Wyatt Goodwin

Final Policy Brief

**Communications Strategies to Save Money and the Planet**

**Executive Summary**: The CLCPA is an incredible movement to combat the climate crisis, but it is missing one absolutely critical component: Direct to New Yorker communications plans to explain how they can simultaneously save money and the planet by scaling renewable energy use. In this brief, I identify how these policies should operate, such as by requiring utility companies to share in each utility bill how much renewable energy investments like rooftop solar is saving customers—as well as identifying how much they could save if they switched. I then argue that the Public Service Commission should require that utility companies to share this information, and it should work with NYSERDA to develop ways to collect and implement this research to share it with New Yorkers. Afterwards, I analyze leading studies that show how communications strategies tied to electricity bills can influence consumer’s electricity use, and I tie that to the UN’s International Panel on Climate Change’s research on the need for strong climate communications policies. Additionally, I walk through how these low cost – high yield policies can improve our response to climate change before identifying the legal and moral precedents for how similar communications campaigns have driven transformative responses such as through campaigns to quit smoking. I will then walk through three examples of the novel communications policy regulations that require industries like utilities to advertise the benefits of renewable energy, and how once that information is collected it can be provided in other areas. I offer mock-up graphics of an electricity bills that show how much money renewable energy investments are saving people (such as by stating in an electricity bill how that solar panels are saving $500 per month or that they *would* save $500 a month if the consumer switched over), sharing those findings on the building energy efficiency grades which are posted on many NYC buildings to disclose how much money sustainable energy implementations are saving tenants, and placing that information in the apartment listings such as those on Street Easy. Finally, I walk through a case study of how a creative communication campaign in California used the idea of financial incentives to convince people to use less electricity, which supports the arguments made throughout this brief.

**The Public Service Commission and NYSERDA must work together**: These two groups must work together to help communicate to the public how much money their energy choices are saving them—and how much more they could be saving with further investments in renewable energy. The Public Service Commission has the power to regulate and oversee the electric, gas, water, and telecommunication industry in New York. [[1]](#endnote-1) As the leading authority in this area, it is time they enforced their muscle and their $100 million budget over companies like Con-Ed and National Grid to require that utility companies share the benefits of renewable energy. On page 5 and 6 of this brief, I offer an example of how that would look with a mock-up design of a national grid energy bill that has a line showing the savings from renewables just below the monthly fee. Additionally, I suggest that the Public Service Commission collaborates with NYSERDA, which has years of prowess and experience working to gather research, provide information and analysis, and refining their technical expertise. Furthermore, NYSERDA’s history of working with the private sector to combat climate change, as well their experience “testing, developing, and introducing new technologies, strategies, and practices that build the market infrastructure across New York State to reliably deliver clean energy to New Yorkers” make them ideal to carry out this task.[[2]](#endnote-2) NYSERDA clearly has the capacity to work with and ensure that utility companies are providing accurate information about savings from renewable energy system and sharing them with New Yorkers. As renewable technology continues to expand and improve, this partnership will allow New Yorkers to see in real time how much money they are saving with renewable energy. Additionally, they will get immediate feedback on how their investments in renewable energy are helping them.

**Why Communications is so Important:** I would like to pause of a moment to explain why I am focusing on communication strategies in this brief. Ostensibly, focusing on communications might seem too simple when discussing a problem that presidents and scientists have called existential. Should we not focus only on the scientific tools required to beat climate change? To answer that, I would like to consider these past two years as we have lived through the Covid-19 pandemic, which have undeniably shown us just how important strong communications policies are to help the public navigate a deadly, existential threat. At the same time, we have learned exactly how terrible it is for government and public agencies to have a faulty communications plan. In an New York Times op-ed article about the government’s failures to effectively communicate about the Covid-19 crisis, Dr. Zeynep Tufekci argues that “A pandemic is a communications emergency as much as it is a medical crisis. Effective communication is much more than choosing the right words. It needs a wholesale approach starting with clarity of purpose, a realistic assessment of where things are, including factors outside the agency’s control, collection and presentation of detailed data…”[[3]](#endnote-3) Dr. Tufekci walks the reader through the confusing messaging from different agencies that have the science and data to combat Covid-19—but completely lack the coordination and deftness to share that with the public. At this point, we have the tools to save so many more lives from Covid-19, we just do a terrible job communicating to people in a way that gets them to utilize those tools. With climate change, we must not be so foolish. Instead, we need consistent information that is prioritized along with the science and goes right to the source: the people.

