



Boston University Institute for Sustainable Energy



Innovation Network  
for Communities

# More Urgency, Not Less: The COVID-19 Pandemic's Lessons for Local Climate Leadership

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## **Authors:**

**Peter Plastrik, John Cleveland** Innovation Network for Communities

**Joyce Coffee** Climate Resilience Consulting

**Jacqueline Ashmore, Ardeth Barnhart, Cutler J. Cleveland, Peter Fox-Penner**

**Boston University Institute for Sustainable Energy**

**Katherine Lusk** Boston University Initiative on Cities

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This report is the first of three that will provide community leaders, inside and outside of local government, with guidance about navigating their climate-action priorities through the gauntlet of challenges created by the COVID-19 pandemic and the ensuing economic crisis. Each document, based on a synthesis of expertise and analysis of local climate-action options and current research, will address a different topic:

- Why local climate action needs more urgency, not less.
- How the pandemic response creates opportunities and risks for local climate action, and how socially vulnerable populations can benefit from purposeful responses to the pandemic and climate change.
- Which local climate actions should be a priority for federal funding.

Each report will be published during the next few months.

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## Summary

Will the Covid-19 pandemic and our response to it spur an increase and acceleration of climate actions by local communities in the US? Or will communities just put the brakes on most of their efforts to reduce greenhouse gas (GHG) emissions and build resilience to climate impacts?

Local government officials are grappling with multiple major crises: the Covid-19 pandemic, a swift and steep economic decline and concurrent municipal fiscal crises, and the persistent dangers of climate change. With local systems overwhelmed by the scope, severity, and speed of the nation's health and economic crises, officials have resorted to triage. But where does tackling climate change fit into the drastically changed local reality?

Initial reports from communities suggest that the brakes are already being pumped hard and this has begun to affect the repertoire of local governments' climate actions already underway or under development.

Local climate action is at risk of stalling out. But key lessons from the pandemic experience point in the opposite direction: the urgency for taking local climate action is increasing.

Many US communities recognize that climate action is essential, of course. Hundreds of US cities, counties, and other urban jurisdictions have developed and are implementing detailed plans to reduce greenhouse gas emissions and strengthen climate resilience. These local efforts are crucial in the US, given the absence of federal climate-change policies, the weak response of most state governments, and the noticeable increase in severe climate-related weather events.

Meanwhile, Miami, Boston, Charleston, Houston, Norfolk, San Francisco, Iowa City, and other communities facing sea level rise, river flooding, and extreme heat and wildfires are showing that they can initiate—without much federal or state support—the initial infrastructure investments, policies, and programs that significantly strengthen the resilience of residents and property against future climate stresses and shocks.

But these and other communities have no roadmaps for navigating their climate-action priorities through the Covid-19 and economic crises.

At the same time, an unforeseen question arises from the local impacts of the pandemic response: Do some pandemic impacts provide new insights about how to do local climate action faster, better, and more equitably?

The economic and social shutdown in response to the pandemic has resulted in radical changes in individual and organizational behaviors—increased teleworking, reduced car driving, and increased walking and bicycling, for example—that have slashed energy use and reduced GHG emissions and other forms of air pollution. Can some of the behavior changes be maintained in a non-pandemic situation?

The pandemic response has also revealed new challenges for local climate action. Some changes, such as the steep reduction in use of public transit, will have a potential negative impact on GHG reduction if they are not reversed. And the response has had disproportionately devastating impacts on the most socially vulnerable populations in communities—people of color, low-income households, the elderly and chronically ill, and people with limited English proficiency. These same populations are also disproportionately vulnerable to climate risks due to their substandard housing, low income

and wealth accumulation, dependence on mass transit, weakened health, exposure to pollution and other health hazards, and additional underlying factors.

Here, too, local leaders have no roadmaps for identifying how to maintain potential climate gains and prevent potential climate-action losses caused by the pandemic, or how to address long-standing inequities.

Our scan of reports, articles, and blogs on the Covid-19 linkage to climate change reveals four lessons for local leaders.

