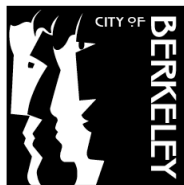


**REVISED AGENDA
(ADDED CONTINUED ITEMS FROM JULY 9, 2019)**



BERKELEY CITY COUNCIL MEETING

Tuesday, July 16, 2019

6:00 PM

SCHOOL DISTRICT BOARD ROOM - 1231 ADDISON STREET, BERKELEY, CA 94702

JESSE ARREGUIN, MAYOR

Councilmembers:

DISTRICT 1 – RASHI KESARWANI
DISTRICT 2 – CHERYL DAVILA
DISTRICT 3 – BEN BARTLETT
DISTRICT 4 – KATE HARRISON

DISTRICT 5 – SOPHIE HAHN
DISTRICT 6 – SUSAN WENGRAF
DISTRICT 7 – RIGEL ROBINSON
DISTRICT 8 – LORI DROSTE

This meeting will be conducted in accordance with the Brown Act, Government Code Section 54953. Any member of the public may attend this meeting. Questions regarding this matter may be addressed to Mark Numainville, City Clerk, 981-6900.

The City Council may take action related to any subject listed on the Agenda. The Mayor may exercise a two minute speaking limitation to comments from Councilmembers. Meetings will adjourn at 11:00 p.m. - any items outstanding at that time will be carried over to a date/time to be specified.

Preliminary Matters

Roll Call:

Ceremonial Matters: *In addition to those items listed on the agenda, the Mayor may add additional ceremonial matters.*

1. Recognition of Paul's Shoe Repair
2. Recognition of Ari Neulight

City Manager Comments: *The City Manager may make announcements or provide information to the City Council in the form of an oral report. The Council will not take action on such items but may request the City Manager place a report on a future agenda for discussion.*

Public Comment on Non-Agenda Matters: *Persons will be selected by lottery to address matters not on the Council agenda. If five or fewer persons submit speaker cards for the lottery, each person selected will be allotted two minutes each. If more than five persons submit speaker cards for the lottery, up to ten persons will be selected to address matters not on the Council agenda and each person selected will be allotted one minute each. Persons wishing to address the Council on matters not on the Council agenda during the initial ten-minute period for such comment, must submit a speaker card to the City Clerk in person at the meeting location and prior to commencement of that meeting. The remainder*

of the speakers wishing to address the Council on non-agenda items will be heard at the end of the agenda. Speaker cards are not required for this second round of public comment on non-agenda matters.

Consent Calendar

The Council will first determine whether to move items on the agenda for “Action” or “Information” to the “Consent Calendar”, or move “Consent Calendar” items to “Action.” Items that remain on the “Consent Calendar” are voted on in one motion as a group. “Information” items are not discussed or acted upon at the Council meeting unless they are moved to “Action” or “Consent”.

No additional items can be moved onto the Consent Calendar once public comment has commenced. At any time during, or immediately after, public comment on Information and Consent items, any Councilmember may move any Information or Consent item to “Action.” Following this, the Council will vote on the items remaining on the Consent Calendar in one motion.

For items moved to the Action Calendar from the Consent Calendar or Information Calendar, persons who spoke on the item during the Consent Calendar public comment period may speak again at the time the matter is taken up during the Action Calendar.

Public Comment on Consent Calendar and Information Items Only: *The Council will take public comment on any items that are either on the amended Consent Calendar or the Information Calendar. Speakers will be entitled to two minutes each to speak in opposition to or support of Consent Calendar and Information Items. A speaker may only speak once during the period for public comment on Consent Calendar and Information items.*

Additional information regarding public comment by City of Berkeley employees and interns: Employees and interns of the City of Berkeley, although not required, are encouraged to identify themselves as such, the department in which they work and state whether they are speaking as an individual or in their official capacity when addressing the Council in open session or workshops.

Consent Calendar

- 1. Referral Response: Berkeley Municipal Code Revision Related to the Use of Gender Neutral Language**
From: City Manager
Recommendation: Adopt first reading of an Ordinance revising the Berkeley Municipal Code to include gender-neutral pronouns by eliminating any gender preference language within the Berkeley Municipal Code and amend Sections 1.04.020, 4.36.110, 4.38.110, 4.39.110, and 11.08.050 regarding grammatical interpretation to indicate that whenever a gender neutral personal pronoun is used, it shall be deemed to include the feminine and masculine also.
Financial Implications: General Fund - \$600
Contact: Mark Numainville, City Clerk, 981-6900
- 2. Contract: Gehl Studio for Civic Center Vision and Implementation Plan**
From: City Manager
Recommendation: Adopt a Resolution authorizing the City Manager to execute a contract for an amount not to exceed \$376,430, and any amendments thereto, with Gehl Studio Inc. for the Civic Center Vision and Implementation Plan (Specification No. 19-11286-C).
Financial Implications: See report
Contact: Jordan Klein, Economic Development, 981-7530

Consent Calendar

3. Contract Amendment and Purchase Order No. 21902736 with Bellingham Inc. to Replace Additional Finger Docks at the Berkeley Marina

From: City Manager

Recommendation: Adopt a Resolution authorizing the City Manager to amend a contract and Purchase Order No. 21902736 with Bellingham Inc. to replace additional finger docks at the Berkeley Marina by increasing the construction contract amount by \$215,000 for a not-to-exceed amount of \$324,335, and increasing the purchase order amount by \$200,000 for a not-to-exceed amount of \$300,000.

Financial Implications: See report

Contact: Scott Ferris, Parks, Recreation and Waterfront, 981-6700

4. Lease Amendment: Police Department Substation, 841 Folger Street/3000 Seventh Street

From: City Manager

Recommendation: Adopt first reading of an Ordinance authorizing the City Manager to execute an amendment to the lease agreement with Sasha Shamszad for real property located at 841 Folger Street/3000 Seventh Street for the purpose of leasing office and parking space to the Berkeley Police Department Traffic and Parking Enforcement Units for the six months following approval of this amendment by the Berkeley City Council. A holding over clause in the amendment will also allow the City to continue to lease the property on a month to month basis if needed after the expiration of the six month extension.

Financial Implications: See report

Contact: Andrew Greenwood, Police, 981-5900

5. Updated Sewer System Management Plan

From: City Manager

Recommendation: Adopt a Resolution approving the update of the Sewer System Management Plan, as mandated by the State Water Resources Control Board.

Financial Implications: See report

Contact: Phillip Harrington, Public Works, 981-6300

6. Approval and Levy of 2018 Clean Stormwater Fee in FY 2020

From: City Manager

Recommendation: Adopt a Resolution approving the proposed adjusted fees for the 2018 Clean Stormwater Fee and ordering the levy of the fees in Fiscal Year 2020.

Financial Implications: See report

Contact: Phillip Harrington, Public Works, 981-6300

Council Consent Items

- 7. Letter of Support for Senate Bill 806: The College for All Act**
From: Councilmember Bartlett, Mayor Arreguin, and Councilmembers Robinson and Davila
Recommendation: That the Mayor and Berkeley City Councilmembers support Senate Bill 806 (S.806) otherwise known as the College for All Act of 2017 and write a letter of support to Rep. Bernard Sanders and cosponsors of the bill. Senate Bill 806 would forgive over \$1.6 trillion of student loan debts, thereby releasing over 45 million Americans from student debt.
Financial Implications: None
Contact: Ben Bartlett, Councilmember, District 3, 981-7130
- 8. Presentation by PG&E to City Council**
From: Councilmember Wengraf, Mayor Arreguin, and Councilmember Harrison
Recommendation: That the City Council receive a presentation from representatives of Pacific Gas & Electric (PG&E) concerning their Community Wildfire Safety Program and specifically the Public Safety Power Shutoff (PSPS) element of that program.
Financial Implications: Minimal
Contact: Susan Wengraf, Councilmember, District 6, 981-7160
- 9. Referral to the City Manager to Consider Amending the Language of the City's Wireless Telecommunications Ordinance and Aesthetic Guidelines**
From: Councilmembers Wengraf, Mayor Arreguin, and Councilmembers Bartlett and Harrison
Recommendation: Request that the City Manager consider amending the language of the City's Wireless Telecommunications Ordinance (BMC 23C.17) and Aesthetic Guidelines (BMC 16.10 & Aesthetic Guidelines for PROW permits) and return to City Council for adoption as soon as possible.
Financial Implications: See report
Contact: Susan Wengraf, Councilmember, District 6, 981-7160
- 10. Support for AB 302 (Parking for Homeless Community College Students)**
From: Councilmembers Robinson, Kesarwani, and Davila
Recommendation: Send a letter to Senator Skinner, Assemblymember Wicks, and Assemblymember Marc Berman supporting AB 302, which would include in the Education Code a requirement that community colleges provide overnight parking access to any enrolled homeless student, and request expansion of the bill to cover UCs and CSUs.
Financial Implications: None
Contact: Rigel Robinson, Councilmember, District 7, 981-7170

Council Consent Items

- 11. Support for AB 1076 (Ting) - Automatic Relief of Criminal Records**
From: Councilmembers Robinson and Davila
Recommendation: Send a letter to Assemblymember Ting supporting AB 1076, which would make the withholding of disclosure of criminal records for certain eligible arrests and convictions automatic, instead of requiring the individual to petition the court.
Financial Implications: None
Contact: Rigel Robinson, Councilmember, District 7, 981-7170
- 12. Making Berkeley City Hall a Voting Center**
From: Councilmember Robinson, Mayor Arreguin, and Councilmember Davila
Recommendation: Refer to the City Manager to seek approval from the County Registrar of Voters and Secretary of State to make City Hall a voting center in time for the March 2020 statewide Primary under the California Voter's Choice Act, in order to offer more voter services to Berkeley residents, including same day voter registration.
Financial Implications: See report
Contact: Rigel Robinson, Councilmember, District 7, 981-7170

Action Calendar

The public may comment on each item listed on the agenda for action as the item is taken up. For items moved to the Action Calendar from the Consent Calendar or Information Calendar, persons who spoke on the item during the Consent Calendar public comment period may speak again at the time the matter is taken up during the Action Calendar.

The Presiding Officer will request that persons wishing to speak line up at the podium to determine the number of persons interested in speaking at that time. Up to ten (10) speakers may speak for two minutes. If there are more than ten persons interested in speaking, the Presiding Officer may limit the public comment for all speakers to one minute per speaker. Speakers are permitted to yield their time to one other speaker, however no one speaker shall have more than four minutes. The Presiding Officer may, with the consent of persons representing both sides of an issue, allocate a block of time to each side to present their issue.

Action items may be reordered at the discretion of the Chair with the consent of Council.

Action Calendar – Continued Business

- Aa. Resolution Assigning Socially Responsible Investment and Procurement advisory role to the Peace and Justice Commission (Continued from July 16, 2019.)**
From: Peace and Justice Commission
Recommendation: Adopt resolution assigning socially responsible investment and procurement advisory role to the Peace and Justice Commission.
Financial Implications: None
Contact: Bre Slimick, Commission Secretary, 981-7000

Action Calendar – Continued Business

- Ab. Companion Report to Peace and Justice Commission’s Resolution Asking to be an Assigned Advisory Role in Consulting on Socially Responsible Investments and Procurement** *(Continued from July 16, 2019.)*
From: City Manager
Recommendation: Continue to allow the City Council Budget and Finance Committee to provide investment policy oversight.
Financial Implications: See report
Contact: Dave White, City Manager's Office, 981-7000
- B. Housing for a Diverse, Equitable and Creative Berkeley: Proposing a Framework for Berkeley’s Affordable Housing** *(Continued from July 16, 2019.)*
From: Mayor Arreguin, and Councilmembers Hahn, Harrison, and Robinson
Recommendation: Refer to the Housing Advisory Commission, the Measure O Bond Oversight Committee, and the Homeless Services Panel of Experts to consider the proposed Housing for a Diverse, Equitable and Creative Berkeley framework (the “Framework”) and return comments for consideration at a Special Meeting of the City Council in September, to inform a final version the City Council will adopt to govern Berkeley’s affordable housing policies, programs and projects through 2030.
Financial Implications: See report
Contact: Jesse Arreguin, Mayor, 981-7100
- C. Adopt an Ordinance adding a new Chapter 12.80 to the Berkeley Municipal Code Prohibiting Natural Gas Infrastructure in New Buildings** *(Reviewed by the Facilities, Infrastructure, Transportation, Environment & Sustainability Committee.) (Continued from July 16, 2019. Item contains supplemental material.)*
From: Councilmembers Harrison, Davila, Bartlett, and Hahn
Recommendation:
1. Adopt an ordinance adding a new Chapter 12.80 to the Berkeley Municipal Code (BMC) prohibiting natural gas infrastructure in new buildings with an effective date of January 1, 2020.
2. Refer to the November 2019 budget process for consideration of allocating up to \$273,341 per year from excess equity to fund a two-year position in the Building & Safety Division of the Department of Planning and Development. The staff person will assist with implementing the gas prohibition ordinance and reach codes, and perform other duties as specified in the Financial Implications section of this item.
Financial Implications: See report
Contact: Kate Harrison, Councilmember, District 4, 981-7140

Action Calendar – New Business

- 13. Annual Housing Pipeline Report**
From: City Manager
Recommendation: Review and provide input on the data included in the Housing Pipeline Report.
Financial Implications: None
Contact: Timothy Burroughs, Planning and Development, 981-7400

Council Action Items

- 14. Opportunity Zone Project Guidelines for the City Manager**
From: Councilmembers Bartlett, Harrison, Mayor Arreguin, and Councilmember Davila
Recommendation: Refer to the City Manager the priorities listed below for investment in Berkeley's Opportunity Zones for proactive outreach and marketing to investors or Opportunity Funds, and to guide any discussions or negotiations regarding development projects in Opportunity Zones. The priorities are: Construction of new Affordable Housing units or acquisition and preservation of affordable housing; Preservation of historic buildings; Cultural Institutions and Performing Arts Venues; Civic Uses (Government Offices, Libraries, Schools, Public Safety); Public Open Space and Recreation Facilities; Health Care Services; Transportation Demand Management features; and Job training or employment opportunities.
The City Manager should further incorporate these guidelines into any relevant formal document relating to projects in Opportunity Zones.
That City staff, working with non-profit organizations OR seeking technical assistance, develop a prospectus marketing community development projects in Berkeley's Opportunity Zones using the guidelines mentioned above, or any other tools to attract equitable investment in Opportunity Zones.
Financial Implications: See report
Contact: Ben Bartlett, Councilmember, District 3, 981-7130

Information Reports

- 15. Referral Response Referral to Improve Fire Safety Standards for Rebuilt Fire-Damaged Structures**
From: City Manager
Contact: David Brannigan, Fire, 981-3473
- 16. Community Environmental Advisory Commission 2019 Work Plan**
From: Community Environmental Advisory Commission
Contact: Viviana Garcia, Commission Secretary, 981-7460
- 17. Public Works Commission Fiscal Year 2020 Work Plan**
From: Public Works Commission
Contact: Nisha Patel, Commission Secretary, 981-6300

Public Comment – Items Not Listed on the Agenda

Adjournment

NOTICE CONCERNING YOUR LEGAL RIGHTS: *If you object to a decision by the City Council to approve or deny a use permit or variance for a project the following requirements and restrictions apply: 1) No lawsuit challenging a City decision to deny (Code Civ. Proc. §1094.6(b)) or approve (Gov. Code 65009(c)(5)) a use permit or variance may be filed more than 90 days after the date the Notice of Decision of the action of the City Council is mailed. Any lawsuit not filed within that 90-day period will be barred. 2) In any lawsuit that may be filed against a City Council decision to approve or deny a use*

permit or variance, the issues and evidence will be limited to those raised by you or someone else, orally or in writing, at a public hearing or prior to the close of the last public hearing on the project.

Live captioned broadcasts of Council Meetings are available on Cable B-TV (Channel 33), via internet accessible video stream at <http://www.cityofberkeley.info/CalendarEventWebcastMain.aspx> and KPFB Radio 89.3.

Archived indexed video streams are available at <http://www.cityofberkeley.info/citycouncil>. Channel 33 rebroadcasts the following Wednesday at 9:00 a.m. and Sunday at 9:00 a.m.

Communications to the City Council are public record and will become part of the City's electronic records, which are accessible through the City's website. **Please note: e-mail addresses, names, addresses, and other contact information are not required, but if included in any communication to the City Council, will become part of the public record.** If you do not want your e-mail address or any other contact information to be made public, you may deliver communications via U.S. Postal Service or in person to the City Clerk Department at 2180 Milvia Street. If you do not want your contact information included in the public record, please do not include that information in your communication. Please contact the City Clerk Department for further information.

Any writings or documents provided to a majority of the City Council regarding any item on this agenda will be made available for public inspection at the public counter at the City Clerk Department located on the first floor of City Hall located at 2180 Milvia Street as well as posted on the City's website at <http://www.cityofberkeley.info>.

Agendas and agenda reports may be accessed via the Internet at <http://www.cityofberkeley.info/citycouncil> and may be read at reference desks at the following locations:

City Clerk Department
2180 Milvia Street
Tel: 510-981-6900
TDD: 510-981-6903
Fax: 510-981-6901
Email: clerk@cityofberkeley.info

Libraries:
Main - 2090 Kittredge Street
Claremont Branch – 2940 Benvenue
West Branch – 1125 University
North Branch – 1170 The Alameda
South Branch – 1901 Russell

COMMUNICATION ACCESS INFORMATION:

This meeting is being held in a wheelchair accessible location.

To request a disability-related accommodation(s) to participate in the meeting, including auxiliary aids or services, please contact the Disability Services specialist at 981-6418 (V) or 981-6347 (TDD) at least three business days before the meeting date.

Attendees at public meetings are reminded that other attendees may be sensitive to various scents, whether natural or manufactured, in products and materials. Please help the City respect these needs.



Captioning services are provided at the meeting, on B-TV, and on the Internet. In addition, assisted listening devices for the hearing impaired are available from the City Clerk prior to the meeting, and are to be returned before the end of the meeting.

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*I hereby certify that the agenda for this meeting of the Berkeley City Council was posted at the display case located near the walkway in front of the Maudelle Shirek Building, 2134 Martin Luther King Jr. Way, as well as on the City's website, on July 11, 2019.*



Mark Numainville, City Clerk

## **Communications**

*Council rules limit action on Communications to referral to the City Manager and/or Boards and Commissions for investigation and/or recommendations. All communications submitted to Council are public record. Copies of individual communications are available for viewing at the City Clerk Department and through Records Online.*

### **RV Permitting**

1. Barbara Freeman
2. Gabriela Giacchino
3. Stan Leibowitz
4. Jessica Behrman (3)
5. Allison Kidder
6. Diana Bohn
7. Doug Kidder
8. Paola Laverde, on behalf of the Berkeley Rent Stabilization Board
9. Tamara Gurin

### **Ashby BART Housing**

10. Teresa Clarke, on behalf of South Berkeley Now

### **5G**

11. Richard Hiersch
12. Marvin Snow
13. Chimey Lee
14. Jennifer Burt
15. Vivian Warkentin
16. Dawn Hawk
17. Marvin Snow

### **Eden I&R 211Calls**

18. Eden I&R

### **Sacramento and University Construction**

19. Jesse Goldberg (2)

### **Sea Level Rise**

20. Margot Smith

**Lease Proposal at 2435 and 2439 Channing Way**

21. Ian Bennett-Goldberg, on behalf of Sutter Law PC

**STEM Future Foundation**

22. Clergy for STEM

**Microbond Initiative**

23. Giap Vu

24. Max Levine

25. DBGrow, Inc.

**Traffic Circle at 62<sup>nd</sup> and King**

26. Heather McWhinney

27. Sam Kang

28. Sara Jo

29. Eric Perney

**Civic Arts Funding**

30. Janice Murota

31. Carol Lashof

**Tree Wells – Grow More Trees**

32. Nancy Bardach

**A Millisecond Left**

33. Donald Goldmacher

**West Campus Pool**

34. Summer Brenner

35. Gael

36. Stacey Singleton

37. Donna Mickleson

**No Fiscal Transparency**

38. Eric Friedman

39. Barbara Gilbert

40. Jessica Behrman

**Change.org Petition – Predatory Displacement through Receivership**

41. Unknown

**BHA Office Experience**

42. Steven Schuyler

43. William Watkins

**Adeline Corridor**

44. Friends of Adeline

**The Environment**

45. Donald Goldmacher

**Russbumer Dialogue**

46. Russbumer (12)

**Supplemental Communications and Reports**

*Items received by the deadlines for submission will be compiled and distributed as follows. If no items are received by the deadline, no supplemental packet will be compiled for said deadline.*

- **Supplemental Communications and Reports 1**  
Available by 5:00 p.m. five days prior to the meeting.
- **Supplemental Communications and Reports 2**  
Available by 5:00 p.m. the day before the meeting.
- **Supplemental Communications and Reports 3**  
Available by 5:00 p.m. two days following the meeting.





Peace and Justice Commission

ACTION CALENDAR  
July 16, 2019  
(Continued from July 9, 2019)

To: Honorable Mayor and Members of the City Council  
From: Peace and Justice Commission  
Submitted by: George Lippman, Chairperson, Peace and Justice Commission  
Subject: Resolution Assigning Socially Responsible Investment and Procurement advisory role to the Peace and Justice Commission

RECOMMENDATION

Adopt resolution assigning socially responsible investment and procurement advisory role to the Peace and Justice Commission.

FISCAL IMPACTS OF RECOMMENDATION

None.

CURRENT SITUATION AND ITS EFFECTS

At its regular meeting November 19, 2018, the Peace and Justice Commission unanimously adopted the following recommendation: designate the Berkeley Peace and Justice Commission as the “Socially Responsible Investment and Procurement Advisory Body” for the City of Berkeley.

M/S/C: Lippman/Hariri  
Ayes: al-Bazian, Hariri, Lippman, Maran, Meola, Morizawa, Rodriguez  
Noes: None  
Abstain: None  
Absent: Bohn, Chen, Han, Pancoast

BACKGROUND

A community advisory role on socially responsible investing in Berkeley dates back to the anti-apartheid campaign in 1979, when the Citizens Committee on Responsible Investments was created by the City Council. In 1990, as the apartheid system began to unravel, the role was transferred to the Peace and Justice Commission by the

Council. The City's 1990 Statement of Investment Policy stated, "The Treasurer will consult with the Peace and Justice Commission and the Government Operations Subcommittee in advance of making revisions to the Investment policy and in evaluation of new investment instruments."

The Commission was created in 1986 in part to administer the voter-approved Nuclear Free Berkeley Act. For three decades, the Commission has reviewed waiver requests for procurement and other contracting between the City and entities involved in nuclear-related work, recommending approval or denial of the waiver requests for final decision by Council. The Commission has also played an advisory role in development and implementation of the Sweatshop-Free Berkeley Policy. In recent years the Commission has advised the Council, upon Council request, on abstention from contracting with companies involved with the border wall or other federal anti-immigrant activities.

This resolution affirms the 1990 assignment to the Commission of a consultative role with respect to social investment policy. The resolution refers to the Commission to create a Socially Responsible Investment and Procurement Subcommittee charged with evaluating businesses for social responsibility, including but not limited to inclusion, exclusion, or ranking businesses for City contracting based on such criteria. This Subcommittee will comprise members who are reflective of the diversity of the Berkeley community, including both Peace and Justice commissioners and outside experts. The Subcommittee will include and consult with individuals with expertise in socially responsible investment and procurement, other subject matter experts and City staff.

The Commission is to hold hearings on and propose to Council, within six months, an ordinance to govern the Commission's advisory role on socially responsible investing and procurement of the City of Berkeley.

#### ENVIRONMENTAL SUSTAINABILITY

The Peace and Justice Commission, in its socially responsible investment and procurement advisory role, will assist the City staff in ensuring environmental concerns are reflected in the City's investing and procurement decisions.

#### RATIONALE FOR RECOMMENDATION

The City's Finance Department will continue as the lead agency for both investment and procurement decisions and implementation. This designation of the Peace and Justice Commission as the City's Socially Responsible Investment and Procurement Advisory Body will bring an important social justice lens to these decisions.

The designation will officially add socially responsible procurement to the Commission's mandate. Procurement decisions, including banking and other services as well as other

contracts and purchases, can have even more significant impact than investment decisions, as a city's investments in corporations are very limited.

Such decisions on how the City government invests its substantial funds, with whom it contracts, and how fairly its service providers treat their employees and their communities, are of deep concern to Berkeley's people. These issues have particular resonance for Berkeley's communities of color, immigrants, women, LGBTQI people, workers, the disabled, those concerned with the environment and religious freedom, and others. Involvement by these communities in decisions about investment and procurement will strengthen the City's process and foster social justice in its outcomes.

#### ALTERNATIVE ACTIONS CONSIDERED

The Commission considered incorporating all discussion on socially responsible investing and procurement into the full Commission meetings, but decided that a subcommittee including relevant expertise and greater community involvement would produce recommendations of higher quality.

Another alternative considered was to create an independent committee patterned on the 1979 Citizens Committee for Responsible Investment. The Commission felt that utilizing the existing commission structure would be preferable.

#### CITY MANAGER

See companion report.

#### CONTACT PERSON

George Lippman, Chairperson, Peace and Justice Commission

Breanne Slimick, Commission Secretary, (510) 981-7018

#### **Attachments: 1**

## RESOLUTION

Declaring the Berkeley Peace and Justice Commission be designated the City's Socially Responsible Investment and Procurement Advisory Body.

WHEREAS, the Peace and Justice Commission advises the City Council on all matters relating to the City of Berkeley's role in issues of peace and social justice (Berkeley Municipal Code section 3.68.070, Function A); and

WHEREAS, the Peace and Justice Commission mandate, as amended in 1990, includes Function K of BMC section 3.68.070: "Assist the Director of Finance in the annual evaluation of financial institutions for qualification of City investments; complete development and assist in the implementation of a linked deposit program; encourage target investments; coordinate with City agencies, appropriate community organizations, public and private investors, and the Governor's Public Investment Task Force; and advise the City Council on matters relating to the responsible investment of public funds in accordance with the responsible investment policy established by Resolution No. 55,141A-NS;" and

WHEREAS, the Peace and Justice Commission mandate includes Function L of BMC section 3.68.070: "Perform such other functions and duties as may be directed by the City Council or prescribed or authorized by any ordinance of the City, and such other functions and duties not prohibited by City Council which the commission should decide are consistent with its overall function of promoting peace and social justice;" and

WHEREAS, the "Socially Responsible Investment Policy" was passed by the Council, January 16, 1990 as Resolution #55,141A-N.S., "Adopting the Statement of Investments Policy presented by the Director of Finance as amended to include the recommendations of Peace and Justice Commission"; and

WHEREAS, the UN Human Rights Council unanimously endorsed the UN Guiding Principles on Business and Human Rights in 2011,<sup>1</sup> and this framework is the authoritative global standard on business and human rights, setting the expectations of states and companies about how to prevent and address negative impacts on human rights by business; and

WHEREAS, the City of Berkeley requires consistent overview of responsible investment and procurement policies, including policies relating to banking services;

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<sup>1</sup> [http://www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR\\_EN.pdf](http://www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf) and <https://www.unglobalcompact.org/> (Small businesses may be given a waiver from these requirements.) Note that in 2018, the U.S. government withdrew from the Human Rights Council.



THEREFORE BE IT RESOLVED that the Council of the City of Berkeley designates the Peace and Justice Commission as the Socially Responsible Investment and Procurement advisory body for the City of Berkeley, and requests the Peace and Justice Commission create a Socially Responsible Investment and Procurement Subcommittee charged with evaluating businesses for social responsibility, including but not limited to inclusion, exclusion, or ranking businesses for City contracting based on such criteria; and

BE IT FURTHER RESOLVED that the Socially Responsible Investment and Procurement Subcommittee will draft and the Peace and Justice Commission will hold hearings on and propose to Council an ordinance to govern the Commission's advisory role on socially responsible investing and procurement of the City of Berkeley; this proposed ordinance shall be submitted to the City Council within six months of the passage of this resolution; and

BE IT FURTHER RESOLVED that the Socially Responsible Investment and Procurement Subcommittee will consider "the goal of creating a world community in which the relations between people are based on equality, respect for human rights, and the abhorrence of exploitation and all forms of oppression [universal human rights]" [BMC section 3.68.030] for the evaluation of municipal investments and procurement, and community values for the evaluation of banking and other services.

