, the United States has had an incredibly high level of plastic consumption – In 2010, 31 million tons of plastic waste was generated.
- On May 9th, 2012, the City Council of Solana Beach passed a law to ban single-use plastic bags in the city.
- The plastic bag ban applies in grocery stores, city facilities, pharmacies, food vendors, retail establishments, and nonprofit vendors; only restaurants are except from the ban.

History:

On May 9th, 2012, the City Council of Solana Beach passed a law to ban single-use plastic bags in the city. Solana beach is the first city in San Diego County to approve the ban. From August to November of 2012, the ban was enacted in grocery stores, city facilities, pharmacies, and food vendors. On November 9, 2012, the plastic bag ban will be extended to retail establishments and nonprofit vendors, with the exception of restaurants. Any establishments in violation of the ban will be fined $1,000.[2]

The city council realized that implementing a plastic bag ban may not reduce the city's environmental footprint if consumers simply switched from plastic to paper bags. Thus, in addition to the plastic bag ban, the city council decided to impose a $0.10 fine

on paper bags.[3] This would encourage consumers to reduce both plastic and paper bag usage, and opt for environmentally-friendly reusable bags.

Analysis:

Talking Points:

- Overall, the plastic bag ban has reduced plastic consumption in Solana Beach.
- However, several businesses are reluctant to abide by the ban because consumers unaware of the ban have blamed storeowners for being inconsiderate to their customers .
- The government has to promote greater awareness and acceptance of the plastic bag ban among the community. In addition, they should implement stricter legislation of the ban in restaurants and grocery stores.

The plastic bag ban enacted by the City Council has undoubtedly proven to be beneficial, successfully reducing Solana Beach's plastic bag consumption in the short-term. The excessive use of plastic bags creates an unnecessarily huge demand for plastic, a process that consumes enormous volumes of petroleum oil. This is particularly detrimental to the environment because petroleum is a scarce and nonrenewable resource whose stocks are continually being depleted. Additionally, plastic bags are a nuisance to society. Experts estimate that it costs $1 million a year to repair recycling equipment jammed with plastic bags in San Diego.[4] Studies have also shown that it costs approximately $8.5 million per year to clean up, recycle, and landfill plastic bags because most of them are not biodegradable. Furthermore, plastic bags are also extremely detrimental to marine biodiversity and keystone species. The Earth Resource Foundation estimates that over 100,000 marine animals die every year due to the improper disposal of non-degradable plastic bags in ocean ecosystems.[5] When plastic bags enter waterways, animals are at an enormous risk of suffocating or becoming entangled in the waste.

However, while Solana Beach's plastic bag ban has reduced plastic consumption, further steps have to be taken to increase its effectiveness and ensure long-run reduction of plastic consumption. In some parts of the city, the plastic bag ban encountered substantial resistance from consumers that were unaware of its legislation. Businesses found consumers accusing them of being inconsiderate price-gougers. For example, Andrea Knight, an assistant manager at Bevmo, says her store lost three to five percent in sales since the ordinance went into effect.[6] Some stores received such negative reactions that storeowners willingly refused to enforce the ban and instead opted to pay the $1,000 fine.[7] Lau Voda, owner of the Minute Liquor Store, states that she would rather maintain good relations with her customers, rather than abide by the law.

This issue is a significant problem because storeowners are concerned that the plastic bag ban may negatively affect their relationship with customers. If businesses find

themselves at a competitive disadvantage after abiding the law, they will see no incentive to comply. This will create a dangerous negative spiral where all businesses may decide to abandon the plastic bag ban.

Next Steps:

Stricter legislation should be implemented that mandates plastic bag ban in all businesses, retail stores, restaurants, and grocery stores. Furthermore, the City Council should promote stronger awareness of the plastic bag ban so consumers focus on preserving the environment, rather than resenting proprietors for demanding fines for plastic bags. The plastic bag ban will only be successful if businesses do not feel economically disadvantaged by complying with the ban, and consumers are aware and accepting of the need to implement the plastic bag ban.