1. Focus beyond the Covid-19 crisis and maintain and boost climate-action momentum because the risks and costs will only grow if action is delayed.
2. Act to prepare your communities for climate change and GHG reduction; walking away from or delaying crucial climate actions risks disastrous and inequitable local consequences.
3. Enhance local climate action by building on your residents' and businesses' behavior changes during the pandemic response that reduce emissions and enhance resiliency.
4. Maximize the local economic and community benefits of an economic recovery that simultaneously drives business and job expansion, improves personal and public health, reduces GHG emissions, strengthens climate resilience, and improves social equity.

These lessons sum to a basic message for local leadership: ***in the wake of the Covid-19 pandemic, there is more urgency, not less, for taking climate actions to reduce communities' GHG emissions and strengthen their climate resilience.***

## Local Climate Action at Risk

Will the Covid-19 pandemic and our response to it spur an increase and acceleration of climate actions by local communities in the US? Or will communities just put the brakes on most of their efforts to reduce greenhouse gas (GHG) emissions and build resilience to climate impacts?

Local government officials are grappling with multiple major crises. The Covid-19 pandemic has created an agonizing public health disaster. The lockdown response to the pandemic has caused a swift and steep economic decline and concurrent municipal fiscal crises. Meanwhile, the dangers of climate change persist—more floods, tornadoes, hurricanes, wildfires, extreme heat, and sea level rise—and also demand attention. In the same vein, reaching GHG-reduction targets still requires strong, sustained action.

With local systems overwhelmed by the scope, severity, and speed of the nation's health and economic crises, officials have resorted to triage. They understandably focus on the most immediately urgent problems—seeking to contain the spread of the virus and care for the ill and dying, even as they begin to “reopen” economic activities.

But where does tackling climate change fit into the drastically changed local reality? If it was a high priority for local leaders before the pandemic, is it still? If it is, which climate actions should a community be preserving and initiating, considering that perhaps for years to come their resources are likely to be stretched thin? If climate action has not been a community's priority, should it become a priority in light of what is being learned from the pandemic experience?

Initial reports from communities suggest that the brakes are already being pumped hard. Local governments are losing large amounts of anticipated revenue because of the economic shutdown and are spending more money than expected on emergency relief measures. Therefore, they are cutting budgets, laying off staff and transferring personnel to the coronavirus frontlines, freezing hiring and contracting, and delaying or retreating from a range of spending, policies, regulations, and program decisions.

This has begun to affect the repertoire of local governments' climate actions already underway or under development. Personnel are being transferred to more essential tasks. Policies and programs, such as energy-efficiency improvements in buildings and bans on single-use plastic bags, are being set aside, at least temporarily.<sup>1</sup> Actions that need investment of local funds—such as San Francisco's \$5 billion seawall project—are being reconsidered, especially if they require an increase in local taxes or fees.

Pandemic relief and economy recovery are the only priorities that matter now and for the months ahead, if not longer. Anything else that is essential will have to hang on at reduced levels, and whatever is deemed non-essential is likely to be sacrificed.

Local climate action is at risk of stalling out. But key lessons from the pandemic experience point in the opposite direction: the urgency for taking local climate action is increasing.

## Local Climate Action is Essential

Many US communities recognize that climate action is essential, of course. They want to avoid the effects of global warming as much as possible while preparing for the climate turbulence and danger that have already been unleashed and are becoming more frequent and intense. Hundreds of US

cities, counties, and other urban jurisdictions have developed and are implementing detailed plans to reduce greenhouse gas emissions and strengthen climate resilience. Some have produced marked decreases in local GHG emissions. Eighty-nine communities with more than 32 million residents have declared climate emergencies and pressed federal and state governments to do more to reverse global warming. More than 400 mayors—Democrats and Republicans—are working together in the Climate Mayors Network to demonstrate local leadership on climate change.

These local efforts are crucial in the US, given the absence of federal climate-change policies, the weak response of most state governments, and the noticeable increase in severe climate-related weather events. Locally driven climate actions show that cities can slash their GHG emissions while growing their economies and populations—even without the crucial support of national policies. For example, cities ranging from the east to west coasts—New York City, Washington DC, Minneapolis, Boulder, Portland, and San Francisco—report 15% to 30% emissions reductions against various benchmark years.<sup>2</sup>

Meanwhile, Miami, Boston, Charleston, Houston, Norfolk, San Francisco, and other communities facing sea level rise, river flooding, and extreme heat and wildfires are showing that they can initiate—without much federal or state support—the initial infrastructure investments, policies, and programs that significantly strengthen the resilience of residents and property against future climate stresses and shocks.