A. Universal Human Rights include but are not limited to the rights listed in the International Bill of Human Rights, meaning the rights in the [Universal Declaration of Human Rights](#),<sup>2</sup> as codified in the [International Covenant on Civil and Political Rights](#)<sup>3</sup> and the [International Covenant on Economic, Social and Cultural Rights](#);<sup>4</sup> and the rights listed under International Humanitarian Law treaties and the rights in the International Labor Organizations' [Declaration on Fundamental Principles and Rights at Work](#).<sup>5</sup> These include but are not limited to concern for:

- 1) Social rights, including racial justice, the rights of indigenous people and LGBTQI people
- 2) Labor rights, including the prohibition of sweat labor and child labor
- 3) The rights of incarcerated people and people under a belligerent occupation
- 5) Rights of women and girls, including equal pay
- 6) Immigrant rights
- 7) Environmental justice
- 8) Civil and political rights
- 8) Rights of persons with disabilities
- 9) Rights of religious minorities

<sup>2</sup> <http://www.un.org/en/universal-declaration-human-rights/index.html>

<sup>3</sup> <http://www.ohchr.org/en/professionalinterest/pages/ccpr.aspx>

<sup>4</sup> <http://www.ohchr.org/EN/ProfessionalInterest/Pages/CESCR.aspx>

<sup>5</sup> <http://www.ilo.org/declaration/lang--en/index.htm>

## 10) Health and safety

- B. Corporate Responsibility includes, but is not limited to concerns about:
- 1) Local banking and presence
  - 2) Underserved communities and neighborhoods
  - 2) Corporate market behavior
  - 3) Corporate good citizenship and tax avoidance
  - 4) Corporate ethics and governance
  - 5) Community investment; and

BE IT FURTHER RESOLVED that the Socially Responsible Investment and Procurement Subcommittee will comprise members who are reflective of the diversity of the Berkeley community, including both Peace and Justice commissioners and outside experts, and the number of members, the qualifications, and length of service will be established in the above ordinance;

BE IT FURTHER RESOLVED that the Socially Responsible Investments and Procurement Subcommittee has the authority and will endeavor to include or consult with individuals with expertise in socially responsible investment and procurement, other subject matter experts and City staff; and

BE IT FURTHER RESOLVED that while the Socially Responsible Investments and Procurement Subcommittee engages in development of the above ordinance, it will begin work immediately to review the City's investments and procurement strategy and processes, and to advise the City Council and the City Manager and Director of Finance.



Office of the City Manager

ACTION CALENDAR  
July 16, 2019  
(Continued from July 9, 2019)

To: Honorable Mayor and Members of the City Council  
From: Dee Williams-Ridley, City Manager  
Submitted by: David White, Deputy City Manager  
Subject: Companion Report to Peace and Justice Commission’s Resolution Asking to be Assigned an Advisory Role in Consulting on Socially Responsible Investments and Procurement

RECOMMENDATION

Continue to allow the City Council Budget and Finance Committee to provide investment policy oversight.

FISCAL IMPACT OF RECOMMENDATION

Staff time from the Department of Finance.

CURRENT SITUATION AND ITS EFFECTS

At its regularly scheduled meeting on November 19, 2018, the Peace & Justice Commission took the following action of asking for a resolution to assign an advisory role in consulting on socially responsible investments and procurement for the City of Berkeley:

*M/S/C: Lippman/Hariri. Ayes: al-Bazian, Hariri, Lippman, Maran, Meola, Morizawa, Rodriguez. Noes: None Abstain: None. Absent: Bohn, Chen, Han, Pancoast*

This resolution seeks to affirm the November 1990 motion that was made by the City Council to assign a consulting role with respect to socially responsible investments. The resolution seeks to add this advisory role to the Commission’s existing mandate.

This resolution also asks City Council to establish a Socially Responsible Investment and Procurement Subcommittee to be charged with evaluating businesses for social responsibility. The Commission proposes to hold hearings on and propose to Council, within six months, an ordinance to govern the Commission’s advisory role on socially responsible investing and procurement.

ENVIRONMENTAL SUSTAINABILITY

There are no identifiable environmental effects or opportunities associated with the subject of this report.

RATIONALE FOR RECOMMENDATION

1. The City of Berkeley's Ordinance No. 5,705-N.S. was amended on November 27, 1990 to include an advisory role for the Peace & Justice Commission in the evaluation of City investments. The City replaced Peace & Justice Commission oversight over City investments several years ago with oversight by the Budget Review Commission. The Budget Review Commission conducted oversight until it was discontinued. Currently, the Budget and Finance Committee provides oversight over the City's investments.
2. During the period that the Peace & Justice Commission had oversight over responsible investing, communication was ineffectual and recommendations provided were overly complicated in terms of implementation and effectiveness. As a result, the advice given to staff was often counter-productive. For example, the Peace and Justice Commission developed a rather complex and unclear policy on purchasing Treasury securities that kept staff from purchasing these securities for over 20 years. (See Attachment 1.) Council eliminated this policy in FY 2019.
3. The City Council has established a Budget and Finance committee which is responsible for the following:
  - a. Investment Policy
  - b. Budget Development
  - c. Revenue Development
  - d. Expenditures
  - e. Fiscal Planning and Policy
  - f. Taxes and Fees
  - g. Large-scale Fiscal Investments

Additional Peace & Justice Commission oversight is duplicative to the work currently being performed by the Budget and Finance Committee.

4. The Council, as a body, has been engaged and on top of issues that deal with the values that its community espouses. The Council has passed and continues to advocate for socially responsible investments and some of these recommendations originated from several commissions including the Peace & Justice Commission. Some of the Council's recommendations include the following:
  - Nuclear-Free Berkeley Act
  - Oppressive States contract prohibition
  - Divestment from gun manufacturers and tobacco companies
  - Divestment from publicly traded fossil fuel companies and banks that finance pipelines and fossil fuel infrastructure

- Divestment from prisons (Resolution No. 67,640-N.S.) and immigration detention companies
- Divestment from any company designing, building or financing the U.S.-Mexico border wall (Resolution No. 67,865-N.S.)
- No investment in any entity involved in the production and manufacturing of weapons (Resolution No. 68,766-N.S.)

In addition, the City Council reviews and acts on recommendations from other commissions which includes the Peace and Justice Commission.

If the Peace and Justice Commission's recommendation is adopted, Council's efforts would be duplicated; at the same time it would require substantial Finance staff time to respond to numerous issues and questions from the commission. Finance staff is especially concerned about the impacts to existing workload, as the department is in the midst of implementing time sensitive matters including complying with new debt disclosure requirements and accounting standards promulgated by the Governmental Accounting Standards Board. In addition to that, Finance staff is heavily involved and engaged in the implementation a new financial system (ERMA).

#### ALTERNATIVE ACTIONS CONSIDERED

None.

#### CONTACT PERSON

Breanne Slimick, Commission Secretary (510) 981-7018  
Henry Oyekanmi, Director, Finance (510) 981-7326

#### Attachments:

1. Peace & Justice Commission policy on purchasing Treasury securities

*To the extent possible, without compromising the City's safety, liquidity and yield objectives, it is the City's policy to prefer investments in U.S. Agency securities. They are preferred because of their generally higher yields and generally socially preferable uses, such as housing loans or student loans, versus investments in Treasury securities with their association with nuclear weapons.*

*The following paragraphs outline a mechanism for choosing to invest in Treasury securities:*

- *For each type of investment instrument being considered by the Finance Officer, a "normal spread range" which that instrument yields in excess of Treasury issues of comparable maturity shall be established. When the actual spread is less than the minimum of the normal range, the Finance Officer may choose to invest in Treasury issues, on the grounds that the City is not being compensated for the additional credit risk of non-Treasury investments. Conversely, when the spread is larger than the maximum of the normal range, the Finance Officer may choose to invest in Treasury issues, on the grounds that the financial markets are evaluating alternative instruments as having higher than normal risk. In either case, the Finance Officer shall continue to monitor spreads, and when they return to the "normal range", evaluate the feasibility of selling any Treasury holdings and reinvesting in non-Treasury instruments.*

*Treasury issues may also be purchased when six dealers are unable to provide non-Treasury investments of the desired maturity and dollar amounts.*

*In any event, whenever Treasury instruments are purchased, the next quarterly report shall include an explanation of the circumstances and reasons under which they were purchased. All financial institutions, which hold deposits or investments of the City, shall file a statement with the Director of Finance indicating the percentage of the bank's assets which are loaned to or invested in nuclear weapons agents as defined in Section 13 of the Nuclear-Free Berkeley Act. The Director of Finance shall use this information as a factor in selecting banks which have minimum involvement in the nuclear weapons industry. A summary of these reports shall be attached to the annual Statement of Investment Policies.*

- *Investments in United States Treasury securities may be made by the City of Berkeley only when no other reasonable alternative exists under the procedure described above. Short-term investments in United States Treasury securities repurchase agreements of 14 days or more shall be authorized by a continuing resolution of the City Council with each resolution to expire within 60 days.*
- *The City of Berkeley shall ensure that any City funds, or any funds controlled by the City, invested through trustees or other third parties, are invested according to the provisions of this section and, to this end, shall obtain written assurances to this effect from any such trustees or third parties.*



Office of the Mayor

ACTION CALENDAR

July 16, 2019

*(Continued from July 9, 2019)*

To: Honorable Members of the City Council  
 From: Mayor Jesse Arreguín and Councilmembers Sophie Hahn, Kate Harrison and Rigel Robinson  
 Subject: Housing for a Diverse, Equitable and Creative Berkeley: Proposing a Framework for Berkeley's Affordable Housing

RECOMMENDATION

Refer to the Housing Advisory Commission, the Measure O Bond Oversight Committee, and the Homeless Services Panel of Experts to consider the proposed **Housing for a Diverse, Equitable and Creative Berkeley** framework (the "Framework") and return comments for consideration at a Special Meeting of the City Council in September, to inform a final version the City Council will adopt to govern Berkeley's affordable housing policies, programs and projects through 2030.

SUMMARY STATEMENT

With the public's generous support of 2018 Measures O and P and 2016 Measure U1, Berkeley has significant new local funds to support our affordable and homeless housing goals. Numerous advisory and decision-making entities, including the Measure O Bond Oversight Committee ("Measure O Committee"), Housing Advisory Commission (HAC), Planning Commission, Homeless Services Panel of Experts, City Staff - and the City Council as the final decision-making body - have a role in recommending, adopting or implementing policies, programs and projects using these and the City's other affordable and supportive housing resources. Several other entities may also play a role in recommendations or decisions affecting affordable and supportive housing including the Zoning Adjustments Board (ZAB) and the Mental Health and Homeless Commissions. *To support optimal coordination among these many bodies and cohesive action to realize Berkeley's affordable housing goals, it is imperative that the City Council provide a high-level roadmap for all to follow.*

There is a great deal of public process before us as we move forward to build an equitable housing future for Berkeley. We offer this Framework as a starting point for many future decisions, lighting a path for Berkeley to honor and maximize the powerful

opportunity presented by Measures O, P and U1, and the community's outstanding commitment to affordable and homeless housing.

This framework addresses *only* Berkeley's *affordable and supportive housing* strategies. Many strategies are already in place to support the creation of new market rate housing, and others are under consideration. Because the creation and preservation of affordable housing involves significant investments of City of Berkeley resources, a high-level, comprehensive framework, adopted by the City Council, is necessary to guide decision making by multiple entities over time.

## BACKGROUND

In the past, the City of Berkeley had limited financial resources to fund the development and management of affordable and supportive housing. Berkeley created a Housing Trust Fund in 1990<sup>1</sup> which may collect money from a number of sources including fees from market-rate rental or ownership developments (pursuant to BMC Chapter 23C.12 - Inclusionary Housing Requirements), demolitions, and the sale of City-owned properties.<sup>2</sup> Funds are often insufficient to support multiple projects simultaneously, or to fund single, large projects in their entirety. As of 2015, the HTF received approximately \$7.6 million from fee programs, which was the only source of funding at that time.<sup>3</sup> In December of 2018 (prior to the adoption of Measure O), the Housing Trust Fund had a balance of only \$3.5 million. In addition, that balance and other funds had been reserved for The Berkeley Way Project, which required at least \$13 million in City funds to move forward.<sup>4</sup>

*Recently, Berkeley voters overwhelmingly endorsed three measures that together create an unprecedented opportunity for the City to fulfill the community's highest priorities: addressing the dual crises of housing affordability and homelessness.*

Measure U1 (2016), which passed with 75% percent of the vote, increased the gross receipts tax on owners of five or more residential rental units, generating approximately \$5 million per year to increase affordable housing and protect Berkeley residents from

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<sup>1</sup> City of Berkeley Housing and Community Services Department, Housing Trust Fund, <https://www.cityofberkeley.info/ContentDisplay.aspx?id=6532>

<sup>2</sup> City of Berkeley Housing Trust Fund Guidelines, [https://www.cityofberkeley.info/uploadedFiles/Housing/Level\\_3\\_-\\_General/Revised%202016%20HTF%20GUIDELINES.pdf](https://www.cityofberkeley.info/uploadedFiles/Housing/Level_3_-_General/Revised%202016%20HTF%20GUIDELINES.pdf)

<sup>3</sup> Memo on Below Market Rate Housing and Housing Trust Fund Program Status, December 2015, [https://www.cityofberkeley.info/Clerk/City\\_Council/2015/12\\_Dec/Documents/2015-12-01\\_WS\\_Item\\_03\\_Below\\_Market\\_Rate\\_Housing.aspx](https://www.cityofberkeley.info/Clerk/City_Council/2015/12_Dec/Documents/2015-12-01_WS_Item_03_Below_Market_Rate_Housing.aspx)

<sup>4</sup> Reserving Up to an Additional \$12.5M in Housing Trust Funds for the Berkeley Way Development, December 4, 2018, [https://www.cityofberkeley.info/Clerk/City\\_Council/2018/12\\_Dec/Documents/2018-12-4\\_Item\\_03\\_Reserving\\_Up\\_to\\_an\\_Additional\\_12\\_5M\\_in\\_Housing\\_Trust\\_Funds.aspx](https://www.cityofberkeley.info/Clerk/City_Council/2018/12_Dec/Documents/2018-12-4_Item_03_Reserving_Up_to_an_Additional_12_5M_in_Housing_Trust_Funds.aspx)



homelessness.<sup>5</sup> In November of 2018, Measures O and P were overwhelmingly passed by Berkeley voters.<sup>6,7</sup> Measure O, supported by 77%, is a \$135 million affordable housing bond to create and preserve affordable housing. Measure P, which received 72% support, increases the real estate transfer tax on the top one-third of real estate transactions by 1% to fund rehousing, mental health and other services for the homeless, likely yielding \$6 to \$8 million per year.

Over ten years, these three measures are projected to generate more than \$200 million to create and preserve affordable housing, to keep vulnerable residents housed, and to rehouse individuals and families experiencing homelessness. Not surprisingly, given the high levels of support for these measures, the provision of affordable housing and homeless services was ranked as extremely or very important by 84% of respondents to a 2018 community survey<sup>8</sup>.

*The message from Berkeley voters and residents is clear; it is now our responsibility to deliver maximum value for those who need help finding or sustaining housing, and for the entire community.*

Berkeley is poised to undertake a major expansion of our affordable housing programs, using the new monies provided by Measures U1, O and P. Combined with already-existing affordable housing resources (Housing Trust Funds, inclusionary requirements and public land, among others) and supplemented with possible changes to the zoning code that could improve the mix and yield of affordable units, the City is well-positioned to meaningfully address Berkeley's highest priorities.

Diversity is one of Berkeley's key strengths. With the rapid influx of new workers to the Bay Area and additional students to UC Berkeley, our community is challenged to meet a variety of housing needs; in particular the needs of low and moderate income households and the homeless. Berkeley is committed to housing for its teachers, artists and artisans, seniors and students, young people entering the work-force, and the many other working individuals and families who cannot afford market-rate housing. Berkeley is also deeply committed to housing individuals and families experiencing

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<sup>5</sup> Full text of Measure U1, <https://www.cityofberkeley.info/uploadedFiles/Clerk/Elections/Measure%20U1.pdf>

<sup>6</sup> Full Text of Measure O, <https://drive.google.com/file/d/1qdA7jW6J5IHgFSllcwHcb20x-fcfW3Xv/view?usp=sharing>

<sup>7</sup> Full Text of Measure P, <https://drive.google.com/file/d/1JbipUDMW62KqkI4szDoMEgAmN0lvZCLk/view?usp=sharing>

<sup>8</sup> Discussion and Direction Regarding Potential Ballot Measures for the November 6, 2018 General Municipal Election, [https://www.cityofberkeley.info/Clerk/City\\_Council/2018/03\\_Mar/Documents/2018-03-27\\_Item\\_23\\_Discussion\\_and\\_Direction\\_Regarding\\_-\\_Supp.aspx](https://www.cityofberkeley.info/Clerk/City_Council/2018/03_Mar/Documents/2018-03-27_Item_23_Discussion_and_Direction_Regarding_-_Supp.aspx)

homelessness, and ensuring that people with disabilities have accessible, supportive and affordable options.

Berkeley's new affordable housing monies enable us to expand successful housing strategies the City is already pursuing and to significantly expand important strategies that were more difficult to achieve in the absence of meaningful local funds. The plan proposes expanding Berkeley's major existing affordable housing programs and putting substantial resources into directions that reflect core Berkeley values such as cooperative ownership, democratic control and the empowerment of underserved communities. It also proposes a suite of policies that should be broadly applied to all existing, expanded and new affordable housing initiatives.

*This Framework is meant to serve as the "mission and goals" that will guide the next decade of action on affordable housing in Berkeley. Specific strategies, programs and projects will be developed in much more detail by the Measure O Committee (and, with respect to U1 funds, the HAC and to Measure P funds, the Homeless Services Panel of Experts); with input from other committees and commissions and from trusted community partners and the public; with the expertise and support of City Staff; and with refinement and approval by the Berkeley City Council.*

## REVIEW OF EXISTING PLANS, PROGRAMS, POLICIES & LAWS

The City of Berkeley has numerous programs, policies and laws in place that directly or indirectly support the creation and preservation of affordable and supportive housing. Many of these are discussed in the proposed Framework, including rent control and eviction protections<sup>9</sup>, affordable housing fees and inclusionary requirements for for-profit developments<sup>10</sup>, a Small Sites Program, and the Tenant Opportunity to Purchase Act<sup>11</sup>.

Housing affordability is the first objective of the Housing Element of the City of Berkeley General Plan. *Policy H-1 - Extremely Low, Very Low, Low and Moderate Income Housing* sets the goal of increasing housing affordable to residents with lower income, and outlines a number of actions to achieve this goal, including encouraging incentives for affordable housing development, utilizing the Housing Trust Fund to provide housing, and maintaining zoning requirements for the inclusion of affordable units in

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<sup>9</sup> Rent Stabilization and Eviction for Good Cause Ordinance, [https://www.cityofberkeley.info/Rent\\_Stabilization\\_Board/Home/Ordinance\\_Rent\\_Stabilization\\_and\\_Eviction\\_for\\_Good\\_Cause.aspx](https://www.cityofberkeley.info/Rent_Stabilization_Board/Home/Ordinance_Rent_Stabilization_and_Eviction_for_Good_Cause.aspx)

<sup>10</sup> BMC Chapter 23C.12, Inclusionary Housing Requirements, <https://www.codepublishing.com/CA/Berkeley/cgi/NewSmartCompile.pl?path=Berkeley23C/Berkeley23C12/Berkeley23C12.html>

<sup>11</sup> Small Sites Acquisition Program and Tenant Opportunity to Purchase, Feb 14, 2017, [https://www.cityofberkeley.info/Clerk/City\\_Council/2017/02\\_Feb/Documents/2017-02-14\\_Item\\_18b\\_Small\\_Sites\\_Acquisition.aspx](https://www.cityofberkeley.info/Clerk/City_Council/2017/02_Feb/Documents/2017-02-14_Item_18b_Small_Sites_Acquisition.aspx)

new housing developments<sup>12</sup>. Housing affordability is also the subject of Land Use Policies LU-18 (Downtown Affordable Housing Incentives) and LU-25 (Affordable Housing Development) of the Land Use Element of the General Plan<sup>13</sup> and of the City's affordable housing requirements in market rate buildings.<sup>14</sup> Many of Berkeley's area-specific plans, such as the Downtown Area Plan, Adeline Corridor Specific Plan, and West Berkeley Plan, also highlight the importance of affordable housing to specific areas and neighborhoods.<sup>15, 16, 17</sup>

2018's Measure O is the most recent affirmation of the community's desire to create and preserve housing affordable to serve populations not able to afford market rates. It sets a goal of achieving 10% reserved affordable housing by 2030.<sup>18</sup> The Framework seeks to coordinate existing and new efforts toward achieving this goal.

### ACTIONS/ALTERNATIVES CONSIDERED

While the City has made numerous commitments to affordable housing in the past and taken a variety of actions to encourage its development and preservation, many of these were made before Measure U1, O, and P's resources were contemplated or available. The need to allocate resources in a coordinated, efficient and rational manner is more urgent than ever as we set out to spend the significant new funds voters have generously provided.

Creating a clear roadmap for the many entities that will consider and decide on the use of both new and existing resources is the best way to ensure optimal allocations and maximum achievement of the community's goals. Looking at individual projects or programs absent a guiding plan and principals will not produce the optimization or

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<sup>12</sup> Housing Element, Policy H-1 Extremely Low, Very Low, Low and Moderate Income Housing  
[https://www.cityofberkeley.info/Planning\\_and\\_Development/Home/General\\_Plan\\_-\\_Housing\\_Element.aspx](https://www.cityofberkeley.info/Planning_and_Development/Home/General_Plan_-_Housing_Element.aspx)

<sup>13</sup> Land Use Element, City of Berkeley General Plan,  
[https://www.cityofberkeley.info/Planning\\_and\\_Development/Home/General\\_Plan\\_-\\_Land\\_Use\\_Element\\_Introduction.aspx](https://www.cityofberkeley.info/Planning_and_Development/Home/General_Plan_-_Land_Use_Element_Introduction.aspx)

<sup>14</sup> BMC 23C.12 Inclusionary Housing Requirements,  
<https://www.codepublishing.com/CA/Berkeley/cgi/NewSmartCompile.pl?path=Berkeley23C/Berkeley23C12/Berkeley23C12.html>

<sup>15</sup> Berkeley Downtown Area Plan,  
[https://www.cityofberkeley.info/uploadedFiles/Planning\\_and\\_Development/Level\\_3\\_-\\_DAP/FINAL\\_x-DAP%20document\\_120329.pdf](https://www.cityofberkeley.info/uploadedFiles/Planning_and_Development/Level_3_-_DAP/FINAL_x-DAP%20document_120329.pdf)

<sup>16</sup> Adeline Specific Area Plan  
[https://www.cityofberkeley.info/uploadedFiles/Planning\\_and\\_Development/Level\\_3\\_-\\_Land\\_Use\\_Division/Adeline%20SP%20Public\\_4.%20Housing\\_5.15.19.pdf](https://www.cityofberkeley.info/uploadedFiles/Planning_and_Development/Level_3_-_Land_Use_Division/Adeline%20SP%20Public_4.%20Housing_5.15.19.pdf)

<sup>17</sup> West Berkeley Plan, Housing and Social Services,  
[https://www.cityofberkeley.info/Planning\\_and\\_Development/Home/West\\_Berkeley\\_-\\_Housing\\_Social\\_Services.aspx](https://www.cityofberkeley.info/Planning_and_Development/Home/West_Berkeley_-_Housing_Social_Services.aspx)

<sup>18</sup> Full Text of Measure O, <https://drive.google.com/file/d/1qdA7jW6J5IHgFSllcwHcb20x-fcfW3Xv/view?usp=sharing>

coordination that is required to fulfill our mandates. Similarly, adopting a Framework without collecting input from the community and appropriate Commissions and Committees would not be appropriate. We see no alternatives that would ensure the work of many entities involved in forwarding affordable housing in Berkeley is harnessed towards commonly established, clearly stated and rationalized goals.

#### CONSULTATION/OUTREACH OVERVIEW & RESULTS

The intent of this referral is to launch a broad process of consultation to gather input from the Housing Advisory Commission, the Measure O Bond Oversight Committee, and the Homeless Services Panel of Experts and from community partners and the public. Because the Framework must be in place before other entities embark to fulfill their respective charges, consultation must be completed and the Framework adopted quickly.

This referral specifically requests feedback on *broad concepts, directions and goals*, not on *implementation strategies, programs or projects*. While Commissions, Committees, community partners and the public will no doubt be tempted to address these additional important elements at this time, specific strategies, programs and projects will not be addressed in the Framework itself. These will be developed and vetted over time by the Measure O Committee, the HAC and other appropriate entities, and will involve additional consultation with community partners and the public.

The attached draft Framework reflects consultation with the City Manager's Office and the Health, Housing, and Community Services Department, and with the item's four co-sponsors. The Framework was conceived and written with the support of Stephen Barton, PhD., former Executive Director of the City of Berkeley's Rent Board and former City of Berkeley Housing Director. The Framework, offered as a draft, now awaits input from the Housing Advisory Commission, the Measure O Bond Oversight Committee, and the Homeless Services Panel of Experts, community partners and, most importantly, the public.

#### RATIONALE FOR RECOMMENDATION

Traditionally, affordable housing has been the purview of the City Council, the Housing Advisory Commission and City Staff. Measure U1 further deputizes the HAC to make recommendations on the use of U1 funds and recommendations on expanding affordable housing in the City, and both Measures O and P established boards to provide recommendations on the use of their respective funds. Finally, the Planning Commission, the Land Use, Housing, and Economic Development Committee, the Zoning Adjustments Board and other City entities play important roles in supporting and producing affordable housing. It is important that all of these entities share a single

vision and, even when acting independently, are moving towards clearly articulated, Council-approved goals. A single cohesive Framework will help ensure that different funds, regulatory strategies and other resources available to be harnessed to the cause of affordable and supportive housing are each deployed for their optimal purpose within the broader ecosystem.

#### IMPLEMENTATION, ADMINISTRATION & ENFORCEMENT

The Housing Advisory Commission, the Measure O Bond Oversight Committee, and the Homeless Services Panel of Experts are the most appropriate drivers of the public process. Each shall hold at least one publicly noticed meeting to take comments and review and discuss the proposed Framework. The Chair of each body shall prepare a set of comments, approved by the Commission and Committees, to present at the Special Meeting of the City Council in September. Given the urgency of this referral, lengthy reports are neither required nor feasible. Each body can choose its own preferred format for comments, and the Chair (or other chosen representative) will be provided 10 minutes at the September Special Meeting to present comments.

#### FISCAL IMPACTS

Costs for review of the proposed Framework by Commissions, Committees, and by the City Council at a Special Meeting are minimal and consist of staff time to notice and staff meetings, many of which are already regularly scheduled.

Ultimately, adoption of the Framework will provide the cohesion necessary to rationalize the use of the City's many affordable housing resources and allow the City to responsibly and efficiently allocate resources to best achieve community goals.

#### ENVIRONMENTAL SUSTAINABILITY

Carrying out the community process as proposed has no environmental impacts.

Creating and preserving affordable and homeless housing in Berkeley, a transit rich community, will allow lower income individuals and families to live closer to transit and to their workplaces, reducing greenhouse gas emissions by shortening commutes and decreasing reliance on personal vehicles. Building to high green standards, as required by the Framework, will ensure new and refurbished housing incorporates energy efficiency, electrification, water conservation and use of non-toxic materials, as well as other green building measures.

Preserving and refurbishing existing housing stock is an important environmental strategy, as reuse/repair/refurbishment of materials already in use maximizes the value of a building's embodied energy, and avoids expending additional embodied energy on

a new building, that can take decades or even a century to recapture.

Finally, increasing affordable housing in Berkeley will make the City more economically and racially equitable, which is a key factor of the City's sustainability and resilience goals, as outlined in Berkeley's Resilience Strategy.

#### OUTCOMES & EVALUATION

If robust input is received from diverse stakeholders and the Framework is adopted, the goals of this item will have been fully realized. The Framework will support achievement of Measure O's stated goal that 10% of Berkeley housing units be reserved affordable by the year 2030.

#### CONTACT

Mayor Jesse Arreguín, (510) 981-7100

Councilmember Sophie Hahn, District 5, (510) 981-7150

#### Attachments:

1. Housing for a Diverse and Creative Berkeley: A Framework for Affordable Housing

# **Housing for a Diverse, Equitable and Creative Berkeley**

## ***A Framework for Affordable Housing***

**Councilmember Sophie Hahn and Mayor Jesse Arreguín**

Written in collaboration with Stephen Barton, Ph.D.

### **EXECUTIVE SUMMARY**

*Berkeley is poised to undertake a major expansion of our housing affordability programs, using new monies provided by Measures U1, O and P. Combined with already-existing affordable housing resources and supplemented with possible changes to the zoning code that could improve the mix and yield of affordable units, the City is well-positioned to meaningfully address Berkeley citizens' highest priorities: to increase affordable housing and rehouse the homeless.*

Diversity is one of Berkeley's key strengths. With the rapid influx of new workers to the Bay Area and additional students to UC Berkeley, our community is challenged to meet a variety of housing needs; in particular the needs of low and moderate income households and the homeless. Berkeley is committed to housing for its teachers, artists and artisans; seniors and students; young people entering the work-force; and the many other working families and individuals who cannot afford market-rates. Berkeley is also deeply committed to housing the homeless, and ensuring that people with disabilities have accessible, supportive and affordable homes.

Berkeley's new housing monies enable us to expand successful affordable housing strategies we are already pursuing and to expand important strategies that were more difficult to achieve in the absence of significant local funds. We propose expanding Berkeley's major existing affordable housing programs and putting substantial resources into directions that reflect core Berkeley values such as cooperative ownership, democratic control and the empowerment of underserved communities. We also propose a suite of policies that should be broadly applied to all existing, expanded and new affordable housing initiatives.

