Public Testimony in support of: LM-2021-0032 RESOLUTION OF THE NEW HAVEN BOARD OF ALDERS COMMITTING THE CITY OF NEW HAVEN TO A LEADERSHIP ROLE IN ELECTRIFYING ITS BUILDINGS AND VEHICLE FLEET.

I, Lynne Bonnett, fully support this resolution. As you may or may not know, New Haven residents have been excluded from energy efficiency upgrades and solar arrays for small multifamily residents to reduce their energy burden through systematic rules that make it prohibitive for residents to have access to these programs.

In answer to this the State of CT proposes the SCEF program: free for LMI to sign up, gives a small amount of reduction to their electric bill. The developers in these programs reap the benefits-all of the rebates and federal and state incentives and must have a certain number of LMI subscribers in order to qualify. The arrays are large and located outside of the city, far from where the energy is used. Residential solar development is considered lucrative, treated as any other real estate investment. But I fear that it once again leaves the LMI renter to accept a small portion of the pie-nothing compared to what a property owner would enjoy through net metering for the life of the array (20 years). Still, the supporters of SCEFs say "it's better than nothing".

How can the City of New Haven support its residents giving them an equitable share in energy efficiency and green energy (solar) programs?

One way would be to require residential upgrades from oil and gas infrastructures to electric heat pumps that could have dedicated solar arrays with storage back up to provide heating and cooling for everyone in the building. The storage back up would help prevent overloading UI's distribution system which also needs upgrades (I've been told) smart meters and other upgrades. In this way tenants could at least indirectly benefit from the efficiency and renewable (solar) programs that:

- Reduce their energy burden,
- Reduce reliance on fossil fuel (help reduce climate change),
- Create cooling in the summer for residents suffering from the every increasing heat island effect.

It is the most equitable solution available for residents in our city that rent in 2-4 unit multifamily homes. The only other solution would be to allow property owners of multifamily homes to share solar from a rooftop array through net metering with their tenants but I don't see happening in the foreseeable future. Why? Please ask UI and the State of CT PURA to explain to you why this is so. Their policies do systematically exclude many New Haven residents that rent and live in multifamily homes from equitable reduction in energy burden through their programs while promoting new investment opportunities for developers.

The CT Green Bank promises to address environmental justice concerns – it would be nice to know what they are proposing and whether it is truly equitable for New Haven residents and will provide them with equitable opportunities that the rest of us enjoy.

Sincerely, /Lynne Bonnett/ 675 Townsend Ave New Haven CT 06512 April 11, 2021

## Re: NEW HAVEN COMMUNITY ELECTRIFICATION RESOLUTION COMMITTING THE CITY OF NEW HAVEN TO A LEADERSHIP ROLE IN ELECTRIFYING ITS BUILDINGS AND VEHICLE FLEET

My name is James Berger. I live at 109 Woodbridge Avenue. I have lived in New Haven since 1999.

Of course, all to the good. Certainly, all the city's vehicles should be electric and the city's buildings should be weaned off of the use of natural gas or fuel oil and use only electricity for heating, cooling, and lighting.

But what comes along with this is equally important.

1. What fuel is generating the electricity? The city should be generating its electricity only with renewables—solar and wind.

2. The city should be installing solar panels on all its buildings' roofs (that is, those roofs which can sustain them) and over all its parking lots and facilities.

3. City residents esp. from neighborhoods of need should be trained and hired to do this work.

4. Along with electrification, should also come retrofitting of buildings so that energy is not lost through poor insulation. Many consider this the biggest drain and waste of energy in cities.

5. Again, city residents should be trained and hired to do this work.

6. The funds to do the training and hiring should come from several sources.

- A. Federal funding as part of the new infrastructure programs
- B. State funds, however unlikely.
- C. Yale university, as part of its new relationship with the city.

The city is becoming very proficient at making large pronouncements and resolutions regarding what it shall do to lower its carbon footprint. It is crucial now to figure out exactly how this will be accomplished AND how to create jobs that will do this work. It is clear that saving the environment is LABOR INTENSIVE. It requires workers. People must be trained and hired to do this work. These should be people from New Haven.

The struggle for social-economic-racial justice and the struggle for saving the planet now must be seen as THE SAME STRUGGLE.

Let's get this moving. Pass all the resolutions you'd like. But now, LET'S GET THIS MOVING–FOR REAL!!!

Thank you.

My name is Chris West. I am an undergraduate student at Yale and a member of the New Haven Climate Movement. I would like to provide this written testimony in support of the New Haven Community Electrification Resolution.

Adopting this resolution is a small but important step towards reducing New Haven's climate impact and positioning the city to be prosperous in the coming decades. As a coastal city, New Haven's future depends, quite literally, on the global reversal of climate change. As such, the city should be taking extraordinary climate action. This resolution is a starting point for community electrification, an essential component of a zero-emissions future.

Cities around the country are similarly prioritizing electrification. Brookline, Massachusetts has a bold climate action plan wherein they source their electricity renewably, offer electric vehicle charging in municipal lots, and have enacted a stretch code to increase the energy efficiency of buildings. Further, Brookline is working to prohibit fossil fuel infrastructure in new buildings. Berkeley, California encourages the electrification of buildings and prohibits natural gas infrastructure in new buildings. Pittsburgh, Pennsylvania requires building owners to report building energy and water usage annually. Pittsburgh also devoted state Covid-19 restart grants towards improving city electric vehicle infrastructure.