But these and other communities have no roadmaps for navigating their climate-action priorities through the Covid-19 and economic crises.

## Unexpected Opportunities

At the same time, an unforeseen question arises from the local impacts of the pandemic response: Do some pandemic impacts provide new insights about how to do local climate action faster, better, and more equitably?

The economic and social shutdown in response to the pandemic has resulted in radical changes in individual and organizational behaviors that have slashed energy use and reduced GHG emissions and other forms of air pollution. Closing down the local, national, and global economies is not a long-term solution to GHG reduction, obviously. But can some of the behavior changes, such as reduced use of automobiles, be maintained in a non-pandemic situation?

Seattle, for instance, temporarily closed nearly 20 miles of residential-area streets to vehicle through traffic as a way of providing more safe space for pedestrians and bicyclists practicing social distancing. Then the city made the ban permanent. “We need to continue to build out a transportation system that enables people of all ages and abilities to bike and walk across the city,” explained city transportation director Sam Zimbabwe.<sup>3</sup>

A related pandemic-driven behavior change has led to a shortage of bicycles for sale in the US. In March, according to industry reports, nationwide sales of bicycles nearly doubled over the previous year. By the end of April, many stores and distributors had sold out of low-end consumer bikes.<sup>4</sup>

Another potentially impactful shift lies in the enormous increase in telecommuting that has emptied highways and cleaned the air of pollution. As many as 50% of Americans are working from home during the pandemic lockdown—more than double the usual number of teleworkers. “This is a massive shift,” reports the Brookings Institution, explaining that the fraction of workers who regularly worked from home has grown slowly since 2005, but “if our new telecommuting culture sticks, the

pandemic will have accelerated this trend dramatically.”<sup>5</sup> A recent survey of 200 chief financial officers from large corporations found that nearly half of the respondents plan to permanently transition 10-50% of employees to remote work.<sup>6</sup> A growing number of businesses with large workforces in New York City, which has the nation’s biggest business district, say it is likely they will maintain a lot of remote working rather than bring everyone back to offices.<sup>7</sup> These potential shifts may yield positive climate impacts and mitigate health risks, but they could simultaneously cause adverse financial repercussions for commercial districts, the construction industry, and public transit.

## New Challenges

The pandemic response has also revealed new challenges for local climate action. Some changes, such as the steep reduction in use of public transit, will have a potential negative impact on GHG reduction if they are not reversed.

And the response has had disproportionately devastating impacts on the most socially vulnerable populations in communities— people of color, low-income households, the elderly and chronically ill, and populations with limited English proficiency. These same populations are also disproportionately vulnerable to climate risks due to their substandard housing, low income and wealth accumulation, dependence on mass transit, weakened health, exposure to pollution and other health hazards, and other underlying factors.

How can communities apply what they are learning about inequities from the pandemic to their efforts to equitably build climate resilience and reduce GHG emissions? How will some parts of communities that have been so devastated by Covid-19—lives lost, jobs lost, food shortages, and little prospect for swift recovery—be able to handle whatever flooding, extreme heat, or other climate hazards hit them next? Will they be included in the transition to a clean-energy economy?

Here, too, local leaders have no roadmaps for identifying how to maintain potential climate gains and prevent potential climate-action losses caused by the pandemic, or how to address long-standing inequities. Nor can they count on federal stimulus funds for businesses, households, state and local governments, and infrastructure to decrease inequities as they pump up the economy.

## Covid-19 Lessons for Local Climate Leadership

“Just as we have known that a pandemic like this would someday come (and that it will come again), we have also known that a global climate emergency is looming on the horizon, becoming closer by the minute,” says Josh Karliner, international director of program and strategy for Health Care Without Harm. “Can we recognize the coronavirus as a warning flare illuminating some of the contours of the coming climate emergency?”<sup>8</sup>

What has been illuminated? Our scan of reports, articles, and blogs on the Covid-19 linkage to climate change reveals four lessons for local leaders.