#### **Major Existing Programs - Recommend to Expand:**

Currently, the City of Berkeley works to maintain housing affordability through four primary strategies, each of which is backed by effective organizations within the City of Berkeley and by local non-profit affordable housing organizations. ***These four strategies should be strengthened and expanded:***

1. Constructing New Non-Profit Affordable Units
2. Rent and Eviction Protections
3. Affordable Housing Fees and Inclusionary Requirements for For-Profit Developments
4. Direct Subsidies to Renters

**Additional Important Programs - Recommend to Significantly Expand:**

There are several additional strategies that the City should expand substantially as they offer excellent opportunities to create and preserve affordable rental *and ownership* housing aligned with Berkeley values. Some of these strategies require capacity-building within City Departments and in non-profit partners. ***These programs should be significantly strengthened and expanded:***

1. House and Support the Homeless
2. Transition some of Berkeley's existing rental housing to permanently affordable social ownership by expanding the Small Sites Program, accompanied by a Tenant or Community Opportunity to Purchase Act.
3. Provide innovative homeownership opportunities for moderate and low income residents, including cooperative ownership using the Community Land Trust model.
4. Significantly increase the supply of affordable live-work housing for artists and artisans.
5. Encourage adding incremental units, such as accessory dwelling units (ADUs) or low-rise multiplex units that complement neighborhood character.
6. Partner with UC Berkeley to support creation of housing appropriate and affordable to students, faculty and staff.

**Policies to Ensure Equity and Sustainability:**

While pursuing these strategies, there are several principles of equity and sustainability the City should apply to all of its affordable housing programs:

1. Ensure equitable access to scarce affordable housing, including accessible units with universal design features.
2. Codify Deep Green Building standards for healthy and sustainable buildings, and other measures to increase environmental sustainability.
3. Prioritize the use of public land for the creation of affordable housing.
4. Ensure those who build and rehabilitate our housing are paid fair wages and have access to health insurance, and support local apprenticeship programs.
5. Make changes to the City of Berkeley Zoning Code and project approvals processes to incentivize, facilitate and reward the production of affordable housing.



Following these programs and principles, Berkeley will be able to preserve and expand its diverse and creative character, support equity and opportunity, and offer meaningful, stable housing solutions to families and individuals not able to afford market rates.

This Framework addresses only Berkeley's *affordable* housing goals. Many strategies are already in place to support the creation of new market rate housing, and others are under consideration. Because the creation and preservation of affordable housing involves significant investments of City and other resources, a comprehensive roadmap, adopted by the City Council, is necessary to guide decision making by multiple entities over time.

## I. INTRODUCTION

Many things make Berkeley a special and attractive place; nationally and internationally renowned for activism, intellect, innovation and the arts. We are lucky to be situated on the desirable West Coast of the United States and the Pacific Rim, bordering San Francisco Bay and adjacent to the largest Regional Parks network in America. But the core of what makes us a unique, important and engaging City is *the people of Berkeley, and our shared values of equity, opportunity and justice*. Our robust mix of backgrounds includes people of diverse ethnicities, religions, ages, gender identities, occupations and abilities. Without this mix, we lose the fundamental elements of our greatness and risk all that makes Berkeley one of the most uniquely desirable and impactful small cities in America.

Preserving and enhancing our diversity - and our humanity - in the face of unprecedented pressure on housing affordability is one of the greatest challenges we face. Rent control has long been a key strategy for Berkeley to provide stability and affordability to residents; our ability to keep it strong has been severely eroded by the State. Twenty years ago, working families could still afford to buy homes in Berkeley; with median home prices now topping \$1.3 million, that is no longer the case.<sup>1</sup> And with a dramatic rise in rents and evictions throughout the region and the State, the humanitarian disaster of homelessness accelerates.<sup>2, 3, 4</sup>

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<sup>1</sup> Oakland, Berkeley, Piedmont Real Estate, June 2019, <https://www.bayareamarketreports.com/trend/oakland-berkeley-real-estate-market-conditions-prices>

<sup>2</sup> New report underscores link between 'shocking' number of evictions, homelessness, Curbed LA, June 10, 2019, <https://la.curbed.com/2019/6/10/18659841/evictions-homelessness-rent-burden-los-angeles>

<sup>3</sup> Implementation of Resolution 68,312 (Council Funding for Additional Services Amending Contracts with Eviction Defense Center ("EDC") and East Bay Community Law Center ("EBCLC")) For the Period Ending June 30, 2018, April 2, 2019, [https://www.cityofberkeley.info/Clerk/City\\_Council/2019/04\\_Apr/Documents/2019-04-02\\_Item\\_13\\_Implementation\\_of\\_Resolution.aspx](https://www.cityofberkeley.info/Clerk/City_Council/2019/04_Apr/Documents/2019-04-02_Item_13_Implementation_of_Resolution.aspx)

<sup>4</sup> "Rising rents, home prices in Berkeley and the Bay Area displacing thousands", June 28, 2018, <https://www.berkeleyside.com/2018/06/28/rising-rents-home-prices-in-berkeley-and-the-bay-area-displacing-thousands>

Rising market rates for both rental and ownership housing in Berkeley is driven primarily by the huge increase in high paid workers flooding the Bay Area, and by UC Berkeley's addition of 35% more students over the last 20 years, bringing enrollment to over 41,000.<sup>56</sup> New Tech and other "white collar" workers pay well over \$1 million for the bungalows, duplexes and tract homes that used to house the Bay Area's middle income and poor residents, and are able to afford rents of \$3500 or more for a two bedroom apartment.<sup>7</sup> Students in Berkeley are packed 2, 3 and 4 to a bedroom, some paying \$1,500 per month - per person - for a bunk. Everyone else is left behind.

Who is "everyone else?" *Everyone else* includes the teachers who teach our children; the nurses and home-care workers who support us when we are sick; the activists and not-for-profit workers who forgo high salaries to promote and serve the public interest; the artists and artisans who delight, entertain, feed and provoke us; the firefighters who come to our rescue and police who work to keep us safe; seniors who have contributed for decades and are now on fixed incomes and students who struggle to pay tuition and rent; young people entering the workforce and starting families, who are building our future; the waiters, baristas and retail workers who serve us; public sector workers who make sure our cities and counties can deliver, and who make our public institutions work; and many more. *Everyone else* also includes the disabled, whose ability to generate income may be limited; those suffering from mental illness or substance abuse, which afflict people from all walks of life; and our lowest income community members, especially those who have been subject for generations to discrimination and physical, psychic and economic violence. *These are the people Berkeley's affordable and supportive housing programs are designed to help.* We want them in our community.

The voters of Berkeley recently established three important new sources of funding to support the creation and preservation of affordable housing, to keep vulnerable people housed, and to rehouse the homeless: Measure U1 (2016), Measure O (2018) and Measure P (2018). Thanks to the generosity and care of Berkeley citizens, Berkeley for the first time has substantial local funds to support these important community goals. In addition, the City collects funds and obtains affordable units from for-profit developments as mitigation for affordable housing impacts. Finally, the City of Berkeley is completing an inventory of land it owns that might be allocated to affordable housing development.

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<sup>5</sup> Student Enrollments, UC Berkeley Office of the Vice Chancellor of Finance, <https://pages.github.berkeley.edu/OPA/our-berkeley/student-enrollments.html>

<sup>6</sup> Common Data Set 1999-00, UC Berkeley Office of Planning and Analysis, <https://opa.berkeley.edu/sites/default/files/1999-2000.pdf>

<sup>7</sup> Berkeley Average Rent Trend Data, April 2019, <https://www.rentjungle.com/average-rent-in-berkeley-rent-trends/>

These Berkeley affordable housing resources can bring in matching Federal, State and/or County funds of as much as \$5 for every Berkeley dollar, significantly leveraging our investments. All of these resources together, allocated strategically, could yield well over 1,000 additional units of affordable housing. As stated in Measure O, the Berkeley City Council - and the voters - have adopted a goal of making 10% of Berkeley's housing reserved affordable by 2030. This means that ten years from now we intend to have 5,000 units available at below-market rates and set aside for people with diverse incomes, from extremely low- to middle-income, groups that are struggling to afford the cost of housing in our city.

*We believe that Berkeley should aspire to make at least 30% of its housing, around 15,000 units, permanently affordable, and eventually strive to achieve 50% protected or reserved affordable housing, to match the "social housing" mix of progressive European cities such as [Amsterdam](#) and [Vienna](#).*

Berkeley's [Measure O](#) provides for sale of \$135 million in bonds to fund capital expenditures for a variety of types of affordable housing. [Measure P](#) increased the real estate transfer tax on the most expensive one-third of real estate sales to rehouse the homeless and fund the services they need to remain housed. It is expected to bring in \$6 - \$8 million annually, depending on property sales. [Measure U1](#) increased the gross receipts tax on most residential rental properties to fund affordable housing and protect Berkeley residents from homelessness. In 2018 it realized \$5.1 million and will continue to increase as rents increase. Taken together, over the next ten years the City of Berkeley will likely have almost \$250 million in new revenue available for affordable housing and homelessness reduction. (For more detail on Berkeley's Affordable Housing resources see Appendix A - Funding Sources)

To allocate these and other affordable housing monies (such as developer impact fees) and allocate resources such as public land and inclusionary units, the City Council is advised by no fewer than three different advisory boards, as required under each measure, and receives input from the Planning Commission and numerous additional entities. This report is intended to help provide these advisory bodies, and the City Council, which has the ultimate responsibility to allocate all of these funds and resources, with a coherent framework. The goal is for our housing programs and expenditures to have a unifying sense of direction: to deploy the optimal mix of City resources for each purpose, to maximize the leveraging of local funds, and to meet the expressed needs and desires of the community.

Measure O funds are limited to traditional types of capital expenditures: buildings, grounds and other “hardscape” elements of projects. Measure P funds are available for programmatic as well as capital needs, including mental health and other supportive social services, and rent subsidies or operating cost subsidies necessary to rehouse the homeless and to support people who are at immediate risk of homelessness. U1 funding can be used for anything that is necessary for the creation of permanently affordable housing, and as such is the most flexible source of regular affordable housing funds. Because of this flexibility, at least some (and possibly all) U1 funds should likely be reserved for use where other more restricted funds are not available.

Affordable Housing fees paid by developers of market rate projects are deposited into Berkeley’s [Affordable Housing Trust Fund](#) (HTF), and can only be used for those fund purposes. In general, these include pre-development expenses and long-term loans to cover the capital costs of building or rehabilitating permanently affordable housing. Developers are allowed the alternative of providing “inclusionary housing” (where a market rate project includes affordable units within the development itself) and policy makers must consider what the best role for those units might be, as one component of a much larger set of affordable housing resources. With significant local, County, State and Federal funds now available to support Berkeley’s deeply subsidized units for very low and extremely low income people, inclusionary housing requirements for market rate developments could be redirected towards production of housing for low and moderate income families - at higher inclusionary percentages than are currently in place for more deeply affordable units.

This proposed framework is not intended as a comprehensive statement of all the City’s housing goals, which are provided in the [General Plan Housing Element](#). Our focus is on the creation and retention of affordable housing in concert with Berkeley’s goals and values, taking maximum advantage of the opportunities created by the passage of Measures U1, O and P, combined with the City’s pre-existing affordable housing resources: affordable housing mitigation fees, inclusionary housing and public land.

In addition to these Berkeley resources, there are a great number of Federal, State and County programs, some of which require local matching funds and others of which do not. The City also has the potential to revise its land use regulations to create housing opportunities; these require more systematic analysis.

When State and Federal funds are used, Berkeley is limited to supporting housing and services that meet their program criteria. Monies provided by Berkeley’s own generous voters are more flexible than State and Federal funds and can be strategically deployed to accomplish a broader spectrum of City priorities. Our job is to optimize each funding

source and adjust our land use policies to support the community's expressed goals, ensuring that Berkeley moves decisively to implement programs and policies that advance us towards 10% reserved affordable housing by 2030, and embody our values of equity, opportunity, health and environmental sustainability.

This report provides an overview of an approach to affordable housing that we believe reflects Berkeley's values and diversity. It looks at the loss of affordability that Berkeley has undergone over the past 20 years and the sources of that loss. It lists and briefly explains the broad range of housing policies and programs that Berkeley might pursue. It lists the resources Berkeley has available to meet the current crisis and the limitations placed on the use of each resource. It then matches policies and resources, explaining how each can best be used.

## **II. HOUSING AND BERKELEY VALUES**

Berkeley values diversity. Interaction among diverse people fosters important community values, including equity, opportunity, learning, creativity, neighborliness, and democracy. Berkeley was once affordable to everyone, from the high-income residents of large single-family homes to the extremely low-income residents of single-room occupancy residential hotels, and to everyone in between. Berkeley was a national leader in inclusion, redrawing school attendance lines to integrate its schools, eliminating barriers for those with mobility and other physical limitations, preserving the affordability of rental housing by limiting rent while allowing landlords to receive a fair return on their investment, and protecting lower and middle income neighborhoods from the displacement of so-called Urban Renewal.

Now rising rents and home prices threaten to turn Berkeley into an enclave of mostly the well-to-do and university students, with a small number of low-income residents in subsidized units. Rent control enables tenants to remain in place as long as they can afford modest annual rent increases, but State law mandates that landlords can increase rents - even on rent controlled units - to current market rates when units turn over. Even in "inclusionary" apartments, rents have increased faster than the rate of inflation because the rent-setting formula for these units is based on the "area median income," (AMI) which increases as more high-income people move into Alameda County and low-income people are forced out.

We must do what we can to preserve the diversity of our City. A community that excludes most low and moderate income people is no longer a source of opportunity. A community no longer affordable to those who work for the common good rather than for profit-

maximizing companies will no longer be equitable. A community in which only a few of the most successful writers, researchers, artists and artisans are able to live will no longer be a creative, learning community.

Preservation of a diverse, equitable and creative Berkeley requires many different types of housing compatible with different neighborhoods to meet the housing needs of people with a range of incomes, family sizes, abilities and ways of life. It requires that we mobilize and carefully coordinate the use of our affordable housing resources to get the maximum benefit from each source, so that we continue to have housing affordable to our diverse residents.

Berkeley must create and preserve affordable housing at all scales - from accessory dwelling units to small scale multi-family, live-work and large apartment buildings. We also need to create units of various sizes, including units large enough for families to live long term, and for children to grow up in.

We need to make more of our housing work for people with varied mobilities and for the elderly, and to make more of our housing environmentally efficient. We are studying the concept of expanding housing beyond the Downtown and transit corridors by adding more duplex, triplex and quadruplex units within existing low density neighborhoods.

We must ensure that an important share of our City's housing is subject to social ownership that will keep it affordable; held by non-profit housing corporations, community land trusts and limited and non-equity cooperatives, and subject to deed restrictions. And we must establish community priorities for access to this scarce resource so that the affordable housing we create and preserve helps keep low and moderate income residents from being displaced, enables children to remain in school and low-wage workers to live near their jobs, and maintains our historic diversity.

### **III. THE AFFORDABILITY CRISIS**

Across the Bay Area, almost 1 million jobs have been created since 1990.<sup>8</sup> From 2009 to April 2019, the overall Bay Area job market increased by about 30%, while the tech industry increased by 56%.<sup>9</sup> In Berkeley, there are more students and staff at the University of California, more private sector jobs within easy commute, and more people who appreciate the walkable, transit-oriented lifestyle provided by Berkeley's compact

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<sup>8</sup> Plan Bay Area 2040: Final Plan, <http://2040.planbayarea.org/the-bay-area-today>

<sup>9</sup> "Tech employment in Bay Area reaches record highs.", <https://www.mercurynews.com/2019/06/14/tech-employment-bay-area-reaches-record-highs-google-apple-facebook-adobe/>

development and the wide range of cultural and social amenities. The diverse, open and forward thinking people of Berkeley and the Bay Area have made Berkeley a place where more people want to live, many of them with higher incomes than those already here.

This reality tracked by looking at average rents in Berkeley over time. At the end of 1998, just before State-mandated vacancy decontrol took effect, the average rent in the 20,000 apartments built before 1980 was \$720 a month. Twenty years later, at the end of 2018, it was \$1,956. If rents had increased only by the rate of inflation, they would instead average \$1,150 a month.<sup>10</sup> As older units are vacated, average market rents rise ever higher, reaching \$2,200 for a one-bedroom and \$3,000 a month for older two-bedroom apartments in 2018, with increases of around 50 percent in just the last five years. Owners of older housing stock in Berkeley are able to increase their profits as they ride the exploding demand from high-paid professionals and the increases in UC Berkeley's student population - squeezing lower-income tenants who must pay most of their incomes to find housing near jobs or family, or end up homeless. Similarly, In 2000 the median home price was \$380,000. By 2013 it was \$704,000 and by 2019 it had reached \$1,300,000.

Housing is expensive to build, requires land to build on and lasts a long time if properly maintained. This has important implications for affordability. With few vacant sites available in Berkeley, the supply of housing can only increase by increasing the density of development, as is currently underway Downtown and along major transit corridors, and is being contemplated in other areas. However, only a minority of tenants can afford to pay enough rent to repay the cost of new construction, typically \$3,000 - \$4,000 monthly for a one bedroom apartment.<sup>11</sup> Theoretically, this new market-rate housing is helpful in diverting some of the increased demand from high-income tenants into new construction and away from older, more affordable buildings, thus reducing displacement; but it does not help meet the significantly increased demand from middle and lower-income tenants.

Most Berkeley tenants live in older housing, where the cost of construction was paid off long ago and the building can be operated and maintained for a lower rent. But the supply of older housing is fixed and, with rising demand, this is the housing sector that is undergoing huge rent increases and rapid gentrification.

Proponents of market solutions claim affordability is simply a matter of supply and demand, and the problem can be solved by building new housing. But while increased rents at the high end of the market encourage production of new housing that high-wage

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<sup>10</sup> Inflation as measured by the San Francisco-Oakland area Consumer Price Index for All Items except Shelter, "shelter" meaning rent and owners equivalent rent.

<sup>11</sup> New Apartments for Rent in Berkeley, CA. Apartments.com, <https://www.apartments.com/berkeley-ca/new/>

workers can afford, rent increases in older housing simply generate windfall profits for their owners and fuel displacement of middle and lower income tenants. State-mandated “vacancy decontrol” allows landlords to raise rents to market levels each time a unit turns over, even in cities like Berkeley with traditionally strong rent controls. Ultimately, owners of older housing with significantly lower costs are under no obligation to keep their rents low as well, and in the immediate, higher demand for older housing can never produce more of it.

It typically takes ten to fifteen years before rents in newly constructed buildings have the potential to level off as buildings age and the initial costs of construction are paid off. This is what is often called the process of “filtering down.” But this process is self-limiting. Once enough new housing is built to meet demand from higher-income tenants and high-end rent rates peak, or slightly decline, market-rate construction slows or stops, despite continued high demand among middle and lower income tenants who can’t afford even somewhat reduced market rents for new housing.<sup>12</sup> In plain terms, a family that can only afford \$1,200 or \$1,500 per month for a two-bedroom apartment will never benefit from a reduction in new-build market rents from \$4,000 to \$3,500, or even to \$2,000 - a very unlikely scenario. If rents at older units have also risen, middle and lower income tenants have no place to go.

The supply of new market-built housing will also always be limited by the need to cover construction and other development costs. For-profit developers simply will not build housing that doesn’t generate the returns they require - for banks and investors to provide the capital to build, and for their own need to generate profits. This is true even when significant demand for housing persists. If those who need housing can’t pay rents that will cover the cost of construction, capital and profits, *no amount of demand will generate new for-profit development.*

In the Bay Area’s exploding job market, with people coming to the region to take jobs at both higher and lower wages, new market-rate construction will at best absorb some of the demand from high wage workers and may reduce pressure to gentrify older neighborhoods. But it will not result in a flood of new market rate units and deeply reduced prices to meet the increased demand from the growing numbers of lower-wage workers who also need to be housed, or from those who have been displaced through gentrification.

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<sup>12</sup> The State of the Nation’s Housing. Joint Center for Housing Studies of Harvard University (2018), p. 19-21, [http://www.jchs.harvard.edu/sites/default/files/Harvard\\_JCHS\\_State\\_of\\_the\\_Nations\\_Housing\\_2018.pdf](http://www.jchs.harvard.edu/sites/default/files/Harvard_JCHS_State_of_the_Nations_Housing_2018.pdf)



High-wage jobs make up a majority of Bay Area jobs, but low-wage jobs are growing at a much faster rate. Approximately 90,000 low-wage jobs were added from 2016 to 2017 in the Bay Area, while the number of high-wage jobs decreased over the same time period.<sup>13</sup> This means that new market-rate construction will not result in lower rents for most tenants, and indeed market rents are likely to continue to increase in older housing as well. Only reserved affordable or subsidized housing can meet the needs of families and individuals with incomes at moderate and low levels.

*The question before us is whether we will let market forces decide who can reside in Berkeley, ultimately reserving it for those with high incomes and wealth, or whether we want to reshape the market so Berkeley can remain accessible to people of all backgrounds and incomes, who are essential to the life and vibrancy of our city.*

#### **IV. AFFORDABLE HOUSING IN BERKELEY - AN OVERVIEW**

Berkeley today has about 49,000 housing units. About 2,500 of these are required to be permanently affordable to low- and moderate-income people.

This is done either through

- Government subsidies to create affordable apartments reserved for low-income residents at below-market rates and
- Land use regulations that require developers to set aside a certain percentage of apartments at rents affordable to low- and moderate-income families or individuals.

A fortunate minority of about 2,100 tenant households live in newer or recently renovated rental housing, mostly owned by non-profit housing organizations or limited or non-equity cooperatives, where the government has paid all or part of the cost of construction and rents greatly reduced. The non-profit organizations that own this housing have affordability as their mission, and in many cases rents only need to cover the ongoing costs of operation and maintenance and a set-aside for future repairs, typically \$600 to \$800 a month. Many of Berkeley's lowest-income residents can't afford even the greatly reduced "operating cost" rents offered by non-profit housing where government has paid the costs of construction. They require additional subsidy, either to the individual family or as an operating cost subsidy to the building owner. The Federal Section 8 program enables a family to pay 30% of its income for rent, with the government paying an additional amount to reach a "fair market rent". Several hundred of the Berkeley Housing Authority's Section 8 vouchers are currently allocated to non-profit housing to make units affordable to very low-income people.

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<sup>13</sup> MTC, Jobs by Wage Level, <https://www.vitalsigns.mtc.ca.gov/jobs-wage-level>

There are another approximately 400 “inclusionary” units within newer for-profit buildings that are set aside for low- and moderate-income tenants pursuant to City zoning regulations.<sup>14</sup> Nearly half of these units are set aside for very low-income tenants receiving assistance through the Section 8 program. Most of these apartments are required to be kept affordable for the life of the building, but the rent-setting formula they are subject to is based on the “Area Median Income” (AMI), which does not fully guarantee affordability. The formula, determined by the U.S. Department of Housing and Urban Development, results in rents that increase faster than the incomes of many low-income people.<sup>15</sup> This is because AMI, based on an average of all regional wages, increases rapidly when more high-income people move into the area and displace lower-income people, rather than, for example, tracking increases in wages for low income workers, which rise much more slowly over time than the average of all wages - if at all.<sup>16</sup>

In addition to buildings with below-market rents, about 1,500 tenant households in Berkeley receive monthly rental assistance through the Federal Government’s Section 8 program, which is administered by the Berkeley Housing Authority (BHA). Over 200 authorized Section 8 vouchers go unused because the Federal government does not fund the BHA at an amount adequate to enable tenants to pay market rents and cover the cost of all of its vouchers. Instead, the BHA has to choose between paying a competitive rent but restricting the number of households it can support, or subsidizing more households but falling behind the market and risking having landlords leave the program. About one quarter of the units occupied by tenants assisted through the BHA are in non-profit or inclusionary housing as described above, but three quarters are in for-profit housing. When Federal subsidies fall behind the market, owners of these units often leave the program and rent to much higher income residents at market rate.

Many extremely low-income people need ongoing social and health services in order to live independently. The term used to describe housing with services formally tied to or operated from the building, unit or tenant is “supportive housing.”<sup>17</sup> The Federal “Shelter Plus Care” supportive housing program administered by the City of Berkeley assists about 260 formerly homeless households with a combination of rent subsidy and ongoing social services. About half of the tenants assisted through the Shelter Plus Care program are

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<sup>14</sup> Apartment Buildings with City of Berkeley BMR Program Units, [https://www.cityofberkeley.info/uploadedFiles/Housing/Level\\_3 - General/2017-07%20BMR%20list%20of%20properties.pdf](https://www.cityofberkeley.info/uploadedFiles/Housing/Level_3_-_General/2017-07%20BMR%20list%20of%20properties.pdf)

<sup>15</sup> U.S. Department of Housing and Urban Development, Income Limits, <https://www.huduser.gov/portal/datasets/il.html>

<sup>16</sup> Low-Wage Work in California Data Explorer, UC Berkeley Labor Center, <http://laborcenter.berkeley.edu/low-wage-work-in-california/>

<sup>17</sup> United States Interagency Council on Homelessness, Supportive Housing, <https://www.usich.gov/solutions/housing/supportive-housing/>

placed outside of Berkeley due to the difficulty of finding places in Berkeley, but still receive services from Berkeley.

Berkeley thus has approximately 4,000 tenants who live in housing which is reserved for low- and moderate-income people at affordable rents or are provided with on-going subsidies that enable them to pay market rents. With the additional funding provided by measures O, P and U1, the City should be able to increase this number to over 5,000 and reach its goal of having 10% of its housing reserved affordable for low- and moderate-income people.

This goal does not include the tenants covered by rent stabilization (“rent control”). Due to the extraordinary rent increases of the last several years, there are several thousand tenants with rents that are now significantly below current market rates, but these units are only kept affordable for the tenant who lives there now.<sup>18</sup> Once the tenant moves out, the rent is reset to current market rates, so that apartments in Berkeley are increasingly rented to higher-income tenants who can better afford our rapidly increasing rents.

Under the vacancy decontrol provisions imposed on Berkeley by the State legislature, as tenants in deeply affordable rent controlled units move out, rents can be, and usually are, increased to current market levels. These apartments thus experience huge rent increases - reset to market rates - resulting in a significant loss of affordable housing for Berkeley. Pressure for landlords to evict or otherwise incentivize these long term rent stabilized tenants to move is strong; these are the kinds of vulnerable tenants whose stories we hear when Berkeley’s housing retention service providers testify before the City Council.

As a result of these and other pressures, Berkeley will have to work hard to maintain its current level of economic diversity.

*Maintaining diversity requires Berkeley to both increase the supply of housing overall and to remove a substantial part of our housing, new and existing, from the speculative market. This protected affordable housing should be allocated on the basis of need, using techniques ranging from non-profit and community ownership to regulation of rents (through traditional rent control and dedicated affordable units), and creation of new forms of home ownership that ensure homes will remain affordable now, and for future generations.*

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<sup>18</sup> Bursell, Lief and Fabish, Jen. Market Medians: January 1999 through December 2018. Rent Stabilization Board. 21 March 2019, [https://www.cityofberkeley.info/uploadedFiles/Rent\\_Stabilization\\_Board/Level\\_3\\_-\\_General/INFO\\_Market%20Medians%20Report%20for%20Q3%20and%20Q4%20of%202018.pdf](https://www.cityofberkeley.info/uploadedFiles/Rent_Stabilization_Board/Level_3_-_General/INFO_Market%20Medians%20Report%20for%20Q3%20and%20Q4%20of%202018.pdf)

## **V. EXISTING AFFORDABLE HOUSING PROGRAMS AND NEW OR EXPANDED OPPORTUNITIES**

### **Introduction:**

The City of Berkeley has the opportunity to build on its current programs and to expand in new directions to better deal with its housing affordability crisis. This chapter begins with a brief listing of current programs and new opportunities and then examines each in more detail. These goals are intended to allow Berkeley to make the changes it needs in order to preserve its character as a diverse and creative community, and meet its 10% affordability goal. As we move forward it will be important to maintain a balance between all of them.

### **Major Existing Programs - Recommend to Expand:**

#### **1. Constructing New Non-Profit Affordable Units**

Through the Housing Trust Fund the City provides capital to non-profit housing developers to construct multi-family buildings, usually on or near major transit corridors and downtown. These projects qualify for additional State and Federal subsidies and offer maximum leverage for Berkeley dollars while increasing the supply of modern, accessible, energy efficient and green housing affordable to lower-income residents.

New non-profit developments are currently the main housing affordability strategy in the City of Berkeley, and primarily serve very low-income people with incomes ranging from 30% to 60% of Area Median Income. For one person in Alameda County, 30% of AMI is \$26,050 and 60% is \$52,080, while for a family of four, 30% of AMI is \$37,150 and 60% is \$74,340.<sup>19</sup> These are predominantly lower-wage working people or people with low retirement or disability incomes, but there are many people with incomes even lower. Serving people with incomes below 30% of AMI requires additional subsidy. Some non-profit housing developments include supportive services on site for the formerly homeless, people with disabilities and seniors.

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<sup>19</sup> HUD Income Guidelines, Effective April 24, 2019, [https://www.cityofberkeley.info/BHA/Home/Payment\\_Standards,\\_Income\\_Limits,\\_and\\_Utility\\_Allowance.aspx](https://www.cityofberkeley.info/BHA/Home/Payment_Standards,_Income_Limits,_and_Utility_Allowance.aspx)

**Opportunities for Expansion:**

This method of achieving housing affordability is the easiest to expand with new resources from Measure O. The City already has the knowledge and experience to successfully execute these projects and there are several large, trusted local non-profit housing developers to work with. While new construction is extremely expensive, local funding can draw matching dollars from the Federal government (mostly [Low-Income Housing Tax Credits](#)), the State (from cap and trade revenue, state housing bonds, and many [other sources](#)), and from the Alameda County Housing Bond ([Measure A1](#)). Together, outside sources of funding can leverage Berkeley dollars up to 5:1, allowing Berkeley's investment of local dollars to generate significantly more units than would otherwise be possible.

