



BERKELEY CITY COUNCILMEMBER
TERRY TAPLÍN
DISTRICT 2

**SUPPLEMENTAL
AGENDA MATERIAL
For Supplemental Packet 2**

Meeting Date: December 14, 2021

Item Number: 35

Item Description: Resolution Committing the City of Berkeley to a Just Transition from Fossil Fuels and the Creation of a West Berkeley Green New Deal

Submitted by: Councilmember Taplin

Amendment would make the following additions to the referral:

- Change in title
- Addition of recommendations for future Just Transition policies
- Formatting changes



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CONSENT CALENDAR

December 14, 2021

To: Honorable Mayor and Members of the City Council

From: Councilmember Terry Taplin (Author), Councilmember Ben Bartlett,
Councilmember Sophie Hahn, and Mayor Jesse Arreguín (Co-Sponsors)

Subject: Resolution Committing the City of Berkeley to a Just Transition from Fossil Fuels and the Creation of a West Berkeley Green New Deal
~~Commit the City of Berkeley to a Just Transition from the Fossil Fuel Economy~~

RECOMMENDATION

Adopt a resolution committing the City of Berkeley to a Just Transition from the fossil fuel economy and establishing a West Berkeley Green New Deal; that secures a livable future for all Berkeleyans, combats environmental racism, ensures access to good paying jobs, and cultivates economic and social prosperity for Berkeley in the 21st century and beyond.

POLICY COMMITTEE RECOMMENDATION

On June 2, 2021, the Facilities, Infrastructure, Transportation, Environment & Sustainability Policy Committee took the following action: M/S/C (Harrison/Robinson) to send the item to Council with a positive recommendation as submitted in the supplemental material and further revised to include a recommendation that all Council reports related to climate include a just transition section.

BACKGROUND

Climate Change is Here

At this moment, our atmosphere has a higher concentration of carbon dioxide than ever before in human history. This concentration, and the fossil fuel emissions that have caused it, is rapidly making our planet into a hotter and more volatile place for all of its inhabitants. Estimates of the degree of warming that we can expect over the course of the next century vary and are contingent on how policymakers respond to the growing threat in the next decade. Still, there is enormous consensus that a certain amount of warming is inevitable and that rising sea levels, higher frequency of extreme weather events, declining public health, and economic volatility will certainly follow. With estimates ranging from increases in temperature between 1.4 and 5.8 degrees Celsius

by 2100, global warming will have severe impacts at even the most modest of estimates.¹

Here in the Bay Area, we are already seeing a wide range of impacts including more extreme El Niño seasons some years, dramatic droughts in other years, a decline in coastal fog, 8 inches of sea-level rise, and more intense fire seasons in the rest of the state which have regularly brought smoke and ash to Berkeley.² Just this year, Berkeley's Echo Lake Camp near Lake Tahoe narrowly escaped the ravaging impacts of the Caldor Fire that burned 221,775 acres in the Lake Tahoe area. This year also marked the 30th anniversary of the Oakland firestorm of 1991, which took 25 lives and remains a dark memory for many who have lived in the East Bay their whole lives. Even though the Berkeley hills have avoided cataclysmic events in recent years, the Oakland firestorm reminds us of the real dangers in our backyard. These effects, which are already impossible to ignore, are just the beginning. The future will bring deeper and longer droughts, unreliable precipitation, an overall increase in temperature, and as much as 3 meters of sea-level rise by 2100.³ On top of the weather and climate-related impacts, projections paint a grim picture for national economies under extreme warming scenarios. The reach of global warming will leave no stone unturned, with consequences for agriculture, trade, and industry internationally and at the national and local levels. At the national level, estimates currently project -0.1 to 1.7% GDP loss at 1.5 degrees Celsius of warming, 1.5 to 5.6% loss at 4 degrees, and 6.4 to 15.7% loss at 8 degrees.⁴ All who call Berkeley and the Bay Area home are feeling the early impacts of climate change and will continue to be affected as warming intensifies, but not all effects are felt equally across demographic groups.

Unequal Impacts: Environmental Racism and Economic Dangers

Poor Americans and people of color have always had a relationship with their environments characterized by poor health and unique exposures to environmental hazards and extreme weather conditions, often in ways designed and perpetuated by government policies that seek to segregate and discriminate against people of color. As the effects of climate change intensify in the coming decades, this relationship will only be exacerbated as extreme weather, declining public health, and economic devastation disproportionately harm poor Americans and drag more and more into poverty. As the economy takes on damage, the unemployment rate will rise and bring the poverty rate

¹ <https://www.nature.com/articles/nature04188>

² https://www.energy.ca.gov/sites/default/files/2019-11/Reg_Report-SUM-CCCA4-2018-005_SanFranciscoBayArea_ADA.pdf

³ https://www.energy.ca.gov/sites/default/files/2019-11/Reg_Report-SUM-CCCA4-2018-005_SanFranciscoBayArea_ADA.pdf

⁴ <https://science.sciencemag.org/content/356/6345/1362>

up with it.⁵ Economic damage at the scale of climate change will subject millions more to the poor health, extreme weather vulnerabilities, and general ruin that is all but guaranteed for those who enter the coming decades already in impoverished conditions.

