An Act Transitioning Massachusetts to 100 Percent Renewable Energy

Thoughtfully re-powering Massachusetts and ending the use of fossil fuels within the Commonwealth

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More than two-thirds of Massachusetts electricity generation is still powered by unsustainable, polluting natural gas fuels. An additional one-sixth of electricity is generated from nuclear power. In comparison to the one-eighth coming from renewable energy, these amounts are far too high (U.S. EIA). Given the significant advancements the state has made towards solar energy technology and production in the past decade, a clean energy reform is possible. In a future with continued and intensified climate change, we risk increasingly unpredictable events such as coastal flooding, wildfires, drought, and extreme temperatures – to name a few. These extreme conditions have detrimental effects on the economy, public health, infrastructure, coastal resources, energy demand, natural resources, water resources, and recreation.

■ The Bill
S.1958/H.2836: An Act transitioning Massachusetts to 100 percent renewable energy

■ Elevator Speech
Hi, my name is Ian Quin and this is Anna Dorosenkov. We are here today to express genuine concern for the future of the Commonwealth. Climate change is becoming a more pressing issue every day. It is a critical time for Massachusetts to commit to responsibly planning for the future because every existing social, health, and political issue is exasperated as fundamental necessities such as clean air and water are endangered.

In a future with continued and intensified climate change, we risk increasingly unpredictable events such as coastal flooding, wildfires, drought, and extreme temperatures – to name a few. These extreme conditions have potentially detrimental effects on the economy, public health, and water resources. Currently, approximately 50% of the state’s energy is still derived from natural gas. Continuing the use of dirty energy sources is both unwise and unsustainable, given its extreme implications on our society, and world, at large.

This bill has recently entered the Committee for Telecommunications, Utilities, and Energy. We ask for your full support in getting it approved and subsequently passed. Voice your support for this bill and

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in doing so, you will have voiced your support for a bright, clean future.

The bill to transition Massachusetts to 100 percent renewable energy, S.1958, introduces a necessary framework to set the state on the right track for a sustainable future and improve economic welfare. The bill aims to create jobs in the growing clean energy market, increase energy efficiency, affordability, and reliability, and begin developing clean energy infrastructure.

**Excerpts from Storybook**

“What I’m doing just isn’t enough. We in our society today in the US are not doing anything close to what we need to be doing. It’s the political will that we need to muster to change things.” – Senator Marc R. Pacheco

“This is a big undertaking but should have been established a long time ago because now we are behind on achieving the required goals to avoid a more catastrophic climate change scenario. Ambitious policy is needed in order to reach 100% renewable energy.” – Sabine Von Mering, 350 Mass Advocate and Director of German and European Studies at Brandeis University

**Op-Ed**

Anna

Solving the climate crisis is not contingent on whether people believe the science or not, it is contingent on political will. Historically, energy reform has been led primarily by entrepreneurship and the private sector, but legislative efforts are slowly catching up to non-governmental agencies. According to the Yale Climate Opinion Maps for 2018, 62% of adults in Massachusetts believe that global warming is mostly caused by human activity and 69% believe their governor should do more to address this issue.

Environmentally favorable changes, such as transitioning to renewable energy state wide, are inevitably dependent on governmental action. Beyond environmental benefits, providing Massachusetts consumers with a diverse energy system consisting of zero carbon energy sources eliminates the inconsistent price fluctuation that is intrinsic to natural gas services. The natural gas market is extremely vulnerable to supply instability and therefore prices spike during periods of shortage.

To keep the state in line with the framework set in the Global Warming Solutions Act of 2008, an increase in Massachusetts renewable energy portfolio (RPS) is needed. A comprehensive bill titled An Act transitioning Massachusetts to 100% renewable energy, S.1958/H.2836, sets guidelines by which the state can achieve 100% renewable electricity and subsequently 100% renewable energy across all sectors by 2035 and 2045 respectively. It aims to build a green economy through increasing energy efficiency, affordability, and reliability. It also takes into account disproportionately affected communities and fossil fuel work displacement. The passing of such legislature could be monumental in mandating a shift to a clean energy economy. Such an economy will create thousands of local jobs and provide consumers with more energy choices. A report by Applied Economics Clinic (AEC) predicts that implementing policies that will increase the state’s RPS, expand offshore wind energy production and storage, and allow more flexibility with net metering, will be advantageous for the economy of Massachusetts. The reports predicts an annual increase of $263 million in economic growth from 2018 until 2030.