In general, County, State and Federal funding sources require that the residents of subsidized housing have incomes at or below 60% of AMI, meaning these developments serve mostly low and extremely low income residents. In today's Bay Area economy, teachers (average annual salary \$71,738), personal care providers (average annual salary \$33,332), and administrative assistants, (average salary of \$51,991) would be eligible for this type of housing, as well as individuals living on Social Security for the elderly or disabled.

**2. Rent and Eviction Protections**

Berkeley has extensive regulatory protections for tenants of rental housing through the Rent Stabilization and Eviction for Good Cause Ordinance ("Rent Control") and the Rent Stabilization Board, which provides legal assistance to tenants facing eviction. The City also protects rent controlled units through restrictions on demolition, conversion of rental properties to condominiums and short-term rentals, and other protections.

**Opportunities for Expansion:**

Without changes to State laws, Berkeley is limited in its ability to achieve stability for renters and to increase protections for rent controlled housing and tenants. The Ellis Act allows landlords to go out of the rental business by evicting all the tenants in a building rather than selling it to another owner who will maintain the property as a rental. It serves no legitimate purpose and should be repealed. The State of California's Costa-Hawkins Act, which instituted "vacancy decontrol," allows rents to be reset to market rates upon conclusion of each tenancy, denying Berkeley and other cities the power to limit increases to a fixed percentage when units turn over. It also prevents regulation of rents in buildings constructed after 1979 and

regulation of rents in single-unit properties, even when owned by large corporate landlords. These prohibitions should be revised or repealed.

### **3. Affordable Housing Fees and Inclusionary Requirements for For-Profit Developments**

The Downtown and major transit corridors have been rezoned to encourage private construction that adds to the supply of market-rate housing while also requiring new rental developments to either include a certain percentage of apartments at below-market rents (formerly 10% and now 20% of units)<sup>20</sup> or pay into the Housing Trust Fund (HTF) to support non-profit housing development (\$37,962 per market-rate unit built as of July 2018).<sup>21</sup> There are similar inclusionary requirements and fees for condominiums<sup>22</sup>. Currently, for market rate rental developments, the 20% inclusionary units required must be affordable to people with very low incomes, no greater than 50% of AMI, and half of them (10% of all units in the building) must first be offered to tenants receiving Section 8 housing assistance or in Berkeley's Shelter Plus Care Program.

#### **Opportunities for Expansion:**

At present, the City offers developers a choice between paying an affordable housing mitigation fee or providing below-market rate units as part of the project. When fees were one of Berkeley's most important sources of revenue for the Housing Trust Fund it made sense to have both alternatives, and opinions have differed (with worthy arguments made on both sides) as to whether it was better for the City to obtain money for the Affordable Housing Trust Fund or for affordable units to be built on site.

The traditional argument in favor of obtaining the affordable housing fee from a market rate development rather than on-site inclusionary units is that local affordable housing dollars can be significantly leveraged with other public dollars to net many more affordable units within an all-affordable project built at another location. The argument in favor of obtaining the on-site inclusionary units has been that it ensures low-income residents are integrated within mixed-income neighborhoods and buildings, that affordable units are built right away, not at some future unknown time and location. In neighborhoods with few opportunity sites for affordable housing such as the Downtown, including affordable units within market rate developments is often the only way to achieve affordability.

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<sup>20</sup> Berkeley Municipal Code Chapter 23C.12 Inclusionary Housing Requirements

<sup>21</sup> Berkeley Municipal Code Section 22.20.065 Affordable housing mitigation fee

<sup>22</sup> Berkeley Municipal Code Chapter 21.28 Condominiums and Other Common Interest Subdivisions

With \$135 million in Measure O funds available to be leveraged with other public monies to support the creation and preservation of deeply affordable units (serving individuals with incomes up to 60% of AMI), the relatively small sums that mitigation fees generate are less important to the overall success of Berkeley's affordable housing strategies. By requiring market rate developments to include affordable units on site rather than pay a mitigation fee, Berkeley can achieve the goals of integration and dispersal without significant impacts to our ability to fund all-affordable projects.

In addition, with inclusionary units now just one part of a multifaceted affordable housing strategy, the possibility of requiring a different mix and number of on-site affordable units should be considered. One alternative or supplemental formula for inclusionary unit requirements in market rate developments would be to offer developers the opportunity to produce low- and moderate-income units (affordable to people with incomes between 80% and 120% of AMI) rather than the currently required deeply affordable units (below 80% AMI), but at higher percentages of the project than the current 20%. It is likely that market rate developments could include 30%, 40% and possibly higher percentages of units at low and moderate rates and still return a reasonable profit. Because there are fewer County, State and Federal funds for low- and moderate-income units than very- and extremely-low, *asking market rate developers to subsidize low and moderate income units may be a good strategy to achieve a greater mix of affordability levels Citywide and gain more permanently affordable units overall.*

#### **4. Direct Subsidies to Renters**

Berkeley provides individual rent subsidies through the [Berkeley Housing Authority](#), which assists 1,600 Berkeley households with Federally funded [Section 8 housing vouchers](#), and the City operates a Federally funded [Shelter Plus Care](#) program that provides monthly rental assistance and social service support to around 200 formerly homeless Berkeley residents, about half of them having chosen housing outside of Berkeley due to the difficulty of finding places in Berkeley.

#### **Opportunities for Expansion:**

Measure P funds could be used for this purpose if recommended by the Homeless Services Panel of Experts, and other City funds might be applied to expand direct renter subsidies and "rapid rehousing," as is proposed in the City's [1,000 Person Plan to Address Homelessness](#).

### **Additional Important Programs - Recommend to Significantly Expand:**

There are several additional strategies that the City should expand substantially as they offer excellent opportunities to create and preserve affordable rental *and ownership* housing aligned with Berkeley values. Some of these strategies require capacity-building within City Departments and in non-profit partners. ***These programs should be significantly strengthened and expanded:***

#### **1. House and Support the Homeless**

In response to the Pathways Project, staff prepared a 1000 Person Plan to Address Homelessness, which considered resources and interventions required to house the currently unhoused population of Berkeley and to prevent inflow of future homelessness. According to the Plan, ending homelessness will require targeted investments in various interventions to ensure that each individual experiencing homelessness receives an appropriate, timely response according to their needs, including targeted homelessness prevention, light-touch housing problem-solving, rapid rehousing, or permanent subsidies. In addition, the Homeless Services Panel of Experts will provide an essential source of guidance in developing effective strategies to prevent and end homelessness in Berkeley.

In general, people with extremely low incomes (at or below 30% of AMI), are unable to afford even the below-market rent that a non-profit housing provider needs in order to cover operating and maintenance expenses. People living on Social Security for the elderly or disabled have incomes of 14% to 20% of AMI (\$932 a month for an individual, \$1,564 a month for a couple). This means that under Federal standards they can “afford” only \$280 to \$470 a month for housing, and even that is a hardship considering how little income they start with.

The Housing Trust Fund Guidelines call for 20% of housing funded through the HTF to be affordable to people with incomes at or below 30% of AMI, but non-profit housing organizations have had difficulty obtaining ongoing subsidies to create housing at this level of affordability.<sup>23</sup> The City has been forced to rely on limited Federal funding - especially project-based Section 8 through the Berkeley Housing Authority.

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<sup>23</sup> City of Berkeley Housing Trust Fund Guidelines, April 5, 2016, [https://www.cityofberkeley.info/uploadedFiles/Housing/Level\\_3\\_-\\_General/Revised%202016%20HTF%20GUIDELINES.pdf](https://www.cityofberkeley.info/uploadedFiles/Housing/Level_3_-_General/Revised%202016%20HTF%20GUIDELINES.pdf)



### **Opportunities for Expansion:**

Measure P funding has the potential to fill this gap and to encourage non-profit housing providers to increase their service to the homeless, as discussed in the 1,000 Person Plan to address homelessness.

Measure P funding will vary somewhat from year to year because it is based on the value of the top  $\frac{1}{3}$  of real estate transactions in a given year. For this reason, the City should allocate only a portion of initial Measure P receipts to ongoing subsidies and supportive services, so that it can be sure it can sustain those commitments from year to year. The amount that is likely to vary from year to year, perhaps one-quarter to one-third (Finance Department staff may be able to provide an accurate estimate, based on historical data regarding fluctuations), should then go to one-time expenditures such as capital subsidies to expand the supply of permanently affordable housing available to the homeless. For example, in the Berkeley Way project, the City has agreed to provide a capital fund that will cover 10 years of operating subsidies.

The 1000 Person Plan covers in detail strategies necessary to rehouse Berkeley's homeless. Creation of deeply affordable housing is one element of this Plan. The Homeless Services Panel of Experts will make recommendations regarding the use of Measure P funds, which may be used to fund the "support" in Supportive Housing, and for many other purposes.

## **2. Transition some of Berkeley's existing rental housing to permanently affordable social ownership by expanding the Small Sites Program, accompanied by a Tenant or Community Opportunity to Purchase Act.**

Most of Berkeley's neighborhoods used to house people with diverse incomes, but the affordability crisis is reducing that diversity<sup>24</sup>. Preservation of neighborhood socioeconomic character will require transitioning some existing housing from the for-profit market to various forms of socially responsible ownership intended to maintain affordability. Last year the City Council allocated an initial one million dollars to start a Small Sites Program and begin the process of supporting acquisition and rehabilitation of properties with up to 25 units. The Small Sites Program will provide funds to non-profit developers to allow for the acquisition of small multi-unit properties vulnerable to real estate speculation, and reserve them

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<sup>24</sup> Romem, Issa and Elizabeth Kneebone, 2018. "Disparity in Departure: Who Leaves the Bay Area and Where Do They Go?" <https://terncenter.berkeley.edu/disparity-in-departure>

for low-income individuals and families. This process is also an opportunity to expand limited equity cooperative ownership.<sup>25</sup>

The Small Sites program requires a different approach from the City's current focus on partnership with large non-profit housing developers. Two-thirds of the rental housing covered by rent stabilization has less than 20 units. The large non-profit housing organizations avoid properties with less than 20 units because these buildings have higher management costs and are generally more costly to finance than larger developments. In addition, non-profit developers tend to prefer new construction to the uncertainties of acquisition and rehabilitation of existing buildings. Cost-effective management of smaller properties *can be provided* when residents take on significant responsibility for the property and receive appropriate education and support.

Another current barrier to the Small Sites Program is that residents of small buildings often have a mix of incomes, which reduces the available subsidies under Federal and State programs that limit assistance to units occupied by people with incomes no greater than 60% AMI. *Local funding can make an important contribution to the Small Sites Program.*

### **Opportunities for Expansion:**

Measure O and Measure U1 both offer funds that can be used for small sites with mixed-income residents. The City should substantially increase its efforts to transition existing small apartment buildings to permanent affordability. The Small Sites Program should be tied to a Tenant or Community Opportunity to Purchase Act (TOPA or COPA) to enable groups of existing tenants or non-profit partners to buy and maintain this naturally occurring affordable housing and prevent displacement. Through a TOPA, landlords must provide legal notice to tenants of their opportunity to purchase a property when it is placed on the market. If a tenant or tenants decide to purchase, they must form a tenant organization to manage the building, and take on other management responsibilities. This model has seen success in other communities, including Washington D.C.<sup>26</sup>

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<sup>25</sup> City of Berkeley, Referral to City Manager, Establishment of Affordable Housing Small Sites Fund, [https://www.cityofberkeley.info/Clerk/City\\_Council/2015/12\\_Dec/Documents/2015-12-15\\_Item\\_54\\_Referral\\_to\\_City\\_Manager\\_Establishment\\_-\\_Rev.aspx](https://www.cityofberkeley.info/Clerk/City_Council/2015/12_Dec/Documents/2015-12-15_Item_54_Referral_to_City_Manager_Establishment_-_Rev.aspx)

<sup>26</sup> Small Sites Acquisition Program and Tenant Opportunity to Purchase, February 14, 2017, [https://www.cityofberkeley.info/Clerk/City\\_Council/2017/02\\_Feb/Documents/2017-02-14\\_Item\\_18b\\_Small\\_Sites\\_Acquisition.aspx](https://www.cityofberkeley.info/Clerk/City_Council/2017/02_Feb/Documents/2017-02-14_Item_18b_Small_Sites_Acquisition.aspx)

### **3. Provide innovative homeownership opportunities for moderate and low income residents, including cooperative ownership using the Community Land Trust model**

By taking on full or partial responsibility for management of a property, residents strengthen their community. In years past, Berkeley had programs to support both individual and cooperative homeownership. At a time when working families can no longer afford to buy homes in Berkeley, the City should give renewed attention to resident ownership and participation.

Berkeley currently has about 300 units in limited-equity and non-equity cooperatives, half of these established without City assistance at a time when real estate values were much lower. Encouraging residents to take ownership or responsibility for the operation and management of their housing, while keeping it permanently affordable, was an important part of Berkeley's housing programs in the 1970s through the 1990s. Unfortunately, since then this model has received little attention.<sup>27</sup> Current housing programs miss opportunities to build democratic organizations in which people learn organizational skills and collaborative problem solving, and have input into the management and physical condition of their homes, a model sometimes referred to as "social housing."

Berkeley has no currently active programs to create individual or cooperative homeownership opportunities, in part because it is difficult to combine the use of Low-Income Housing Tax Credits with resident ownership. Measure O and Measure U1 both provide funding that can be used to support cooperative homeownership and community land trusts.

**Individual homeownership opportunities:** Although they are few in number, Berkeley has some small parcels of publicly owned land embedded in neighborhoods that may be suitable for townhouse-style or other low-rise homes. In order to preserve affordability, the City should either retain ownership of the land or convey it to a community land trust, rather than selling it outright. Working with Habitat for Humanity or a similar organization could reduce the cost of construction and increase affordability for these units.

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<sup>27</sup> S. Barton, "From Community Control to Professionalism: Social Housing in Berkeley, California, 1976 – 2011", *Journal of Planning History*, May 2014, V.13:2, pp. 160 – 182.

**Cooperative homeownership opportunities:** Limited-equity and non-equity housing cooperatives provide an affordable, democratic version of homeownership in which a property is owned by a nonprofit cooperative corporation, made up of tenants of the property. Initial capital subsidy makes them permanently affordable to very low, low and moderate-income people. When the residents take responsibility for the management of their buildings they can keep costs down, which makes cooperatives suitable for small multi-family properties.

**Importance of affiliation with a Community Land Trust or larger cooperative:** Experience has shown that housing cooperatives need ongoing training, technical assistance and oversight from a larger organization. This larger organization can be a Community Land Trust, which owns the land under the cooperatively owned buildings or, in the case of the Berkeley Student Cooperative, a larger cooperative that maintains and renovates affiliated properties while supporting residents in operating their individual buildings. Measure U1 monies could be used to provide organizational support to strengthen the capacity of local land trusts, which at present are relatively small organizations. In 2018 the City Council used U1 funds to provide a small capacity-building grant to the Berkeley-based Bay Area Community Land Trust.

It will be necessary to expand the organizational capacity of Berkeley's land trust to support a larger program utilizing this model. Community Land Trusts receiving support from the City of Berkeley should be required to meet the Federal definition of a Community Land Trust (Housing and Community Development Act of 1992, Section 213, Housing Education and Organizational Support for Community Land Trusts), which ensures that residents of affiliated properties serve on the land trust governing board.<sup>28</sup>

**Other models - Challenges:** Berkeley has an inclusionary requirement for condominium developments and there are currently a small number of below-market condominiums reserved for low-income owners. *Caution is needed in creating low-income condominiums because rising monthly assessments and occasional special assessments for major renovations can become unaffordable for lower-income owners.*

In addition, residents can misunderstand the condominium form of ownership and underestimate the need to work cooperatively with other owners. Cooperatives are

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<sup>28</sup> HR 5334- Housing and Community Development Act of 1992, Section 213.  
<https://www.congress.gov/bill/102nd-congress/house-bill/5334/text>

less likely to have this problem. In the past, the City provided down-payment assistance on a shared-equity basis (meaning that the owners of the cooperatives had to repay a portion of the property's value at sale), but the cost of single-family homes has far surpassed the City's ability to provide effective down-payment assistance. As described above, several useful models exist to support homeownership without these challenges, and should be included in Berkeley's affordable housing mix.

**4. Significantly increase the supply of affordable live-work housing for artists and artisans.**

Berkeley has a long tradition of live-work housing, mostly located in West Berkeley, and much of it lacking legal recognition. There are only a few units of permanently affordable live-work housing citywide. In part this is because it is difficult to use State and Federal subsidies for this purpose. In addition, certain subsidy program regulations make it difficult to allocate live-work housing to the artists and artisans that it is intended for.

As an alternative, live-work housing can easily be organized to include resident ownership or resident participation in property management.

**Opportunities for Expansion:**

Live-work units are allowed in most of Berkeley's Commercial and Manufacturing districts. Measure O and Measure U1 both provide funding that can be used for affordable artists and artisan live-work housing using ownership or other participatory models. The City also has the potential to require affordable live-work units, or provision of land for such units, as part of development approvals throughout Berkeley.

**5. Encourage adding incremental units, such as accessory dwelling units (ADUs) or low-rise multiplex units, that complement neighborhood character.**

There are many opportunities to add one, two or more units to existing properties at relatively modest cost. When sold as condominiums such units can be affordable to middle-income families who have difficulty entering the current market for single-family homes. Accessory dwelling units (ADUs), even rented at market rate, can also be affordable to middle income individuals. In addition, low-rise multi-family housing such as duplexes, triplexes, courtyard apartments, and multiplexes can also be inserted into existing neighborhoods, and may provide additional opportunities for middle-income families to enter the housing market.

**Opportunities for Expansion:**

Where possible, the City should encourage addition of family-sized units as well as smaller ADUs. The City Council recently approved a referral to study the possibility of allowing up to four-plexes into areas currently zoned for a single family home and ADU. These housing types are already allowed in most other zones. Modest incentives such as expedited review of applications, low interest loans or small capital subsidies may be sufficient to persuade property owners who add such units to reserve them for lower-income families. These incentives should be explored, and a program developed to support the reservation of additional neighborhood units for affordable housing.

**6. Partner with UC Berkeley to support creation of housing appropriate and affordable to students, faculty and staff.**

Enrollment increases that far exceed UC Berkeley's Long Range Development Plan have resulted in an extreme shortage of student housing and a very high incidence of student housing insecurity and homelessness, while the general housing affordability crisis forces faculty and staff to live far from campus.

The University of California should take greater responsibility for housing its students. This will require the Regents to allocate more funding for student, faculty and staff housing and the State legislature to include this funding in the State budget. In addition, the Regents must stop the practice of increasing enrollment without regard for the carrying capacity of both UC Berkeley and the City of Berkeley.

**Opportunities for Expansion:**

The Berkeley Student Cooperative serves students in community college and the Cal State system as well as at U.C. Berkeley. It is eligible for funding through the Housing Trust Fund and some Measure O funding could be used to help purchase existing buildings near campus to make them permanently affordable to their student residents, who predominantly come from low-income families. While the City of Berkeley may choose to allocate some Housing Trust Funds to student housing, the University of California should provide the vast majority of funding for this important type of housing, as it is the University's responsibility to ensure their students are housed.

### **Policies to Ensure Equity and Sustainability:**

Finally, while pursuing these strategies, there are several principles of equity and sustainability that the City should apply to all of its affordable housing programs:

#### **1. Ensure equitable access to scarce affordable housing, including accessible units with universal design features.**

Berkeley makes very limited use of City-established priorities in the allocation of affordable housing. In part this is due to the rules attached to State and Federal funding and in part to potential City administrative costs. A lack of State or local definitions of universal design also makes it difficult to adequately review projects for accessibility.

#### **Opportunities:**

Housing units with universal design elements that ensure access for those with mobility limitations should be included in all City-supported affordable housing. To support this, Berkeley should codify both baseline and enhanced universal design housing elements. In addition, to the extent legally allowable, Berkeley should establish a set of priorities for access to below-market rate housing. These priorities could include (but not be limited to):

- People at risk of displacement or who have been displaced from Berkeley, in particular those who have been subject to redlining or other discriminatory housing and lending practices in the past, including foreclosures;
- People who formerly experienced homelessness in Berkeley;
- Artists and artisans who need live-work spaces;
- Families with children in Berkeley schools; and
- People who work in Berkeley; in particular those who work for the Berkeley Unified School District or in emergency services (firefighters, doctors, police, nurses, etc.).

#### **2. Codify Deep Green Building standards for healthy and sustainable buildings, and emphasize other measures to increase environmental sustainability.**

Berkeley Deep Green Building is an ambitious program designed by building and clean energy professionals and environmentally-minded citizens as part of the Berkeley Zero Net Energy++ Working Group. It sets forward a detailed plan to incentivize these and other green and healthy building practices. The five goals of Berkeley Deep Green Building are to:

1. Support zero-net energy at the individual building and community scale;
2. Reduce embodied energy in building materials and practices;

3. Reduce toxicity in building materials;
4. Source sustainability produced materials from fair trade, fair wage and culturally and environmentally friendly suppliers; and
5. Conserve water.

Some of these goals are already addressed in City codes and policies; some require expansion or codification.

The City of Berkeley has a variety of programs and Building and Zoning Code provisions that seek to address green building. These include energy efficiency audits under the Building Energy Saving Ordinance (BESO), LEED gold standards for larger downtown buildings, Bay-friendly landscaping for projects over a certain size, and stormwater and waste management during construction.<sup>29</sup> In addition, a number of solar, energy efficiency and other green building proposals have been referred to the City Manager over time, but have not yet been implemented. Pending codification or implementation, affordable projects should strive to meet all Deep Green Building and other state of the art green building practices.

Building affordable units near transit is also an environmental strategy. This is especially true when parking is reduced or eliminated. Because lower-income people use transit at significantly higher rates than people with higher incomes, siting affordable housing near transit can yield increased ridership - and reduce the displacement of lower-income households. A UCLA study of the effects of Transit Oriented Development on transit use in Los Angeles found that allowing market-rate housing with parking near transit contributed to a significant reduction in transit use. , Lower income people who previously rode transit were displaced to the outer reaches of the region, and were forced to commute long distances, often by car. They were replaced in their previous transit-rich neighborhoods with more affluent people who can afford cars and use transit much less frequently, resulting in large reductions in transit use citywide, despite massive public transit investments and the creation of significant new transit-oriented housing.<sup>30</sup>

### **3. Prioritize the use of public land for the creation of affordable housing.**

Land is expensive in Berkeley and securing appropriate sites for affordable housing is costly and difficult. The City owns several sites which may be appropriate for affordable housing development. Other parcels may also be eligible for housing but

<sup>29</sup> Building Energy Saving Ordinance, <https://www.cityofberkeley.info/BESO/>.

<sup>30</sup> "Transit-oriented development? More like transit rider displacement," L.A. Times, Feb. 20, 2018, <https://www.latimes.com/opinion/op-ed/la-oe-roenthal-transit-gentrification-metro-ridership-20180220-story.html>



would require remediation. In 2017, the City purchased a property at 1001 - 1011 University Avenue, with the express intention of converting the property for use as affordable housing.<sup>31</sup> The City should take steps to offer whatever public land is available, appropriate and safe to qualified affordable housing projects.

**4. Ensure those who build and rehabilitate our housing are paid fair wages and have access to health insurance, and support local apprenticeship programs.**

As in the entire Bay Area, there is a severe shortage of skilled construction workers in Berkeley, partly because their wages are often insufficient to allow them to live in the very buildings they help construct. Berkeley contributes to solving this problem by requiring builders of City-assisted housing to pay their workers prevailing wage (the hourly wage paid to the most workers in an area working on similar jobs) and through project labor agreements in areas of the City with community benefit requirements. Labor organizations are, for their part, supporting construction of modular, factory-built housing that can modestly reduce construction costs. Additional approaches should include stronger protections against wage theft, expanded apprenticeship programs that help local residents start careers in construction and policies ensuring that workers on large projects receive adequate benefits. Healthcare is particularly important for construction workers; by its nature construction work is physically demanding. Injuries and physical stress are frequent, even on well-managed sites.

**5. Make changes to the City of Berkeley Zoning Code and project approvals processes to incentivize, facilitate and reward the production of affordable housing.**

The City has taken a number of steps to incentivize and facilitate the production of affordable housing. Affordable projects receiving Housing Trust Fund monies are automatically expedited and prioritized for permits, inspections, and other City of Berkeley administrative processes.<sup>32</sup> Additional referrals have been made to reduce development fees for affordable projects, create additional density bonuses for affordable projects, and otherwise ease restrictions on affordable projects. The State Density Bonus program provides significant benefits to projects that build

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<sup>31</sup> Acquisition of Real Property at 1001 University Avenue, 1007 University Avenue, 1011 University Avenue, and 1925 Ninth Street, March 27, 2017  
[https://www.cityofberkeley.info/Clerk/City\\_Council/2017/03\\_Mar/Documents/2017-03-28\\_Item\\_32\\_Acquisition\\_of\\_Real\\_Property.aspx](https://www.cityofberkeley.info/Clerk/City_Council/2017/03_Mar/Documents/2017-03-28_Item_32_Acquisition_of_Real_Property.aspx)

<sup>32</sup> Berkeley Municipal Code Chapter 19.62 Priority Permit Processing for Housing for Low and Moderate Income Persons

inclusionary units, and affordable projects meeting specific criteria are approved “by right” under SB 35.

In addition to these supports and incentives for affordable projects, the Berkeley City Council recently increased the affordable housing mitigation fee to \$37,962 per market-rate unit. The fee had been set at \$28,000 in 2012, “discounted” by the City Council to \$20,000 in 2013, raised to \$34,000 in 2016, and then to the current rate in 2017.<sup>33</sup><sup>34</sup><sup>35</sup> The City also doubled its inclusionary requirement from 10 to 20% of units in all developments with five or more units.<sup>36</sup> The City should continue to develop and implement policies, programs and regulatory mechanisms to expedite, maximize, incentivize and reward the creation and preservation of affordable housing.

## VI. CONCLUSION

The **Framework for a Diverse, Equitable and Creative Berkeley** is a high-level roadmap to guide the many City entities involved in moving our affordable housing goals forward. As each navigates its own path, all must be headed to the same destination.

Berkeley has an unprecedented opportunity to significantly increase the City’s stock of affordable housing and to preserve the limited affordability that already exists. Housing is a human right, and the severity of the Bay Area’s housing crisis calls us to action. We must ensure that our homeless can be rehoused, our vulnerable seniors, youth and disabled neighbors remain housed, our dedicated public and not-for-profit workers can make homes in our community, and our artistic, activist and academic residents can thrive. We have a duty to ensure that people of all backgrounds, ethnicities, ages, religions, gender identities, occupations, and abilities can be, and are, housed in Berkeley.

We are embarking on a path to achieve 10% reserved affordable housing in Berkeley, and to lay the institutional and policy foundations for a future with 30% and eventually up to 50% affordable or “social” housing. It’s an exciting and demanding venture, but essential to preserve and expand all that makes Berkeley an exceptional place to live, work, learn, play and thrive.

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<sup>33</sup> Resolution No. 66,809, October 7, 2014

<sup>34</sup> Resolution No. 67,614-N.S., July 12, 2016

<sup>35</sup> Berkeley Municipal Code Section 22.20.065 Affordable Housing Mitigation Fee

<sup>36</sup> Berkeley Municipal Code Chapter 23C.12 inclusionary housing Requirements



Kate Harrison  
Councilmember District 4

ACTION CALENDAR  
July 9, 2019

To: Honorable Mayor and Members of the City Council  
From: Councilmembers Harrison, Davila, Bartlett and Hahn  
Subject: Adopt an Ordinance adding a new Chapter 12.80 to the Berkeley Municipal Code Prohibiting Natural Gas Infrastructure in New Buildings

RECOMMENDATION

1. Adopt an ordinance adding a new Chapter 12.80 to the Berkeley Municipal Code (BMC) prohibiting natural gas infrastructure in new buildings with an effective date of January 1, 2020.
2. Refer to the November 2019 budget process for consideration of allocating up to \$273,341 per year from excess equity to fund a new career two-year position in the Building & Safety Division of the Department of Planning and Development. The staff person will assist with implementing the gas prohibition ordinance and reach codes, and perform other duties as specified in the Financial Implications section of this item.

POLICY COMMITTEE TRACK

Facilities, Infrastructure, Transportation, Environment & Sustainability Policy Committee approved the ordinance, as amended, on June 17, 2019.

BACKGROUND

**A. Previous Berkeley Efforts to Prohibit Natural Gas in New Construction**

Natural gas is a leading source of green-house gas emissions (GHGs) in Berkeley, responsible for 27% of the GHGs released in the city. The only source sector with more local GHG emissions is the transportation sector.

In 2016, the Community Environmental Advisory Commission (CEAC) unanimously recommended that the Council consider phasing out natural gas appliances in new in

buildings for climate, health and safety reasons.<sup>1</sup> That year, Council endorsed the recommendation and directed the CEAC and the Energy Commission to “develop and evaluate a proposal for requiring installations of new cooking, water heating, and/or building heating systems to use technologies which do not burn natural gas.”<sup>2</sup>

The Berkeley Energy Commission subsequently investigated adopting an ordinance to achieve at least one of Council’s goals—phasing out gas water heater systems in new buildings. Berkeley’s commission concluded that requiring new buildings to use all-electric heat pump hot water heaters would constitute an amendment to the state energy code under Title 24, Part 6. Amendments to the energy code require approval from the California Energy Commission (CEC). Such amendments are commonly known as a ‘reach’ energy codes.