Climate justice is inextricably linked to racial justice and housing justice. To illustrate just one facet of this, Hoffman et al (2020) find that “94% of 108 urban regions in the United States display consistent city-scale patterns of elevated land surface temperatures in formerly redlined areas relative to their non-redlined neighbors by as much as 7 degrees Celsius...Nationally, land surface temperatures in redlined areas are approximately 2.6 degrees Celsius warmer than in non-redlined areas.”⁶ As heat waves intensify, low income neighborhoods and communities of color subjected to legacies of racial segregation will bear the worst impacts due to well-documented disparities of urban heat island effects. Surveying neighborhoods in Baltimore, Dallas, and Kansas City, Wilson (2020) also finds: “Areas of these cities that were targeted for systematic disinvestment in the past have higher mean land surface temperatures than those that received more favorable ratings. Poor and minority residents are also overrepresented in formerly redlined areas in each of the three study cities.”⁷

The disparate impacts of extreme weather between racial and economic groups have been repeatedly demonstrated in recent history, with dire warnings for Berkeley’s approach to climate resilience. In the summer of 1995, a year when global temperatures had already increased by nearly half a degree Celsius above pre-industrial levels, Chicago, Illinois was hit by a record-breaking heat wave.⁸ “Temperatures reached 106 degrees; the heat index, or experienced heat, climbed to 120 degrees; uncommonly ‘high lows’ (daily low temperatures that were themselves dangerously high), sparse cloud cover, and a dearth of cooling winds kept the city broiling, without relief, for a full week”⁹. After a week of intense heat, “medical examiners confirmed that over five-hundred Chicagoans had died directly from the heat, public health workers reported over seven-hundred deaths in excess of the weekly average, and hospitals registered thousands of visits for weather-related problems”¹⁰. The entire Chicago area felt the 1995 heat wave, but the effects of this extreme weather event were not leveled evenly across the entire area of the event. It was reported very quickly during and after the event that the victims of the heat wave were mostly elderly, poor, and Black¹¹. The more

⁵ <https://www.aeaweb.org/articles?id=10.1257/089533006776526102>

⁶ [Hoffman, J. S., Shandas, V., & Pendleton, N. \(2020\). The effects of historical housing policies on resident exposure to intra-urban heat: a study of 108 US urban areas. *Climate*, 8\(1\), 12.](#)

⁷ [Wilson, B. \(2020\). Urban heat management and the legacy of redlining. *Journal of the American Planning Association*, 86\(4\), 443-457.](#)

⁸ <https://link.springer.com/article/10.1023/A:1006995507723>

⁹ <https://link.springer.com/article/10.1023/A:1006995507723>

¹⁰ <https://link.springer.com/article/10.1023/A:1006995507723>

¹¹ <https://journals.sagepub.com/doi/abs/10.1177/000312240607100407?>

fragile health of the elderly makes the raised vulnerability of older residents of Chicago less of a surprise, but the disproportionately poor and Black victimhood during this disaster further demonstrates the incredible exposure these groups have during extreme weather events.

The unequal effects of the 1995 heat wave in Chicago were neither wholly natural nor apolitical despite occurring in the early years of global climate change. The disproportionate victimhood of poor people of color in this case occurred as a result of political decisions. On top of the financial conditions that limit healthcare access and quality air-conditioning in the homes of the groups that ended up most vulnerable to the heat wave, the Chicago and Illinois government also acted in ways that led to an excess of deaths among elderly, poor, and Black residents during the heat crisis. The Chicago Police Department's own senior assistance unit was neglected to be activated at all and the Department of Human Services failed to contact isolated seniors or transport them to any of the few public cooling centers that the city erected.¹² State and local governments have demonstrated both a lack of preparedness for extreme weather events and a bias against poor people and people of color in the few preparation policies they do have. Governments can learn from their mistakes, but they must do so in a way that moves faster than escalating global warming. The impacts of environmental racism and the unique relationship between poverty and ecological hazards has continued to this day and will continue under more and more extreme climate change. Chicago's 1995 heat wave is just one example among many demonstrating the ways in which climate change has already begun to exacerbate poverty and racism in the United States.

Beyond the unique vulnerability of people of color and the poor to climate change, the deeply embedded nature of fossil fuels in our economy means that the jobs of many in Berkeley are dependent on carbon-emitting industries. While Berkeley may not be home to any coal mines, oil refineries, or other industries widely associated with climate change, Berkeley's economy is no less reliant on fossil fuel extraction and combustion. Transitioning off of fossil fuels will inevitably mean existing jobs and businesses will have to radically change or cease to exist at all. Berkeley's transition must take into account the economic consequences of all of its climate initiatives, not to stifle what the City must do to curb climate change, but to ensure that the workers most proximate to those economic consequences are supported as we rework our economy for a carbon neutral world. The transition off of fossil fuels can ignore the economic realities of the dramatic changes that are necessary to fight warming no more than it can ignore the unequal threat that climate change poses to the poor and people of color.

¹² <https://link.springer.com/article/10.1023/A:1006995507723>

On a broader scale, studies indicate that a national transition to a 100%-renewable energy sector would likely result in the loss of around 3.9 million jobs while creating 5.9 million jobs.¹³ Exact job loss and gain forecasts in Berkeley are unknown, but it stands to reason that the job impacts will be comparable to the national figures if the transition is done proactively. The net gain in employment opportunities from the fossil fuel transition provides an optimistic vision for the transition, but does not mean that the road to net-zero will be easy. Not every lost job will be immediately accompanied by the creation of a new job, nor is it guaranteed that those who lose their job will automatically be offered employment in newly created industries or that those new jobs will offer the same wages and benefits as the jobs that are lost. Governments, including the City of Berkeley, must play an active role in ensuring that their transitions provide a net-gain in quality, good-paying jobs and that those who lose their job to the transition are prioritized for newly created jobs. Job losses are not a reason not to transition off of fossil fuels. To secure a prosperous future and save millions of lives, the transition must continue at an aggressive pace. Reckoning with future job losses, however, will help ensure that those losses are overshadowed by the benefits of the transition and that an ample supply of new jobs are available for all.

Governments have a small window that they can and should take advantage of to justly transition their economies, industries, and infrastructures to net-zero carbon emissions. This is the bare minimum, and will only stop the most extreme levels of climate change towards the end of this century. A properly planned and justly executed transition should stand to be an economic opportunity for Berkeley rather than an economic downturn. Berkeley must recognize what is coming, and the unique vulnerabilities of people of color and the poor, and enact policies to mitigate damages to these communities from warming and the transition to carbon neutrality.