1. Focus beyond the Covid-19 crisis and maintain and boost climate-action momentum because the risks and costs will only grow if action is delayed.
2. Act to prepare your communities for climate change and GHG reduction; walking away from or delaying crucial climate actions risks disastrous and inequitable local consequences.



3. Enhance local climate action by building on your residents' and businesses' behavior changes during the pandemic response that reduce emissions and enhance resiliency.
4. Maximize the local economic and community benefits of an economic recovery that simultaneously drives business and job expansion, improves personal and public health, reduces GHG emissions, strengthens climate resilience, and improves social equity.

Several thematic strands run through these lessons, including increased public awareness of risks identified by scientific and medical research; the inequitable vulnerability to crises that is experienced by African American, Latino, and Native American communities; the potential synergy among economic recovery, public health, climate action, and social equity, and the need for aligned and coordinated response among levels of government.

Most important, these lessons sum to a basic message for local leadership: ***climate action needs more, not less, urgency to reduce communities' GHG emissions and strengthen their climate resilience.***

## Lesson 1: Recognize that Climate Impacts Will be Worse than Covid-19

***Local leaders should focus beyond the Covid-19 crisis and maintain and boost climate-action momentum because the risks and costs will only grow if action is delayed.***

“As we win this battle with the coronavirus,” columnist Thomas Friedman writes in the *New York Times*, “it is vital that we keep in mind just how much more destructive climate change could be for all of us, and make sure that we invest in long-term resilience against that as well.”<sup>9</sup>

More destructive than Covid-19? Really? In the US as of mid-May, the pandemic has killed more than 90,000 people and the response to the crisis has put more than 38 million out of work. How much more destructive could climate change be?

Covid-19 and climate change share important characteristics.

- ***Global.*** Both Covid-19 and climate change are intertwined with our growing and interconnected world.
- ***Social Equity.*** Their effects vary with the differing vulnerabilities and behaviors of people and communities, and they disproportionately harm socially vulnerable populations.
- ***Economic Disruption.*** The pandemic has caused a severe recession, while the effects of climate change will substantially reduce per capita GDP in many nations by 2100.<sup>10</sup> For the US, the 2018 “Fourth National Climate Assessment” estimated that about \$1 trillion in coastal real estate is threatened by rising seas in combination with storms, floods, and erosion.<sup>11</sup>
- ***Public Health.*** The public is acutely aware of the enormous health impacts of COVID-19. Climate change will negatively impact many of the social and environmental determinants of health: clean air, safe drinking water, sufficient food, and secure shelter.
- ***Sound Science.*** Decades of rigorous research have established the scientific and medical foundations of pandemics and climate change. This research provides a credible foundation to forecast future risks (e.g., health effects of virus contamination and climate change), and to guide action by individuals, businesses, and governments.
- ***Threat Multipliers.*** Pandemics and climate change are threat multipliers that can reinforce and deepen each other’s impacts. In April, for instance, communities in the southern US

evacuated to crowded storm shelters to escape high winds and flooding, but in doing so increased their risk to the Covid-19 virus. In other states storms caused a loss of power for hundreds of thousands of people, but restoration efforts were hampered by the pandemic response.<sup>12</sup>

But the pandemic and climate change are different in several crucial ways:

**Speed.** The coronavirus rapidly cuts deadly swaths through communities while the effects of climate change (and some of the benefits of GHG reduction) move much slower. Thus far, climate change has only episodically unleashed massive, lethal impacts. The pandemic “is like climate change at warp speed,” says New York University climate economist Gernot Wagner. “That speed focuses the mind.”<sup>13</sup> People are understandably focused on the deadly risks that are suddenly upon them. The immediacy and dangers of the pandemic are more gripping than the larger but slower moving, down-the-road risks of climate change.