Until very recently, the state’s efforts focused on increasing energy efficiency but did not consider the critical issue of reducing the GHGs that cause climate change. The models used by the state still vastly underestimate the cost of environmental and health impacts (discussed further below) caused by natural gas. At the time of the 2016 referral, the Berkeley Energy Commission concluded that CEC policies, particularly the lack of all-electric reference point and the laborious CEC requirement to demonstrate that electric systems are as cost-effective as gas designs under a regulatory environment that artificially favors fossil fuel by not considering externalities, convinced Berkeley commissioners to abandon the reach code strategy until the CEC reversed its policies.<sup>3</sup>

Berkeley’s Office of Energy and Sustainable Development (OESD) continues to take a leading role with other cities in the region to present energy code amendments to state authorities that facilitate electric designs, and signed on in support of comments before the California Public Utilities Commission (CPUC) regarding utility incentives for fuel-switching in existing buildings.<sup>4</sup>

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<sup>1</sup> Phasing Out Natural Gas for Heating and Cooking, Community Environmental Advisory Commission, November 1, 2016, [https://www.cityofberkeley.info/Clerk/City\\_Council/2016/11\\_Nov/Documents/2016-11-01\\_Item\\_10\\_Phasing\\_Out\\_Natural\\_Gas.aspx](https://www.cityofberkeley.info/Clerk/City_Council/2016/11_Nov/Documents/2016-11-01_Item_10_Phasing_Out_Natural_Gas.aspx).

<sup>2</sup> Annotated Agenda Berkeley City Council Meeting, City Clerk’s Office, November 1, 2016, [http://www.cityofberkeley.info/Clerk/City\\_Council/2016/11\\_Nov/Documents/11-01\\_Annotated.aspx](http://www.cityofberkeley.info/Clerk/City_Council/2016/11_Nov/Documents/11-01_Annotated.aspx).

<sup>3</sup> See “Berkeley Support to Phase Out Fossil Fuels with Clean Electrification,” OESD, CEC Docket 18-IEPR-09, June 28, 2018, [https://www.cityofberkeley.info/uploadedFiles/Planning\\_and\\_Development/Level\\_3\\_-\\_Commissions/Commission\\_for\\_Energy/EC2018-07-25\\_Item%207c-Combined\\_Comments%20to%20CEC%20and%20CPUC.pdf](https://www.cityofberkeley.info/uploadedFiles/Planning_and_Development/Level_3_-_Commissions/Commission_for_Energy/EC2018-07-25_Item%207c-Combined_Comments%20to%20CEC%20and%20CPUC.pdf); See also, “Comments of The Natural Resources Defense Council (NRDC) and Sierra Club On The Administrative Law Judge’s Ruling Seeking Comments On The Three-Prong Test.”

<sup>4</sup> “Berkeley Support to Phase Out Fossil Fuels with Clean Electrification,” OESD, CEC Docket 18-IEPR-09, June 28, 2018, [https://www.cityofberkeley.info/uploadedFiles/Planning\\_and\\_Development/Level\\_3\\_-\\_](https://www.cityofberkeley.info/uploadedFiles/Planning_and_Development/Level_3_-_)

## B. Ordinance Overview: A New Approach

The state CEC is now beginning to model all-electric buildings. As of January, 2020, all-electric low-rise residential buildings (three and fewer stories) will be accepted under Title 24 and the CEC is hard at work modelling other building types and systems. Most of the building occurring in Berkeley is not low-rise residential. Instead of waiting for CEC policies model all-electric buildings for all building types to begin limiting natural gas, this ordinance provides the City with an immediate pathway to fossil free new buildings as building types and systems are approved by the CEC.

This ordinance differs from the reach code approach in that it leverages the City's authority under the California Constitution to prohibit installation of hazardous internal gas piping infrastructure when granting use permits for new buildings, and as a result avoids CEC regulations associated with asking permission to amend energy efficiency standards. It also does so without impinging on the CPUC's jurisdiction, whose gas regulatory authority ends at the building's gas meter, or point of delivery from within any given property.<sup>5</sup> The effect of this legislation will be that builders will be prohibited from applying for permits for land uses that include gas infrastructure—gas piping to heat water, space, food, etc.—as each building type and system is modelled for all-electric design by the CEC. Effective January, 2020, this restriction will apply to low-rise residential buildings and be implemented for each new building type or sub-system (e.g., water heating) as the CEC completes its work for that type.

This new approach would fulfil a key Berkeley Energy Commission climate action recommendation and has the endorsement of the current CEAC commission. In December 2018, the Energy Commission presented a draft response to the Council's proposed June 2018 Fossil Free Resolution. As part of a broader strategy to eschew fossil fuels from Berkeley, it recommended that the Council "[p]rohibit gas cooktops and dryers in new residences or a moratorium on new gas hook ups if possible."<sup>6</sup> On May 9,

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[\\_Commissions/Commission\\_for\\_Energy/EC2018-07-25\\_Item%207c-Combined\\_Comments%20to%20CEC%20and%20CPUC.pdf](#). See also, "Comments of The Natural Resources Defense Council (NRDC) and Sierra Club On The Administrative Law Judge's Ruling Seeking Comments On The Three-Prong Test."

<sup>5</sup> Although the legislature empowered the Commission to "require each gas corporation to provide bundled basic gas service to all core customers in its service territory," it did not require customers to install fuel gas piping in or in connection with a building, structure or within the property lines of premises behind the gas meter. See California Code, Public Utilities Code - PUC § 963, [https://leginfo.ca.gov/faces/codes\\_displayText.xhtml?lawCode=PUC&division=1.&title=&part=1.&chapter=4.5.&article=2](https://leginfo.ca.gov/faces/codes_displayText.xhtml?lawCode=PUC&division=1.&title=&part=1.&chapter=4.5.&article=2).

<sup>6</sup> Fossil Free Berkeley Subcommittee Draft Report for 12/5/2018 Commission Meeting, Berkeley Energy Commission, December, 5, 2018, [https://www.cityofberkeley.info/uploadedFiles/Planning\\_and\\_Development/Level\\_3\\_-](https://www.cityofberkeley.info/uploadedFiles/Planning_and_Development/Level_3_-)

2019 the CEAC Commission unanimously approved a letter to Council endorsing this ordinance, calling it “a cutting-edge environmental policy.”<sup>7</sup>

Progress in Berkeley towards lowering emissions in new buildings has been encouraging but is still incremental. To date, the federal, state and local approach to energy use in new buildings has largely been to mandate greater building efficiency and energy conservation, which indirectly results in lower emissions, but does not directly phase out fossil fuel consumption in new buildings. Berkeley is in the process of adopting the ambitious, but voluntary, Deep Green Building Standards. The Deep Green Building Standards do not present a way to explicitly and directly limit constructing buildings with natural gas infrastructure, a potent and persistent source of greenhouse gas and other types of pollution.<sup>8</sup> The Green Building Standards regulations will also likely require additional energy reach codes to implement.

Gas-related emissions have increased because of regional population and job growth, leading to an 18% rise in Berkeley’s population since 2000, as well as the multi-decade useful life of natural gas appliances.<sup>9</sup> According to the November 2017 Planning Department Bi-Annual Housing Pipeline Report, the City approved building permits for 525 residential units between January 1, 2014 and November 2017. An additional 952 units received their certificate of occupancy during the same period.<sup>10</sup> The new Adeline Corridor Plan calls for construction of another 1,400 housing units. Without intervention, the vast majority of these units would feature natural gas infrastructure.

As a result, the city has ‘locked in’ decades of additional carbon pollution, and stands to continue doing so with each new use permit approval. The persistence of fossil fuel industry marketing, fossil-fuel favoring regulations, the regional housing affordability crisis, and the associated effort to expand the housing stock will continue to drive local

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[\\_Commissions/Commission\\_for\\_Energy/FFB%20Draft%20report%20for%20Dec%205%202018%20Commission%20Meeting%20Final.pdf](#)

<sup>7</sup> CEAC, Action Minutes Community Environmental Advisory Commission Regular Meeting of May 21, 2019, May 9, 2019, [https://www.cityofberkeley.info/uploadedFiles/Planning\\_and\\_Development/Level\\_3\\_-\\_Commissions/Commission\\_for\\_Community\\_Environmental\\_Advisory/20190509\\_CEAC\\_Action%20Minutes.pdf](https://www.cityofberkeley.info/uploadedFiles/Planning_and_Development/Level_3_-_Commissions/Commission_for_Community_Environmental_Advisory/20190509_CEAC_Action%20Minutes.pdf); See also, CEAC, Community Environmental Advisory Commission Comments on Prohibiting Natural Gas Infrastructure in New Buildings, May 9, 2019,

[https://www.cityofberkeley.info/uploadedFiles/Planning\\_and\\_Development/Level\\_3\\_-\\_Commissions/Commission\\_for\\_Community\\_Environmental\\_Advisory/CEAC%20DRAFT%20Letter%20on%20Natural%20Gas%20042919.pdf](https://www.cityofberkeley.info/uploadedFiles/Planning_and_Development/Level_3_-_Commissions/Commission_for_Community_Environmental_Advisory/CEAC%20DRAFT%20Letter%20on%20Natural%20Gas%20042919.pdf).

<sup>8</sup> The forthcoming 2019 California Energy Code allows for significant natural gas usage.

<sup>9</sup> 2018 Berkeley Climate Action Plan Update, p. 1.

<sup>10</sup> Referral Response: Bi-Annual Housing Pipeline Report, Planning Department, November 11, 2017, [https://www.cityofberkeley.info/Clerk/City\\_Council/2017/11\\_Nov/Documents/2017-11-28\\_Item\\_21\\_Referral\\_Response\\_Bi-Annual.aspx](https://www.cityofberkeley.info/Clerk/City_Council/2017/11_Nov/Documents/2017-11-28_Item_21_Referral_Response_Bi-Annual.aspx)

and regional increases in natural gas infrastructure and consumption unless we act now.

This ordinance recognizes that all-electric heating technologies are cost-competitive substitutes to their natural gas counterparts (especially when installed during new construction) and seeks to halt the expansion of natural gas into new buildings to stave off the risk of locking in significant additional greenhouse emissions. In the interim, City staff has indicated it will continue to design and seek approval of all-electric codes to help guide home builders in constructing new buildings of a type not yet modelled by the CEC and in order to increase energy efficiency.<sup>11</sup>

This legislation will have the effect of ushering in all-electric new buildings, avoiding significant new greenhouse emissions and allowing the City to focus its climate fighting efforts and resources on other critical sources of emissions such as existing buildings and transportation.

The ordinance also includes some important exemptions. Internal ADUs (i.e., ADUs built in the basement or attic of an existing home) are exempt from this ordinance, because although those ADUs represent new construction, they will utilize whatever fuel is used in the existing home. There is also a public interest exemption, whereby minimally necessary and specifically tailored natural gas infrastructure may be allowed, provided that the staff, Zoning Adjustments Board and/or the City Council (whichever is responsible for entitling the project in question) establishes that the use of natural gas will serve the public interest.

### **C. The CEC: Cost-effective Energy Efficiency Measures vs. the Climate**

The California legislature established the CEC in the wake of the energy crisis of the 1970s “in order to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy.”<sup>12</sup> The aim of the CEC has been energy efficient building design at the lowest possible price. Its regulations set minimum efficiencies and cost-effectiveness standards for new buildings with which building developers must comply.

The CEC creates computer models for a range of energy systems that builders can use to demonstrate compliance with the minimum energy efficiency requirements. Before builders can receive their building permit from their local city building department, they must compare their proposed energy systems design against a typical building type

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<sup>11</sup> OESD reported in December 2018 that “Berkeley has worked with other local governments to create a joint cost-effectiveness study request for the California Codes and Standards Program, seeking the maximum cost-effective efficiency for mixed-fuel and all-electric new construction over a representative sample of building sizes and uses...The findings from this cost-effectiveness study request are expected in early 2019 and will be [used] to evaluate options and opportunities for local amendments to promote deep energy savings and electrification.” See, 2018 Berkeley Climate Action Plan Update, p. 12.

<sup>12</sup> Pub. Res. Code 25402.

established by the CEC, known as the baseline. A baseline can be thought of as a cost-effective maximum energy budget which builders cannot exceed. Every three years the CEC updates the energy codes through tightening the energy efficiency requirements for a range of building types, including low-high residential buildings and non-residential buildings such as commercial buildings.

Within each baseline, the CEC creates a theoretical typical building with a range of efficient and cost-effective energy systems such as water heaters and space heaters. For example, in creating a baseline for a single-family home, the CEC builds its typical virtual house with efficient water heaters and space heaters along with windows, ventilation systems, etc. in order to establish a desired energy budget for a typical single-family home. In designing their buildings, developers can either go with the CEC's recommendation for each system type, known as the prescriptive method, or can opt for more flexibility in choosing alternative systems and technology allowing for energy efficiency tradeoffs across the building design (e.g., more wall insulation but less efficient windows), known as the performance method.<sup>13</sup>

Fortunately, in response to state law's expanding focus on climate change, the California Energy Commission is gradually broadening its energy standard regulations to also minimize carbon emissions alongside energy inefficiencies at the lowest possible cost. The CEC will offer builders all-electric baselines for low-rise residential buildings with the commencement of the new code cycle, known as the "2019 Building Energy Efficiency Standards," on January 1, 2020. The CEC has not yet provided a timeline for an all-electric baseline for mid- to high-rise residential buildings, and commercial buildings; however, CEC officials intend to release them as soon as possible.

As a result, on January 1, 2020 builders choosing electric water and space heaters in mid- to high-rise residential and commercial buildings must still compare their electric designs to a baseline that is based on natural gas, and which favors natural gas. This is despite the fact that modern electric heat pump technology outperforms their gas counterparts in terms of both carbon emissions and total energy usage. Therefore, builders often have to take a slight penalty within their total energy budget when choosing all-electric heaters. However, this penalty can often be made up by improving performance in other areas of the code. For example, a builder might opt for more building insulation to make up for the unfair penalty of choosing an electric water heater, which is the best choice for the climate, energy efficiency and lifecycle cost.

The reach codes currently being explored by the City would incentivize all-electric design for building and system types not yet modelled by the CEC. Reach codes cannot disincentive the construction of buildings with hazardous gas stoves as the energy code

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<sup>13</sup> For example, under the performance method, the CEC may choose a certain water heater in its baseline, but a builder may want a different model to achieve the specific design required by their clients.



does not regulate cooking equipment. Cities need an additional tool to decarbonize at an emergency pace.

#### **D. A Revolution in All-Electric Design**

Developers across the Bay Area and the state are already proving that all-electric design is feasible across all building types—even without an all-electric baseline. These projects are not only possible but profitable.

In 2018, the University of California implemented regulations prohibiting natural gas in new buildings. According to the university system, “[n]o new UC buildings or major renovations after June 2019, except in special circumstances, will use on-site fossil fuel combustion, such as natural gas, for space and water heating.” Stanford University is exploring a similar policy.<sup>14</sup> It should be noted that large universities develop every kind of building type imaginable from low- to high-rise dormitories, dining halls, classrooms, libraries, laboratories, sports facilities etc. The UC system is acting regardless of CEC policies across this wide range of building types.

Over the past decade, innovative engineers, architects and developers have paved the way by building residential and commercial buildings all-electric, despite state policies favoring fossil fuel. A list of just some of these projects can be found in Attachment A.

#### **F. The Climate Emergency**

In June 2018 the Berkeley City Council declared a city-wide Climate Emergency (Resolution No. 68,486-N.S.), aimed at reviewing the City’s greenhouse gas emission reduction strategies, commitments and progress in light of recent political, scientific and climatic developments.<sup>15</sup> A 2018 U.N. Intergovernmental Panel on Climate Change (IPCC) report suggested that in order to keep warming under 1.5 degrees Celsius, governments must initiate a dramatic 45% cut in global carbon emissions from 2010 levels by 2030 and reach global ‘net zero’ around 2050. The time for incremental

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<sup>14</sup> Justin Gerdes, “California Universities Are Transitioning to All-Electric Buildings,” Green Tech Media, September 24, 2018, <https://www.greentechmedia.com/articles/read/california-universities-are-transitioning-to-all-electric-buildings#gs.j6pqs2>.

<sup>15</sup> Resolution Endorsing a Climate Emergency, Berkeley City Council, June 12, 2018, [https://www.cityofberkeley.info/uploadedFiles/Council\\_2/Level\\_3\\_-\\_General/Climate%20Emergency%20Declaration%20-%20Adopted%2012%20June%202018%20-%20BCC.pdf](https://www.cityofberkeley.info/uploadedFiles/Council_2/Level_3_-_General/Climate%20Emergency%20Declaration%20-%20Adopted%2012%20June%202018%20-%20BCC.pdf)

emissions reduction strategies is over—policymakers must begin implementing “far-reaching and unprecedented changes in all aspects of society.”<sup>16</sup>

Berkeley became a climate leader when voters overwhelmingly passed Measure G in 2006, calling for the City to reduce greenhouse gas emissions by 33% below 2000 levels by 2020, and 80% by 2050.<sup>17</sup> The City Council adopted the 2009 Berkeley Climate Action Plan, which was written through a community-wide process.<sup>18</sup> The plan identified buildings as major contributors to greenhouse gas emissions, representing 26% of community-wide emissions, and recommended the implementation of aggressive building codes favoring low carbon appliances/infrastructure in new buildings.<sup>19</sup> A 2018 Climate Action Plan progress update by Berkeley’s OESD reported that “[c]ombustion of natural gas within Berkeley buildings accounted for 27% of total GHG emissions in 2016 and 73% of building sector GHG emissions.”<sup>20</sup>

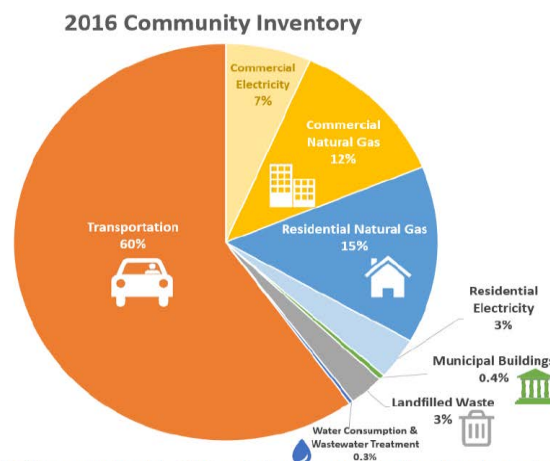


Figure 1: Pie chart of 2016 community-wide GHG emissions inventory, broken down by sector and fuel.

<sup>16</sup> IPCC Press Release, Summary for Policymakers of IPCC Special Report on Global Warming of 1.5°C approved by Governments, 8 October 2018,

[http://www.ipcc.ch/pdf/session48/pr\\_181008\\_P48\\_spm\\_en.pdf](http://www.ipcc.ch/pdf/session48/pr_181008_P48_spm_en.pdf)

<sup>17</sup> Resolution Submitting Measure G, Berkeley City Council, July 18, 2006,

<https://www.cityofberkeley.info/citycouncil/resos/2006/63396.pdf>; Ballotpedia, Berkeley Greenhouse Gas Emissions, Measure G (November 2006), November 7, 2006,

[https://ballotpedia.org/Berkeley\\_Greenhouse\\_Gas\\_Emissions,\\_Measure\\_G\\_\(November\\_2006\)#cite\\_note-quotedisclaimer-1](https://ballotpedia.org/Berkeley_Greenhouse_Gas_Emissions,_Measure_G_(November_2006)#cite_note-quotedisclaimer-1)

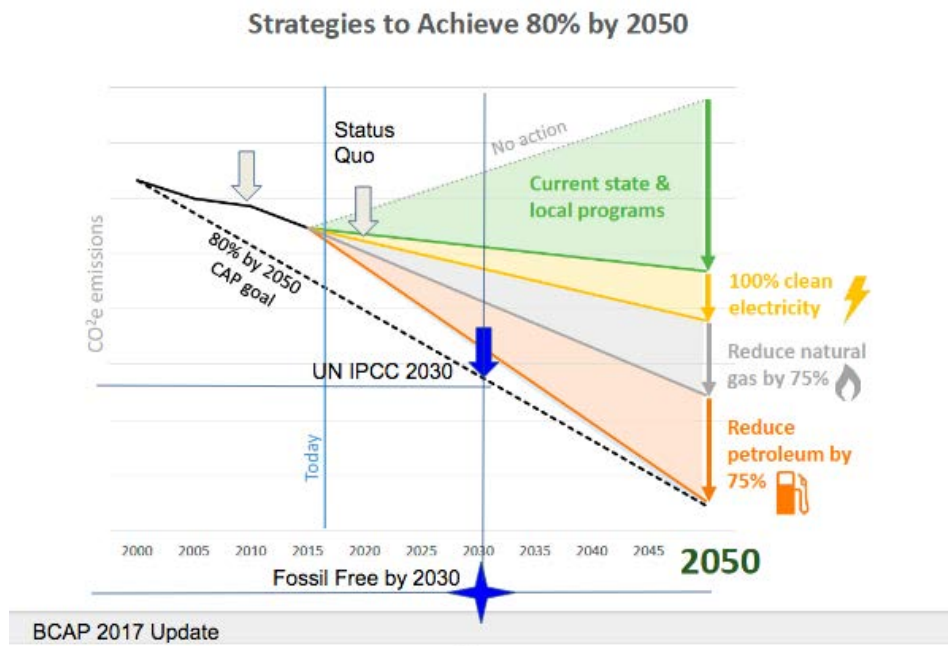
<sup>18</sup> Resolution No. 64,480-N.S.

<sup>19</sup> City of Berkeley, Berkeley Climate Action Plan, June 2009,

[https://www.cityofberkeley.info/uploadedFiles/Planning\\_and\\_Development/Level\\_3\\_-\\_Energy\\_and\\_Sustainable\\_Development/Berkeley%20Climate%20Action%20Plan.pdf](https://www.cityofberkeley.info/uploadedFiles/Planning_and_Development/Level_3_-_Energy_and_Sustainable_Development/Berkeley%20Climate%20Action%20Plan.pdf), p. 59.

<sup>20</sup> 2018 Berkeley Climate Action Plan Update, Office of Energy and Sustainable Development, December 6, 2018, [https://www.cityofberkeley.info/Clerk/City\\_Council/2018/12\\_Dec/Documents/2018-12-06\\_WS\\_Item\\_01\\_Climate\\_Action\\_Plan\\_Update\\_pdf.aspx](https://www.cityofberkeley.info/Clerk/City_Council/2018/12_Dec/Documents/2018-12-06_WS_Item_01_Climate_Action_Plan_Update_pdf.aspx), p. 10.

The most current available data suggest that Berkeley's 2016 community-wide GHG emissions are approximately 15% below 2000 baseline levels, despite a population increase of approximately 18% in that same time period. The City is doing a good job in the face of population increases but remains approximately 18% behind its 2020 goal and will fall short of its ultimate goal of net zero emissions by 2050. The following diagram from the Berkeley Energy Commission demonstrates that, without accelerated efforts, the City will continue to be below its target. To reach the 80% goal, 75% reductions in natural gas and petroleum usage are needed.<sup>21</sup>



## G. Existing Decarbonization Efforts

The proposed ordinance to phase out natural gas is one aspect of a larger effort by the City of Berkeley and the state of California to decarbonize buildings on a rapid and ambitious timeline. City staff from every department, most notably Planning, are prioritizing decarbonization efforts in their work, including but not limited to phasing out natural gas.

AB 3232, passed in September 2018, mandates a 40% reduction in greenhouse gas emissions from California's building stock by 2030. Achieving these reductions in the next ten years will require combined efforts on building green new buildings and retrofitting existing buildings to reduce emissions. The proposed ordinance phasing out

<sup>21</sup> *Id.*, p. 2.

natural gas, combined with a reach code to incentivize all-electric design, both serve to create cleaner greener buildings through the building stage. For existing buildings, the City is looking into new programs to streamline and reduce cost for green retrofits. The Building Energy Savings Ordinance (BESO) is being reevaluated to include aspects of electrification. For decades, Berkeley has provided a rebate on the real property transfer tax for seismic retrofits, and, based on a Council referral, is now considering how that can be expanded for green retrofits, including electrification, installing bioswales, and adding other green features. The Office of Environmental Sustainability and Development also hosted a successful Electrification Expo to educate on the benefits of decarbonization.

## **GH. The Negative Externalities of Natural Gas in Buildings**

### I. Catastrophic Methane Leaks

We have known for a long time that burning gas generates carbon dioxide, a greenhouse gas. New scientific studies suggest that in addition to combustion, there are significant additional carbon emissions stemming from gas leaks. When unburnt natural gas, known as methane (CH<sub>4</sub>), is leaked into the atmosphere, it becomes one of the most potent greenhouse gases despite its short lifespan. Methane leaks, from within the building sector and across the gas supply chain, e.g. drill wells, pipelines etc., are literally and figuratively cooking the planet.

According to the EPA, “[p]ound for pound, the comparative impact of CH<sub>4</sub> [methane] is more than 25 times greater than CO<sub>2</sub> [carbon dioxide] over a 100-year period.”<sup>22</sup> Methane is even more potent in the first two decades of its lifespan—20 years after it is released, methane has a global warming potential of 84 times that of carbon dioxide. Methane’s enhanced potency, particularly in the short term, results in more immediate warming and thus warrants greater urgency. EDF estimates that “[a]bout 25% of the manmade global warming we’re experiencing is caused by methane emissions.”<sup>23</sup>

Substantial methane gas is released into the atmosphere through hydraulic fracking and other drilling methods.<sup>24</sup> A 2018 EDF study estimated that the equivalent of 2.3% of total annual domestic gas production leaks into the atmosphere each year from across the oil and gas supply chain.<sup>25</sup> These leaks do not include additional leaks at and behind the

<sup>22</sup> “Overview of Greenhouse Gases,” U.S. Environmental Protection Agency, <https://www.epa.gov/ghgemissions/overview-greenhouse-gases#methane>

<sup>23</sup> “Methane: The other important greenhouse gas,” Environmental Defense Fund, <https://www.edf.org/climate/methane-other-important-greenhouse-gas>.

<sup>24</sup> The Economics of Electrifying Buildings, p. 26.

<sup>25</sup> Ramon A. Alvarez et al., “Assessment of methane emissions from the U.S. oil and gas supply chain,” Science Magazine, July, 13 2018. <https://science.sciencemag.org/content/361/6398/186>; However, EDF’s

residential or commercial meter located on building premises. Leaks from natural gas infrastructure in the Bay Area are estimated at another 0.5%.<sup>26</sup> Given the global warming potential of methane over a 20-year period, from a purely climate change perspective, burning coal would produce less greenhouse gas emissions than natural gas.<sup>27</sup> This difference is even greater if you consider the global warming potential of methane over only a 10-year period.<sup>28</sup>

Cities cannot achieve their emissions reductions goals by expanding a building infrastructure system and upstream supply chain that is leaking massive amounts of methane. Consequently, the Rocky Mountain Institute calls upon cities to immediately “[s]top supporting the expansion of the natural gas distribution system, including for new homes.”<sup>29</sup> While governments can and should try to regulate leaks in the short term, ultimately there does not appear to be a cost-effective technical solution to end all leaks. To truly stop methane leaks from buildings and the oil and gas supply chain, governments will have to consider abandoning natural gas as a source of energy.

## II. Health Impacts

The ordinance will also improve indoor and outdoor air quality by eliminating toxic byproducts of natural gas. Unfortunately, the EPA does currently regulate indoor air quality, and emissions from natural gas stoves are likely toxic to building occupants.

A 2013 Lawrence Berkeley National Laboratory study found that “60 percent of homes in the state that cook at least once a week with a gas stove” produce toxic levels of nitrogen dioxide, formaldehyde and carbon monoxide exceeding federal standards for outdoor air quality. Although electric stoves generate some toxins from cooking, researchers found that gas stoves are more detrimental to indoor air quality because they produce significant fossil fuel combustion byproducts not associated with electric

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study was probably too conservative; an earlier Cornell study found that between the drill well and the consumer delivery point, conventional natural gas results in a 3.8% leak rate, and fracked shale gas results in a whopping 12% leak rate. See Robert Howarth, “Methane emissions and climatic warming risk from hydraulic fracturing and shale gas development: implications for policy,” Dovepress, October 8, 2015, [http://www.eeb.cornell.edu/howarth/publications/f\\_EECT-61539-perspectives-on-air-emissions-of-methane-and-climatic-warmin\\_100815\\_27470.pdf](http://www.eeb.cornell.edu/howarth/publications/f_EECT-61539-perspectives-on-air-emissions-of-methane-and-climatic-warmin_100815_27470.pdf), p. 1 and p. 46.

<sup>26</sup> Julie Chao, “Bay Area methane emissions may be double what we thought,” Phys.org, January 17, 2017, <https://phys.org/news/2017-01-bay-area-methane-emissions-thought.html>.

<sup>27</sup> Environmental Defense Fund, “The climate impacts of methane emissions,” April 2012, <https://www.edf.org/climate-impacts-methane-emissions>.

<sup>28</sup> Save the EPA, “Oil and Gas Fields Leak Far More Methane than EPA Reports,” June 28, 2018, <http://saveepaalums.info/2018/06/22/oil-and-gas-fields-leak-far-more-methane-than-epa-reports/> at fn. 5.

<sup>29</sup> The Economics of Electrifying Buildings, p. 10.

stoves.<sup>30</sup> This issue is compounded by state efficiency standards, which are designed to trap air indoors.