The Green New Deal

Congresswoman Alexandria Ocasio-Cortez's House Resolution recognizing the duty of the federal government to create a Green New Deal calls for a fair and just transition for all communities and workers to achieve net-zero greenhouse gas emissions and the creation of millions of high-wage union jobs to ensure prosperity and economic opportunity.¹⁴ It also calls for investments in infrastructure and 21st century industry to secure resilience for generations to come, the spurring of massive growth in clean manufacturing, and the remediation of hazardous and abandoned sites to ensure economic development and sustainability on said sites.

¹³ <http://web.stanford.edu/group/efmh/jacobson/Articles/I/USStatesVWS.pdf>

¹⁴ <https://www.congress.gov/bill/116th-congress/house-resolution/109/text>

The success of the Green New Deal hinges on the Just Transition and close partnership and consultation with front line and vulnerable communities, indigenous peoples, labor unions, worker cooperatives, business leaders, academia, civil society groups, and climate justice activists to prevent further harm to vulnerable and frontline communities, curtail the reliance of persons in our communities on the benefits of fossil fuel jobs, and mobilize the Green New Deal at the Local Level.

Here in Berkeley we are well positioned to model a Just Transition towards a regenerative green economy. The West Berkeley Plan has been the foundation for the City's industrial land use and economic development policies. West Berkeley has long been a major center for jobs and remains an economic driver in the region. However, due to the history of redlining and environmental racism, adverse health impacts of proximity to I-80 and polluting industries have disproportionately impacted the low income and families of color who have called this part of the city home. Sites such as Pacific Steel have shut down, taking their jobs with them and leaving behind acres of contaminated soil and health disparities in their wake.

When the West Berkeley Plan was created, numerous stakeholders including the faith community, environmentalists, labor leaders, neighborhood organizations, business leaders and more came together to articulate a collective vision to guide the future of growth. The time has come for us to return to this work under the guiding principles of equity, sustainability, and climate justice in the pursuit of a Green New Deal for West Berkeley.

What is a Just Transition?

At varying levels, the consumption of fossil fuels is immersed in every aspect of daily life in modern society. Shifting our entire way of life towards carbon-neutrality will require significantly more than changing our energy sources to renewables. The truly comprehensive embeddedness of fossil fuels in our lives means that achieving net-zero fossil fuel emissions within just a few decades will be difficult, but not necessarily equally difficult for everyone.

Due to historic discrimination, impoverishment, and proximity to environmental hazards, people of color and poor people are disproportionately vulnerable to the impacts of climate change. In rebuilding our economy, policymakers at every level must be intentional in ensuring that the fossil-free economy of the future does not reproduce the same inequities and societal harms of today. There are wrong ways to fight the climate crisis. Governments can achieve net-zero emissions in such a way that enriches those who profited off of fossil fuel extraction and consumption and protects the already well-

off from warming while abandoning the historically disadvantaged to the ravages of extreme weather and economic chaos. The transition away from fossil fuels must ensure that the vulnerable in our society are protected from both the turbulence of restructuring our entire economy and the effects of global warming that are already set in stone. “After centuries of global plunder, the profit-driven industrial economy rooted in patriarchy and white supremacy is severely undermining the life support systems of the planet. Transition is inevitable. Justice is not.”¹⁵ The environmental justice movement calls this approach to the climate crisis a “Just Transition.”

The Climate Justice Alliance, a climate organization at the forefront of the fight for a Just Transition, lays out the following Just Transition principles:

A Just Transition moves us toward Buen Vivir

Buen Vivir means that we can live well without living better at the expense of others. Workers, community residents, women and Indigenous Peoples around the world have a fundamental human right to clean, healthy and adequate air, water, land, food, education and shelter. We must have just relationships with each other and with the natural world, of which we are a part. The rights of peoples, communities and nature must supersede the rights of the individual.

A Just Transition creates Meaningful Work

A Just Transition centers on the development of human potential, creating opportunities for people to learn, grow, and develop to their full capacities and interests. We are all born leaders, and a regenerative economy supports and nurtures that leadership. In the process, we are transforming ourselves, each other, our communities, and our society as a whole. Meaningful work is life-affirming.

A Just Transition upholds Self Determination

All peoples have the right to participate in decisions that impact their lives. This requires democratic governance in our communities, including our workplaces. Communities must have the power to shape their economies, as producers, as consumers, and in our relationships with each other. Not only do we have the right to self determination, but self determination is one of our greatest tools to realize the world we need. The people who are most affected by the extractive economy — the frontline workers and the frontline communities — have the resilience and expertise to be in the leadership of crafting solutions.

A Just Transition equitably redistributes Resources and Power

We must work to build new systems that are good for all people, and not just a few. Just Transition must actively work against and transform current and historic social inequities based on race, class, gender, immigrant status and other forms of oppression. Just Transition fights to reclaim capital and resources for the regeneration of geographies and sectors of the economy where these inequities are most pervasive.

¹⁵ https://climatejusticealliance.org/wp-content/uploads/2018/06/CJA_JustTransition_Principles_final_hi-rez.pdf

A Just Transition requires Regenerative Ecological Economics

Just Transition must advance ecological resilience, reduce resource consumption, restore biodiversity and traditional ways of life, and undermine extractive economies, including capitalism, that erode the ecological basis of our collective well-being. This requires a re-localization and democratization of primary production and consumption by building up local food systems, local clean energy, and smallscale production that are sustainable economically and ecologically. This also means producing to live well without living better at the expense of others.

A Just Transition retains Culture and Tradition

Capitalism has forced many communities to sacrifice culture and tradition for economic survival. It has also defaced and destroyed land held as sacred. Just Transition must create inclusionary spaces for all traditions and cultures, recognizing them as integral to a healthy and vibrant economy. It should also make reparations for land that has been stolen and/or destroyed by capitalism, colonialism, patriarchy, genocide and slavery.