As we are in the midst of a period of increased development in the city, it is important for the city to lead building electrification by example. Further, the bold commitment to electrify city buildings and transportation by 2030 would garner New Haven national attention. As such, I strongly urge the Board of Alders to pass this resolution.

To The City of New Haven City Services and Environmental Policy Committee of the Board of Alders,

I am writing support of the motion in question regarding the proposed electrification of the City of New Haven's buildings and fleet. I do so as a physician, a mother and a citizen of the City of New Haven.

**LM-2021-0032** NEW HAVEN COMMUNITY ELECTRIFICATION RESOLUTION COMMITTING THE CITY OF NEW HAVEN TO A LEADERSHIP ROLE IN ELECTRIFYING ITS BUILDINGS AND VEHICLE FLEET.

There are several reasons for supporting this motion. Please see the supporting references at the end of this document for the synopsis below.

## Transport / Fleet

1) It has been repeatedly demonstrated that electric vehicle have a lower cost of operation (cheaper per mile cost) than internal combustion vehicles. (9) This reduced cost of operation more than offsets the higher upfront cost. Therefore, electric vehicle have a lower life cycle cost than internal combustion vehicles.(2)

2) Electric vehicles have longer lifespan than internal combustion vehicles. They have 10% of the down time for maintenance as compared to internal combustion vehicles.

3) Electric vehicle produce no direct harmful emissions and reduce the impact of transport on air quality. Internal combustion vehicles, diesel vehicles especially, cause asthma. This is an environmental justice and equity issue. (4 &5)

4) Electric vehicles produce no direct harmful emissions that negatively impact citizen health and child development. (6)

5) Electric vehicles reduce the amount of total greenhouse gases produced. (7)

6) Electric vehicles can be used as a backup battery (Vehicle to Grid, VtoG) in times of black outs, can stabilize the local grid and even be a source of income for the city when power is sold back to the grid during periods of high demand when power is the most expensive.

7) City fleet electrification supports citizens to make the same choice for their personal vehicles and pushes transportation to the tipping point in the energy transition. (3)

8) Participating in the Climate Mayors group (see reference #1) the cost of electric vehicle purchase can be reduced through group purchases. (1 & 8)

9) Electric vehicles improves the air quality for those on bicycles and creates a positive feedback to further reduce transport emissions by encouraging the use of bicycles for transit.

10) Electric Garbage trucks reduce noise and improve citizen happiness. (12 &13)

Over their life cycle Electric Vehicles reduce cost and maintenance down time while improving city air quality, citizen health and reduce CO2 production. Of note diesel emission have been shown to significantly reduce the IQ of children.

## Buildings

1) Electrified Buildings produce no direct harmful emissions and reduce their impact on local air quality. (11)

2) Electrified Buildings produce no direct harmful emissions that negatively impact citizen health and child development. (11)

3) Electrified Buildings reduce the amount of total greenhouse gases produced. (11)

4) Electrified Buildings paired with a renewable power purchase agreement (PPA) reduce the rate of increase in power cost for the city and stabilize city budgets. (10)

Of note the electrification of buildings should be paired with improved building energy efficiency retrofits for optimal savings on cost of use over the lifespan of the building.

MOST IMPORTANTLY

**"OUR HOUSE IS ON FIRE"** 

## Greta Thunberg "Our House is on Fire" 2019 World Economic Forum (WEF) in Davos

https://www.youtube.com/watch?v=zrF1THd4bUM

Please act now, act decisively; for our planet, but also for our responsibility to our city and for your fiduciary responsibility to the citizens of New Haven as well.

References:

- 1) https://driveevfleets.org/
- 2) https://theicct.org/sites/default/files/publications/World-EV-capitals\_ICCT-Briefing\_08112017\_vF.pdf
- 3) <u>https://www.coltura.org/electrify-your-city-fleet</u>
- 4)http://epapers.bham.ac.uk/3381/
- 5) <u>https://airqualitynews.com/2021/03/26/beijings-air-quality-has-improved-significantly-says-report/</u>
- 6) <u>https://airqualitynews.com/2021/03/17/schools-streets-significantly-improved-air-pollution-in-london/</u>
- 7) <u>https://www.energy.gov/eere/electricvehicles/reducing-pollution-electric-vehicles</u>
- 8) <u>https://www.govtech.com/transportation/Scores-of-Cities-Counties-Commit-to-Electric-Fleet-</u> Future.html
- 9) https://www.cell.com/joule/pdfExtended/S2542-4351(20)30231-2
- 10) https://rmi.org/insight/the-economics-of-electrifying-buildings/
- 11) <u>https://escholarship.org/content/qt8qz0n90q/qt8qz0n90q.pdf</u>
- 12) <u>https://www.cnet.com/roadshow/news/emack-lr-electric-garbage-truck/</u>
- 13) <u>https://electrek.co/2020/01/30/los-angeles-wont-buy-ice-garbage-trucks-by-2022-full-fleet-electric-by-2035/</u>

Jessica L Feinleib MD, PhD, FASA, CHSE VACTHS and Assistant Professor, Yale School of Medicine, Department of Anesthesiology

72 Barnett St New Haven CT 06515