



## The 100% Clean Act

100% clean electricity by 2035

100% clean heating and transportation by 2045

*An Act transitioning Massachusetts to clean electricity, heating, and transportation*

Rep. Marjorie Decker and Rep. Sean Garballey (H.3288); Sen. Joseph Boncore (S.2136)

### It's time to move past fossil fuels

We're using far more energy than necessary, and most of the energy we use comes from fossil fuels like oil and gas.

Burning fossil fuels for energy pollutes our air, harms our health, and contributes to the dangerous effects of global warming.

**Fossil fuels are harming our health.** Pollution from oil and gas is linked to asthma, heart attack, premature birth, and other health problems.<sup>1</sup> New research suggests a link between fossil fuel pollution and an increased risk of death from COVID-19.<sup>2</sup>

**Fossil fuels are changing our climate.** We are already seeing the impacts of global warming, with an increase in extreme storms, flooding, and droughts. By the end of this century, sea levels could rise by 7–10 feet in the Boston area, and residents could experience up to 33 days each year with temperatures above 100 degrees.<sup>3</sup>

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<sup>1</sup> *Trouble in the Air*, Environment America Research & Policy Center, U.S. PIRG Education Fund, and Frontier Group, Winter 2020, <<https://environmentamerica.org/feature/ame/trouble-air>>.

<sup>2</sup> "Coronavirus and Air Pollution," Harvard School of Public Health, <<https://www.hsph.harvard.edu/c-change/subtopics/coronavirus-and-pollution/>>.

<sup>3</sup> *Climate Ready Boston*, City of Boston, December 2016, <[https://www.boston.gov/sites/default/files/file/2019/12/02\\_20161206\\_executivesummary\\_digital.pdf](https://www.boston.gov/sites/default/files/file/2019/12/02_20161206_executivesummary_digital.pdf)>

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## 100 percent clean energy is achievable

We can envision a future where 100 percent of the energy we use for electricity, heating, and transportation comes from clean and renewable sources:

**We can make our homes and businesses more efficient.** Through efficiency and conservation measures, we can cut U.S. energy consumption by about 50 percent by 2050.<sup>4</sup>

**We can replace fossil fuel power plants with renewable energy resources like solar and wind.** Offshore wind could generate more than 19 times as much electricity as Massachusetts consumes on an annual basis.<sup>5</sup> Rooftop solar panels could meet up to 47 percent of Massachusetts' current electricity use.<sup>6</sup>

**We can transition heating and transportation to clean electricity.** Electric technologies like air source heat pumps and electric vehicles can replace the use of fossil fuels for heating and transportation. Buildings with efficient, modern electric heating are being built today in Massachusetts at a similar cost to buildings heated with fossil fuels.<sup>7</sup>

## A growing movement for 100 percent clean energy

More than 280 global companies, including Apple, P&G, and Biogen, have committed to 100 percent renewable energy targets.<sup>8</sup> Major institutions like Boston University and Partners HealthCare are also pledging to go 100 percent renewable.

Seven states have passed laws committing to 100 percent clean electricity, including Maine, New York, and Virginia.<sup>9</sup>

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<sup>4</sup> *Halfway There: Energy Efficiency Can Cut Energy Use and Greenhouse Gas Emissions in Half by 2050*, Steven Nadel and Lowell Ungar, American Council for an Energy Efficient Economy, September 2019, <<https://www.aceee.org/sites/default/files/publications/researchreports/u1907.pdf>>.

<sup>5</sup> *Wind Power to Spare: The Enormous Energy Potential of Atlantic Offshore Wind*, Frontier Group and Environment America Research & Policy Center, March 2018, <<https://environmentamerica.org/sites/environment/files/reports/AME%20Wind%20Power%20Mar18%201.2.pdf>>.

<sup>6</sup> *Rooftop Solar Photovoltaic Technical Potential in the United States: A Detailed Assessment*, Pieter Gagnon et al., National Renewable Energy Laboratory, January 2016, <<https://www.nrel.gov/docs/fy16osti/65298.pdf>>.

<sup>7</sup> *Zero Energy Buildings in Massachusetts: Saving Money from the Start*, Marshall Duer-Balkind et al., U.S. Green Building Council Massachusetts Chapter, 2019, <<https://usgbcma.org/wp-content/uploads/2019/09/ZeroEnergyBldgMA2019.pdf>>.

<sup>8</sup> "RE100 Members," RE100, <<https://www.there100.org/re100-members>>.

<sup>9</sup> *100% Renewable is Doable: How we can repower Massachusetts with clean, renewable energy*, Environment Massachusetts, July 2020, <<https://environmentmassachusetts.org/reports/mae/100-renewable-doable>>.

## The 100% Clean Act

**The 100% Clean Act (H.3288, S.2136) will transition Massachusetts to 100 percent clean electricity by 2035 and 100 percent clean heating and transportation by 2045.** It lays out clear requirements and actions for the Commonwealth to achieve these objectives, while ensuring that workers and environmental justice communities are included in the transition.

The key provisions of the bill include:

### 100% clean electricity by 2035

- Investor-owned utilities must provide 100 percent clean electricity by 2035, with at least 80 percent from Class I resources like wind and solar through the renewable portfolio standard (RPS).
- At least 15 percent of new renewable energy generation must be distributed generation like rooftop solar.
- Municipal utilities must provide 100 percent clean electricity by 2035.
- Wood biomass and trash incineration are not eligible to be considered “renewable” or “clean” electricity.

### 100% clean heating by 2045

- After 2025, new houses and small commercial buildings must be highly energy efficient and use clean heating. After 2030, this requirement will apply to all new buildings.
- At least 1 million homes and 300 million sq. ft. of commercial space must be retrofitted to be efficient and use clean heating by 2030.
- A trust fund will offset the cost for residents and businesses to switch to clean heating.

### 100% clean transportation by 2045

- All cars sold in Massachusetts after 2035 must be electric vehicles or other zero emission vehicles.
- At least 30 percent of trucks sold must be zero emission vehicles by 2030.
- The MBTA and RTAs will transition to zero emission buses, and commuter rail lines will be electrified.
- The Main Streets Program will promote walkable, bikeable, and transit-accessible neighborhoods.

### Just transition for workers and environmental justice communities

- The Just Transition Office will assist workers that are displaced in the transition off of fossil fuels.
- The Clean Energy Equity Office will ensure that environmental justice (EJ) communities benefit from clean energy incentive programs.
- Public hearings to implement this bill will be held in EJ communities.
- Residents of EJ communities will have seats on advisory committees.
- State agencies must consider how to minimize costs and maximize benefits of the transition for EJ communities.

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