A Just Transition embodies Local, Regional, National and International Solidarity

A Just Transition must be liberatory and transformative. The impacts of the extractive economy knows no borders. We recognize the interconnectedness of our communities as well as our issues. Therefore, our solutions call for local, regional, national and global solidarity that confronts imperialism and militarism.

A Just Transition builds What We Need Now

We must build the world we need now. This may begin at a local small scale, and must expand to begin to displace extractive practices. We must build and flex the muscles needed to meet our communities' needs.¹⁶

Embarking on a Just Transition would make Berkeley a leader on climate action done right, but existing Just Transition examples from around the world can provide much guidance. In Poland, a 75% decline in coal mining jobs was coupled by a mining social package and special privileges for mining communes. Canada's efforts to phase out coal-powered electricity have been accompanied by a national stakeholder task force that has travelled the country to hear from Canadians on how to justly shepherd the transition. Egypt's fuel price increases were paired with minimum wage boosts, food stipends, and progressive taxation.¹⁷

Climate Action Plan and Policies to Date

In 2006, Berkeley voters issued a call to action on the climate change challenge by overwhelmingly endorsing ballot Measure G: Reduce our entire community's greenhouse gas emissions by 80% below 2000 levels by 2050. The Berkeley Climate Action Plan was written through a community-wide process and was adopted by City Council on June 2, 2009.

¹⁶ https://climatejusticealliance.org/wp-content/uploads/2018/06/CJA_JustTransition_Principles_final_hi-rez.pdf

¹⁷ <https://www.iisd.org/articles/just-transition-examples>

On June 12, 2018, City Council adopted a resolution¹⁸ establishing the goal of becoming a Fossil Fuel-Free city. On June 12, 2018, City Council adopted a Climate Emergency Declaration.¹⁹ On May 11, 2021, City Council adopted a resolution to commit to the C40 Race to Zero Campaign, including a commitment to reaching net-zero emissions in 2045 or sooner.

CALeVIP

East Bay Community Energy (EBCE) is making electric vehicle charging more accessible in Alameda County through a partnership with the California Electric Vehicle Infrastructure Project (CALeVIP). Funded by the California Energy Commission and implemented by the Center for Sustainable Energy (CSE), the project promotes access to electric vehicle (EV) charging infrastructure by providing rebates for Level 2 (L2) and DC Fast Chargers (DCFC) for businesses and property owners, with additional rebates available for disadvantaged and low-income communities.²⁰

West Berkeley Plan

Adopted in 1993, the West Berkeley Plan establishes land use patterns and aspirational policy goals for Berkeley's industrial job center and surrounding residential areas. Given its concentration of manufacturing and Research & Development, updating this plan will be central to meeting Berkeley's climate action goals.

Using granular data from the 1980 census, the West Berkeley Plan reported that employees in this area were 30% more likely to drive alone to work than in other parts of the city. Reducing single-occupancy automobile trips, encouraging workforce housing closer to jobs and promoting more public transit use has been central to the Plan's goals for decades, but several policies outlined in the Plan were either not adopted or are anachronistic given current policies.

The Plan correctly notes that the larger share of workers who do not live in the community will result in increased traffic congestion. Pursuant to SB 743, the state now mandates that California jurisdictions can no longer use automobile delay – commonly measured by Level of Service (LOS) – in transportation analysis under the California Environmental Quality Act (CEQA). The State has issued guidelines calling for the use

¹⁸ https://www.cityofberkeley.info/Clerk/City_Council/2018/06_June/Documents/06-12_Annotated_Agenda.aspx

¹⁹ chrome-extension://efaidnbnmnibpcjpcglclefindmkaj/viewer.html?pdfurl=https%3A%2F%2Fwww.cityofberkeley.info%2FuploadedFiles%2FCouncil_2%2FLevel_3_-_General%2FClimate%2520Emergency%2520Declaration%2520-%2520Adopted%252012%2520June%25202018%2520-%2520BCC.pdf&clen=424348

²⁰ <https://ebce.org/drive-electric-business/>

of a broader measure called Vehicle Miles Traveled (VMT), which measures the total amount of driving over a given area. These changes became mandatory on July 1, 2020.

The West Berkeley Plan's transportation section²¹ is outdated in its use of LOS, but it does caution that "LOS is a moving target" because "drivers are continually seeking uncongested routes."

Indeed, the Plan was prescient in calling for a VMT reduction in its policy goals. Policy 1.1 of the transportation section states: "Seek trip reduction--reduction of single occupant automobile trips--through a variety of education and regulatory efforts including implementation of a City of Berkeley Trip Reduction Ordinance, cooperation with the Air Quality Management District's transportation control measures, conditions on development and other mechanisms." While a Trip Reduction Ordinance does not exist, SB 743 now makes VMT reduction one of the default "conditions on development" for certification of Environmental Impact Reports.

The City Council has recently adopted policies that are consistent with the West Berkeley Plan's policy goals. Policy 5.1 states: "Adopt and implement a revised Truck Route Ordinance." On October 12, 2021, the City Council adopted an Ordinance "Amending BMC Section 14.56.070 for 3-Ton Commercial Truck Weight Limit on Berkeley's Bicycle Boulevards and on At-Risk West Berkeley Residential Streets."²²

By committing to a Green New Deal framework, the City can establish climate justice and equity parameters for future revisions of the West Berkeley Plan.

Potential policy directives for a Just Transition

Policies aimed at resource redistribution and infrastructure investment to eliminate carbon emissions should be calibrated to maximize carbon reduction for funds allocated to support a Just Transition.