One concern that some legislators share has to do with the gravity of statutorily requiring 100% renewables by a specified date because of the possibility of failing to meet those given requirements. Consequently, there is fear in passing such a high stakes act. Senator Michael Barrett loosely equates the passing of this bill to him telling his wife he’s going on a diet. Although it is true that the passing of this bill itself will not solve the climate change problem or even guarantee a clear grid, goal setting is an integral first step. Implementation, however, is the real driver of change. If Massachusetts wants to stay true to its national image as a leader in combating climate change, renewable energy policy implementation is a necessary move.

This bill will declare Massachusetts as one with California and Hawaii, leaders in the fight for a clean energy future. As a state that prides itself on being at the forefront of progressive movements, it will naturally prioritize steps needed to take in order to meet the agenda outlined in the bill. The prospect of Massachusetts being a hero in fighting climate change is also an enticing reason for bold action.

Massachusetts is especially vulnerable to the impacts of sea level rise and is one of the states that is already experiencing climate change first hand through inland flooding, coastal flooding, extreme temperatures, and other weather related events. Between the years 2007 and 2014, Massachusetts spent over $9.1 million in flood repairs annually.

Legislators should hold themselves morally responsible for getting ambitious legislature passed in the same way that all of us should feel morally responsible for advocating the need for such legislature. “The path is there, if only our leaders will choose to take it” - Amory B. Lovins. To make sure this bill gets passed, speak to your legislators and advocate for this bill to be voted out favorably from the joint committee on telecommunications, utilities, and energy.
Ian

Let’s Face It, Climate Change Is Not A Sexy Topic

I recently had the pleasure of talking to a native Bostonian while in the city last week. As we were talking, the topic of climate change entered the dialogue, much to my delight; however, this feeling was soon dispelled when he admitted to not having any earthly idea how climate change worked or affected him. On the other hand, he could recite to me every known Boston Celtics, Bruins, Red Sox, and New England Patriots statistic/factoid in the world. Granted, climate change may never be as popular as sports, but it should be more popular than not having anybody know what it is or how it affects them. Global changes in Earth’s climate patterns have the potential to harm every living person in the world (if it is not dealt with accordingly) and yet it sits on the back burner of our society.

Based on the research and unanimous findings of hundreds of climatologists, our planet’s atmosphere is taking in more CO2 then it can expel, and because of this, our climate is likely to see numerous alterations over the coming decade, mostly for the worse. The absolute and utter loss of coastline, increased tendency for stronger storms, and record breaking heat waves/droughts are just a few. Just in the last five years, from 2014 to 2018, we saw the five highest average temperature years recorded in modern history. And with the continuing rise of CO2 emissions, it seems almost impossible that these two trends aren’t inextricably connected. Climate change, at least according to recent political trends, is like homework for a procrastinating student: the problem isn’t immediate, therefore it won’t get done until right before it’s due. Because of this, we’re going to focus on other issues that are more pressing, like the Middle East, Ebola, or an upcoming election. This will continue to happen until we are at the very tipping point of climate catastrophe, and then it will become a hot button topic.

As of right now, there is nothing about climate change that makes people want to pay attention to it. There are occasionally protests, speeches, and documentaries that bring public attention to it, but it lacks the fundamental thing that all hot topics have: a pressing deadline. If the EPA came out tomorrow and told everyone that if climate change wasn’t addressed within the next 5 years half of the US population would be underwater, then would that man I met in Boston begin to take climate change more seriously? It’s certainly an interesting question. But the sad fact remains: a study conducted by Yale University found that just under half of the population in the US is unaware of our own contributions to climate change through the burning of fossil fuels, and a quarter of the population denies climate change outright. And since the EPA isn’t going to make that announcement tomorrow, those two statistics aren’t likely to change anytime soon.