**The Science on Communications is Clear – We Need to Expand Now**: Peer reviewed studies have already shown a clear link between creative communications campaigns and changes in electricity consumption, which is why we don’t have a moment to lose before we implement them in New York. The University of Leeds has been a leader in this research, and, with support of the U.S. Department of Energy, they have compiled a groundbreaking report that shows how bringing communications strategies directly to consumers and their electricity bill can significantly influence people’s understanding and use of electricity.[[4]](#endnote-4) The study operated under a simple premise: because people pay attention to their electricity bills and the costs on them, improving communications through those bills could be a smart strategy to influence consumer habits at the source. Their findings are critical to proving the validity of the communications strategies that I have outlined and drawn examples for throughout this paper.

Before I highlight those findings, I would like to offer a small caveat. This study embarks on a relatively new question of how communications around electricity bills can be used to combat climate change. The central focus of the study is to see how changes to information can decrease energy consumption. However, that analysis is slightly different from the focus of this brief, which examines how communications around electricity bills can influence people wanting to spend less on electricity if they know renewable energy is a cheaper alternative. But the links between the findings in this study and the premise of this brief are very similar and offer strong evidence that the communications will influence energy consumption habits. Now, I will analyze the findings from the report.

First, the study analyzed how differently designed electricity bills can influence consumer decisions. They brought in new information to the bill, highlighting historical use, neighbors’ use, and appliance breakdown; and they additionally showed different version of the information in graphs, icons, and tables. And throughout, the study explains the importance of “designing utility bills that are understandable, perceived as useful, and motivate consumers to save energy.” Additionally, the study emphasizes that success came from the bill-designers’ key goals and priorities as they worked to communicate: Designers wanted “(1) to improve recipients’ understanding of their electricity use, (2) to increase the preferences for the presented communication, so that recipients are willing to engage with it and apply it to their decisions, and (3) to increase intentions to save electricity.” All of this analysis which improves understanding and efficacy of strong communications campaigns to affect consumer consumption of electricity are central aspects of the policy recommendations in this brief, as well as the mock-ups that I offer later on. These new findings are critical in revealing that nuances in direct to consumer communications can have significant affects in changing their habits—and that is exactly what we need to do to combat climate change.

The study also explains the fascinating social powers affecting consumers’ decisions behind energy usage. The researchers learned that the communications documents that present neighbor comparisons which highlight “whether the recipients’ household uses more or less electricity than comparable neighbors was greatly beneficial to influencing people’s energy use.” This is a critical finding that should compel anyone to understand the benefits of democratizing electricity spending to influence peoples’ electricity habits. As the researchers explain, this finding “is consistent with findings that people have limited awareness of how much electricity use is the norm”[[5]](#endnote-5) I contend that this is an important reason for sharing information about saving from renewable energy: knowledge about electricity use in relation to neighbors can change people’s relationships with them. In the suggestions I have added towards the end of this paper, I offer graphics that will educate New Yorkers on their electricity prices, bring that usage into the public discourse, and provide ways for people to lower their prices.

The last finding I will dive into in this brief is that “consumers have also indicated that they want to receive more information about which specific appliances use the most electricity…Detailed information about which appliance-specific behaviors use the most electricity may also motivate consumers to use those appliances less, or to replace them.”[[6]](#endnote-6) This is a really interesting discovery that I argue could be translated to finances—instead of just explaining how much electricity it used, we should explain how much money it cost to use that electricity. And additionally, when people invest in renewable appliance, people should know just how much money they saved due to that investment.

**Don’t Just Listen to me, Listen to the IPCC**: The IPCC makes it incredibly clear that we need more than just science in our communications campaigns if we want to convince people to fight against climate change. They emphasize that “the ‘go-to’ metrics for discussing climate change, global temperature targets or atmospheric concentrations of greenhouse gases are unlikely to be understood or seen as personally relevant by a majority of the public.” [[7]](#endnote-7) Instead, the IPCC explains that it is important to frame the way we discus climate change so that we explain how combating climate change can be beneficial to the average person. They offer the example of stating the benefit of solar panels is that they are economically beneficials.