**Scale.** The coronavirus is a widespread but single threat that puts enormous stress on the health, economic, food, and other local systems. Climate change, by contrast, presents a multitude of threats that interact in ways that spin off much larger impacts on local to global scales. It increases storms, floods, hurricanes, tornadoes, wildfires, extreme heat, and droughts that kill and sicken people. But it also damages buildings, public infrastructure, property, natural ecosystems, food and water systems, and biodiversity. Climate change will also enhance the spread of existing and dormant diseases, including virus-caused pandemics. It has and will continue to displace communities and challenge cities to cope with more arrivals from other regions of their country, and from other countries.<sup>14</sup> And climate changes will persist for the rest of the 21<sup>st</sup> century and beyond.

Just as health officials have predicted the high probability of virus pandemics that could kill millions of people worldwide, climate scientists forecast massive displacement of people and loss of life from climate hazards.

Some of this is already occurring. In 2017, it is estimated, more than 20 million people globally were forced to move by “sudden onset” weather events—flooding, forest fires after droughts, and intensified storms.<sup>15</sup> Climate-caused displacement has been happening in the US. For instance, more than 129,000 people left Puerto Rico in the year after Hurricane Maria struck in 2017, according to US Census Bureau data.<sup>16</sup> After Hurricane Katrina drowned New Orleans in 2005, killing about 1,000 people and damaging 134,000 housing units, more than half of the city’s population—250,000 people—left, and a decade later New Orleans contained only 80% of its pre-Katrina population.<sup>17</sup>

A variety of sources project that dislocations, migrations, and the accompanying traumas and deaths due to climate impacts will increase substantially, especially if GHG emissions driving climate changes are not curbed. By 2050, for instance, UN analysts predict, climate and environmental disruptions will force far larger migrations—200 million people or more could be in flight.<sup>18</sup> The US is not immune, as indicated by predictions of the impact of rising sea levels.

- By 2100 rapid sea-level rise could chronically inundate nearly 670 coastal communities, including parts of 50 heavily populated cities, according to a 2017 study by the Union of Concerned Scientists.<sup>19</sup>
- Zillow Research projected that by 2050 more than 386,000 homes in coastal areas could be at risk of permanent inundation or chronic flooding from sea level rise; by 2100 the number could reach 1.3 million to 2.5 million homes.

- In a scenario projecting moderate sea-level rise for 2100, some cities—Galveston, Texas, Ocean City, Maryland, and Miami Beach, Florida, for example—could have about 50 percent of homes in risk zones.<sup>20</sup>

Although many of the predictions of extreme heat, sea level rise, and other climate impacts look decades into the future, there is substantial evidence that these changes are underway, often occurring faster than predicted. For example, episodes of extreme heat and humidity—the so-called “wet-bulb temperature”—that make outdoor activities dangerous for human health are occurring decades sooner than projected, doubling in number between 1979 and 2017.<sup>21</sup> Longer-term studies predict that within 30-50 years hundreds of millions, perhaps even billions, of people will face unsuitably hot and other risky climatic conditions.<sup>22</sup>

With climate change, points out Pat Sapinsley, managing director of Cleantech Initiatives at New York University, “We won’t have the luxury of dealing with [threats] one at a time, since they are coming at us with a random and unpredictable speed and intensity.”<sup>23</sup>

The impacts of climate change impacts are accelerating and intensifying in the US. Every region of the nation is starting to feel the effects, from California’s massive wildfires, pervasive flooding in the Midwest, hurricane damage in the southeast, extreme heat and prolonged drought in the southwest, and rising sea levels on the Atlantic and Pacific coasts and in the Caribbean with Puerto Rico—every region of the nation is starting to feel climate changes. These events disrupt daily life, reduce economic activity, and generate massive and costly emergency relief efforts. Between 2017 and 2019, NOAA reports, the US experienced 44 natural disasters that each caused more than \$1 billion in damage—more than double the annual rate in the previous 30 years.<sup>24</sup> The share of the US population facing substantial damages from hurricanes is likely to grow fivefold by 2075 due to climate change, according to the Congressional Budget Office.<sup>25</sup>

The impact of these events is often concentrated in communities. The 2018 Camp Fire in northern California destroyed the drought-stricken towns of Paradise and Concow, burning up about 14,000 homes, many of them uninsured. Hurricane Maria killed more than 3,000 people in Puerto Rico and knocked out the island’s power grid in 2017. The same year Hurricane Harvey dropped several feet of rain on southeastern Texas, causing extreme flooding in Houston, damage to 100,000 houses in the city and surrounding county, scores of deaths, and \$125 billion in damage. A year earlier, rainfall-driven flooding displaced 100,000 people in the Baton Rouge area, with a third of the flooding occurring outside of the officially designated 100-year flood zone.<sup>26</sup>