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Incentives for Hybrid Vehicles in New York

By Noah Rubin '16, Major: Policy Analysis and Management (HumEc), Email: nar62@cornell.edu

With gas prices rising substantially in the past few months, the state of New York should provide multiple incentives for residents to buy and drive hybrid vehicles.

Background:

Key Facts:

- Hybrid vehicles have been in commercial production within the US since 1999, with the introduction of the Honda Insight.
- The Energy Policy Act of 2005 was the first federal law granting tax credits for hybrid cars.

Due to a weakened economy in 2008 and lower demand for crude oil, gas prices plummeted from a national average of above $4.00 a gallon in mid-2008 to a low of $1.84 in January 2009. However, a strengthening economy, combined with conflict in the Middle East and North Africa has driven price increases in crude oil, and consequently in gasoline, over the past few years. As gasoline prices start to rise nationwide, the state of New York is especially feeling the effects. Since July of 2012, gas prices in New York State have steadily risen from a little over $3.50 to over $4.00, representing a 14% percent increase in price in just three months.[2]

Hybrid vehicles have been in the political spotlight for many years, especially since the Energy Policy Act of 2005, which was the first federal law granting tax credits for hybrid cars.[5] Over the past four years, Obama has been a staunch supporter of hybrid vehicles, moving millions of dollars in government revenue towards subsidies for hybrid and hybrid-electric vehicles. This great effort and these large expenditures by the U.S. government are all a part of Obama's goal of reaching one million hybrid vehicles on the road by 2015 and reducing our dependence on foreign oil.

Hybrid-electric vehicles have the ability to be a real catalyst in reducing both the United States' dependence on foreign oil and total annual carbon emissions, while simultaneously putting money in pockets of Americans from savings on gasoline. In order to increase the penetration of hybrid vehicles, consumers need quality monetary incentives.

Legislative History:

To date, 34 states have introduced legislation regarding hybrid vehicle subsidies, yet only 9 have passed legislation.[5] California has been the leading state in this arena, passing more than three bills between 2009 and 2011 authorizing states to create

neighborhood electric vehicle transportation plans. States like Hawaii and Illinois are following the lead of California. The federal government, especially during Obama's first four years in office, has passed multiple bills concerning hybrid vehicles along with the Energy Policy Act mentioned earlier. For example, the Energy Independence and Security Act of 2007 awards grants to companies investing in hybrid technology.[5] Another example, the American Recovery and Reinvestment Act of 2009, furthered subsidies for alternative fuel motor vehicles.[5]

The state of New York also has made recent progress with green transportation. Both of New York's senators, Charles Schumer and Kirsten Gillibrand, sit on committees relating to transportation or the environment. In the last year, Gillibrand and Schumer together have approved over $4 million in grants for hybrid-electric projects and the purchase of hybrid buses by the Department of Transportation.[2]

Talking Points:

- A flat rebate program allow buyers of hybrid vehicles to receive a fixed tax rebate, regardless of their income.
- Parking spaces designated as "free" for zero emission vehicles can serve as an incentive to encourage the purchase of hybrid vehicles.

Analysis:

Hybrid vehicles could play a large role in reducing the U.S. dependence on foreign oil, and it is important for the city of Ithaca, the state of New York, and even the federal government, to research and consider alternative incentives to buy hybrids than the current system. Here are two alternatives:

1) Flat Rebate Program

A flat rebate program means that all buyers of the same hybrid model would receive the same tax credit. Low-income households usually have a tax liability lower than the tax credit, and therefore cannot experience the full benefit of the credit. Unfortunately, low-income households tend to respond better to this type of incentive. A flat rebate would allow these households to gain more from incentives. According to a study published in 2011, while this program may reduce government revenue, it is less costly than the current subsidy program by approximately 15%.[1]

2) Parking Incentives

The New York legislature has introduced a few bills concerning parking incentives, one of which being A.B. 794. This bill relates to establishing a pilot program allowing free parking on public streets for zero emission vehicles, fuel-efficient vehicles, and hybrid vehicles. Parking is a problem worth addressing in both in Ithaca and New York due to the high volume of traffic and relatively high parking rates. Aside from providing free parking on public streets, other options include reduced parking rates or closer parking

spots for fuel-efficient and hybrid vehicles.