That is why I have spent so much time finding novel communications strategies that can catalyze rapid investment in renewable energy around New York by explaining directly to New Yorkers how renewable energy is directly and immediately helping them.

Before jumping into the moral and legal precedents to enact these changes, as well as looking at a case study for a communications campaign that affected energy use, I would like to quickly look at three mock-up graphics that I believe would epitomize the regulations I am recommending in this paper. I would also like to emphasize the ‘mock-up’ and ‘concept’ of these graphics, which are in no may mean to represent artistically deft examples, but rather provide a rough idea of how these communications regulations could look in practice.

**Mock Ups to Educate and Convince New Yorkers About Renewables**: New Yorkers need to know how much money renewable energy can save them and their buildings, and they should be told that number every time they pay to use fossil fuels in order to change their habits. On the next page I provide a few examples of how that would look. One example is a requirement for energy companies to tell consumers how much money their renewable energy investments (such as solar panels or heat pumps) are saving them, the other is to augment how building energy efficiency grades advertise by requiring them to show how much money they save renters per month by using renewable energy systems—as well as to state how they are spending that money, and the last is a listing from Street Easy that would advertise this information as part of the buildings’ amenities.

**Figure 1: A New National Grid Utility Bill**



Here is a rough mock-up of how our electric bills can tell people how much they are saving with renewables, while also incentivizing them to save more. I added this on top of a fake national grid bill from their website

$$ **WANT TO LOWER YOUR ELECTRIC BILL AND SAVE THE PLANET?:** Learn about other renewable energy systems, which have already saved you so much money, like heat pumps, bio-fuels, off grid solar farms, and so much more.

**RENEWABLE SAVINGS**

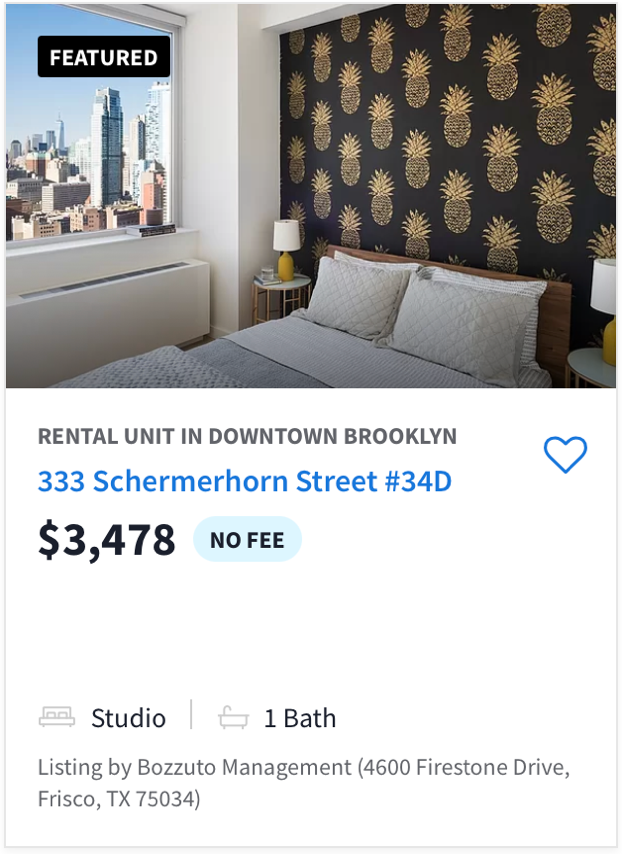
**Building Electricity Cost Saved by Solar Panels: $500.00**

* **Your solar panel prevented X amount of heating, decreasing pollution, natural disasters, famines, and more.**

**Example 1 – Communicating through Utility bills:** Figure 1 is an example of a critical tool that New York State should implement to make communications a priority in the response to climate change. Every month, when it is time to pay for utilities like electricity, New Yorkers groan and shell out more money than they would like to in order to heat their home and charge their phones—and that money goes to burning fossil fuels that are killing our planet. Paying utilities like electricity and gas are frustrating for a number of reasons, but there is one that I want to highlight above the rest here: New Yorkers don’t have to pay such a high price for them anymore since renewable energy is dramatically cheaper in the long run than fossil fuels (and they don’t kill the planet)—but we have not done a good enough job at telling them about it.