Researchers in the United States and Australia have begun to link the use of natural gas stoves with asthma attacks and associated hospitalizations. Asthma and its relationship to natural gas present profound questions about equity.<sup>31</sup> Researchers from the University of California, Berkeley, and the University of California, San Francisco found that the highest asthma rates in Berkeley and Oakland tracked areas that were redlined pursuant to racist housing policies.<sup>32</sup>

The true cost of “cheap” natural gas should include some portion of the massive societal and financial costs associated with respiratory illness the Bay Area.

Improvements in electric induction cooktop technology suggest that the City of Berkeley can simultaneously maintain its rich culinary culture while taking action to reduce fossil fuel emissions in new buildings.<sup>33</sup> Famous chefs across the country are turning to induction cooking and commercial restaurants, and all restaurants in LAX airports latest terminal are all-electric. Induction cooking equipment reduces chef burns and grease fires and provides enhanced temperature control.

### III. Seismic/Fire Safety/Resiliency

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<sup>30</sup> “Pollution in the Home: Kitchens Can Produce Hazardous Levels of Indoor Pollutants,” Julie Chao, Lawrence Berkeley National Laboratory, July 23, 2013, <https://newscenter.lbl.gov/2013/07/23/kitchens-can-produce-hazardous-levels-of-indoor-pollutants/>.

<sup>31</sup> A 2017 California Public Health Department report found that asthma is 30% more prevalent for African Americans and 40% more prevalent for Asian Americans and Native Americans than whites. Gay/lesbian and bisexual men and women have 40-60% higher asthma prevalence than straight men and women. Hispanics and Asians born in the U.S. are more than twice as likely to have current or lifetime asthma than Hispanics and Asians born outside of the U.S. See California Department of Health, “Asthma Prevalence in California: A Surveillance Report,” January 2017, [https://www.cdph.ca.gov/Programs/CCDC/DEOD/CEPH/CDPH%20Document%20Library/Asthma\\_Surveillance\\_in\\_CA\\_Report\\_2017.pdf](https://www.cdph.ca.gov/Programs/CCDC/DEOD/CEPH/CDPH%20Document%20Library/Asthma_Surveillance_in_CA_Report_2017.pdf).

<sup>32</sup> UC Berkeley Public Health, “Historically redlined communities face higher asthma rates” May 2019, <https://sph.berkeley.edu/historically-redlined-communities-face-higher-asthma-rates>.

<sup>33</sup> While natural gas ranges are often regarded by home cooks as superior, modern induction range technology provides faster heat response, easier clean up and more temperature precision. See e.g., Cooktop Showdown – Gas vs. Electric vs. Induction, A Finer Touch Construction, <https://aftconstruction.com/cooktop-showdown-electric-vs-gas-vs-induction/>. Appliance manufacturer Samsung introduced a new induction cooktop featuring a “virtual” LED flame that mimics a gas flame. See also, 36" Induction Cooktop with Virtual Flame™, Samsung US, <https://www.samsung.com/us/home-appliances/cooktops-and-hoods/induction-cooktops/36--built-in-induction-cooktop-with-flex-cookzone-nz36k7880ug-aa/>.

The ordinance will help prevent deadly home fires that start from an open flame and are fueled by gas lines. For example, the City of Santa Rosa is actively reconsidering the role of natural gas in new buildings because of the destructive 2017 Tubbs firestorm.<sup>34</sup> The explosion of PG&E's gas lines in San Bruno and San Francisco further illustrate the inherent danger of pumping fossil free at high pressure through streets and homes.<sup>35</sup> Gas fires cannot easily be extinguished with traditional firefighting techniques; they require shutting off the source valve, which can be extremely difficult during times of disaster.<sup>36</sup>

Perhaps the ultimate fire risk associated with natural gas infrastructure is illustrated by the 2017 U.S. Geological Survey conducted *HayWired Scenario* simulating "a 7.0 quake on the Hayward fault line with the epicenter in Oakland." The agency's report predicted that "about 450 large fires could result in a loss of residential and commercial building floor area equivalent to more than 52,000 single-family homes and cause property (building and content) losses approaching \$30 billion."<sup>37</sup> The report identified ruptured gas lines as a key fire risk factor. This finding mirrors the reality of the destructive gas fires resulting from the Loma Prieta (1989) and Northridge (1994) earthquakes.

Gas negatively impacts the resiliency of cities because gas lines are more difficult to repair following disasters than electric infrastructure. In times of disaster, the fossil fuel supply chain will likely be disrupted. By comparison, electric appliances in conjunction with battery storage technology combined with renewable energy generation such as rooftop solar can operate absent the grid's electric supply chain.

Critically, gas prices are always subject to significant volatility due to natural disasters, as shown below:<sup>38</sup>

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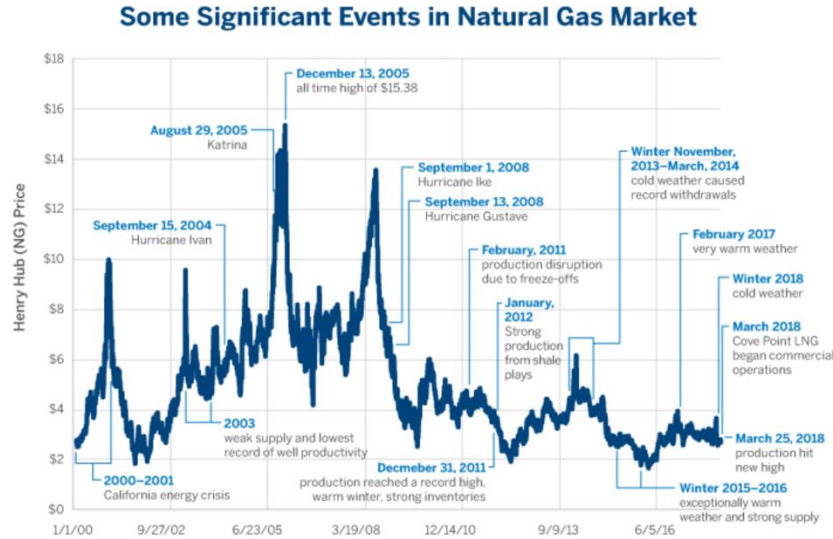
<sup>34</sup> Will Schmitt, Santa Rosa council considers requirement for new homes to be independent of natural gas, Press Democrat, November 10, 2018, <https://www.pressdemocrat.com/news/8899687-181/santa-rosa-council-considers-requirement>.

<sup>35</sup> See e.g., Rebecca Bowe, Lisa Pickoff-White, Five Years After Deadly San Bruno Explosion: Are We Safer?, KQED, September 8, 2015, <https://www.kqed.org/news/10667274/five-years-after-deadly-san-bruno-explosion-are-we-safer>; See also, David Siders, Jerry Brown declares emergency around Southern California gas leak, January 6, 2016, <https://www.sacbee.com/news/politics-government/capitol-alert/article53353615.html>.

<sup>36</sup> Ronald T. Eguchi and Hope A. Seligson, "Practical Lessons from the Loma Prieta Earthquake (1994)," The National Academic Press, <https://www.nap.edu/read/2269/chapter/7#141>.

<sup>37</sup> "The HayWired earthquake scenario—Engineering implications," U.S. Geological Survey, April 18, 2018, <https://pubs.er.usgs.gov/publication/sir20175013v2>.

<sup>38</sup> Adila Mchich, "Are Crude Oil & Natural Gas Prices Linked?" CME Group, May 9, 2018, <https://www.cmegroup.com/education/articles-and-reports/are-crude-oil-natural-gas-prices-linked.html>.



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By contrast, clean electricity from renewable generation is extremely cost effective and stable.

In case of electricity outages during a disaster or in preparation for high winds, neither new natural gas nor electric water heaters or stoves will function normally, because newer natural gas appliances require electricity to start. Thus, having more gas infrastructure as a backup will become increasingly less useful. Also electric heat-pump water heaters hold substantial amounts of hot water, ready to use in case of a disaster. In electrical power outages, it is thus advantageous to have electric hot water heating.

#### IV. Stranded Assets

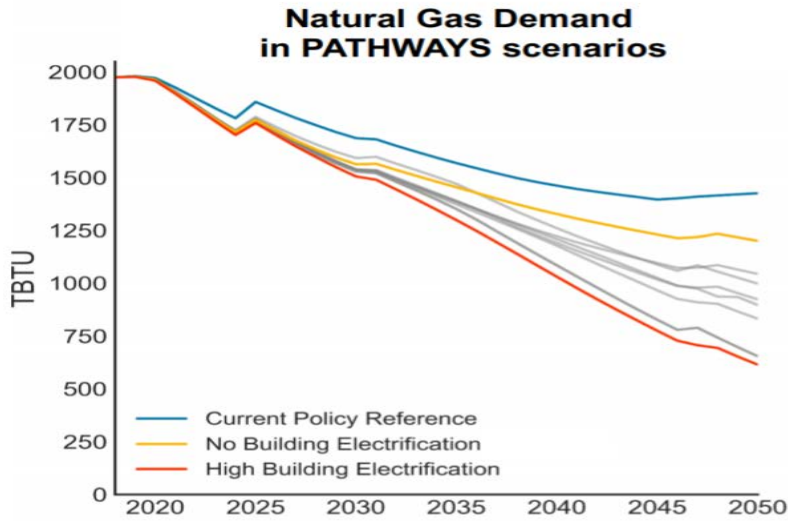
A 2018 Rocky Mountain Institute report cautioned cities that natural gas “infrastructure will be obsolete in a highly electrified future, and gas ratepayers face significant stranded asset [financial] risk” by expanding the natural gas system.<sup>40</sup>

California Senate Bill 100 ensures that the California electric grid will be 100% greenhouse gas-free by 2045. Berkeley businesses and residents already have access to 100% carbon free electric plans through East Bay Community Energy at the same price as PG&E’s standard rate, and many Berkeley electricity customers are placing solar on their residences, which further undercuts the market for gas. A 2019 draft report commissioned by the CEC shows plummeting demand for natural gas in coming years and precipitous cost increases for customers that remain on gas.

<sup>39</sup> *Id.*

<sup>40</sup> The Economics of Electrifying Buildings, p. 10.





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In 2018, former Governor Jerry Brown issued executive order B-55-18, pledging that the California economy will be carbon neutral by 2045. Assembly Bill 3232 also requires the CEC to create a plan by 2021 to reduce building sector emissions by 40 percent below 1990 levels by 2030.<sup>42</sup> California’s extremely carbon-intensive natural gas system will have to be decommissioned, all new buildings will have to be emissions-free and existing buildings will need retrofitting. These political developments along with ever-increasingly of the climate emergency foreshadows the likelihood of future state and federal emissions regulations will impact the gas sector.

Therefore, as customers continue to abandon gas in favor of clean electricity, the percentage of ratepayers paying gas corporations for service, and indirectly to maintain the drill wells, pipelines and distribution systems, will shrink over time. Absent a bailout by the state, those ratepayers will be left with the burden of paying much higher rates to support the system with assets that are no longer productive. Developers and their investors will also likely suffer as their buildings will lose value given that prospective tenants will face exorbitant rates to use energy in their leased space. Separately, building owners will find when they go to electrify their gas building in the future, their electric infrastructure will be undersized, which will cost them significant funds to rectify.

<sup>41</sup> “Draft Results: Future of Natural Gas Distribution in California,” California Energy Commission Staff Workshop for CEC PIER-16-011, June 6, 2019, [https://www.energy.ca.gov/research/notices/2019-06-06\\_workshop/2019-06-06\\_Future\\_of\\_Gas\\_Distribution.pdf](https://www.energy.ca.gov/research/notices/2019-06-06_workshop/2019-06-06_Future_of_Gas_Distribution.pdf), p. 52-53.

<sup>42</sup> Pierre Delforge Merriam Borgeson, “Study: CA Needs a Safe, Managed Transition Away from Gas,” NRDC, June 06, 2019, <https://www.nrdc.org/experts/pierre-delforge/study-ca-needs-safe-managed-transition-away-gas>.

In light of this reality, by preventing the unnecessary expansion of gas infrastructure into new buildings, this ordinance reduces the problem of future stranded assets.

## **HJ. The Legal Case for Building Decarbonization**

Under the California Constitution, Cities retain police powers to adopt building standards that provide for their community's health, safety and welfare.<sup>43</sup> This ordinance makes a series of climatic, geologic and health and safety findings.

The Berkeley City Attorney's office has reviewed the ordinance for legality with assistance from outside counsel. In addition, the City Attorney's office has reviewed the City's franchise agreements with the Pacific Gas & Electric Company.

## **IJ. The Economic Case for Building Decarbonization**

### **I. Cost Effectiveness of Electrification**

The decarbonization approach outlined in this ordinance is borne out by recent economic analysis:

A 2018 report by the Rocky Mountain Institute considered carbon emissions reductions and cost-effectiveness of all-electric space and water heating in new single-family homes in Oakland.<sup>44</sup> The report found that new single-family developments avoiding gas could "save \$1,000 to more than \$24,000 per single-family home, with a median value of \$8,800."<sup>45</sup> Due to their design, space heating heat pumps function as both heaters and air conditioners. Air conditioning will become more critical for health and safety as Berkeley's climate continues to warm due to global warming. For new single-family buildings in Oakland, "[electric] heat pumps are universally more cost-effective" than natural gas space and water heaters due to their superior energy efficiency, cost-

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<sup>43</sup> Article XI, Sec. 7. of the CA Constitution reads: "A county or city may make and enforce within its limits all local, police, sanitary, and other ordinances and regulations not in conflict with general laws."

<sup>44</sup> Sherri Billimoria, Mike Henchen, Leia Guccione, and Leah Louis-Prescott, "The Economics of Electrifying Buildings: How Electric Space and Water Heating Supports Decarbonization of Residential Buildings," Rocky Mountain Institute, June 14, 2018, [https://rmi.org/wp-content/uploads/2018/06/RMI\\_Economics\\_of\\_Electrifying\\_Buildings\\_2018.pdf](https://rmi.org/wp-content/uploads/2018/06/RMI_Economics_of_Electrifying_Buildings_2018.pdf). The Oakland study is useful as Berkeley shares many of its characteristics, including its climate, architecture, the electric and natural gas utility, the Pacific Gas and Electric Company, and membership in East Bay Community Energy.

<sup>45</sup> *Id.*, p. 47.

competitiveness, and the avoided cost of connecting to the Pacific Gas & Electric Company's natural gas distribution system.<sup>46</sup>

- In 2017, Stone Energy Associates and Redwood Energy submitted letters to the CEC advising the commission of the significant net cost savings per unit in multi-family projects due to avoiding costly trenching and gas infrastructure.<sup>47</sup>
- A 2018 Natural Resources Defense Council-commissioned report found that all-electric new multi-family construction “sees upfront capital savings, partly [as] a result of not piping for gas.”<sup>48</sup>
- A 2019 Energy and Environmental Economics, Inc. (“E3”) report, jointly funded by Southern California Edison, Sacramento Municipal Utility District, and the Los Angeles Department of Water and Power found that all-electric low-rise construction results in lifecycle savings of \$130 to \$540/year. Furthermore, E3 found that “[a]s the carbon intensity of the grid decreases over time, these savings are estimated to increase to ~80% – 90% by 2050.”
- Green buildings are profitable because clients and customers are willing to pay more to live and work in them.

Conventional wisdom says that gas is cheaper than electricity because the cost is lower per unit of energy. However, electric appliances are significantly more efficient than gas appliances and reduce the cost by using fewer units of energy. Electric heat pump water heaters are up to five times more efficient than gas water heaters.<sup>49</sup> The price per unit may be higher for electricity, but in using fewer units the price of operation is not necessarily higher. In addition, electric energy loads can be offset through rooftop solar or other local renewable sources, while gas will always need to be purchased from an outside source. All-electric buildings can achieve net-zero operational costs, which is impossible for mixed-fuel buildings.

<sup>46</sup> Id.

<sup>47</sup> CEC Docket No. 17-BSTD-01, Letter from Sean Armstrong, Redwood Energy, to CEC Re: 2019 Building Energy Efficiency Standards Pre-Rulemaking, October 11, 2017, <https://efiling.energy.ca.gov/GetDocument.aspx?tn=221464&DocumentContentId=27248>; CEC Docket No. 16-BSTD-06, Letter from Nehemiah Stone, Stone Energy Associates, to CEC Re: 2019 Building Energy Efficiency Standards Development, April 4, 2017.

<sup>48</sup> Asa S. Hopkins, PhD, Kenji Takahashi, Devi Glick, Melissa Whited, “Decarbonization of Heating Energy Use in California Buildings: Technology, Markets, Impacts, and Policy Solutions,” Synapse Energy Economics, Inc., October 16, 2018, <http://www.synapse-energy.com/sites/default/files/Decarbonization-Heating-CA-Buildings-17-092-1.pdf>.

<sup>49</sup> [https://www.sandenwaterheater.com/sanden/assets/File/SANDEN\\_CO2WaterHeater\\_5\\_19.pdf](https://www.sandenwaterheater.com/sanden/assets/File/SANDEN_CO2WaterHeater_5_19.pdf).

The idea that gas is de jure cheaper than gas neglects the issue of stranded assets. A 2018 Rocky Mountain Institute report cautioned cities that natural gas “infrastructure will be obsolete in a highly electrified future, and gas ratepayers face significant stranded asset [financial] risk” if the natural gas system is expanded.<sup>50</sup> In addition, electric energy loads can be offset through rooftop solar or other local renewable sources, while gas will always need to be purchased from an outside source. All-electric buildings can achieve net-zero operational costs, which is impossible for mixed-fuel buildings.

As explored in Section H, there are significant externalities to burning natural gas, particularly around climate change, public health, and earthquake and fire preparedness. The CEC’s models do not consider the costs to public health or recovery from earthquakes or fires. When calculating cost-effectiveness, the CEC uses a very low price for the climate impact of carbon, \$18 per ton. According to a 2013 CPUC study, carbon emissions should be priced at between \$73 and \$80 per metric ton in 2020, more than four times the price used in the CEC’s models. When the full cost of carbon is considered, it is no longer accurate to say that natural gas is cheaper than increasingly renewable electricity.

## II. Green Jobs

As new all-electric buildings come online as a result of this ordinance and broader trends in the economy, new jobs specializing in green building will continue emerge. In 2017, nationwide jobs in the clean energy sector eclipsed the fossil fuel industry, despite record fossil fuel exploration and recovery.<sup>51</sup>

While certain trades such as electricians and many other trades will see an expansion in demand for services as a result of prohibiting natural gas infrastructure in new buildings, other trades may see a decrease in work as gas infrastructure is phased out. It is incumbent upon the City of Berkeley to continue do everything it can to support workers in securing a just climate transition and living wages.

While electric loads will increase through electrification of buildings and cars, our Alameda County’s community choice aggregator, East Bay Community Energy, is ramping up local electricity production, with a parallel- opportunity for increased local energy jobs.

## OUTREACH, OVERVIEW, AND RESULTS

The ordinance has evolved over time thanks to the thoughtful input of both all-electric and mixed-fuel developers, climate activists, engineers, building applicants, and Planning Department staff. The Berkeley Energy Commission and the Community

<sup>50</sup> The Economics of Electrifying Buildings, p. 10.

<sup>51</sup> Lara Ettenson, “U.S. Clean Energy Jobs Surpass Fossil Fuel Employment,” NRDC, February 01, 2017, <https://www.nrdc.org/experts/lara-ettenson/us-clean-energy-jobs-surpass-fossil-fuel-employment>.

Environmental Advisory Commission both unanimously approved the recommendations in the ordinance.

The Berkeley Energy Commission held two special meetings on the proposed ordinance to facilitate feedback from key stakeholders. The first meeting, held on April 24, 2019 focused on residential development while the second meeting, held on June 12, 2019, dealt with commercial and industrial development. In both meetings, energy consultants, developers, and architects who do all-electric design presented the technology and innovations that make all-electric design feasible, cost-effective, and attractive. There were then questions and discussion with developers and climate activists. At an outreach meeting to the Downtown Business Association on June 27, the most common question was regarding resilience in the face of electrical power outages. Research indicates that all-electric appliances actually offer more resiliency, as discussed further in section H.III- of this transmittal.

The intent of this ordinance is not to slow development, but to ensure that new development is safer, greener, and more resilient than ever before. Councilmember Harrison's office facilitated conversations among architects and electrical engineers to work with the California Energy Code's existing models and model all-electric buildings for all building types. These models, which are explained in more depth in section D of the background information, are intended for public consumption to assist developers through the process of electric buildings. This team has been in communication with the CEC to disseminate this information further.

Between the initial referral to the Facilities, Infrastructure, Transportation, and Environmental Sustainability Committee and the current form of the ordinance, the following changes were made:

- The prohibition on natural gas is now applicable at the time of entitlement rather than building permit..
- Rather than an outright ban, gas is phased out of building types and systems as the California Energy Commission creates models that allow developers to have their buildings approved. Though it would be feasible, cost effective and legally permitted to ban natural gas outright for all building types today, the CEC, the agency which establishes the models for buildings to be approved under Title 24, has not completed work on its models allowing electrification of all building types and systems.
- A provision providing that mixed-fuel buildings must be all-electric ready so that that adaptation would not have to be made at a later time, at much greater expense. The easiest, most cost-effective option for developers is to be prepared to switch away from natural gas, even when it is included in the initial development.

- A budget referral to fund a new FTE in the Building & Safety Division was added.

### FINANCIAL IMPLICATIONS

Staff time will be necessary to implement the new permit regulations.

Staff estimates that the total annual staff cost for a ~~career~~ two year position to implement a gas prohibition ordinance and reach codes would be \$273,341 per year, funded from excess equity. The position would be in the Building & Safety Division of the Department of Planning and Development.

The staff person would also:

- assist the City of Berkeley in advancing its leadership in electrifying buildings;
- assist in development of future code amendments would be the lead staff for managing implementation of new energy-related ordinances and codes, including the Deep Green Building Standards;
- provide training to staff, and also assistance and consultation for permit applicants; and,
- assist property owners with incentives (e.g., anything offered under the Pathways to Green Buildings plan, the electrification transfer tax subsidy ordinance).

### ENVIRONMENTAL SUSTAINABILITY

Prohibiting natural gas infrastructure in new buildings will prevent the release of significant additional natural gas-related greenhouse gasses from new buildings.

### CONTACT PERSON

Councilmember Kate Harrison, Council District 4, (510) 981-7140

Attachments:

1. Attachment A: Bay Area and California All-Electric Design Projects
2. Proposed Ordinance Adding BMC Chapter 12.80

Attachment A**Bay Area and California All-Electric Design Projects<sup>52</sup>**

| Residential                                                                                    | Commercial                                                                                                        |
|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>UC Santa Cruz Student Housing West</b><br>750,000 square feet, 3,000 beds                   | <b>The David &amp; Lucile Packard Foundation Headquarters</b><br>49,200 square foot Office Building, San Jose, CA |
| <b>UC Riverside Dundee Residence Hall</b><br>600,000 square feet, Riverside, CA                | <b>IDeAs Z2 Design Facility</b><br>6,557 square foot Office Building, San Jose, CA                                |
| <b>UC Irvine Student Housing West</b><br>1,441 beds, Irvine, CA9                               | <b>The Exploratorium</b><br>200,000 square foot science museum, San Francisco, CA                                 |
| <b>UC Davis Student Housing, Webster Hall Replacement</b><br>371 beds, Davis, CA               | <b>Mark Day School</b><br>14,574 square feet, Marin, CA                                                           |
| <b>Casa Adelante, 2060 Folsom Affordable Housing</b><br>9-stories 127 Units, San Francisco, CA | <b>Golden Gate Park Tennis Center</b><br>San Francisco, CA                                                        |
| <b>Maceo May Veterans Apartments, Treasure Island</b><br>105 units, San Francisco, CA          | <b>Marin Country Day School</b><br>11,500 square feet, Marin, CA                                                  |
| <b>Balboa Upper Yard Family Apartments</b><br>120 units, San Francisco, CA                     | <b>Lick Wilmerding High School</b><br>55,000 square feet, San Francisco, CA                                       |
| <b>Hunters Point Shipyard Block 52,</b><br>136 units, San Francisco, CA                        | <b>Sonoma Academy</b><br>Dining Facility, Sonoma, CA                                                              |
| <b>Hunters Point Shipyard Block 54</b><br>136 units, San Francisco, CA                         | <b>UC Santa Cruz Cowell Ranch HayBarn</b><br>5,000 square feet Office and Event Building, Santa Cruz, CA          |
| <b>681 Florida,</b><br>136 units, San Francisco, CA                                            | <b>UC-Davis Jess Jackson Sustainable Winery Building</b><br>Davis, CA                                             |

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<sup>52</sup> Scott Shell, Presentation, Berkeley Energy Commission, April, 24, 2019, [https://www.cityofberkeley.info/uploadedFiles/Planning\\_and\\_Development/Level\\_3\\_-\\_Commissions/Commission\\_for\\_Energy/EC2019-04-24\\_Late%20Communication\\_Shell-Berkeley%20Electric%20Preso.pdf](https://www.cityofberkeley.info/uploadedFiles/Planning_and_Development/Level_3_-_Commissions/Commission_for_Energy/EC2019-04-24_Late%20Communication_Shell-Berkeley%20Electric%20Preso.pdf)

|                                                                       |                                                                                                                    |
|-----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| <b>Linda Vista, Mountain View</b><br>101 units, Mountain View, CA     | <b>UC-Merced Administration Building</b><br>Merced, CA                                                             |
| <b>Coliseum Place, 905 72nd Ave, Oakland</b><br>59 units, Oakland, CA | <b>Santana Row Lot 11</b><br>236,000 square feet of office and retail space,<br>San Jose, CA, US                   |
| <b>Edwina Benner Plaza</b><br>66 units, Sunnyvale, CA                 | <b>270 Brannan,</b><br>202,000 square feet of Class A office, San<br>Francisco, CA                                 |
| <b>Stoddard Housing</b><br>50 units, Napa, CA                         | <b>SFO Admin Office</b><br>San Francisco, CA                                                                       |
| <b>2437 Eagle Ave, Alameda Affordable</b><br>20 Units, Alameda, CA    | <b>SMUD Operations Office</b><br>Sacramento, CA                                                                    |
| <b>Station House</b><br>171 Units, Oakland, CA                        | <b>435 Indio Office Renovation,</b><br>31,000 square feet Office Renovation,<br>Sunnyvale, CA                      |
| <b>Ice House, Oakland</b><br>124 Units (destroyed in arson fire)      | <b>415 N. Mathilda Sunnyvale Office Renovation</b><br>33,750 square feet, Office, Sunnyvale, CA                    |
|                                                                       | <b>AP+I Office Office Renovation</b><br>14,300 square feet, Office Renovation, Mountain<br>View, CA                |
|                                                                       | <b>380 N. Pastoria Office Renovation</b><br>42,000 Square Feet Office Renovation, Mountain<br>View, CA             |
|                                                                       | <b>J. Craig Venter Institute Laboratory</b><br>44,600 square feet, Research Lab, San Diego,<br>CA                  |
|                                                                       | <b>Lawrence Berkeley National Lab Integrative<br/>Genomics Lab</b><br>81,000 square feet Lab, Berkeley, California |
|                                                                       | <b>BioEpic Laboratory, Lawrence Berkeley<br/>National Lab</b><br>70,000 square feet, Berkeley, California          |
|                                                                       | <b>Kaiser Santa Rosa Medical Office</b><br>87,300 square feet, Santa Rosa, CA                                      |
|                                                                       | <b>Bradley Terminal, LAX</b><br>Los Angeles, CA                                                                    |
|                                                                       | <b>All Electric Restaurants at LAX</b><br>Los Angeles, CA                                                          |





Kate Harrison  
Councilmember District 4

ACTION CALENDAR  
July 16, 2019  
*(Continued from July 9, 2019)*

To: Honorable Mayor and Members of the City Council  
From: Councilmembers Harrison, Davila, Bartlett and Hahn  
Subject: Adopt an Ordinance adding a new Chapter 12.80 to the Berkeley Municipal Code Prohibiting Natural Gas Infrastructure in New Buildings

RECOMMENDATION

1. Adopt an ordinance adding a new Chapter 12.80 to the Berkeley Municipal Code (BMC) prohibiting natural gas infrastructure in new buildings with an effective date of January 1, 2020.
2. Refer to the November 2019 budget process for consideration of up to \$273,341 per year to fund a new career position in the Building & Safety Division of the Department of Planning and Development. The staff person will assist with implementing the gas prohibition ordinance and reach codes, and perform other duties as specified in the Financial Implications section of this item.

POLICY COMMITTEE RECOMMENDATION

On June 17, 2019, the Facilities, Infrastructure, Transportation, Environment & Sustainability Committee adopted the following action: M/S/C (Harrison/Robinson) to send the item to the full Council with a Qualified Positive Recommendation. Vote: All Ayes.

BACKGROUND

**A. Previous Berkeley Efforts to Prohibit Natural Gas in New Construction**

Natural gas is a leading source of green-house gas emissions (GHGs) in Berkeley, responsible for 27% of the GHGs released in the city. The only source sector with more local GHG emissions is the transportation sector.