With increased disasters, public concern about climate change is rising. In 2019, 62% of Americans surveyed by the Pew Research Center said climate change is having “a great deal” or “some” effect on their local community. Large majorities of these respondents said their community had experienced long periods of unusually hot weather, floods or intense storms, droughts or water shortages, more frequent wildfires, or rising sea levels that erode beaches and shorelines.<sup>27</sup> The same year, 57% of Americans surveyed by the Yale Program on Climate Change Communication were “alarmed” or “concerned” about global warming, triple the number who were alarmed in 2014.<sup>28</sup>

Even as pandemic fears and news dominated public awareness, in April 2020 more than 40% of Americans surveyed said they would be personally harmed by the effects of a warming planet. “The majority of Americans see climate change as a clear and present threat to the health of people in their community,” says Dr. Edward Maibach, director of George Mason University’s Center for Climate Change Communication. “It’s a threat that’s come home.”<sup>29</sup>

There's little doubt that climate changes will only get worse—and that time is running out to prevent even more destructive turbulence and to prepare for what is coming. This is the reason for local leaders to urgently tackle climate change even as their communities begin the difficult process of recovering from the pandemic.

## Lesson 2: Embrace Readiness as the Best Protection for Communities

***Local leaders should act to prepare communities for climate change and GHG reduction; walking away from or delaying crucial climate actions risks disastrous and deeply inequitable local consequences.***

Readiness is not just a concept, it's a capacity, a state of preparedness. For climate change it involves both prevention—doing everything possible locally to reduce carbon emissions—and protection—taking actions that reduce local vulnerability to climate hazards.

The pandemic demonstrates that preparation matters. As leaders of ecoAmerica, which supports climate solutions, note, “Countries like South Korea that were prepared with good public health systems and pandemic-trained professionals ready with testing, protection, and treatment equipment and supplies, have had much lower Covid-19 incidence and much quicker recovery than we've had in America. We must prepare for climate change with similar mastery.”<sup>30</sup>

For decades and in great detail, scientists have described the probability and nature of pandemics such as the coronavirus and climate change crises. But preparation in both cases has been insufficient—with catastrophic results. These types of obvious, probable, but neglected dangers, coined “gray rhinos” by risk expert Michele Wucker, are different from the rare “black swan” risks that are unforeseeable and highly improbable. “They're things that we can see, but we still don't do anything about,” explains Wucker.<sup>31</sup> The coronavirus pandemic and climate change can be prevented, or their damage can be greatly reduced, if actions are taken ahead of time. But pre-disaster actions require leadership, especially from government; they don't happen by themselves. And the “window” for taking pre-disaster action doesn't stay open forever; once the virus or flood reaches the community, it's too late.

Local leaders are intensely focused on making sure their communities survive the coronavirus pandemic. “All of us,” says Chicago Mayor Lori Lightfoot, “have to be prepared, and thinking about, ‘How do we not become the next hot spot?’”<sup>32</sup> Can mayors, city managers, councilmembers, and other local leaders also bring this focus and intensity to the climate change challenge and minimize the risk of being surprised when their community becomes the next climate-change hot spot?

It is getting harder for leaders to say they don't know what dangers climate change can bring to their communities or that not much can be done about it. They can blame the failures of federal and state climate-change policy, but many communities have shown that much can be done at the local level to prevent and protect against climate risks.

Covid-19 underscores for everyone the dangerous consequences of being unprepared for a probable risk. “The Covid-19 crisis may reinforce the value of preparedness for businesses and communities and help highlight opportunities to invest in adaptation and resilience,” says Natalie Ambrosio, communications director for Four Twenty Seven, which provides data and market intelligence related to climate and environmental risks.<sup>33</sup>

In the wake of the pandemic, communities will increasingly ask their leaders why more is not being done to protect them from other obvious and immense risks such as climate change. It will not be good enough for leaders to say, let's wait and see what happens.