Reducing car use

According to the Climate Action Plan 2020 Update staff report, Berkeley has made significant progress in reducing greenhouse gas emissions since 2000, but more progress is needed: "The residential sector decreased electricity usage by 20% and natural gas usage by 26%, and the commercial and industrial sectors decreased electricity usage by 32% and natural gas usage by 2%...Transportation accounts for

²¹ https://www.cityofberkeley.info/Planning_and_Development/Home/West_Berkeley_-_Transportation.aspx

²² https://www.cityofberkeley.info/Clerk/City_Council/2021/10_Oct/Documents/2021-10-12_Item_02_Amending_BMC_Section_14_56_070.aspx

59% of Berkeley's total 2018 GHG inventory. This is the largest sector of GHG emissions and the most challenging to tackle."²³

Electrifying the car and truck fleet is critical to reducing emissions, but even with aggressive vehicle electrification, we will not come close to meeting the 2045 net-zero goal. Changing out our entire vehicle fleet will take decades. Auto manufacturers are not even planning on having full electric lines until 2035²⁴ and the most aggressive state and federal plans are on similar timetables²⁵. The vast majority of the vehicles on the road will be gas powered far beyond 2030.²⁶ Additionally, electric cars and trucks continue to produce particulate emissions, deteriorate our already vulnerable roads, lead to congestion, and critically, injure and kill Berkeley residents just as frequently as gas powered vehicles do. Only by reducing car use, regardless of fuel source, can Berkeley meet its many goals of becoming a safer and healthier city.

Berkeley can help its residents reduce their dependence on car trips through a three pronged approach of

- a) building infill housing to reduce distances that residents need to travel to meet their needs,
- b) building a network of pedestrian and micromobility infrastructure throughout the city with safe bike lanes and crossings and secure storage in neighborhoods and destinations and
- c) affordable access to e-bikes and other microbilty technology options.

Infill housing: Because urban core areas such as Berkeley present major opportunities for households to meet their needs with fewer Vehicle Miles Traveled (VMT), Wheeler et al (2018) find that infill housing is the most effective policy tool our local government has to reduce emissions: "Low carbon footprint cities that make housing available at all income levels help share the burden of meeting housing demand, while lessening the impact on the climate across the population...Mixed income urban core cities (e.g., Berkeley) hold the most potential for urban infill, with statewide GHG benefits."²⁷

²³ https://www.cityofberkeley.info/Clerk/City_Council/2020/07_Jul/Documents/2020-07-21_Special_Item_05_Climate_Action_Plan_pdf.aspx

²⁴ For example, General Motors Sets All-Electric Target For Vehicles By 2035, NPR, February 1, 2021 <https://www.npr.org/2021/02/01/962946561/general-motors-sets-all-electric-target-for-vehicles-by-2035>

²⁵ California to phase out sales of new gas-powered cars by 2035, Washington Post, Sept 23, 2020 <https://www.washingtonpost.com/climate-environment/2020/09/23/california-electric-cars/>

²⁶ Even if we do succeed in stopping selling all gas powered cars by 2035, our transportation sector will not reach zero emissions until at least 2050. Electric Cars Are Coming. How Long Until They Rule the Road? New York Times, March 10, 2021 <https://www.nytimes.com/interactive/2021/03/10/climate/electric-vehicle-fleet-turnover.html>

²⁷ Wheeler, S. M., Jones, C. M., & Kammen, D. M. (2018). Carbon footprint planning: quantifying local and state mitigation opportunities for 700 California cities. *Urban Planning*, 3(2), 35-51.

The California Air Resources Board (CARB) has reported: “Even if the share of new car sales that are ZEVs grows nearly 10-fold from today, California would still need to reduce VMT per capita 25 percent to achieve the necessary reductions for 2030”²⁸ to meet state emissions targets pursuant to Senate Bill 375.

Reducing VMT per capita even beyond the minimum that CARB recommends will require a holistic policy approach to reduce the marginal cost of modal shifts from single-occupancy vehicles to cycling, walking, and public transit.

A network of safe active transportation infrastructure: The potential benefits of Berkeley’s urban core area and additional infill housing for reduced VMT can not be realized if people do not feel they can safely get to their destinations outside of a car. The vast majority of Berkeley residents (71%) are interested in using bicycles but are concerned that the infrastructure does not currently feel safe enough²⁹. Secure storage is also needed in neighborhoods and at destinations for bikes, e-bikes and other micromobility devices. Creating walking, bicycling, and other micromobility infrastructure that both feels safe and easily links all residential areas with schools, retail, and workplaces, and accompanying these efforts with secure storage throughout the city, can facilitate major shifts in VMT.

Affordable micromobility: E-bikes - and to some extent other micromobility modes - overcome many of the challenges people have with traditional bicycles. E-bikes are great at climbing hills, beating headwinds, hauling kids & loads and tackling long commutes all with no sweat (unless you want it). Plus e-bike riders feel safer navigating traffic with the extra acceleration power. They do all this at significant savings over electric cars. E-bikes get 1000 to 4000 MPGe and are 20 times more efficient than electric cars - meaning they can go twenty times farther than an electric car for the same charging electricity carbon emissions.³⁰ The manufacture of an e-bike takes at least an order of magnitude less embodied energy and carbon. With all that they offer, e-bikes are a bargain compared to cars, with prices ranging from \$1,000 to \$5,000 for a good cargo e-bike. Nevertheless, this investment remains out of reach for many low and some middle income residents. Targeted subsidies can unlock this potential while helping make up for historical lack of mobility access.