Next Steps:

The city of Ithaca should introduce legislation creating a flat rebate program for the purchase of hybrid vehicles, and also commission research tracking its effectiveness throughout the city. Separate legislation should be introduced regarding free parking, in addition to a foundation of plug-in electric infrastructure. This includes charging stations and plug-in electric repair shops.

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Clean Air Resolution: How City Hall Can Help Implement a National Solution to Climate Change

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By issuing a simple resolution, Ithaca can join 36 other cities across the country in sending a strong message to the EPA that the agency should aggressively fulfill its responsibility to reduce greenhouse gas emissions.

Background:

Key Facts:

- The worst consequences of climate change can be avoided if the level of atmospheric CO_2 is stabilized below 350 ppm.
- Congress has tried and failed to pass comprehensive climate legislation.

The consensus is in, and has been for a long time: climate change is real, it is caused by human beings, and its effects are already being felt. But scientists agree that the worst consequences of climate change—including permanent sea-level rise and more severe draughts, heat waves, and hurricanes—can be mitigated or avoided if policy is implemented to stabilize the concentration of atmospheric carbon dioxide (CO_2) below 350 parts per million. Yet despite the hard rock science and dire warnings, Washington has failed to implement the kind of comprehensive climate change policy we need. In 2009, the House of Representatives passed an ambitious bill that would have established a cap and trade system to reduce greenhouse gas emissions to a manageable level, but the Senate failed to muster enough votes to make the bill law.

Since 2009, the fossil fuel industry has spent over $552 million in lobbying expenditures and campaign contributions to push climate change off of the political agenda.[1] It's worked: there have been no new promising climate bills proposed in Congress. Until campaign finance and lobbying rules change in Washington, comprehensive climate change legislation does not have a chance.

But there is an alternative. The EPA can, and should, use its authority under the Clean Air Act to cap atmospheric CO_2 concentration at the level of 350 ppm. Cities around the country are adopting resolutions to support EPA action, and Ithaca, NY should be the next to sign on board.

Analysis:

Section 111 of the Clean Air Act "requires EPA to develop regulations for categories of

sources which cause or significantly contribute to air pollution which may endanger public health or welfare."[2] Scientists agree that greenhouse gases will both endanger public health and welfare, and in 2007 the Supreme ruled that greenhouse gases are, indeed, "pollutants" that the EPA must regulate.[3] Thus not only should the EPA regulate greenhouse gases: it is illegal for it to do otherwise.

Talking Points:

- The Supreme Court has ruled that the EPA must regulate greenhouse gas emissions under the Clean Air Act.
- Cities around the country are banding together to urge the EPA to aggressively fulfill its responsibility to reduce greenhouse gas emissions.

The Clean Air Act gives the EPA the authority to set limits on CO2 emissions in three ways.[4] Through the New Source Review Program, the EPA can require all new or modified "stationary" air pollution sources (power plants, chemical plants, oil refineries, and manufacturing facilities) to limit emissions by installing pollution-control technologies.[5] Through the New Source Performance Standards Program, the EPA can set standards for the maximum amount of pollutants that different kinds of stationary sources may emit.[6] And finally, through the National Ambient Air Quality Standards Program, the EPA can determine the maximum acceptable atmospheric levels of different air pollutants that threaten "public welfare."[7]

While the EPA has begun to take advantage of the first two programs to regulate greenhouse gases, it has done so tepidly and only partially. Furthermore, despite the consensus that 350 ppm is the maximum admissible atmospheric CO2 concentration, the EPA has so far refused to codify that standard under the National Ambient Air Quality Standards Program.

Next Steps:

Every day that the EPA delays full implementation of its greenhouse gas regulations, the climate crisis worsens. The attached resolution urges the EPA to fully "employ and enforce the Clean Air Act to do our part to reduce carbon in our atmosphere to no more than 350 parts per million."

So far 36 cities have signed these resolutions, including Albany, NY, Detroit, MI, and Gary, IN. If manufacturing powerhouses like Detroit and Gary can pass this resolution, Ithaca has no excuse.