I’m a firm believer in a certain motto Abraham Lincoln coined, to paraphrase: the government must do for people what the people cannot do for themselves. Just on the level of denial that exists in our country today, it’s safe to say that climate change presents one of the greatest threats to our civilization. It’s strikingly clear that there’s greater need for climate change prevention and adaptation. While it may not be what the public wants, its what’s needed. The Massachusetts state legislature should create, pursue, and pass most, if not all, legislation related to climate change prevention/adaption in the coming session so that the commonwealth is safe, regardless of their lack of knowledge on climate change. But the only real way for this to happen comes back to you. Contrary to the beliefs of some, the government cannot read our minds, we must speak out and talk to our elected officials and representatives about this pressing issue and convince them to act on it.

■ House Ways & Means Script

Thank you for taking the time to be here today and for listening to what younger generations around the world, and most importantly, here in Boston have to say regarding their future.

S. 1958, or, An Act transitioning Massachusetts to 100 percent renewable energy promises to be a revolutionizing bill for this state’s future energy infrastructure. Not only that, it’ll help minimize damages associated with extreme climate related events occurring at a recently increasing rate. It’s been estimated that storm damages alone over the next half-century could exceed well over $5 billion. Beyond the financial need, the bill will help ensure the current and future safety of the commonwealth, something that is not quantifiable with a dollar sign.

This bill’s function is plain and simple: figure out where renewable energy can and should be implemented and lay down the framework in government agencies to start the transition. Due to the nature of the bill, as it merely influences other sections of the Massachusetts Government to switch towards renewable energy, the cost of this bill remains relatively low and does not require too much of a financial investment to achieve its goals. It does, however, necessitate funds for research and establishing councils to be used as a physical will for this act.

Beyond the upfront costs, this act promises the initiation of a major energy revolution in this state. The costs for that transition will not be cheap, and that should be no secret. But overtime, renewable energy has proven to be more cost effective than our current fossil fuel standards.

At the current rate of production, renewable energy has provided a 2.3% increase in the Mass GDP and has created over $11.4 billion in economic activity. Only .7% of all the
energy consumed in Mass comes from renewably sourced production. Imagine if we were to reach this bill's goal and completely switch over to renewables.

Increasing economic activity is not the only outcome from this bill. Long-term energy expenditures will go down as our reliance on fossil fuel importation dwindles. Last year, Massachusetts spent over $1.7 billion on interstate pipeline imports alone. This was out of the $21.5 billion energy expenditure costs. 100% renewable energy means that any expenses will be as a result of the upkeep necessary for the continued operation of renewable energy infrastructure. The initial investment for creating this infrastructure will be manageable if the appropriate steps are taken to nurture it's market growth, and in the long run, the investment will be paid back by decreased spending on fossil fuel imports climate change related damages.

This act, itself, does not guarantee these changes. It simply sets the stage for it all to happen. S. 1958 is not just legislative jargon, it’s the first real step towards a better future. While this step, along with many more after it, require action and funding, it does not need an abundant amount of finances to be carried out. If anything, we are getting ahead of the curve so that we may accurately predict what this will cost us later on down the line. With that, we can begin properly saving and allocating funds now.

We ask that you approve this bill and allow it to go to the floor of the senate on the basis that it provides a sound financial return on a minimal amount investment while allowing for increased efficiency and effectiveness of our energy infrastructure.

Thank you for your time.

Letter to the Legislator
Dear Representative Stanley,

As students within a large network of Massachusetts residents voicing our concern for the greatest threat to humanity, we write to you with a genuine concern for the Commonwealth and its people. With climate change becoming a more pressing issue every day, it is a critical time for bold leadership and decision making. Every citizen is entitled to a safe future, a future that you can help provide. For younger generations in Massachusetts, climate change threatens the promise of a happy life, something everyone should be entitled to, especially if people have the power to make it happen

As you know, climate change is a direct threat to the state in several ways including increased rates of coastal flooding, wildfires, drought, spreading tropical diseases, and extreme temperatures. Given the improved renewable energy technologies of our century, it would be remiss if we were not to take full advantage of these, and in the same way it’s equally dangerous to still be heavily reliant on polluting fossil fuels. Currently, approximately 50% of the state’s energy is still derived from natural gas. Continuing the use of dirty energy sources is both unwise and unconstitutional, given its extreme implications on our society.