## Lesson 3: Reinforce Pandemic-Driven Behavior Changes that Are Climate Friendly

***Local leaders should enhance local climate action by building on their residents' and businesses' behavior changes during the pandemic response that reduce emissions and enhance resiliency.***

A great deal of the success of local climate action depends on using government incentives, investments, education, outreach, and regulations to get residents and businesses to change their behaviors. In a remarkably short time, the Covid pandemic has resulted in widespread behavior changes, some of which reduce GHG emissions and simultaneously improve public health and improve the overall resilience of communities.

In response to the pandemic, millions of people are “working, learning, consuming, and accessing medical care remotely,” note Stephen Crosby, Ira Jackson, and George Bachrach, cofounders of the Civic Action Project. “In a post-Covid world, if even a significant portion of this work and learning at home is sustained, the consequences for climate, transportation, education, medicine and families could be profound. We could reduce traffic and vehicle emissions; relieve crowded transit lines; allow businesses to offer flexible employee work modes resulting in savings on infrastructure, travel, and benefits . . . Can we assess and measure these changes, and where appropriate, make them permanent?”<sup>34</sup>

Air pollution in cities is down and this reduces health hazards that kill and sicken millions of Americans each year. Air travel has declined substantially, which reduces a large source of GHG emissions. Walking and bicycling are way up as cities have closed streets to automobiles and set up miles of temporary “pop up” bike lanes. The sale of plant-based “meats” has soared—a behavior change many communities have advocated as a way of reducing methane emissions from cattle. Sales increased 35% during four weeks in April and May, reportedly due to consumer concerns about Covid-19 illness among meat-processing workers and shortages of meat in grocery stores.<sup>35</sup>

Although the economic shutdown has eliminated 600,000 jobs in the US clean-energy sector,<sup>36</sup> the nation is on track to produce more electricity in 2020 from renewable power than from coal for the first time, thanks to the lower costs of installing and operating solar and wind power.<sup>37</sup> However, in the face of the cancellation or delay of some clean-energy projects, most experts expect the pandemic to derail the continued rapid deployment of clean energy.

What will we learn from these developments? That businesses don't need all of their office space since more employees can work effectively from home? That a great deal of long-distance travel for in-person interactions can be avoided without great loss? That increasing pedestrian- and bicyclist-friendly infrastructure is relatively easy to do, popular, and beneficial? That public policies should favor clean forms of energy production and travel? In France, for instance, a new national policy now prevents airlines from competing with trains on relatively short routes (of less than a 2-hour train ride) within the nation.

The pandemic has also noticeably exacerbated social inequity in communities that mirrors the inequity inherent in the impacts of climate change and in the reduction of GHG emissions. “Climate change threatens everyone in the U.S., but is a more immediate danger to some,” report the

American Medical Association and other health-care organizations. “Climate change exacerbates health inequities, disproportionately harming the most vulnerable among us—children and pregnant women, people with low income, the aged and people with disabilities and chronic illnesses, some communities of color, indigenous people and tribal communities, immigrants, marginalized people of all races and ethnicities, and outdoor workers.”<sup>38</sup>

Responding effectively to the disproportionate impacts of these crises, observes Angela Glover Blackwell, founder in residence at PolicyLink, “requires a level of targeting, specificity, and nuanced understanding of the realities of low-income people of color that is pretty much anathema in US policymaking. . . . Recovery strategies must meet the demands of the moment while correcting the societal weakness and structural racism that have led to widespread suffering and near economic collapse.”<sup>39</sup>

The behavior changes and inequities that have occurred during the pandemic may help communities add new actions to the playbook already in use to reduce local-level GHG emissions and to build local climate resilience. Which behaviors should be pursued and how this should be done will be the topic of another report that is being produced by our team. It will also examine some of the risks for climate action that pandemic-response behaviors have generated, most prominently the enormous reduction in use of public transit systems.