In 2016, the Community Environmental Advisory Commission (CEAC) unanimously recommended that the Council consider phasing out natural gas appliances in new in buildings for climate, health and safety reasons.<sup>1</sup> That year, Council endorsed the recommendation and directed the CEAC and the Energy Commission to “develop and evaluate a proposal for requiring installations of new cooking, water heating, and/or building heating systems to use technologies which do not burn natural gas.”<sup>2</sup>

The Berkeley Energy Commission subsequently investigated adopting an ordinance to achieve at least one of Council’s goals—phasing out gas water heater systems in new buildings. Berkeley’s commission concluded that requiring new buildings to use all-electric heat pump hot water heaters would constitute an amendment to the state energy code under Title 24, Part 6. Amendments to the energy code require approval from the California Energy Commission (CEC). Such amendments are commonly known as a ‘reach’ energy codes.

Until very recently, the state’s efforts focused on increasing energy efficiency but did not consider the critical issue of reducing the GHGs that cause climate change. The models used by the state still vastly underestimate the cost of environmental and health impacts (discussed further below) caused by natural gas. At the time of the 2016 referral, the Berkeley Energy Commission concluded that CEC policies, particularly the lack of all-electric reference point and the laborious CEC requirement to demonstrate that electric systems are as cost-effective as gas designs under a regulatory environment that artificially favors fossil fuel by not considering externalities, convinced Berkeley commissioners to abandon the reach code strategy until the CEC reversed its policies.<sup>3</sup>

Berkeley’s Office of Energy and Sustainable Development (OESD) continues to take a leading role with other cities in the region to present energy code amendments to state authorities that facilitate electric designs, and signed on in support of comments before

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<sup>1</sup> Phasing Out Natural Gas for Heating and Cooking, Community Environmental Advisory Commission, November 1, 2016, [https://www.cityofberkeley.info/Clerk/City\\_Council/2016/11\\_Nov/Documents/2016-11-01\\_Item\\_10\\_Phasing\\_Out\\_Natural\\_Gas.aspx](https://www.cityofberkeley.info/Clerk/City_Council/2016/11_Nov/Documents/2016-11-01_Item_10_Phasing_Out_Natural_Gas.aspx).

<sup>2</sup> Annotated Agenda Berkeley City Council Meeting, City Clerk’s Office, November 1, 2016, [http://www.cityofberkeley.info/Clerk/City\\_Council/2016/11\\_Nov/Documents/11-01\\_Annotated.aspx](http://www.cityofberkeley.info/Clerk/City_Council/2016/11_Nov/Documents/11-01_Annotated.aspx).

<sup>3</sup> See “Berkeley Support to Phase Out Fossil Fuels with Clean Electrification,” OESD, CEC Docket 18-IEPR-09, June 28, 2018, [https://www.cityofberkeley.info/uploadedFiles/Planning\\_and\\_Development/Level\\_3\\_-\\_Commissions/Commission\\_for\\_Energy/EC2018-07-25\\_Item%207c-Combined\\_Comments%20to%20CEC%20and%20CPUC.pdf](https://www.cityofberkeley.info/uploadedFiles/Planning_and_Development/Level_3_-_Commissions/Commission_for_Energy/EC2018-07-25_Item%207c-Combined_Comments%20to%20CEC%20and%20CPUC.pdf); See also, “Comments of The Natural Resources Defense Council (NRDC) and Sierra Club On The Administrative Law Judge’s Ruling Seeking Comments On The Three-Prong Test.”

the California Public Utilities Commission (CPUC) regarding utility incentives for fuel-switching in existing buildings.<sup>4</sup>

## **B. Ordinance Overview: A New Approach**

The state CEC is now beginning to model all-electric buildings. As of January, 2020, all-electric low-rise residential buildings (three and fewer stories) will be accepted under Title 24 and the CEC is hard at work modelling other building types and systems. Most of the building occurring in Berkeley is not low-rise residential. Instead of waiting for CEC policies model all-electric buildings for all building types to begin limiting natural gas, this ordinance provides the City with an immediate pathway to fossil free new buildings as building types and systems are approved by the CEC.

This ordinance differs from the reach code approach in that it leverages the City's authority under the California Constitution to prohibit installation of hazardous internal gas piping infrastructure when granting use permits for new buildings, and as a result avoids CEC regulations associated with asking permission to amend energy efficiency standards. It also does so without impinging on the CPUC's jurisdiction, whose gas regulatory authority ends at the building's gas meter, or point of delivery from within any given property.<sup>5</sup> The effect of this legislation will be that builders will be prohibited from applying for permits for land uses that include gas infrastructure—gas piping to heat water, space, food, etc.—as each building type and system is modelled for all-electric design by the CEC. Effective January, 2020, this restriction will apply to low-rise residential buildings and be implemented for each new building type or sub-system (e.g., water heating) as the CEC completes its work for that type.

This new approach would fulfil a key Berkeley Energy Commission climate action recommendation and has the endorsement of the current CEAC commission. In December 2018, the Energy Commission presented a draft response to the Council's proposed June 2018 Fossil Free Resolution. As part of a broader strategy to eschew

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<sup>4</sup> "Berkeley Support to Phase Out Fossil Fuels with Clean Electrification," OESD, CEC Docket 18-IEPR-09, June 28, 2018, [https://www.cityofberkeley.info/uploadedFiles/Planning\\_and\\_Development/Level\\_3\\_-\\_Commissions/Commission\\_for\\_Energy/EC2018-07-25\\_Item%207c-Combined\\_Comments%20to%20CEC%20and%20CPUC.pdf](https://www.cityofberkeley.info/uploadedFiles/Planning_and_Development/Level_3_-_Commissions/Commission_for_Energy/EC2018-07-25_Item%207c-Combined_Comments%20to%20CEC%20and%20CPUC.pdf). See also, "Comments of The Natural Resources Defense Council (NRDC) and Sierra Club On The Administrative Law Judge's Ruling Seeking Comments On The Three-Prong Test."

<sup>5</sup> Although the legislature empowered the Commission to "require each gas corporation to provide bundled basic gas service to all core customers in its service territory," it did not require customers to install fuel gas piping in or in connection with a building, structure or within the property lines of premises behind the gas meter. See California Code, Public Utilities Code - PUC § 963, [https://leginfo.ca.gov/faces/codes\\_displayText.xhtml?lawCode=PUC&division=1.&title=&part=1.&chapter=4.5.&article=2](https://leginfo.ca.gov/faces/codes_displayText.xhtml?lawCode=PUC&division=1.&title=&part=1.&chapter=4.5.&article=2).

fossil fuels from Berkeley, it recommended that the Council “[p]rohibit gas cooktops and dryers in new residences or a moratorium on new gas hook ups if possible.”<sup>6</sup> On May 9, 2019 the CEAC Commission unanimously approved a letter to Council endorsing this ordinance, calling it “a cutting-edge environmental policy.”<sup>7</sup>

Progress in Berkeley towards lowering emissions in new buildings has been encouraging but is still incremental. To date, the federal, state and local approach to energy use in new buildings has largely been to mandate greater building efficiency and energy conservation, which indirectly results in lower emissions, but does not directly phase out fossil fuel consumption in new buildings. Berkeley is in the process of adopting the ambitious, but voluntary, Deep Green Building Standards. The Deep Green Building Standards do not present a way to explicitly and directly limit constructing buildings with natural gas infrastructure, a potent and persistent source of greenhouse gas and other types of pollution.<sup>8</sup> The Green Building Standards regulations will also likely require additional energy reach codes to implement.

Gas-related emissions have increased because of regional population and job growth, leading to an 18% rise in Berkeley’s population since 2000, as well as the multi-decade useful life of natural gas appliances.<sup>9</sup> According to the November 2017 Planning Department Bi-Annual Housing Pipeline Report, the City approved building permits for 525 residential units between January 1, 2014 and November 2017. An additional 952 units received their certificate of occupancy during the same period.<sup>10</sup> The new Adeline Corridor Plan calls for construction of another 1,400 housing units. Without intervention, the vast majority of these units would feature natural gas infrastructure.

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<sup>6</sup> Fossil Free Berkeley Subcommittee Draft Report for 12/5/2018 Commission Meeting, Berkeley Energy Commission, December, 5, 2018, [https://www.cityofberkeley.info/uploadedFiles/Planning\\_and\\_Development/Level\\_3\\_-\\_Commissions/Commission\\_for\\_Energy/FFB%20Draft%20report%20for%20Dec%205%202018%20Commission%20Meeting%20Final.pdf](https://www.cityofberkeley.info/uploadedFiles/Planning_and_Development/Level_3_-_Commissions/Commission_for_Energy/FFB%20Draft%20report%20for%20Dec%205%202018%20Commission%20Meeting%20Final.pdf)

<sup>7</sup> CEAC, Action Minutes Community Environmental Advisory Commission Regular Meeting of May 21, 2019, May 9, 2019, [https://www.cityofberkeley.info/uploadedFiles/Planning\\_and\\_Development/Level\\_3\\_-\\_Commissions/Commission\\_for\\_Community\\_Environmental\\_Advisory/20190509\\_CEAC\\_Action%20Minutes.pdf](https://www.cityofberkeley.info/uploadedFiles/Planning_and_Development/Level_3_-_Commissions/Commission_for_Community_Environmental_Advisory/20190509_CEAC_Action%20Minutes.pdf); See also, CEAC, Community Environmental Advisory Commission Comments on Prohibiting Natural Gas Infrastructure in New Buildings, May 9, 2019, [https://www.cityofberkeley.info/uploadedFiles/Planning\\_and\\_Development/Level\\_3\\_-\\_Commissions/Commission\\_for\\_Community\\_Environmental\\_Advisory/CEAC%20DRAFT%20Letter%20on%20Natural%20Gas%20042919.pdf](https://www.cityofberkeley.info/uploadedFiles/Planning_and_Development/Level_3_-_Commissions/Commission_for_Community_Environmental_Advisory/CEAC%20DRAFT%20Letter%20on%20Natural%20Gas%20042919.pdf).

<sup>8</sup> The forthcoming 2019 California Energy Code allows for significant natural gas usage.

<sup>9</sup> 2018 Berkeley Climate Action Plan Update, p. 1.

<sup>10</sup> Referral Response: Bi-Annual Housing Pipeline Report, Planning Department, November 11, 2017, [https://www.cityofberkeley.info/Clerk/City\\_Council/2017/11\\_Nov/Documents/2017-11-28\\_Item\\_21\\_Referral\\_Response\\_Bi-Annual.aspx](https://www.cityofberkeley.info/Clerk/City_Council/2017/11_Nov/Documents/2017-11-28_Item_21_Referral_Response_Bi-Annual.aspx)

As a result, the city has ‘locked in’ decades of additional carbon pollution, and stands to continue doing so with each new use permit approval. The persistence of fossil fuel industry marketing, fossil-fuel favoring regulations, the regional housing affordability crisis, and the associated effort to expand the housing stock will continue to drive local and regional increases in natural gas infrastructure and consumption unless we act now.

This ordinance recognizes that all-electric heating technologies are cost-competitive substitutes to their natural gas counterparts (especially when installed during new construction) and seeks to halt the expansion of natural gas into new buildings to stave off the risk of locking in significant additional greenhouse emissions. In the interim, City staff has indicated it will continue to design and seek approval of all-electric codes to help guide home builders in constructing new buildings of a type not yet modelled by the CEC and in order to increase energy efficiency.<sup>11</sup>

This legislation will have the effect of ushering in all-electric new buildings, avoiding significant new greenhouse emissions and allowing the City to focus its climate fighting efforts and resources on other critical sources of emissions such as existing buildings and transportation.

### **C. The CEC: Cost-effective Energy Efficiency Measures vs. the Climate**

The California legislature established the CEC in the wake of the energy crisis of the 1970s “in order to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy.”<sup>12</sup> The aim of the CEC has been energy efficient building design at the lowest possible price. Its regulations set minimum efficiencies and cost-effectiveness standards for new buildings with which building developers must comply.

The CEC creates computer models for a range of energy systems that builders can use to demonstrate compliance with the minimum energy efficiency requirements. Before builders can receive their building permit from their local city building department, they must compare their proposed energy systems design against a typical building type established by the CEC, known as the baseline. A baseline can be thought of as a cost-effective maximum energy budget which builders cannot exceed. Every three years the

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<sup>11</sup> OESD reported in December 2018 that “Berkeley has worked with other local governments to create a joint cost-effectiveness study request for the California Codes and Standards Program, seeking the maximum cost-effective efficiency for mixed-fuel and all-electric new construction over a representative sample of building sizes and uses...The findings from this cost-effectiveness study request are expected in early 2019 and will be [used] to evaluate options and opportunities for local amendments to promote deep energy savings and electrification.” See, 2018 Berkeley Climate Action Plan Update, p. 12.

<sup>12</sup> Pub. Res. Code 25402.

CEC updates the energy codes through tightening the energy efficiency requirements for a range of building types, including low-high residential buildings and non-residential buildings such as commercial buildings.

Within each baseline, the CEC creates a theoretical typical building with a range of efficient and cost-effective energy systems such as water heaters and space heaters. For example, in creating a baseline for a single-family home, the CEC builds its typical virtual house with efficient water heaters and space heaters along with windows, ventilation systems, etc. in order to establish a desired energy budget for a typical single-family home. In designing their buildings, developers can either go with the CEC's recommendation for each system type, known as the prescriptive method, or can opt for more flexibility in choosing alternative systems and technology allowing for energy efficiency tradeoffs across the building design (e.g., more wall insulation but less efficient windows), known as the performance method.<sup>13</sup>

Fortunately, in response to state law's expanding focus on climate change, the California Energy Commission is gradually broadening its energy standard regulations to also minimize carbon emissions alongside energy inefficiencies at the lowest possible cost. The CEC will offer builders all-electric baselines for low-rise residential buildings with the commencement of the new code cycle, known as the "2019 Building Energy Efficiency Standards," on January 1, 2020. The CEC has not yet provided a timeline for an all-electric baseline for mid- to high-rise residential buildings, and commercial buildings; however, CEC officials intend to release them as soon as possible.

As a result, on January 1, 2020 builders choosing electric water and space heaters in mid- to high-rise residential and commercial buildings must still compare their electric designs to a baseline that is based on natural gas, and which favors natural gas. This is despite the fact that modern electric heat pump technology outperforms their gas counterparts in terms of both carbon emissions and total energy usage. Therefore, builders often have to take a slight penalty within their total energy budget when choosing all-electric heaters. However, this penalty can often be made up by improving performance in other areas of the code. For example, a builder might opt for more building insulation to make up for the unfair penalty of choosing an electric water heater, which is the best choice for the climate, energy efficiency and lifecycle cost.

Cities pursuing reach codes that go beyond minimum CEC regulations, such as prohibiting specific gas energy systems, must engage in a cumbersome process to

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<sup>13</sup> For example, under the performance method, the CEC may choose a certain water heater in its baseline, but a builder may want a different model to achieve the specific design required by their clients.

demonstrate that their design is both cost-effective and at least as efficient as the existing state standards. While the process has merit in that it prevents cities from adopting policies that could mandate poorly-designed, overly expensive and inefficient energy systems within buildings, it does not easily facilitate cities in enacting emergency regulations halting the expansion of fossil fuel infrastructure in new buildings.

The reach codes currently being explored by the City would incentivize rather than require all-electric design, and as a result, would not outright prohibit natural gas infrastructure in new buildings. Complicating matters is that reach codes cannot disincentive the construction of buildings with hazardous gas stoves as the energy code does not regulate cooking equipment. Cities need another tool to decarbonize at an emergency pace.

Given the climate emergency, the City should not wait for the CEC to modify its policies so that cities may more easily adopt reach codes requiring all-electric infrastructure. Instead, the Council should shift its approach away from an *all-electric-favored systems* approach, requiring a complex approval from the CEC, and towards a *building code* approach utilizing the City's municipal police powers to regulate building standards.

#### **D. A Revolution in All-Electric Design**

Developers across the Bay Area and the state are already proving that all-electric design is feasible across all building types—even without an all-electric baseline. These projects are not only possible but profitable.

In 2018, the University of California implemented regulations prohibiting natural gas in new buildings. According to the university system, “[n]o new UC buildings or major renovations after June 2019, except in special circumstances, will use on-site fossil fuel combustion, such as natural gas, for space and water heating.” Stanford University is exploring a similar policy.<sup>14</sup> It should be noted that large universities develop every kind of building type imaginable from low- to high-rise dormitories, dining halls, classrooms, libraries, laboratories, sports facilities etc. The UC system is acting regardless of CEC policies across this wide range of building types.

Over the past decade, innovative engineers, architects and developers have paved the way by building the following residential and commercial buildings all-electric, despite CEC policies favoring fossil fuel. A list of just some of these projects can be found in Attachment A.

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<sup>14</sup> Justin Gerdes, “California Universities Are Transitioning to All-Electric Buildings,” Green Tech Media, September 24, 2018, <https://www.greentechmedia.com/articles/read/california-universities-are-transitioning-to-all-electric-buildings#gs.j6pqs2>.

## F. The Climate Emergency

In June 2018 the Berkeley City Council declared a city-wide Climate Emergency (Resolution No. 68,486-N.S.), aimed at reviewing the City's greenhouse gas emission reduction strategies, commitments and progress in light of recent political, scientific and climatic developments.<sup>15</sup> A 2018 U.N. Intergovernmental Panel on Climate Change (IPCC) report suggested that in order to keep warming under 1.5 degrees Celsius, governments must initiate a dramatic 45% cut in global carbon emissions from 2010 levels by 2030 and reach global 'net zero' around 2050. The time for incremental emissions reduction strategies is over—policymakers must begin implementing “far-reaching and unprecedented changes in all aspects of society.”<sup>16</sup>

Berkeley became a climate leader when voters overwhelmingly passed Measure G (Resolution No. 63,518-N.S.) in 2006, calling for the City to reduce greenhouse gas emissions by 33% below 2000 levels by 2020, and 80% by 2050.<sup>17</sup> Measure G resulted in the City Council adopting the 2009 Berkeley Climate Action Plan (Resolution No. 64,480-N.S.), which was written through a community-wide process.<sup>18</sup> The plan identified buildings as major contributors to greenhouse gas emissions, representing 26% of community-wide emissions, and recommended the implementation of aggressive building codes favoring low carbon space and water heating appliances/infrastructure in new buildings.<sup>19</sup> A 2018 Climate Action Plan progress update presented by Berkeley's OESD reported that “[c]ombustion of natural gas within

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<sup>15</sup> Resolution Endorsing a Climate Emergency, Berkeley City Council, June 12, 2018, [https://www.cityofberkeley.info/uploadedFiles/Council\\_2/Level\\_3\\_-\\_General/Climate%20Emergency%20Declaration%20-%20Adopted%2012%20June%202018%20-%20BCC.pdf](https://www.cityofberkeley.info/uploadedFiles/Council_2/Level_3_-_General/Climate%20Emergency%20Declaration%20-%20Adopted%2012%20June%202018%20-%20BCC.pdf)

<sup>16</sup> IPCC Press Release, Summary for Policymakers of IPCC Special Report on Global Warming of 1.5°C approved by Governments, 8 October 2018, [http://www.ipcc.ch/pdf/session48/pr\\_181008\\_P48\\_spm\\_en.pdf](http://www.ipcc.ch/pdf/session48/pr_181008_P48_spm_en.pdf)

<sup>17</sup> Resolution Submitting Measure G, Berkeley City Council, July 18, 2006, <https://www.cityofberkeley.info/citycouncil/resos/2006/63396.pdf>; Ballotpedia, Berkeley Greenhouse Gas Emissions, Measure G (November 2006), November 7, 2006, [https://ballotpedia.org/Berkeley\\_Greenhouse\\_Gas\\_Emissions,\\_Measure\\_G\\_\(November\\_2006\)#cite\\_note-quotedisclaimer-1](https://ballotpedia.org/Berkeley_Greenhouse_Gas_Emissions,_Measure_G_(November_2006)#cite_note-quotedisclaimer-1)

<sup>18</sup> Office of Energy & Sustainable Development, Berkeley Climate Action Plan Information Page, <https://www.cityofberkeley.info/climate/>.

<sup>19</sup> City of Berkeley, Berkeley Climate Action Plan, June 2009, [https://www.cityofberkeley.info/uploadedFiles/Planning\\_and\\_Development/Level\\_3\\_-\\_Energy\\_and\\_Sustainable\\_Development/Berkeley%20Climate%20Action%20Plan.pdf](https://www.cityofberkeley.info/uploadedFiles/Planning_and_Development/Level_3_-_Energy_and_Sustainable_Development/Berkeley%20Climate%20Action%20Plan.pdf), p. 59.



Berkeley buildings accounted for 27% of total GHG emissions in 2016 and 73% of building sector GHG emissions.”<sup>20</sup>

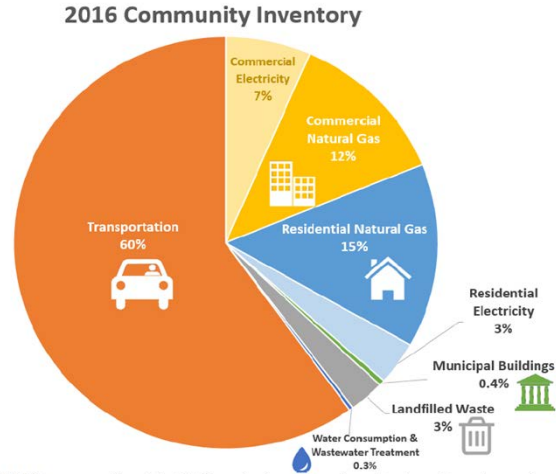
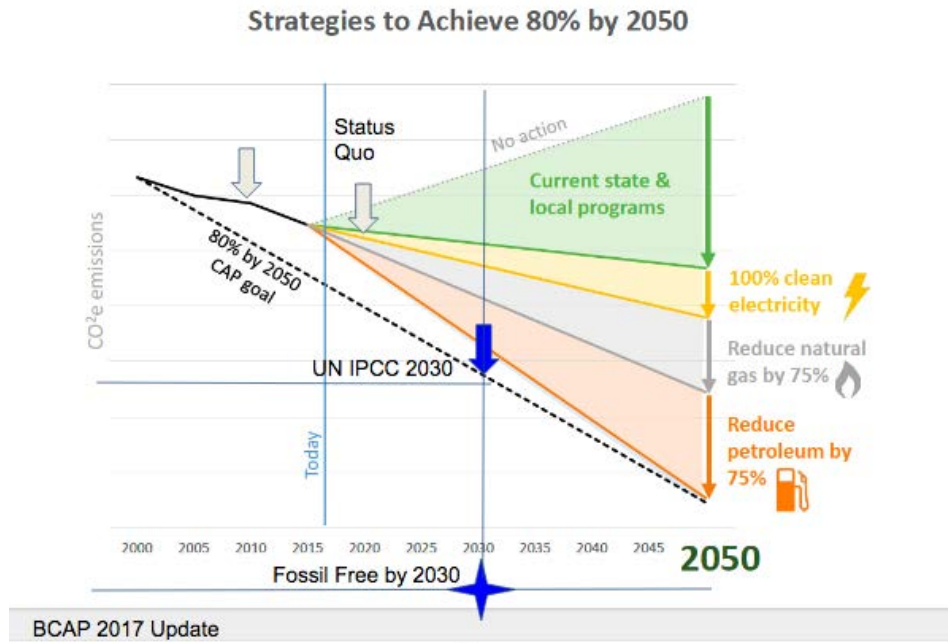


Figure 1: Pie chart of 2016 community-wide GHG emissions inventory, broken down by sector and fuel.

According to OESD, the latest and best available data suggest that Berkeley’s 2016 community-wide GHG emissions, including emissions from transportation, building energy use, and solid waste disposal, are approximately 15% below 2000 baseline levels, despite a population increase of approximately 18% in that same time period. The City is doing a good job in the face of population increases but remains approximately 18% behind its 2020 goal and will fall short of its ultimate goal of net zero emissions by 2050. The following chart from the Berkeley Energy Commission demonstrates that, without accelerated efforts, the City will continue to be below its target. To reach the 80% goal, 75% reductions in natural gas and petroleum usage are needed.<sup>21</sup>

<sup>20</sup> 2018 Berkeley Climate Action Plan Update, Office of Energy and Sustainable Development, December 6, 2018, [https://www.cityofberkeley.info/Clerk/City\\_Council/2018/12\\_Dec/Documents/2018-12-06\\_WS\\_Item\\_01\\_Climate\\_Action\\_Plan\\_Update\\_pdf.aspx](https://www.cityofberkeley.info/Clerk/City_Council/2018/12_Dec/Documents/2018-12-06_WS_Item_01_Climate_Action_Plan_Update_pdf.aspx), p. 10.

<sup>21</sup> *Id.*, p. 2.



## G. The Negative Externalities of Natural Gas in Buildings

### I. Catastrophic Methane Leaks

We have known for a long time that burning gas generates carbon dioxide, a greenhouse gas. New scientific studies suggest that in addition to combustion, there are significant additional carbon emissions stemming from gas leaks. When unburnt natural gas, known as methane (CH<sub>4</sub>), is leaked into the atmosphere, it becomes one of the most potent greenhouse gases despite its short lifespan. Methane leaks, from within the building sector and across the gas supply chain, e.g. drill wells, pipelines etc., are literally and figuratively cooking the planet.

According to the EPA, “[p]ound for pound, the comparative impact of CH<sub>4</sub> [methane] is more than 25 times greater than CO<sub>2</sub> [carbon dioxide] over a 100-year period.”<sup>22</sup> Methane is even more potent in the first two decades of its lifespan—20 years after it is released, methane has a global warming potential of 84 times that of carbon dioxide. Methane’s enhanced potency, particularly in the short term, results in more immediate

<sup>22</sup> “Overview of Greenhouse Gases,” U.S. Environmental Protection Agency, <https://www.epa.gov/ghgemissions/overview-greenhouse-gases#methane>

warming and thus warrants greater urgency. EDF estimates that “[a]bout 25% of the manmade global warming we’re experiencing is caused by methane emissions.”<sup>23</sup>

Substantial methane gas is released into the atmosphere through hydraulic fracking and other drilling methods.<sup>24</sup> A 2018 EDF study estimated that the equivalent of 2.3% of total annual domestic gas production leaks into the atmosphere each year from across the oil and gas supply chain.<sup>25</sup> These leaks do not include additional leaks at and behind the residential or commercial meter located on building premises. Leaks from natural gas infrastructure in the Bay Area are estimated at another 0.5%.<sup>26</sup> Given the global warming potential of methane over a 20-year period, from a purely climate change perspective, burning coal would produce less greenhouse gas emissions than natural gas.<sup>27</sup> This difference is even greater if you consider the global warming potential of methane over only a 10-year period.<sup>28</sup>

Cities cannot achieve their emissions reductions goals by expanding a building infrastructure system and upstream supply chain that is leaking massive amounts of methane. Consequently, the Rocky Mountain Institute calls upon cities to immediately “[s]top supporting the expansion of the natural gas distribution system, including for new homes.”<sup>29</sup> While governments can and should try to regulate leaks in the short term, ultimately there does not appear to be a cost-effective technical solution to end all leaks. To truly stop methane leaks from buildings and the oil and gas supply chain, governments will have to consider abandoning natural gas as a source of energy.

## II. Health Impacts

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<sup>23</sup> “Methane: The other important greenhouse gas,” Environmental Defense Fund, <https://www.edf.org/climate/methane-other-important-greenhouse-gas>.

<sup>24</sup> The Economics of Electrifying Buildings, p. 26.

<sup>25</sup> Ramon A. Alvarez et al., “Assessment of methane emissions from the U.S. oil and gas supply chain,” Science Magazine, July, 13 2018. <https://science.sciencemag.org/content/361/6398/186>; However, EDF’s study was probably too conservative; an earlier Cornell study found that between the drill well and the consumer delivery point, conventional natural gas results in a 3.8% leak rate, and fracked shale gas results in a whopping 12% leak rate. See Robert Howarth, “Methane emissions and climatic warming risk from hydraulic fracturing and shale gas development: implications for policy,” Dovepress, October 8, 2015, [http://www.eeb.cornell.edu/howarth/publications/f\\_EECT-61539-perspectives-on-air-emissions-of-methane-and-climatic-warmin\\_100815\\_27470.pdf](http://www.eeb.cornell.edu/howarth/publications/f_EECT-61539-perspectives-on-air-emissions-of-methane-and-climatic-warmin_100815_27470.pdf), p. 1 and p. 46.

<sup>26</sup> Julie Chao, “Bay Area methane emissions may be double what we thought,” Phys.org, January 17, 2017, <https://phys.org/news/2017-01-bay-area-methane-emissions-thought.html>.

<sup>27</sup> Environmental Defense Fund, “The climate impacts of methane emissions,” April 2012, <https://www.edf.org/climate-impacts-methane-emissions>.

<sup>28</sup> Save the EPA, “Oil and Gas Fields Leak Far More Methane than EPA Reports,” June 28, 2018, <http://saveepaalums.info/2018/06/22/oil-and-gas-fields-leak-far-more-methane-than-epa-reports/> at fn. 5.

<sup>29</sup> The Economics of Electrifying Buildings, p. 10.



induction cooking and commercial restaurants, and all restaurants in LAX airports latest terminal are all-electric. Induction cooking equipment reduces chef burns and grease fires and provides enhanced temperature control.