Conclusion:

Ithaca is known for its progressive and environmentally-conscious residents. With this resolution, Ithacans can reach past the City borders to help implement a national solution to climate change. We urge the City to sign this resolution without delay. In doing so, not only will it encourage the EPA to act decisively on climate, but so could it also set into motion a ripple effect by showing students throughout the country that they can productively engage their municipal governments on this issue.

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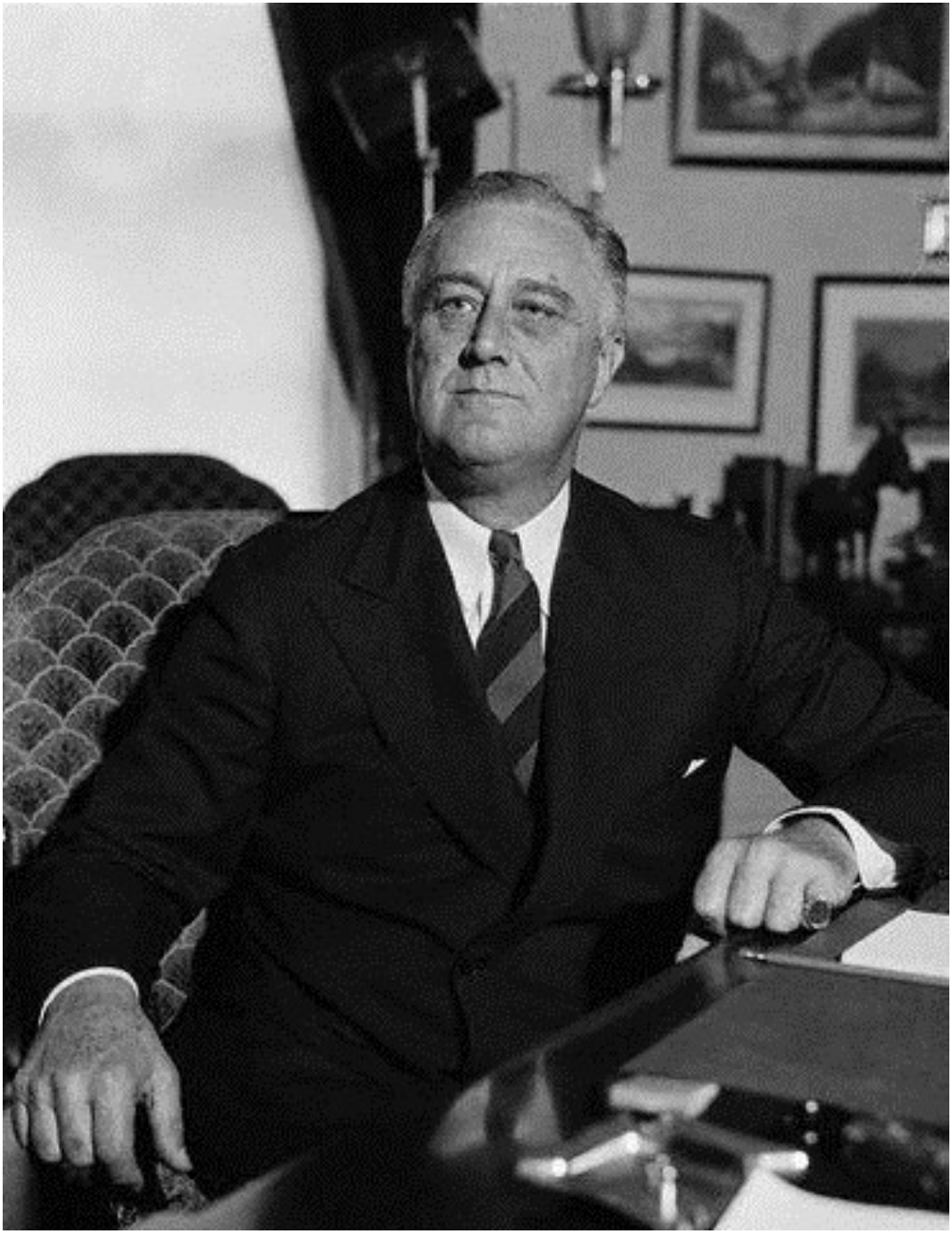

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