The above solution attacks this communications failure at the source by requiring the companies that are polluting our planet to explain directly to consumers just how much they are saving with their renewable energy investments (like solar panels or heat pumps) *and* by requiring that they show in each bill how much New Yorkers would save by switching to renewable energies like solar panels. Beneath the price tag showing how much is saved, I added another box which could link to further educational resources, which would bring New Yorkers to other websites that would show them how to save money and the planet at the same time.

**Figure 2: Amending our Building Ratings** | **Figure 3: Street Easy’s New Amenities**



Building Energy Efficiency signs are a great first step, but there is so much more they can advertise.

Now that we know how renewables are saving money, companies like Street Easy can advertise that saving – just as they might other amenities. They can also offer a climate score.

A+ Climate Score

Saves $500 per month with renewable energy

**SAVINGS: SOLAR PANELS AND HEAT PUMPS IN THIS BUILDING SAVE OWNDERS OVER $600 PER MONTH. WE ELECTED TO SPEND THAT MONEY TO REDUCE MAITANANCE FEES/GIVE OUR DOORMAN A RAISE/BUILD A GYM/REMOVE UTILITY BILLS.**

**INTERESTED IN SAVING MORE? TELL YOUR LANDLORD TO SWITCH TO OTHER RENEWABLES ENERGY SOURCES.**

**Example 2 – Communicating through Building Efficiency Signs**: NYC’s recent movement to require that larger building post their energy ratings is already a smart decision to create effective communications campaigns to bring information about the climate crisis to the public’s attention. However, one key flaw with this is that these signs don’t explicitly state how this clean energy is going to benefit the consumers. I propose taking these efficiency ratings a step further. Since I have argued the Public Service Commission and NYSERDA should compel utility companies to share how much renewable energy is saving customers, that data can also be used in other areas, such as by requiring buildings that are investing in renewable energy to share how they are saving money for their tenants. Similar to figure 1, which goes directly to consumers to show how much renewable energy investments are saving them – as well as how much they could be saving with additional renewable energy – figure 2’s concept requires buildings to share that information on their front door. If these buildings are using renewable energy and saving money on utilities, that should be advertised outside. And if they are not, that should be advertised as well. This is another concept that will help communicate the benefits of renewable energy directly to the people and into the public discourse. And as we have seen in the section of this brief that analyzes studies which have looked at communications campaigns’ effects on electricity habits, people have strong responses to understanding how their neighbors use electricity. This would be a strong social tool to influence investments in renewable energy.

**Example 3 – Communicating through Apartment Hunting**: My last example in this brief for how New York should communicate the benefits of renewable energy directly to the people is to work with services like Street Easy or other realtors to share the financial benefits of the buildings who have invested in renewable energies. Unlike an efficiency rating, these numbers will indicate exactly how much the building is saving consumers per month, which shows a direct benefit to consumers rather than a more intangible one. Similar to the analysis in Figure 2, and building off the regulation concepts argued for in this brief, this concept will spur social conversation and provide New Yorkers with a better understanding of how they can be benefiting from renewable energy systems.

**Legal and Moral Precedents to Regulations our Utilities**: Throughout this brief, I have argued that New York State should require that utility companies advertise against their financial interest. I certainly understand why that might at first seem like a cruel regulation that could never be implemented. And while it may seem counterintuitive at first, this would absolutely not be the first time that such a measure has been enacted. Consider the federal Tobacco Control Act[[8]](#endnote-8), which prevents tobacco companies from selling tobacco at all if the customer is under a certain age, limits where tobacco can be sold and how much of it in an individual package, prevents tobacco from sponsoring sports or entertainment events, and even requires that smokeless tobacco labels state that tobacco can cause cancer. Alternatively, consider the Federal Alcohol Administration Act (FAA Act), which “gives the Alcohol and Tobacco Tax and Trade Bureau (TTB) authority to regulate the advertising of alcohol beverage products. It provides for the regulation of those engaged in the alcohol beverage industry and for the protection of consumers,” according to Prevention.org[[9]](#endnote-9). And lastly, consider the blanket ban to gambling in many states—completely nullifying an industry that brought in $53 billion dollars in 2021 alone[[10]](#endnote-10).