Support home electrification retrofits

²⁸ https://ww2.arb.ca.gov/sites/default/files/2018-11/Final2018Report_SB150_112618_02_Report.pdf

²⁹ Page 11: https://www.cityofberkeley.info/uploadedFiles/Public_Works/Level_3_-_Transportation/Berkeley-Bicycle-Plan-2017-Executive%20Summary.pdf

³⁰ E-Bike 1000 MPG Study-Results, <https://sites.google.com/view/ebikestudy/results>, E-Bike 1000 MPG Project

On November 3, 2021 the Budget & Finance Policy Committee passed a qualified positive recommendation to the full council for a Budget Referral and Resolution Establishing a Pilot Existing Building Electrification Installation Incentives and Just Transition Program with Pre-Qualified Contractors Meeting Minimum Labor Standards to Assist New Property Owners, Renters and Existing Property Owners with Transition to Zero-Carbon Buildings.³¹

In the realm of mitigating climate change, the retrofitting of residential buildings for electrification and enhanced energy efficiency is a necessary – and expensive – component of any transition towards a sustainable Berkeley. Estimates suggest that all-electric single-family homes can “reduce annual GHG emissions by 33 - 56% in 2020 and by 76 – 88% in 2050 compared to a natural gas-fueled home.”³² Residential emissions can also be reduced through the densification of our community and a long-term shift away from single-family homes as a primary form of living, but Berkeley’s existing stock of single-family homes isn’t just going to go away.³³ Retrofitting and electrifying our existing housing stock is important, but is too expensive a lift for the City to expect or require all homeowners to go about alone.³⁴ A Just Transition in building electrification would involve the City dedicating its own resources as well as engaging the state and federal governments to fund retrofits and support residential homeowners through the process of electrifying their homes, particularly low- and middle-income households.

Advance equitable mobility access

Berkeley’s Electric Mobility Roadmap appropriately identifies improved infrastructure safety and connectivity and support for access to e-bikes and other micromobility as key to addressing Berkeley’s transportation emissions. From recreational bike paths to electric car and truck subsidies, this country’s efforts to reduce transportation emissions have too often focused on supporting wealthier communities and consumers. Berkeley can both improve cost effectiveness and address historical inequities by prioritizing safe connectivity and secure bike parking for under-resourced communities as it accelerates implementation and expansion of its pedestrian and bicycle plans and by targeting its efforts to subsidize access to e-bikes and other micromobility on low income residents.

Strengthen worker protections

While Berkeley has been at the forefront of guaranteeing a generous minimum wage, any Just Transition must ensure that all workers in Berkeley earn a living wage into the future as the global economy is shaken by the impacts of climate change. On top of the direct economic impacts of climate change, the ongoing shift in employment

³¹ https://www.cityofberkeley.info/Clerk/City_Council/2021/11_Nov/Documents/2021-11-30_Item_21_Budget_Referral_and_Resolution_Establishing_a_Pilot_Existing_Building.aspx

³² https://www.ethree.com/wp-content/uploads/2019/04/E3_Residential_Building_Electrification_in_California_April_2019.pdf

³³ <https://www.pnas.org/content/117/32/19122>

³⁴ <https://www.nahb.org/-/media/NAHB/nahb-community/docs/committees/construction-codes-and-standards-committee/home-innovation-electrification-report-2021.pdf? ga=2.114118479.990433442.1620163394-283412800.1620163394>

opportunities toward gig-based and contractor work that does not always guarantee a living wage and good benefits presents a threat to the livelihoods of workers in Berkeley and elsewhere. On a warming planet with rapidly intensifying weather conditions, access to food, shelter, and quality healthcare will be more important – and more precarious – than ever before. Local and state policies, such as ensuring that minimum wage laws apply to app-based contract work³⁵, will go a long way in a warming-afflicted future towards shoring up the health and economic stability of workers. Additionally, Berkeley’s Living Wage Ordinance, which ensures “that businesses in a contractual relationship with the City pay their employees a wage that can support a family at, or above, the poverty level”³⁶, is an important labor policy that can be upheld and even strengthened as economic stresses require more support for employees on the part of employers. Beyond the active role that Berkeley’s City government must play in ensuring a Just Transition, workers themselves need to be empowered to ensure that the sweeping economic changes of the transition to a sustainable economy does not leave them behind. Berkeley must, at every turn, protect the rights of workers to organize and bargain collectively and support the efforts of workers in the private-sector to assert their rights in every instance possible.

Develop just and climate sensitive smart growth policies

There is a wealth of potential policies in academic literature and real-world examples that the City Council can draw upon in enacting a Just Transition for Berkeley. “Smart growth” strategies offer effective and just climate mitigation and adaptation policies that Berkeley can draw upon to effectively manage its transition off of fossil fuels and foster economic opportunities for the City. These include planning for a denser city, preserving green spaces, discouraging new construction in areas at risk of extreme weather conditions such as wildfires, upgrading stormwater systems, and generally encouraging energy efficient land use patterns.³⁷

Areas of the city that are zoned for lower densities and single-family residential contribute disproportionately to carbon emissions from automobile travel. The City’s upcoming Housing Element will have to align with its Climate Action Plan and pursue decarbonization of transportation by permitting density in formerly single-family neighborhoods such that increased transit access, micromobility, and pedestrian safety infrastructure can reduce Vehicle Miles Traveled. Moreover, the City will need to reallocate subsidies for private automobile travel, such as free or underpriced parking and road space, and dedicate these resources to housing and infrastructure that enables VMT reduction.

Identifying new local revenue streams for zero-carbon transport

Most carbon pollution in Berkeley comes from cars, both those driven by city residents and by the commuters who come to the city for work or school. In many cases, the city

³⁵ <https://cities-today.com/seattle-passes-minimum-wage-for-rideshare-drivers/>

³⁶ https://www.cityofberkeley.info/Finance/Home/Vendors_Living_Wage_Ordinance.aspx#:~:text=Effective%20July%201%2C%202021%2C%20the,of%20not%20less%20than%20%2419.67.