You are one of the strongest leaders representing a state whose residents are in agreement on the need for responsible planning to combat climate change. We value your efforts to include Waltham in the “Green Community” program. However, state-wide use of nonrenewable energy undermines this progress. We turn to you for action on An Act transitioning Massachusetts to 100% renewable energy (S.1958/H.2836). The passing of this bill will put Massachusetts in the forefront along with California and Hawaii, set the state on the right track for a sustainable future, and improve economic welfare. While other pieces of legislation exist to combat climate change, this is one needed more simply due to its specificity when addressing how we will actually remove fossil fuels from our lives. We strongly believe that the state could lead the way to a healthier and safer future with local, renewable, affordable and reliable energy through a cutting-edge clean energy economy.

We can understand that changing out entire energy infrastructure seems like a costly and possibly unwarranted action, but this is just not the case. The bill seeks to make a gradual shift from fossil fuels to renewables over the course of decades, which would allow the state to properly organize and fund the transition. This would also reduce the upfront costs of making the change and maximize returns in the future, especially if we come up with the best renewable energy infrastructure in the country, something this state is entirely capable of doing.

We are earnest in our request for your inspired leadership and urge you to vote favorably for this bill. We also ask that you convince your colleagues on Beacon Hill that this bill should pass through the UET Committee and make it to the floor for debate.

Sincerely,
Anna Dorosenkov and Ian Quin
Brandeis University

Excerpts from Campaign Journals:
Anna

On attending the Boston Youth Climate Strike
This was for me one of the most memorable climate related events I attended. It was extremely powerful being in a crowd of other like-minded youth advocating at the State House. There were lots of great signs, and some bad ones like, “Kiss my activist a**” and “Save the Earth, Go Vegan”, that I thought were not so helpful. Overall there was good
energy and it was organized. After rallying outside for about an hour, we headed inside for a panel with Nika C. Elugardo, Representative Mike Connolly, Representative Tami L. Gouveia, and finally Senator Marc R. Pacheco. The two young women hosting asked questions relating to how youth can best demand action and encourage the more stubborn legislators to support policies. The panel left me feeling like even these legislators are frustrated with the state of things and the lack of urgency from other state officials. A few activists expressed how it is largely up to the reps and senators on the panel to convince other officials to get on board with climate policies.

**On meeting with Jacob, Senator Barrett’s aide**

This was the first one on one meeting we had at the State House and although we were hoping to meet with the Senator, Jacob gave us some important insight into some of the logistics around this bill. He was very knowledgeable on renewable energy and the bill we were advocating for. He was also honest and gave us his personal opinions, plus he shared with us how the Senate and House differ in the way they do things. We found out that the House is more slow in getting things done, which makes sense considering they are a larger group, but they also tend to be more careful. This informed some of the following conversations we had with people from the House side.

**Ian**

**On meeting with Senator Mark Pacheco**

The same day that the Climate Youth Rally/Strike was occurring at the Statehouse, a secondary presentation was made in the hearing room. Multiple senators and reps were speaking to the protestors and activist present at the rally. Among them was Senator Mark Pacheco who agreed to speak briefly with myself and Anna. The meeting was rather happenstance but it proved to be one of the more impactful talks we had the pleasure of experiencing. We took the time to ask the senator about his view on the lack of inaction and failure to combat climate change within the Commonwealth. We also asked if he could provide insight on his experience with our bill and the challenges he’s facing while supporting it. He outlined the main hindrance to climate action as the lack of advocacy and support among the general population and his constituents. The senator continued by explaining that the senate would often refuse to pass legislation or continue to support legislation if it didn’t have enough public support behind it, which he suspected might be the case for our selected bill. We caught the senator at a rather awkward time as he had just finished another talk with less than cordial activists, this did however provide us with a unique chance to speak with him when he was faced with advocates who’re not pleased with the amount of work being done. In other words, he spoke more frankly.

**Update**

As of August 11: On July 23rd the bill had a hearing by the Telecommunications, Utilities and Energy committee where a letter signed by 16 experts urged the committee to pass this legislation (the letter can be read here: https://environmentmassachusetts.org/sites/environment/files/resources/July%2023%202019%20letter%20-%20final.pdf). While there is no further action has been taken as of yet in Massachusetts, six states have already passed and committed to similar plans.

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**For more information**

**View the bill (MA legislature website):**

S.1958: https://malegislature.gov/Bills/191/SD1625
H.2836: https://malegislature.gov/Bills/191/H2836

**Organization or Coalition support:**

Environment Massachusetts: https://environmentmassachusetts.org