### III. Seismic/Fire Safety/Resiliency

The ordinance will help prevent deadly home fires that start from an open flame and are fueled by gas lines. For example, the City of Santa Rosa is actively reconsidering the role of natural gas in new buildings because of the destructive 2017 Tubbs firestorm.<sup>34</sup> The explosion of PG&E's gas lines in San Bruno and San Francisco further illustrate the inherent danger of pumping fossil free at high pressure through streets and homes.<sup>35</sup> Gas fires cannot easily be extinguished with traditional firefighting techniques; they require shutting off the source valve, which can be extremely difficult during times of disaster.<sup>36</sup>

Perhaps the ultimate fire risk associated with natural gas infrastructure is illustrated by the 2017 U.S. Geological Survey conducted *HayWired Scenario* simulating "a 7.0 quake on the Hayward fault line with the epicenter in Oakland." The agency's report predicted that "about 450 large fires could result in a loss of residential and commercial building floor area equivalent to more than 52,000 single-family homes and cause property (building and content) losses approaching \$30 billion."<sup>37</sup> The report identified ruptured gas lines as a key fire risk factor. This finding mirrors the reality of the destructive gas fires resulting from the Loma Prieta (1989) and Northridge (1994) earthquakes.

Gas negatively impacts the resiliency of cities because gas lines are more difficult to repair following disasters than electric infrastructure. In times of disaster, the fossil fuel supply chain will likely be disrupted. By comparison, electric appliances in conjunction

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featuring a "virtual" LED flame that mimics the visual response of a gas flame. See also, 36" Induction Cooktop with Virtual Flame™, Samsung US, <https://www.samsung.com/us/home-appliances/cooktops-and-hoods/induction-cooktops/36--built-in-induction-cooktop-with-flex-cookzone--nz36k7880ug-aa/>.

<sup>34</sup> Will Schmitt, Santa Rosa council considers requirement for new homes to be independent of natural gas, Press Democrat, November 10, 2018, <https://www.pressdemocrat.com/news/8899687-181/santa-rosa-council-considers-requirement>.

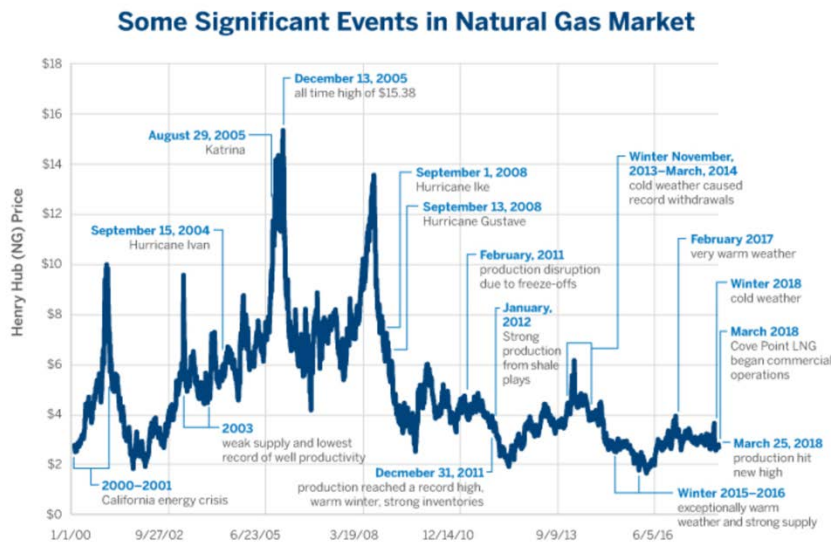
<sup>35</sup> See e.g., Rebecca Bowe, Lisa Pickoff-White, Five Years After Deadly San Bruno Explosion: Are We Safer?, KQED, September 8, 2015, <https://www.kqed.org/news/10667274/five-years-after-deadly-san-bruno-explosion-are-we-safer>; See also, David Siders, Jerry Brown declares emergency around Southern California gas leak, January 6, 2016, <https://www.sacbee.com/news/politics-government/capitol-alert/article53353615.html>.

<sup>36</sup> Ronald T. Eguchi and Hope A. Seligson, "Practical Lessons from the Loma Prieta Earthquake (1994)," The National Academic Press, <https://www.nap.edu/read/2269/chapter/7#141>.

<sup>37</sup> "The HayWired earthquake scenario—Engineering implications," U.S. Geological Survey, April 18, 2018, <https://pubs.er.usgs.gov/publication/sir20175013v2>.

with battery storage technology combined with renewable energy generation such as rooftop solar can operate absent the grid’s electric supply chain.

Critically, while gas prices have been relatively low in recent years, the gas market is always subject to significant volatility due to natural disasters.<sup>38</sup>



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By contrast, clean electricity from renewable generation is extremely cost effective and stable.

#### IV. Stranded Assets

A 2018 Rocky Mountain Institute report cautioned cities that natural gas “infrastructure will be obsolete in a highly electrified future, and gas ratepayers face significant stranded asset [financial] risk” by expanding the natural gas system.<sup>40</sup>

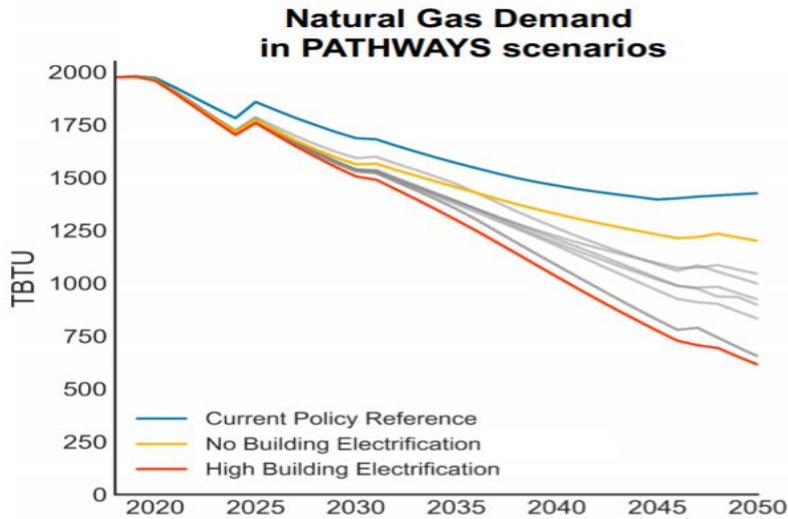
California Senate Bill 100 ensures that the California electric grid will be 100% greenhouse gas-free by 2045. Berkeley businesses and residents already have access to 100% carbon free electric plans through East Bay Community Energy at the same price as PG&E’s standard rate, and many Berkeley electricity customers are placing solar on their residences, which further undercuts the market for gas. A 2019 draft

<sup>38</sup> Adila Mchich, “Are Crude Oil & Natural Gas Prices Linked?” CME Group, May 9, 2018, <https://www.cmegroup.com/education/articles-and-reports/are-crude-oil-natural-gas-prices-linked.html>.

<sup>39</sup> *Id.*

<sup>40</sup> The Economics of Electrifying Buildings, p. 10.

report commissioned by the CEC shows plummeting demand for natural gas in coming years and precipitous cost increases for customers that remain on gas.



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In 2018, former Governor Jerry Brown issued executive order B-55-18, pledging that the California economy will be carbon neutral by 2045. Assembly Bill 3232 also requires the CEC to create a plan by 2021 to reduce building sector emissions by 40 percent below 1990 levels by 2030.<sup>42</sup> California’s extremely carbon-intensive natural gas system will have to be decommissioned, all new buildings will have to be emissions-free and existing buildings will need retrofiting. These political developments along with ever-increasingly of the climate emergency foreshadows the likelihood of future state and federal emissions regulations will impact the gas sector.

Therefore, as customers continue to abandon gas in favor of clean electricity, the percentage of ratepayers paying gas corporations for service, and indirectly to maintain the drill wells, pipelines and distribution systems, will shrink over time. Absent a bailout by the state, those ratepayers will be left with the burden of paying much higher rates to support the system with assets that are no longer productive. Developers and their investors will also likely suffer as their buildings will lose value given that prospective tenants will face exorbitant rates to use energy in their leased space. Separately,

<sup>41</sup> “Draft Results: Future of Natural Gas Distribution in California,” California Energy Commission Staff Workshop for CEC PIER-16-011, June 6, 2019, [https://www.energy.ca.gov/research/notices/2019-06-06\\_workshop/2019-06-06\\_Future\\_of\\_Gas\\_Distribution.pdf](https://www.energy.ca.gov/research/notices/2019-06-06_workshop/2019-06-06_Future_of_Gas_Distribution.pdf), p. 52-53.

<sup>42</sup> Pierre Delforge Merrian Borgeson, “Study: CA Needs a Safe, Managed Transition Away from Gas,” NRDC, June 06, 2019, <https://www.nrdc.org/experts/pierre-delforge/study-ca-needs-safe-managed-transition-away-gas>.

building owners will find when they go to electrify their gas building in the future, their electric infrastructure will be undersized, which will cost them significant funds to rectify.

In light of this reality, by preventing the unnecessary expansion of gas infrastructure into new buildings, this ordinance reduces the problem of future stranded assets.

## **H. The Legal Case for Building Decarbonization**

Under the California Constitution, Cities retain police powers to adopt building standards that provide for their community's health, safety and welfare.<sup>43</sup> This ordinance makes a series of climatic, geologic and health and safety findings.

The Berkeley City Attorney's office has reviewed the ordinance for legality with assistance from outside counsel. In addition, the City Attorney's office has reviewed the City's franchise agreements with the Pacific Gas & Electric Company.

## **I. The Economic Case for Building Decarbonization**

### **I. Cost Effectiveness of Electrification**

The decarbonization approach outlined in this ordinance is borne out by recent economic analysis:

A 2018 report by the Rocky Mountain Institute considered carbon emissions reductions and cost-effectiveness of all-electric space and water heating in new single-family homes in Oakland.<sup>44</sup> The report found that new single-family developments avoiding gas could "save \$1,000 to more than \$24,000 per single-family home, with a median value of \$8,800."<sup>45</sup> Due to their design, space heating heat pumps function as both heaters and air conditioners. Air conditioning will become more critical for health and safety as Berkeley's climate continues to warm due to global warming. For new single-family buildings in Oakland, "[electric] heat pumps are universally more cost-effective" than natural gas space and water heaters due to their superior energy efficiency, cost-

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<sup>43</sup> Article XI, Sec. 7. of the CA Constitution reads: "A county or city may make and enforce within its limits all local, police, sanitary, and other ordinances and regulations not in conflict with general laws."

<sup>44</sup> Sherri Billimoria, Mike Henchen, Leia Guccione, and Leah Louis-Prescott, "The Economics of Electrifying Buildings: How Electric Space and Water Heating Supports Decarbonization of Residential Buildings," Rocky Mountain Institute, June 14, 2018, [https://rmi.org/wp-content/uploads/2018/06/RMI\\_Economics\\_of\\_Electrifying\\_Buildings\\_2018.pdf](https://rmi.org/wp-content/uploads/2018/06/RMI_Economics_of_Electrifying_Buildings_2018.pdf). As a direct neighbor, the Oakland study is a useful reference point as Berkeley shares many of its characteristics, including its climate, architecture, the electric and natural gas utility, the Pacific Gas and Electric Company, and membership in East Bay Community Energy.

<sup>45</sup> *Id.*, p. 47.



competitiveness, and the avoided cost of connecting to the Pacific Gas & Electric Company's natural gas distribution system.<sup>46</sup>

- In 2017, Stone Energy Associates and Redwood Energy submitted letters to the CEC advising the commission of the significant net cost savings per unit in multi-family projects due to avoiding costly trenching and gas infrastructure.<sup>47</sup>
- A 2018 Natural Resources Defense Council-commissioned report found that all-electric new multi-family construction “sees upfront capital savings, partly [as] a result of not piping for gas.”<sup>48</sup>
- A 2019 Energy and Environmental Economics, Inc. (“E3”) report, jointly funded by Southern California Edison, Sacramento Municipal Utility District, and the Los Angeles Department of Water and Power found that all-electric low-rise construction results in lifecycle savings of \$130 to \$540/year. Furthermore, E3 found that “[a]s the carbon intensity of the grid decreases over time, these savings are estimated to increase to ~80% – 90% by 2050.”
- Green buildings are profitable because clients and customers are willing to pay more to live and work in them.

## II. Green Jobs

As new all-electric buildings come online as a result of this ordinance and broader trends in the economy, new jobs specializing in green building will continue emerge. In 2017, nationwide jobs in the clean energy sector eclipsed the fossil fuel industry, despite record fossil fuel exploration and recovery.<sup>49</sup>

While certain trades such as electricians and many other trades will see an expansion in demand for services as a result of prohibiting natural gas infrastructure in new buildings, other trades may see a decrease in work as gas infrastructure is phased out. It is

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<sup>46</sup> Id.

<sup>47</sup> CEC Docket No. 17-BSTD-01, Letter from Sean Armstrong, Redwood Energy, to CEC Re: 2019 Building Energy Efficiency Standards Pre-Rulemaking, October 11, 2017, <https://efiling.energy.ca.gov/GetDocument.aspx?tn=221464&DocumentContentId=27248>; CEC Docket No. 16-BSTD-06, Letter from Nehemiah Stone, Stone Energy Associates, to CEC Re: 2019 Building Energy Efficiency Standards Development, April 4, 2017.

<sup>48</sup> Asa S. Hopkins, PhD, Kenji Takahashi, Devi Glick, Melissa Whited, “Decarbonization of Heating Energy Use in California Buildings: Technology, Markets, Impacts, and Policy Solutions,” Synapse Energy Economics, Inc., October 16, 2018, <http://www.synapse-energy.com/sites/default/files/Decarbonization-Heating-CA-Buildings-17-092-1.pdf>.

<sup>49</sup> Lara Ettenson, “U.S. Clean Energy Jobs Surpass Fossil Fuel Employment,” NRDC, February 01, 2017, <https://www.nrdc.org/experts/lara-ettenson/us-clean-energy-jobs-surpass-fossil-fuel-employment>.

incumbent upon the City of Berkeley to continue do everything it can to support workers in securing a just climate transition and living wages.

### **J. The Imperative to Lead on Climate**

Emergency action and leadership is needed to prevent 'locking in' additional natural gas greenhouse gasses from new buildings. This ordinance may serve as model for other jurisdictions to decarbonize their new building stock and may help to further inspire state agencies to take emergency action on climate change.

By adopting this ordinance, the City of Berkeley has an opportunity to make further progress towards delivering upon its responsibilities under Measure G, the 2009 Climate Action Plan, Fossil Fuel Berkeley Resolution (as referred), and the Climate Emergency Declaration.

#### FINANCIAL IMPLICATIONS

Staff time will be necessary to implement the new permit regulations.

Staff estimates that the total annual staff cost for a career position to implement a gas prohibition ordinance and reach codes would be \$273,341 per year. The position would be in the Building & Safety Division of the Department of Planning and Development.

The staff person would also:

- assist the City of Berkeley in advancing its leadership in electrifying buildings;
- assist in development of future code amendments would be the lead staff for managing implementation of new energy-related ordinances and codes, including the Deep Green Building Standards;
- provide training to staff, and also assistance and consultation for permit applicants; and,
- assist property owners with incentives (e.g., anything offered under the Pathways to Green Buildings plan, the electrification transfer tax subsidy ordinance).

#### ENVIRONMENTAL SUSTAINABILITY

Prohibiting natural gas infrastructure in new buildings will prevent the release of significant additional natural gas-related greenhouse gasses from new buildings.

#### CONTACT PERSON

Councilmember Kate Harrison, Council District 4, (510) 981-7140

Attachments:

1. Attachment A: Bay Area and California All-Electric Design Projects
2. Proposed Ordinance Adding BMC Chapter 12.80

Attachment A**Bay Area and California All-Electric Design Projects<sup>50</sup>**

| Residential                                                                                    | Commercial                                                                                                        |
|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>UC Santa Cruz Student Housing West</b><br>750,000 square feet, 3,000 beds                   | <b>The David &amp; Lucile Packard Foundation Headquarters</b><br>49,200 square foot Office Building, San Jose, CA |
| <b>UC Riverside Dundee Residence Hall</b><br>600,000 square feet, Riverside, CA                | <b>IDeAs Z2 Design Facility</b><br>6,557 square foot Office Building, San Jose, CA                                |
| <b>UC Irvine Student Housing West</b><br>1,441 beds, Irvine, CA9                               | <b>The Exploratorium</b><br>200,000 square foot science museum, San Francisco, CA                                 |
| <b>UC Davis Student Housing, Webster Hall Replacement</b><br>371 beds, Davis, CA               | <b>Mark Day School</b><br>14,574 square feet, Marin, CA                                                           |
| <b>Casa Adelante, 2060 Folsom Affordable Housing</b><br>9-stories 127 Units, San Francisco, CA | <b>Golden Gate Park Tennis Center</b><br>San Francisco, CA                                                        |
| <b>Maceo May Veterans Apartments, Treasure Island</b><br>105 units, San Francisco, CA          | <b>Marin Country Day School</b><br>11,500 square feet, Marin, CA                                                  |
| <b>Balboa Upper Yard Family Apartments</b><br>120 units, San Francisco, CA                     | <b>Lick Wilmerding High School</b><br>55,000 square feet, San Francisco, CA                                       |
| <b>Hunters Point Shipyard Block 52,</b><br>136 units, San Francisco, CA                        | <b>Sonoma Academy</b><br>Dining Facility, Sonoma, CA                                                              |
| <b>Hunters Point Shipyard Block 54</b><br>136 units, San Francisco, CA                         | <b>UC Santa Cruz Cowell Ranch HayBarn</b><br>5,000 square feet Office and Event Building, Santa Cruz, CA          |
| <b>681 Florida,</b><br>136 units, San Francisco, CA                                            | <b>UC-Davis Jess Jackson Sustainable Winery Building</b><br>Davis, CA                                             |

<sup>50</sup> Scott Shell, Presentation, Berkeley Energy Commission, April, 24, 2019,  
[https://www.cityofberkeley.info/uploadedFiles/Planning\\_and\\_Development/Level\\_3\\_-\\_Commissions/Commission\\_for\\_Energy/EC2019-04-24\\_Late%20Communication\\_Shell-Berkeley%20Electric%20Preso.pdf](https://www.cityofberkeley.info/uploadedFiles/Planning_and_Development/Level_3_-_Commissions/Commission_for_Energy/EC2019-04-24_Late%20Communication_Shell-Berkeley%20Electric%20Preso.pdf)

|                                                                       |                                                                                                                    |
|-----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| <b>Linda Vista, Mountain View</b><br>101 units, Mountain View, CA     | <b>UC-Merced Administration Building</b><br>Merced, CA                                                             |
| <b>Coliseum Place, 905 72nd Ave, Oakland</b><br>59 units, Oakland, CA | <b>Santana Row Lot 11</b><br>236,000 square feet of office and retail space,<br>San Jose, CA, US                   |
| <b>Edwina Benner Plaza</b><br>66 units, Sunnyvale, CA                 | <b>270 Brannan,</b><br>202,000 square feet of Class A office, San<br>Francisco, CA                                 |
| <b>Stoddard Housing</b><br>50 units, Napa, CA                         | <b>SFO Admin Office</b><br>San Francisco, CA                                                                       |
| <b>2437 Eagle Ave, Alameda Affordable</b><br>20 Units, Alameda, CA    | <b>SMUD Operations Office</b><br>Sacramento, CA                                                                    |
| <b>Station House</b><br>171 Units, Oakland, CA                        | <b>435 Indio Office Renovation,</b><br>31,000 square feet Office Renovation,<br>Sunnyvale, CA                      |
| <b>Ice House, Oakland</b><br>124 Units (destroyed in arson fire)      | <b>415 N. Mathilda Sunnyvale Office Renovation</b><br>33,750 square feet, Office, Sunnyvale, CA                    |
|                                                                       | <b>AP+I Office Office Renovation</b><br>14,300 square feet, Office Renovation, Mountain<br>View, CA                |
|                                                                       | <b>380 N. Pastoria Office Renovation</b><br>42,000 Square Feet Office Renovation, Mountain<br>View, CA             |
|                                                                       | <b>J. Craig Venter Institute Laboratory</b><br>44,600 square feet, Research Lab, San Diego,<br>CA                  |
|                                                                       | <b>Lawrence Berkeley National Lab Integrative<br/>Genomics Lab</b><br>81,000 square feet Lab, Berkeley, California |
|                                                                       | <b>BioEpic Laboratory, Lawrence Berkeley<br/>National Lab</b><br>70,000 square feet, Berkeley, California          |
|                                                                       | <b>Kaiser Santa Rosa Medical Office</b><br>87,300 square feet, Santa Rosa, CA                                      |
|                                                                       | <b>Bradley Terminal, LAX</b><br>Los Angeles, CA                                                                    |
|                                                                       | <b>All Electric Restaurants at LAX</b><br>Los Angeles, CA                                                          |

ORDINANCE NO. –N.S.

ADDING A NEW CHAPTER ~~12.80 19.84~~ TO THE BERKELEY MUNICIPAL CODE  
PROHIBITING NATURAL GAS INFRASTRUCTURE IN NEW BUILDINGS EFFECTIVE  
JANUARY 1, 2020

BE IT ORDAINED by the Council of the City of Berkeley as follows:

Section 1. That Chapter ~~12.80 19.84~~ of the Berkeley Municipal Code is added to read as follows:

**Chapter ~~12.80~~19.84**

**PROHIBITION OF NATURAL GAS INFRASTRUCTURE IN NEW BUILDINGS**

**Sections:**

~~12.80~~19.84.010 Findings and Purpose.

~~12.80~~19.84.020 Applicability.

~~12.80~~19.84.030 Definitions.

~~12.80~~19.84.040 Prohibited Natural Gas Infrastructure in Newly Constructed Buildings.

~~12.80~~19.84.050 Exception.

~~12.80~~.060 Public Interest Exemption.

~~12.80~~.070 Annual Review.

~~12.80~~19.84.0860 Severability.

~~12.80~~19.84.0970 Effective Date.

**12.8019-84.010 Findings and Purpose.**

The Council finds and expressly declares as follows:

- A. ~~SAvailable~~ scientific evidence ~~overwhelmingly suggests~~ has established that natural gas combustion, procurement and transportation produce significant greenhouse gas emissions that contribute to global warming and climate change.
- B. The following addition to the Berkeley Municipal Code is reasonably necessary because of local climatic, geologic and health and safety conditions as listed below:
  - (1) As a coastal city located on the San Francisco Bay, Berkeley is vulnerable to sea level rise, and human activities releasing greenhouse gases into the atmosphere cause increases in worldwide average temperature, which contribute to melting of glaciers and thermal expansion of ocean water –resulting in rising sea levels.
  - (2) Berkeley is already experiencing the repercussions of excessive greenhouse gas emissions as rising sea levels threaten the City’s shoreline and infrastructure, have caused significant erosion, have increased impacts to infrastructure during extreme tides, and have caused the City to expend funds to modify the sewer system.
  - (3) Berkeley is situated along a wildland-urban interface and is extremely vulnerable to wildfires and firestorms, and human activities releasing greenhouse gases into the atmosphere cause increases in worldwide average temperature, drought conditions, vegetative fuel, and length of fire seasons—all of which contribute to the likelihood and consequences of fire.
  - (4) Berkeley’s natural gas building infrastructure, a potentially significant source of fire during earthquakes and other fire events, is precariously situated along or near the Hayward fault, which is likely to produce a large earthquake in the Bay Area.
  - (5) Some subpopulations of Berkeley residents are especially vulnerable to heat events.
  - (6) Berkeley residents suffer from asthma and other health conditions associated with poor indoor and outdoor air quality exacerbated by the combustion of natural gas.
- C. The people of Berkeley, as codified through Measure G (Resolution No. 63,518-N.S.), the City of Berkeley Climate Action Plan (Resolution No. 64,480-N.S.), and Berkeley Climate Emergency Declaration (Resolution No. 68,486-N.S.) all recognize that rapid, far-reaching and unprecedented changes in all aspects of society are required to limit global warming and the resulting environmental threat posed by climate change, including the prompt phasing out of natural gas as a fuel for heating and cooling infrastructure in new buildings.
- D. Substitute electric heating and cooling infrastructure in new buildings fueled by less greenhouse gas intensive electricity is linked to significantly lower greenhouse gas emissions and is cost competitive because of the cost savings associated with all-electric designs that avoid new gas infrastructure.
- E. All-electric building design benefits the health, welfare, and resiliency of Berkeley and its residents.
- F. The most cost-effective time to integrate electrical infrastructure is in the design phase of a building project because building systems and spaces can be designed to optimize the performance of electrical systems and the project can take full advantage of avoided costs and space requirements from the elimination of natural gas piping and venting for combustion air safety.
- G. It is the intent of the council to eliminate obsolete natural gas infrastructure and associated greenhouse gas emissions in new buildings where all-electric infrastructure can be most practicably integrated, thereby reducing the environmental and health hazards produced by the consumption and transportation of natural gas.

**12.8019-84.020 Applicability.**

- A. The requirements of this Chapter shall apply to the entitlement of or the processing of development applications for all Newly Constructed Buildings proposed to be located in whole or in part within the City.
- B. The requirements of this Chapter shall not apply to the use of portable propane appliances for outdoor cooking and heating.
- C. This chapter shall in no way be construed as amending energy code requirements under Title 24, Part 6 or Part 1, nor as requiring the use or installation of any specific appliance or system as a condition of approval.
- D. The requirements of this Chapter shall be incorporated into conditions of approval for applications for permits under BMC Chapter 23.B.

**12.80.030 Definitions.**

- A. "Accessory Dwelling Unit" shall have the same meaning as specified in Section 65852.2 of the Government Code.
- B. "Greenhouse Gas Emissions" mean gases that trap heat in the atmosphere.
- C. "Natural Gas" shall have the same meaning as "Fuel Gas" as defined in section 208.0 of the 2016-California Plumbing Code and Mechanical Code.
- D. "Natural Gas Infrastructure" shall be defined as fuel gas piping, other than service pipe, in or in connection with a building, structure or within the property lines of premises, extending from the point of delivery at the gas meter as specified in sections 1301.0 and 1302.1 of the 2016-California Mechanical Code and Plumbing Code.-
- E. "Newly Constructed Building" shall be defined as a building with a valid Use Permit or Zoning Certificate application approved on or after the effective date of this Chapter that has never before been used or occupied for any purpose.
- F. "Use Permit" shall have the same meaning as specified in Chapter 23B.32.
- E.G. "Zoning Certificate" shall have the same meaning as specified in Chapter 23B.12.

**12.80.040 Prohibited Natural Gas- Infrastructure in Newly Constructed Buildings.**

- A. Natural Gas Infrastructure shall be prohibited in Newly Constructed Buildings.
- B. Notwithstanding BMC 12.80.040.A, Natural Gas Infrastructure may be permitted in a Newly Constructed Building if the applicant for a Use Permit or Zoning Certificate required to construct the building establishes that it is not physically feasible to construct the building without Natural Gas Infrastructure.
- C. For purposes of this section, "feasible to construct the building" means either a prescriptive compliance approach is available for the building under BMC Chapter 19.36, or that the building is able to achieve the performance compliance standards for newly constructed buildings under BMC Chapter 19.36 using commercially available technology and an approved calculation method.
- D. Natural Gas Infrastructure shall not be extended to any system or device within a building for which an equivalent all-electric system or design is available.
- E. To the extent that a public interest exemption and installation of Natural Gas Infrastructure is granted, Newly Constructed Buildings shall be required to have sufficient electric capacity and conduit to facilitate full building electrification.
- A-F. The requirements of this section shall be deemed objective planning standards under Government Code section 65913.4 and objective development standards under Government Code section 65589.5.

**12.8019.84.050 Exception for Attached Accessory Dwelling Units.**

The requirements of this Chapter shall not apply to attached Accessory Dwelling Units.

**12.80.0650 Public Interest Exemption.**

- A. Notwithstanding the requirements of this Chapter and the Greenhouse Gas Emissions and other public health and safety hazards associated with Natural Gas Infrastructure, minimally necessary and specifically tailored Natural Gas Infrastructure may be allowed in a Newly Constructed Building provided that the entity responsible for entitling the project findsestablishes that the use serves the public interest.
- B. To the extent that stand-alone delivery systems are available, the exemption shall require that the entity responsible for entitling the project consider whether a stand-alone delivery system is physically feasible before granting an exemption.
- A-C. To the extent that a public interest exemption and installation of Natural Gas Infrastructure is granted, Newly Constructed Buildings shall be required to have sufficient electric capacity and conduit to facilitate full building electrification.

**12.80.070 Annual Review.**

The City shall review annually the requirements of this ordinance for ongoing consistency with California Energy Commission regulations under Title 24, Part 6 and the Commission's code adoption cycle.

**12.8019.84.0860 Severability.**

If any word, phrase, sentence, part, section, subsection, or other portion of this Chapter, or any application thereof to any person or circumstance is declared void, unconstitutional, or invalid for any reason, then such word, phrase, sentence, part, section, subsection, or other portion, or the prescribed application thereof, shall be severable, and the remaining provisions of this Chapter, and all applications thereof, not having been declared void, unconstitutional or invalid, shall remain in full force and effect. The City Council hereby declares that it would have passed this title, and each section, subsection, sentence, clause and phrase of this Chapter, irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases is declared invalid or unconstitutional.

**12.80.090 Effective date.**

The provisions of this chapter shall become effective on January 1, 2020.

Section 2. This Ordinance shall be submitted to the California Building Standards Commission following adoption as consistent with state law.

Section 3. Copies of this Ordinance shall be posted for two days prior to adoption in the display case located near the walkway in front of the Maudelle Shirek Building, 2134 Martin Luther King Jr. Way. Within 15 days of adoption, copies of this Ordinance shall be filed at each branch of the Berkeley Public Library and the title shall be published in a newspaper of general circulation.