³⁷ <https://www.epa.gov/smartgrowth/smart-growth-and-climate-change#:~:text=Smart%20growth%20policies%20contribute%20to,effects%20of%20a%20changing%20climate.>

incentivizes driving by subsidizing its cost. Free or below-cost parking in retail/commercial and residential zones, streets that omit higher-throughput bus and bike lanes, and mandates for parking in new developments are all a form of subsidy for driving. Both the California Department of Transportation (Caltrans)³⁸ and California Air Resources Board (CARB) have found that parking pricing strategies have the potential to reduce VMT and encourage a modal shift that reduces greenhouse gas emissions.³⁹

According to UCLA parking scholar Donald Shoup, motorists searching for underpriced or free parking rather than paying demand-based parking prices in a parking garage can increase the average VMT of a local trip by as much as 0.5 miles per trip⁴⁰, or 5 additional miles per day per curb space.⁴¹ Collecting parking fees based on fair market value can reduce the overcrowding of parking spaces, increase parking availability, and increase funding for public services.⁴² According to the US Department of Transportation⁴³, over 59% of automobile trips were six miles or less, and three-fourths of trips by any mode were less than ten miles, suggesting a major potential for emissions reductions by shifting transportation modes for short trips away from private automobiles. Shoup's research has also found that market-priced curb parking can yield 5-8% of a city's total land rent.⁴⁴

Berkeley can equitably address these subsidies by enacting fees, phased in over time, that charge the cost to the city and its residents of building and maintaining car infrastructure, including the "hidden" costs of pollution, public health impacts, and traffic-related violence. Since lower-income households will have less ability to pay these fees, the city could determine a methodology to phase-in fees by household income and car registration, and use the revenues to provide lower-cost mobility subsidies to lower-income households.

These fees must be coupled with transportation policy reforms that prioritize bus lanes, bike lanes, and "safe routes to school" on streets owned and maintained by the city. By re-allocating public rights-of-way to zero-carbon forms of mobility, and phasing out city subsidies for driving, the city can chart a path to zeroing out its emissions from transportation. ~~Identifying new local revenue streams for zero-carbon transport~~

³⁸<https://dot.ca.gov/-/media/dot-media/programs/research-innovation-system-information/documents/preliminary-investigations/final-pricing-parking-management-to-reduce-vehicles-miles-traveled-pi-a11y.pdf>

³⁹https://ww2.arb.ca.gov/sites/default/files/2020-06/Impacts_of_Parking_Pricing_Based_on_a_Review_of_the_Empirical_Literature_Policy_Brief.pdf

⁴⁰ Newton, D. (2008). Professor Donald Shoup: How About Congestion Parking? Streetsblog LA. Retrieved from <https://la.streetsblog.org/2008/01/12/professor-donald-shoup-how-about-congestion-parking/>

⁴¹ Shoup, D. C. (2006). Cruising for parking. *Transport policy*, 13(6), 479-486.

⁴² Shoup, D., Yuan, Q., & Jiang, X. (2017). Charging for parking to finance public services. *Journal of Planning Education and Research*, 37(2), 136-149.

⁴³ <https://www.energy.gov/eere/vehicles/articles/fotw-1042-august-13-2018-2017-nearly-60-all-vehicle-trips-were-less-six-miles>

⁴⁴ Shoup, D. C. (2004). The ideal source of local public revenue. *Regional Science and Urban Economics*, 34(6), 753-784.

Most carbon pollution in Berkeley comes from cars, both those driven by city residents and by the commuters who come to the city for work or school. In many cases, the city incentivizes driving by subsidizing its cost. Free or below-cost parking in retail/commercial and residential zones, streets that omit higher-throughput bus and bike lanes, and mandates for parking in new developments are all a form of subsidy for driving. Both the California Department of Transportation (Caltrans)⁴⁵ and California Air Resources Board (CARB) have found that parking pricing strategies have the potential to reduce VMT and encourage a modal shift that reduces greenhouse gas emissions.⁴⁶

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⁴⁶https://ww2.arb.ca.gov/sites/default/files/2020-06/Impacts_of_Parking_Pricing_Based_on_a_Review_of_the_Empirical_Literature_Policy_Brief.pdf

⁴⁷Newton, D. (2008). Professor Donald Shoup: How About Congestion Parking? Streetsblog LA. Retrieved from <https://la.streetsblog.org/2008/01/12/professor-donald-shoup-how-about-congestion-parking/>

⁴⁸Shoup, D. C. (2006). Cruising for parking. *Transport policy*, 13(6), 479-486.

⁴⁹Shoup, D., Yuan, Q., & Jiang, X. (2017). Charging for parking to finance public services. *Journal of Planning Education and Research*, 37(2), 136-149.

⁵⁰<https://www.energy.gov/eero/vehicles/articles/fofw-1042-august-13-2018-2017-nearly-60-all-vehicle-trips-were-less-six-miles>

⁵¹Shoup, D. C. (2004). The ideal source of local public revenue. *Regional Science and Urban Economics*, 34(6), 753-784.

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~~Whether branded as a Just Transition or not, Berkeley can draw plenty of inspiration from around the world in its efforts to ensure that workers, people of color, and the poor are elevated and protected in our fight against climate change, rather than left behind.~~

RATIONALE FOR RECOMMENDATION

In 2006, Berkeley residents voted in favor of Measure G, which committed the City of Berkeley to reduce its emissions by 80% below 2000 levels by 2050. The City Council, staff, and the community subsequently worked in tandem to develop the Berkeley Climate Action Plan, which lays out the City's path to achieving the stated goal on Measure G.⁵² In 2018, the City Council voted to declare a Climate Emergency citing an "existential Climate Emergency that threatens our city, state, nation, civilization, humanity, and the natural world."⁵³ Both the establishment of the Berkeley Climate Action Plan and the declaration of a Climate Emergency put the City leagues ahead of other cities, states, and even the country on initiating climate action, but we're still nowhere near enough.