All of the regulations I just mentioned were enacted in response to massive public health threats. According to the CDC, smoking “kills more than 480,000 Americans each year.1 In addition, the United States spends more than $300 billion a year on smoking-related illness, including more than $225 billion in direct medical care for adults and $156 billion in lost productivity.”[[11]](#endnote-11) The National Institute for Alcohol Abuse and Alcoholism estimates that 95,000 people die from alcohol-related causes annually.[[12]](#endnote-12) And yest all of those numbers are a rounding error when we compare them to the current and projected threat of climate change.

**The Imperative to Act and Regulate Fossil Fuel Utilities**: The New York Times wrote that “Climate change could cut [the] world economy by $23 trillion in 2050.”[[13]](#endnote-13) They explain that amounts to a decrease of “11 percent to 14 percent off global economic output by 2050,” which will disproportionately be felt by more vulnerable communities around the world. NPR shared that rising temperatures will result in “major storms, floods, wildfires and other extreme weather events already cause around $120 billion a year in damages in the U.S.” that will result in over $2T in cost annually.[[14]](#endnote-14) And Forbes wrote that “climate change would cause 83 million excess deaths by 2100.”[[15]](#endnote-15) But maybe that’s too abstract to consider for the CLCPA. For a moment, I will then turn to NYS’s Department of Environmental Conservation’s estimates of climate change’s impact on NY:[[16]](#endnote-16) They anticipate that NY will see water rise anywhere from 18 to 75 inches higher than today by 2100, more consistent and dangerous heatwaves that will harm our must vulnerable, changing rain water that can lead to drought and famine, and so much more.

And so I argue: If we were willing to prohibit the sale of certain goods like cigarettes because they cause $225 billion in health costs or kill 480,000 people per year, or regulate advertising for alcohol which causes 95,000 deaths per year, or make gambling – a $50 billion a year industry – illegal in some states, than we should absolutely be willing to require that utility companies advertise renewable energy options so that we can avoid the calamity of $20 trillion in costs and 83 million dead from climate change.

**Communications Plans Already in Action**: Finally, for the end of this brief, I will look at a case study of a novel communication strategy that has been implemented to mitigate electricity use. The UCLA Luskin Center for Innovation, with support from the California Energy Commission, ran a study that evaluated the effectiveness of demand response programs which used communication strategies to mitigate energy use during a time of crisis. The researchers noted that the “study can be used to design more effective programs that result in greater environmental and economic benefits for Californians,” indicating that its findings could be critical to crafting additional programs like those I have advocated for throughout this brief. And its findings are very positive.

This study analyzed what happened when California offered a financial reward along with nuanced communications campaigns to decrease energy demand. The stated “goal of this project is to identify the most effective message content, timing and format, as well as incentive level, depending on the socioeconomic and energy use characteristics of customers.”

Ultimately, researchers found that strong communications policy plus the potential for a financial reward resulted in a decrease of energy consumption by 18% on average across all users during a demand event like a heat wave. However, they also found that users “reduced consumption by similar amounts even when they received demand response events two days in a row, an indication that energy use was not simply delayed to the next day but instead was an absolute reduction.” This compelling finding indicates that that a combination of messaging and financial incentives—which is exactly what this brief argues for—has a strong ability to change consumer energy trends. Additionally, the researchers found that “events that included messages emphasizing personal economic benefits were more effective than those that included messages about health and the environment.” Once again, that supports the central claims of this brief and builds off the IPCC’s communications recommendation that it is critical to advertise personal benefits to change people’s personal behavior in order to combat the climate crisis.

**Conclusion**: There is ample evidence that smart communications strategies that emphasize how people can save money and the planet will effectively contribute to changes in electricity use. Additionally, there is ample evidence that poor communications strategies can lead to mass distrust of public responses to crisis, making miraculous scientific breakthrough impossible to implement in some instances. In order to ensure that the climate crisis is a fight that New York wins, we must invest in direct to New Yorker plans to educate them about how much they can save with renewable energy investments. The Public Service Commission and NYSERDA have the legal strength and historic knowledge to ensure that this strategy is implemented quickly and effectively—so long as the CLCPA authorizes them to do so.

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