Another report will look closely at what the pandemic suggests about how to ensure that climate actions have equitable impacts. Christiana Figueres, the diplomat who facilitated the international negotiations over the Paris climate accord, notes that the pandemic has led many people to realize that “we’re only as safe as our most vulnerable people. . . . That lesson has taken us into a space of solidarity that we’ve never seen before. We are taking care of each other both out of altruism and because we want to make sure that we’re safe. That’s exactly the thinking we need to deal with climate change.”<sup>40</sup>

Learning this and other things from the pandemic and applying the lessons to climate action is an unexpected and high-potential opportunity for local climate action.

## Lesson 4: Maximize Local Benefits of an Economic Recovery that is Climate Friendly

***Local leaders should maximize the local economic and community benefits of an economic recovery that simultaneously drives business and job expansion, improves personal and public health, reduces GHG emissions, strengthens climate resilience, and improves social equity.***

As local leaders seek to reactivate their communities’ economies, they can choose to emphasize job-creating public investments that reduce GHG emissions and enhance resiliency in an equitable and cost-effective manner. “Economic recovery packages should amount to not just a stimulus, but to a recalibration of our economy to protect against systemic threats” such as climate change, says Mindy Lubber, CEO of Ceres, a nonprofit that supports investors and companies addressing climate change. “The need to accelerate the transition to a net-zero emissions economy will grow even more critical in the coming months and years as pollution, rising temperatures, deforestation, unjust power imbalances, and the degradation of our natural resources leave us more vulnerable to future crises, if unaddressed.”<sup>41</sup>

The economic stimulus packages that governments are drawing up, notes Fatih Birol, executive director of the International Energy Agency, “offer an excellent opportunity to ensure that the

essential task of building a secure and sustainable energy future doesn't get lost amid the flurry of immediate priorities."<sup>42</sup>

Global investor groups that manage trillions of dollars in assets have cautioned that governments driving economic recovery plans must avoid supporting "short-term emissions-intensive projects" that "would expose investors and national economies to escalating financial, health and social risks in coming years." Funds would be best spent on "creating jobs and sustainable infrastructure that helped to meet the goal of net zero carbon emissions."<sup>43</sup>

Recent reports recommend a wide range of "green" investments that the federal government can make to spur economic activity and job creation while addressing climate change. Some of these are lengthy wish lists, others articulate principles for prioritizing investments. But few of the efforts look at potential climate actions through the lens of local communities. And, while most of the accounts call for equitable approaches, few offer specifics about how local climate action can be a force for economic development and social equity. The coronavirus response has made it clear, for instance, that the government safety net in the US does little to bolster the financial resilience of low-wage workers during emergencies. "We are all more aware now than ever about how much we depend on low-wage workers to get our food and prescription drugs and other daily necessities. Not to mention all the low-wage workers who are so vital in health care, childcare and other caring enterprises," notes Lou Glazer, president of Michigan Future.<sup>44</sup>

These topics—priorities for federal stimulus and equitable climate action—are the focus of other reports that our team is producing.

## Conclusion

In most US communities, triage is the order of the day. But this should not prevent local leaders from also looking toward tomorrow. Efforts to re-open the economy already lift our eyes toward the future—with great clarity about what matters next. But more than that challenge lies unmistakably ahead: the "gray rhino" of climate change is charging right at our cities and towns and, as with the coronavirus, we are not ready.

Local leadership can change this...

- By recognizing that climate impacts will undeniably be worse than Covid-19.
- By advancing readiness as the best protection for communities—tapping equitable solutions that already exist and innovating to fill gaps in our know-how.
- By mobilizing the community to act radically, rapidly, and massively—as it has done in response to the pandemic.
- By insisting that our aim should be the improvement of overall well-being and that our nation's precious resources are applied in an effective, affordable, and equitable way to address the climate challenge.

In these ways, local leadership can embrace and sustain the urgency of taking climate action—even though, in the midst of the pandemic and economic trauma, there is also so much else to do.

## Notes

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- <sup>2</sup> Carbon emissions reductions reported by each city, per Carbon Neutral Cities Alliance, [www.carbonneutralcities.org](http://www.carbonneutralcities.org): New York City, 15% since 2005; Washington DC, 24% since 2006; Minneapolis, 17.8% since 2006; Boulder, 16.2% since 2005; Portland, 21% since 1990; and San Francisco, 30% since 1990.
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