At the state level, California's environmental efforts place it well ahead of most other states. Even California's efforts, however, are insufficient at best and ineffective at reducing emissions at worst.⁵⁴ The City of Berkeley must lead the state and the country both in aggressive and ambitious climate legislation that gets us to net-zero carbon emissions as soon as possible as well as climate mitigation and adaptation efforts that overcome and reverse historic environmental racism and lessen the economic turbulence that will accompany reshaping our economy in the coming decades so that all working Berkeleyans have the right to a good job and secure future. Past and future efforts to eliminate ~~reach net-zero~~ fossil fuel emissions must be examined in an active pursuit of a Just Transition for Berkeley.

ENVIRONMENTAL IMPACTS

This proposal advances and enhances Berkeley's climate goals.

FISCAL IMPACTS

None.

CONTACT

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ATTACHMENTS

⁵² <https://www.cityofberkeley.info/climate/>

⁵³ https://www.cityofberkeley.info/uploadedFiles/Council_2/Level_3_-_General/Climate%20Emergency%20Declaration%20-%20Adopted%2012%20June%202018%20-%20BCC.pdf

⁵⁴ <https://www.kqed.org/science/1972957/state-auditor-says-california-air-regulator-overstated-emission-reductions>

1. Resolution
2. California's Fourth Climate Change Assessment: San Francisco Bay Area Region Report
3. Climate Justice Alliance: Just Transition Principles

RESOLUTION NO. ##,###-N.S.

COMMIT THE CITY OF BERKELEY TO A JUST TRANSITION FROM THE FOSSIL FUEL ECONOMY

WHEREAS, a national Green New Deal calls for a fair and just transition for all communities and workers to achieve net-zero greenhouse gas emissions and the creation of millions of high-wage union jobs to ensure prosperity and economic opportunity; and

WHEREAS, in Berkeley, fossil fuel-driven global warming has already caused sea level rise, droughts, extreme weather conditions, and longer and more intense fire seasons; and

WHEREAS, business-as-usual fossil fuel emissions will lead to major increases in temperature, more dramatic droughts, more frequent extreme weather, and up to 3 meters of sea level rise; and

WHEREAS, historic inequities and environmental racism leave people of color and the poor in a uniquely vulnerable position when faced with dramatic warming, economic turbulence, and extreme weather; and

WHEREAS, the transition off of fossil fuels will have inevitable economic consequences including the loss of jobs and industries that are reliant on fossil fuel extraction and consumption; and

WHEREAS, the COVID-19 pandemic has demonstrated the vulnerability of the global economy to sudden natural events and the need for proactive preparation for economic shocks; and

~~WHEREAS, the COVID-19 pandemic has demonstrated the vulnerability of the global economy to sudden natural events and the need for proactive preparation for economic shocks; and~~

~~WHEREAS, a proactively planned and equitably executed transition away from the fossil fuel economy can be an opportunity to correct historic wrongs and boost Berkeley's economy; and~~

WHEREAS, Berkeley voters approved Measure G in 2006, calling for the City to "reduce our entire community's greenhouse gas emissions by 80% below 2000 levels by 2050," and the Berkeley Climate Action Plan was adopted by City Council on

June 2, 2009, and the City will need to eliminate its emissions at an even more ambitious scale; and

WHEREAS, the City of Berkeley was among the founding member-jurisdictions of East Bay Community Energy (EBCE), the community choice electricity provider serving Alameda County, all of its eligible cities, and the City of Tracy in San Joaquin County; and

WHEREAS, the City of Berkeley can lead by example to equitably reduce community-wide greenhouse gas emissions by utilizing the local programs and electric service options provided by EBCE. These include, but are not limited to 1) partnering with EBCE to make its 100% renewable energy option the City-wide default for most residential and commercial electric accounts; 2) electrifying the City's buildings and municipal fleets; and 3) advancing the deployment of publicly available electric vehicle (EV) charging infrastructure; and

WHEREAS, the City of Berkeley has been a regional leader in building electrification by prohibiting natural gas lines in new residential construction and exploring building electrification subsidies for middle- and lower-income households, and

WHEREAS, transportation accounts for 59% of Berkeley's total 2018 greenhouse gas inventory and Berkeley's Electric Mobility Roadmap recognizes that active transportation - walking and bicycling, including e-bikes and other micromobility technologies - is key to reducing those emissions; and

WHEREAS, the California Air Resources Board (CARB) has reported that even with a tenfold increase in market share of new electric vehicles, "California would still need to reduce Vehicle Miles Traveled (VMT per capita) by 25 percent to achieve the necessary reductions for 2030" to meet emissions reduction targets pursuant to Senate Bill 375; and

WHEREAS, both government agencies and leading academic researchers have found that parking pricing strategies have the potential to reduce VMT per capita; and

WHEREAS, the City will need to reallocate subsidies for private automobile travel toward active transportation infrastructure and infill housing in order to achieve VMT per capita reductions needed to eliminate transportation emissions; and

WHEREAS, the City adopted the West Berkeley Plan in 1993, which calls for a "reduction of single occupant automobile trips", and

WHEREAS, a proactively planned and equitably executed transition away from the fossil fuel economy can be an opportunity to correct historic wrongs and boost Berkeley's economy; and

WHEREAS, the principles of a Just Transition offer Berkeley a path towards eliminating fossil fuel emissions that minimizes economic shock, leaves no one behind, and plants the seeds of a resilient Berkeley;

NOW THEREFORE, BE IT RESOLVED, that the City Council commits the City of Berkeley to a Just Transition to ~~net~~-zero carbon emissions that secures a livable future for all Berkeleyans, pursues a Green New Deal for West Berkeley, combats environmental racism and the unique vulnerabilities of people of color, and ensures that all Berkeleyans have access to good paying jobs and equitable living standards free from the fossil fuel economy;

BE IT FURTHER RESOLVED, that all City Council reports with a section on Climate and Environmental Impacts include a Just Transition analysis wherein maximum potential for reducing greenhouse gas emissions while advancing equity is evaluated.